COUNTER

Counting Online Usage of NeTworked Electronic Resources

PIRUS 2

Creating a common standard for measuring online usage of individual articles

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PIRUS Publisher and Institutional Repository Usage Statistics

- **Sponsored by JISC**
  - UK Joint Information Systems Committee
- **PIRUS 1** completed in January 2009
  - Lead by COUNTER
  - Report available at: http://www.jisc.ac.uk/media/documents/programmes/pals3/pirus_finalreport.pdf
- **PIRUS 2**, October 2009-December 2010
  - Lead by Mimas
  - Primary project team members: Mimas, Cranfield, COUNTER, CrossRef, Oxford University Press

Usage statistics and journal metrics

- **COUNTER**
  - Sets the standard for vendor-generated online usage statistics
  - Covers over 15,000 full-text online journals

  http://www.projectCounter.org
- **MESUR**
  - Enriches the toolkit used for the assessment of the impact of scholarly communication items with usage data
  - Has created a map of science based on usage data

  http://www.mesur.org/
- **Journal Usage Factor**
  - Assess the feasibility of Journal Usage Factor as an alternative metric to Journal Impact Factor

  http://www.uksg.org/usagefactors
- **PIRUS**
  - Aims to provide, publishers, repositories and other organizations with a common standard for measuring usage at the individual article (item) level

PIRUS: why now?

Increasing interest in article-level usage

- More journal articles hosted by Institutional and other Repositories
- Authors and funding agencies are increasingly interested in a reliable, global overview of usage of individual articles
- Online usage becoming an alternative, accepted measure of article and journal value
  - 'Knowledge Exchange' report recommends developing standards for usage reporting at the individual article level
  - Usage-based metrics being considered as a tool for use in the UK Research Excellence Framework and elsewhere.

PIRUS: why now?

PLoS ONE: Clickstream Data Yields High-Resolution Maps of Science - Windows Internet Explorer

http://www.plosone.org/article/metrics/info%3Adoi%2F10.1371%2Fjournal.pone.0004803

RESEARCH ARTICLE — OPEN ACCESS

Clickstream Data Yields High-Resolution Maps of Science

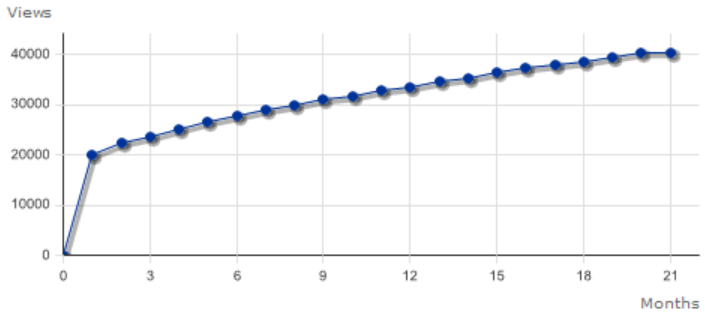
Article | Metrics | Related Content | Comments: 5

Article Usage

Total Article Views: 40275 from **Mar 11, 2009** (publication date) - **Nov 4, 2010***

Breakdown by View Type
HTML Page Views: **36270**
PDF Downloads: **3880**
XML Downloads: **125**

Cumulative Views from **Mar 11, 2009** (publication date) - **Nov 4, 2010***



*Data refer to views from the *PLoS ONE* Web site only.
*Although we update our data on a daily basis (not in real time), there may be a 48-hour delay before the most recent numbers are available.

Metrics Information and Summary Data for *PLoS ONE*
Questions or concerns about usage data? Please let us know.

Download: PDF | Citation | XML
Print article
EzReprint New & improved!

Metrics
Total Article Views: 40275
Cited in
CrossRef (7)
PubMed Central (4)
Scopus (14)
Average Rating (1 User Rating)
See all categories
Rate This Article
More

Related Content
Related Subject Categories
Computer Science, Science Policy, Mathematics
Related Articles on the Web
Google Scholar
PubMed
More

Share this Article
Email this article

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PIRUS: why now?

Article-level usage metrics now more practical

- Implementation by COUNTER of XML-based usage reports makes more granular reporting of usage a practical proposition
- Implementation by COUNTER of the SUSHI protocol facilitates the automated consolidation of usage data from different sources.

The challenge

- An article may be available from:-
  - The main journal web site
  - Ovid
  - ProQuest
  - PubMed Central (US, UK or Canada)
  - Authors' local Institutional Repositories
- If we want to assess article impact by counting usage, how can we maximise the actual usage that we capture?

PIRUS : Mission and Project Aims

Mission

To develop a global standard to enable the recording, reporting and consolidation of online usage statistics for individual journal articles hosted by Institutional Repositories, Publishers and other entities

Project aims

- Develop COUNTER-compliant usage reports at the individual article level
- Create guidelines which, if implemented, would enable any entity that hosts online journal articles to produce these reports
- Propose ways in which these reports might be consolidated at a global level in a standard way.

PIRUS: benefits

- Reliable usage data will be available for journal articles, wherever they are held
- Repositories will have access to new functionality from open source software that will allow them to produce standardised usage reports from their data
- Digital repository systems will be more integral to research and closely aligned to research workflows and environments
- The authoritative status of PIRUS2 usage statistics will enhance the status of repository data and content
- The standard can be extended to cover other categories of content stored by repositories

PIRUS1: outputs

1. A proof-of-concept COUNTER-compliant XML prototype for an individual article usage report
2. A tracker code, to be implemented by repositories, that sends usage data as OpenURL Context Objects to either:
   - An external party
   - The local repository server
3. A set of scenarios for collecting usage data in different repository environments
4. A set of criteria for a central Clearing House that will create (where required), or collect and consolidate the usage statistics

PIRUS2: objectives

- Develop a suite of free, open access programmes to support the generation and sharing of COUNTER-compliant usage data and statistics that can be extended to cover any and all individual items in repositories
- Develop a prototype article-level publisher/repository usage statistics service
- Define a core set of standard useful statistical reports that repositories should produce for internal and external consumption

PIRUS2: progress so far:-
WP 4: software, standards and protocols

Technical aspects of project

- Gathering … usage data and statistics
  - For full-text article downloads (not record/abstract views)
  - From repositories and publishers
- Consolidating …
  - In an article-level usage statistics demonstrator portal
  - Experiment and illustrate possibilities
- Re-exposing …
  - To authorized third parties

PIRUS2: progress so far:-
WP 4: software, standards and protocols

Three scenarios for gathering …

- (A) 'tracker' code
  - a server-side 'Google Analytics' for full-text article downloads
  - Pushes metadata to a remote server
- (B) OAI-PMH harvesting
  - A protocol familiar to repositories
  - Used to by third parties to 'pull' metadata from repositories
- (C) SUSHI - Standardized Usage Statistics Harvesting Initiative Protocol
  - a SOAP-based web service, used by publishers, to expose COUNTER Release 3 compliant usage statistics to institutions and consortia

PIRUS2: progress so far:-
WP 4: software, standards and protocols

Usage data from Repositories

- Scenarios (A) Tracker & (B) OAI-PMH
  - Usage data are exposed as:
    - (A) OpenURL Key-Value Pair Strings
    - (B) OpenURL Context Objects.
  - OpenURL approach first suggested by MESUR. Taken forward in Europe under 'Knowledge Exchange' initiative see: http://wiki.surffoundation.nl/display/standards/OpenURL+Context+Objects
- PIRUS2 Repository software plug-ins/extensions
  - Dspace – developed by @mire
  - Eprints – developed by Tim Brody, Southampton University
  - Fedora – developed by Ben O'Steen, Oxford University
  - Links and downloads on PIRUS2 project web site

PIRUS2: progress so far:-
WP 4: software, standards and protocols

Usage statistics from Publishers

- Scenario (C) SUSHI
  - Currently operates at journal level, e.g. JR1 report: Number of Successful Full-Text Article Requests by Month and Journal
- PIRUS2 has devised a proposed COUNTER Article Report 1 (AR1) Report: Number of Successful Full-Text Article Requests by Month and DOI
  - SUSHI ultimately
  - Currently working with AR1 reports in MS Excel/CSV format from participating publishers
  - Draft AR1 report in MS-Excel and XML available on PIRUS2 project web site

PIRUS2: progress so far:-
WP 4: software, standards and protocols

Current situation

- Loaded data from 6 publishers
  - Usage statistics are pre-filtered according to COUNTER rules
  - Over 550,000 articles and 470 journals indexed
- Gathering data via tracker from 6 repositories
  - Working on scripts to process and load data
  - Usage data must be:
    - filtered according to COUNTER rules to eliminate Robots and Double clicks
    - Processed into monthly statistics
- Creating user interface to demonstrate possibilities

PIRUS2: progress so far:-
WP 4: software, standards and protocols

The following publishers have agreed to provide usage data as part of the tests for the prototype central clearing house for article level usage statistics:

- ACS Publications*
- Emerald*
- Institute of Physics Publishing*
- Nature Publishing Group*
- New England Journal of Medicine
- Oxford University Press
- Springer*
- Wiley*

*=received, processed & loaded

The following repositories are participating in tests to provide usage data:

- Bournemouth University Research Online (BURO)
- Cranfield CERES
- University of Huddersfield Repository
- Oxford University Research Archive (ORA)
- University of Salford Institutional Repository
- Southampton ECS EPrints Repository

PIRUS2: progress so far:-
WP 4: software, standards and protocols

Next steps

- Extending the number of participating repositories
- Ongoing development and testing of user interface
- Develop extended SUSHI server to re-expose article-level statistics

PIRUS2: progress so far
WP5: prototype service

- Tests of publisher usage data
  - Usage data from publishers flowing in
- Define functions to be fulfilled by a Central Clearing House
  - Collect, collate and store usage data
- Define capabilities required of a Central Clearing House
  - Conversion of logfiles, storage, access control, etc
- Define organizational options for a Central Clearing House
  - Global vs. local; identify candidate organizations

PIRUS 2: primary project team

- Richard Gedye (Oxford University Press)
- Ross MacIntyre (Mimas, The University of Manchester)
- Paul Needham (Cranfield University)
- Ed Pentz (CrossRef)
- Peter Shepherd (COUNTER)

Project Partners

Primary partners	Secondary partners	Advisory partners
•Mimas (lead) •Cranfield University •COUNTER •Oxford University Press •CrossRef	*Publishers:* •Bepress •Springer •OUP •PLoS	•arXiv •MESUR •NISO/SUSHI •RCUK •Repositories Support Project[1] •SHERPA[2] •Social Science Research Network •Knowledge Exchange Usage Statistics Strand members including: ➢JISC ➢SURF ➢DFG, incl. OA-Statistics Project Phase 2 (OA-S II) ➢DeFF
Software developers	*Repositories:*	
•ePrints - Tim Brody, (IRStats) Southampton University •Fedora - Ben O'Steen, Oxford University •DSpace - @mire	•Cranfield University (DSpace) •Glasgow University (Eprints) •Harvard University (Dspace) •Oxford University (Fedora) •Others tbc	

[1] The Repositories Support Project is led by the University of Nottingham;
[2] SHERPA is led by the University of Nottingham.

PIRUS2 End of Project Seminar

COUNTING INDIVIDUAL ARTICLE USAGE

– a seminar covering the PIRUS2 project outcomes, recommendations and next steps

Wednesday 23 February 2011

Venue: Institute of Physics, 76 Portland Place, London

No Registration fee!

(See PIRUS2 or COUNTER web sites 'News')

For more information……

http://www.cranfieldlibrary.cranfield.ac.uk/pirus2/

Or just search for 'PIRUS2'

Thank you!