

Project Proposal/Inception Report

Open Access indicators

Assessing growth and use of OA resources from developing regions – the cases of Latin America and Africa

Juan Pablo Alperin, Public Knowledge Project, Stanford University
Dominique Babini, CLACSO/Universidad de Buenos Aires-IIGG
Gustavo E. Fischman, Arizona State University/FLACSO-RJ

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Open Access indicators: assessing growth and use of OA resources from developing regions - the cases of Latin America and Africa

Proposal developed by UNESCO-CLACSO-PKP-FLACSO Brazil in partnership with SciELO, Redalyc and AJOL

Project contacts: Juan Pablo Alperin, PKP/Stanford University (juan@alperin.ca), Dominique Babini, CLACSO (babini@clacso.edu.ar)

Background

Research in developing regions is almost exclusively government funded, primarily through national or federal state agencies, and to a lesser extent but still relevant through programs financed by international cooperation agencies (UNESCO 2010). Another salient characteristic is that the majority of the research output is published in local and regional journals. These two patterns, dominant national funding and publication, is contrasted with the limitation that, the most widely used and accepted scholarly indicators to evaluate research output and impact in developing regions are provided by so-called “international” indexes (mainly Thomson-Reuters and Scopus), where only a small fraction of journals from developing regions are included. The shortage of indicators that cover journals from developing regions severely hinders the ability to evaluate their individual and institutional research output, both in terms of quality and impact.

With varying degrees across disciplines and countries, a high percentage of research results from developing regions is published in local languages, in local and regional journals, research reports, and theses. While a selected group of researchers, mainly working in the experimental, natural and biomedical areas have more presence in international journals, other areas where researchers are part of a national and regional conversation about local and regional problems are naturally more localized, as is the case for agriculture, health, and social sciences. In some areas, as is the case of social sciences, the percentage of articles published in local and regional journals can go as high as 80%, as is the case of Argentina ([Gantman, 2011](#)). In Latin America more broadly, over 50% of the journals identified by Latindex (a directory of journals published in Latin America) are from the social sciences (Latindex, 2013).

Despite strong criticisms against the use of Thomson-Reuters' journal impact factor (IF) to evaluate research output in general (see the [San Francisco Declaration on Research Assessment](#)) and specially research productivity from outside Europe and North America ([Guédon 2008](#); Alperin et al., 2011) the IF continues to be widely used to evaluate individual and institutional research outputs in developing regions due to the lack of a viable alternative. Other indicators have been developed, as is the case of Scimago, based on a larger set of journals from Scopus that, while more inclusive than Thomson-Reuters, continues to cover only a fraction of the research outputs produced by developing regions.

In past years, a few studies have approached the issue of OA indicators in general and in Latin America ([Mayr, 2006](#), [Alperin et al. 2008](#), [Gómez et al., 2009](#)) and have found that in the developing regions there is an extensive and intensive use of OA for dissemination of research outputs over the past decade. There are already clear indications that this is a distinctive feature of scholarly communication in developing regions. For example, in DOAJ, 48% of a total of 9.137 journals are from developing countries; an estimated 4000 of about 6000 journals using the [Public Knowledge Project's](#) (PKP) [Open Journal Systems](#) (OJS) are from developing regions (PKP, 2013) (of these, an estimated 83% are fully OA); in Africa, AJOL indexes 458 OA journals in full-text, and in Latin America and the Caribbean SciELO and RedALyC offer OA to the full-text of more than 1,300 journals. Given this extensive use and the

more than a decade of successful OA initiatives developed in developing regions exploring the data from these initiatives ([GOAP 2011](#), [Babini 2013](#), [UNESCO, 2013](#)), building indicators better suited to the realities and needs of the developing regions, is now feasible and urgent.

This project seeks to further understand both the existing and desired OA indicators by involving OA initiatives from Latin America and Africa and to simultaneously improve the availability of indicators to track growth, impact, and reach of OA research outputs. To achieve these general goals, CLACSO firmly believes that the support of all OA champions in the LA and Africa region (viz. AJOL, CLACSO, FLACSO-PKP, REDALYC and SCIELO) will be needed to prepare a report in OA indicators that can be made immediately available for assessing OA resources growth and use in these regions, and commit to the development of indicators not currently available to the public. The project would take a multistakeholder approach and reports and outputs from the region will be subsequently compiled into a single report outlining the possibilities as well as providing recommendations for further development and use of OA indicators in developing regions.

Methodology

This project is a first attempt to report on existing OA indicators from Latin America and Africa that can complement traditional indicators being used for the assessment of research output in those regions, and for informing OA growth in both regions. By OA indicators, we refer both to traditional indicators such as citations, but also usage metrics and a set of metrics known as “altmetrics” (alternative metrics) which attempt to capture the visibility, use, and impact of research through the social media tools used by a growing number of researchers ([Priem et al.2012](#), [Piwowar, 2013](#)).

The following OA publishing initiatives have been identified as major players in the region and will be contracted to support in this project by producing a report on the current state of OA from the perspective of their databases and user communities:

- Gold open access (journals)
 - SciELO (LAC)
 - Redalyc (LAC)
 - AJOL (Africa)
- Green open access (subject digital repository)
 - CLACSO (LAC)
- OA growth and use in general
 - FLACSO-PKP

Each group will be expected to produce a report all their available indicators that can be currently extracted from the data collected on their online portals. They report should not only outline the types of data that are currently collected, but also provide details on the extent and depth of the coverage along numerous dimensions (geographic, time, and type) of the data. It should include details on how they are produced, how they can be used, and how to access them.

The content of the data should also be studied, and descriptive statistics provided to give a complete sense of the universe of publications contained within each institution's databases.

Furthermore, given the overlap of publications between the SciELO and RedALyC databases, RedALyC will produce a report that covers the union of both sets of journals. This report will provide similar descriptive statistics to others, but will allow for comparison between sets.

FLACSO-PKP will subsequently combined all individual institution reports into a master report with an executive summary and analysis. The master report will also include a review of the literature around OA indicators, guidelines for the use of existing indicators, and recommendations for the development of further indicators that allow the tracking of the growth and use of OA in Latin America and Africa. The individual reports and the master report should allow readers to better understand the potential of complementary indicators to assess OA research outputs from Latin America and Africa, and answer the following questions:

- What types of indicators are currently available to:
 - evaluate individuals? journals? institutions? subject areas?
 - assess scientific quality? impact? reach?
- How much quantitative and qualitative data is available?
 - What's the baseline for the available data?
 - What countries are covered?
 - Which journals/disciplines?
 - Is the data freely available?
 - Is the data easily accessible through the Web?

Furthermore, each group will be expected to experiment with their databases to explore new indicators that could be made publicly available. At a minimum, each project partner will undertake the development of one new indicator or service that will allow the public to better understand and study the growth, impact, use, and reach of Open Access in Latin America and Africa.

More specifically, each partner commits the following:

- FLACSO-PKP
 - To improve the usage (download) tracking of its open source software Open Journal Systems (OJS);
 - To develop a plugin to import articles from (OJS) to their instance of PLOS' Article Level Metrics (ALM) tool for tracking alternative metrics;
 - To implement the usage statistics work on at least 40 journals using OJS from Latin America;
 - To implement tracking of Article Metrics on any of the above journals that assign DOIs (note: the ALM tool requires DOIs for tracking metrics);
- CLACSO
 - To track and display historical usage metrics on the document page of every object in the CLACSO Digital Library;
 - To offer as a raw data file the usage metrics of a search result;
- RedALyC
 - Will not undertake software development, but will curate a dataset combining SciELO and RedALyC data for analysis by the project team;
- SciELO
 - To develop a service that allows users to identify if a document was cited inside the SciELO database ("cited-by SciELO");
- AJOL
 - To upgrade their customized installation of OJS and implement improved usage metrics tracking;
 - To share usage metrics publicly through an application programming interface (API)
 - To track and alternative metrics with PKP's instance of ALM and display metrics on article pages

Workplan/Milestones

- 1/7/2013 to 7/15/2013
 - Specification of requirements for each contracted report (SciELO, RedALyC, CLACSO, AJOL).
 - Contracts drafted for each group**Milestone (7/15/2013):** Contracts in place with FLACSO-PKP, SciELO, and RedALyC
- 15/7/2013 to 15/11/2013
 - Each partner undertakes software development activities (Development of specific datasets for OA indicators from its databases (SciELO, AJOL, CLACSO))**Milestone (15/11/2013):** SciELO “cited-by” service in place, AJOL usage statistics and “altmetrics” available, CLACSO to display document level usage statistics
- 15/7/2013 to 15/9/2013
 - FLACSO-PKP to recruit journals for collecting usage statistics and “altmetrics”**Milestone (15/9/2013):** 40 journals participating in study
- 19/8/2013 to 21/8/2013
 - Project partners meeting at PKP Conference (UNAM, México) to coordinate and decide on report formats and contents
- 21/8/2013 to 15/11/2013
 - Each partner prepares solicited report (SciELO, AJOL, CLACSO)**Milestone (15/10/2013):** Draft reports complete
Milestone (15/11/2013): Final reports complete
- 15/9/2013 to 15/11/2013
 - FLACSO-PKP to analyze data from 40 participating journals and prepare report on LAC OA usage**Milestone (15/9/2013):** PKP-FLACSO report complete
- 15/11/2013 to 15/12/2013:
 - FLACSO-PKP prepares Final Report including Executive Summary and Guidelines for using OA indicators described in the reports.**Milestone (15/12/2013):** Final report (project completion)

Expected results

- A report to contribute to increase awareness and better understanding about OA indicators available to assess LAC and Africa research output available in OA initiatives from both regions
- Provide national and international research funding agencies with an overview of OA indicators for assessment of growth and use of OA resources from LAC and Africa
- Review and support existing OA indicators from SciELO, Redalyc, AJOL and CLACSO
- A report to contribute to increase awareness about the need of securing additional support needed for further development of OA indicators in the Global South
- Increased availability of OA indicators in the Global South and by each partner’s initiative

- Better understand the potential of altmetrics to provide additional indicators on OA research visibility and use in the Global South
- Create awareness among participants within this project, and readers of the report, about the importance to process data and build indicators that allow assessing the growth, use and impact of research results published in OA within developing regions.
- Dissemination of project at [Fourth International PKP Scholarly Publishing Conference](#), which will be held from August 19 - 21, 2013 at the Autonomous University of Mexico, in Mexico City.
- Contribute with the report on building a Global South perspective on possible indicators to be used to assess OA research outputs to complement traditional indicators from Thomson-Reuters and Scopus.

Beyond this project

Unlike in the global North, there has been little interest by commercial publishers in Latin American and African scientific output. As a result, research from Latin America and Africa are grossly underrepresented in databases traditionally used to track research output and impact. As research from developing regions continues to grow, initiatives such as those partnered for this project (primarily financed through public funds) have worked to fill this need. However, given their relatively short histories, the indicators currently available from developing regions continue to be underdeveloped.

This project pushes the Global South in general, but Latin America and Africa in particular, closer having systems in place to track the Open Access scholarly output. The expected partner reports and the partner report will inform funding agencies, national governments, scholars, and the partners themselves on the current state of Open Access indicators and will position all stakeholders to plan for future developments in Open Access.

The project also incrementally improves the availability of indicators, by opening data and providing services on existing data. In doing so, the project sets the example on the types of developments that are needed in the future.

It is expected that the project partners and any others working to track OA in developing regions will use the information provided by the reports and the development carried out with project funds to continue to expand the availability of indicators and to improve the methodologies in measuring the growth, impact, reach, and use of Open Access resources in developing regions.

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