

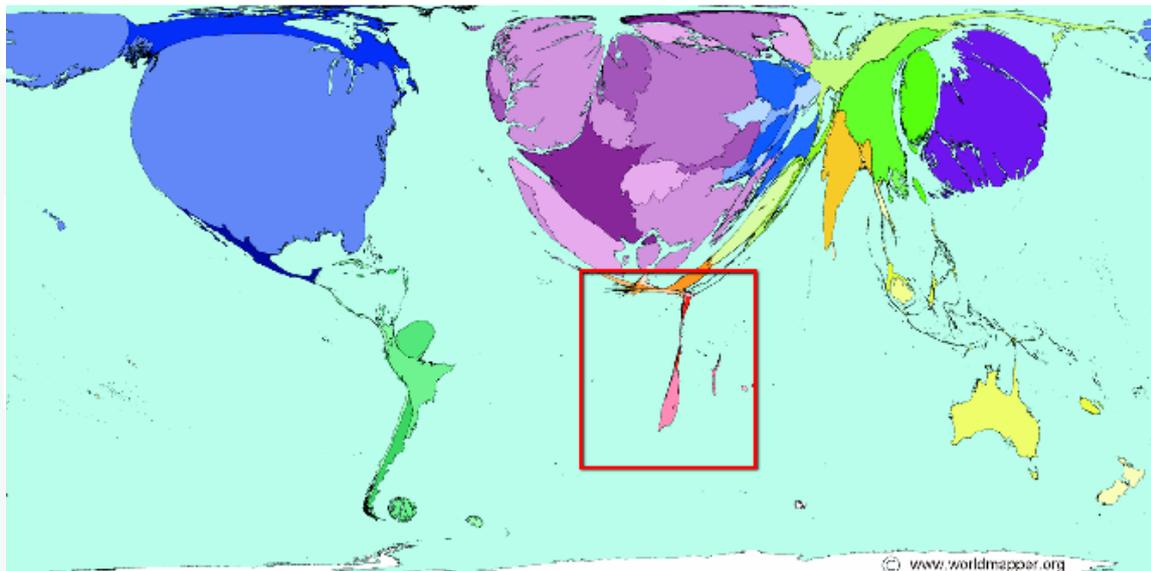
## Open Access Scholarly Publishing in South Africa - 2014

Pierre JT de Villiers

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Africa is a very large continent, the whole of North America and Western Europe combined can easily fit within its continental borders, but compared to those continents, Africa's scholarly output in the form of scientific articles has been very poor.

### Scientific Papers Published - 2001



 AOSIS  
OPENJOURNALS

South Africa (SA) has a population of 53 million, and geographically is twice the size of France. Its Gross National Income is \$7,190 per capita, and it has an unemployment rate of 25–36%. The country has 25 public universities, with more than 1 million students enrolled at any given time. In 2011 SA yielded 10,056 research publications, ranking 33rd in the world. The country suffers from a severe skills shortage, mostly due to a poor basic education system.

Currently the country is also going through a period of poor economic growth due to factors such as lack of foreign investment, an inflexible labour system with long strikes, and disproportionately high Government spending on social welfare.

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African Online Scientific Information Systems (Pty)Ltd t/a AOSIS Reg No: 2002/002017/07

## RSA economic growth



Although SA is not doing well on indicators such as education and access to Internet connectivity (it was estimated to have 49% penetration by the Global Internet Report 2014, ranking 85th in the world in the same league as the other BRICS countries), it has a proud record of scientific achievements. Just a few of these are the [Square Kilometer Array](#) (SKA), the archeological [discoveries](#) at Sterkfontein, and the groundbreaking [synthetic fuel technology](#) of SASOL. Not many people know that one of the founders of PayPal, [Elon Musk](#), is South African born.



### Government funding for research output

In 2013 the total Government funding for public universities in SA was \$2 billion, which is 0,57% of the Gross Domestic Product (national GDP = \$350,6 billion).

SA also has a system of direct Government funding for research output at higher education institutions (HEIs), as described in the 2003 policy document "*Policy and Procedures for Measurement of Research Output of Public Higher Education Institutions*". This policy is administered by the Department of Higher Education and Training (DHET).

In terms of this policy a block subsidy of about \$85 million was paid to HEI's in 2014, with one unit value being \$10,500 (R117,000). Journal articles made up the largest component, with 7403 units (92%), while scholarly books attained 331, and conference proceedings 351 units.

In terms of this Government policy scholarly articles which are published qualify for the DHET subsidy if the journal is accredited. Accreditation is either by means of inclusion in the [Thompson Reuters Web of Science](#) (ISI) index or the [IBSS: International Bibliography of the Social Sciences](#) index, or inclusion on the DHET's own list. Of the 262 accredited journals in 2014, the majority were on the [DHET's own list](#) (202), the rest being on the two indexes (60).

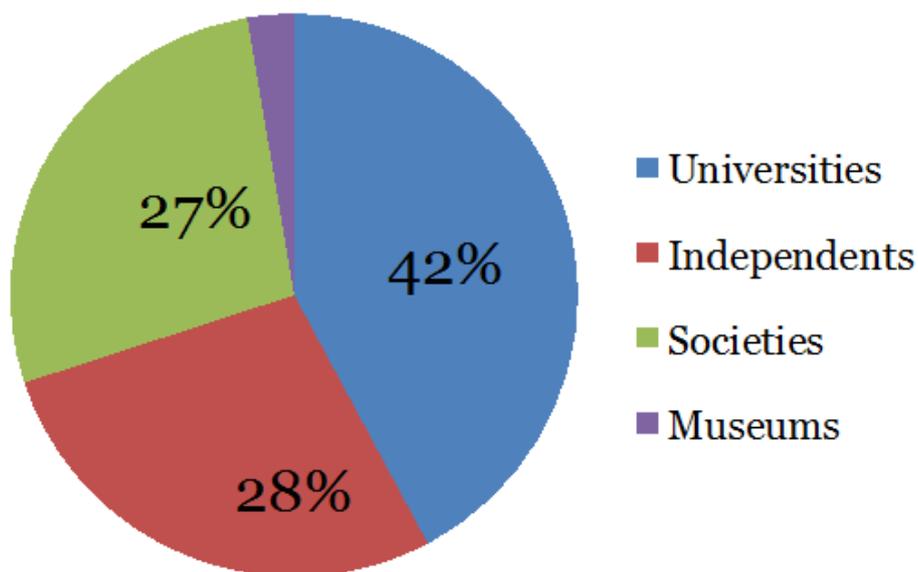
The policy is set to change, probably in 2015. The most notable proposals for change are the following: (1) the inclusion of more indexes for accredited journals ([Scopus](#), [ScieloSA](#) and the [Norwegian Register for Scientific Journals](#)), and (2) a 5-year limit for listing on the DHET list before a journal will be downgraded if it does not manage to get onto one of the international indexes.

Another related change could be the increase of unit values for scholarly books, to support development of research in the Social Sciences and Humanities.

### The scholarly publication scene in SA

As a group the universities are currently the largest publisher of accredited journals in the Republic of South Africa (RSA), followed by the independents/private sector (28%) and scholarly societies (27%).

## Scholarly Journal Publishers Accredited RSA Journals (N = 262)



In 2006 the Academy of Science of SA (ASSAf) released an in-depth analysis of the state of scholarly journal publishing in SA, the "[Report on a Strategic Approach to Research Publishing in South Africa](#)". The goal of the report was "to help develop and maintain a robust national system of innovation that contributes materially to the sustainable prosperity of all South Africa's people". The report

made 10 recommendations, of which the following were implemented in subsequent years and played a key role in transforming the scholarly publishing landscape in SA:

1. In 2007 the “[National Scholarly Editors’ Forum](#)” was established as a consultative and advisory body of scholarly journal editors, managed by the ASSAf. The Forum meets annually and also serves as an opportunity of interaction and ongoing education of scholarly journal editors.
2. In 2008 ASSAf formulated and released the “[National Code of Best Practice in Editorial Discretion and Peer Review for South African Scholarly Journals](#)”, setting standards for scholarly journals in terms of the best practice. These guidelines would in future be used to assess the quality of journals.
3. ASSAf embarked on the [external independent peer review](#) and associated quality auditing of all South African research journals in 5-year cycles. Assessment of the first group of journals was completed in 2010, and the following reports have been released since then: Agricultural & Basic Life Sciences (19 journals), Social Sciences (12), Law (24), Health and related Medical Sciences (35), and Religion, Theology and related fields (24).
4. [Scielo South Africa](#), an open access, searchable, full-text repository (as part of the Brazilian Scielo system) of journals in the RSA, was established. It is funded by the South African Department of Science and Technology and endorsed by the DHET. Journals may participate free of charge, but are selected through the ASSAf peer review process, or by being listed in one of the accredited indexes. It is positioned as an open access repository of “high-quality” journals, of which currently only 46 are included. It is envisaged that it will eventually comprise about 180 journals.

### Support for open access

Broad support for open access from the Government and HEIs in SA has been forthcoming, albeit slowly.

In spite of funding support for the Scielo open access repository through the Department of Science and Technology, the South African Government has no national policy in support of open access.

The [Berlin Declaration on Open Access to Knowledge in the Sciences and Humanities](#) (2003) is regarded as one of the milestones of the open access movement, and signatory institutions commit themselves to strong support for open access. Currently 14 of the 25 (almost 60%) South African HEI’s are signatories, compared to a total of 22 from the rest of Africa.

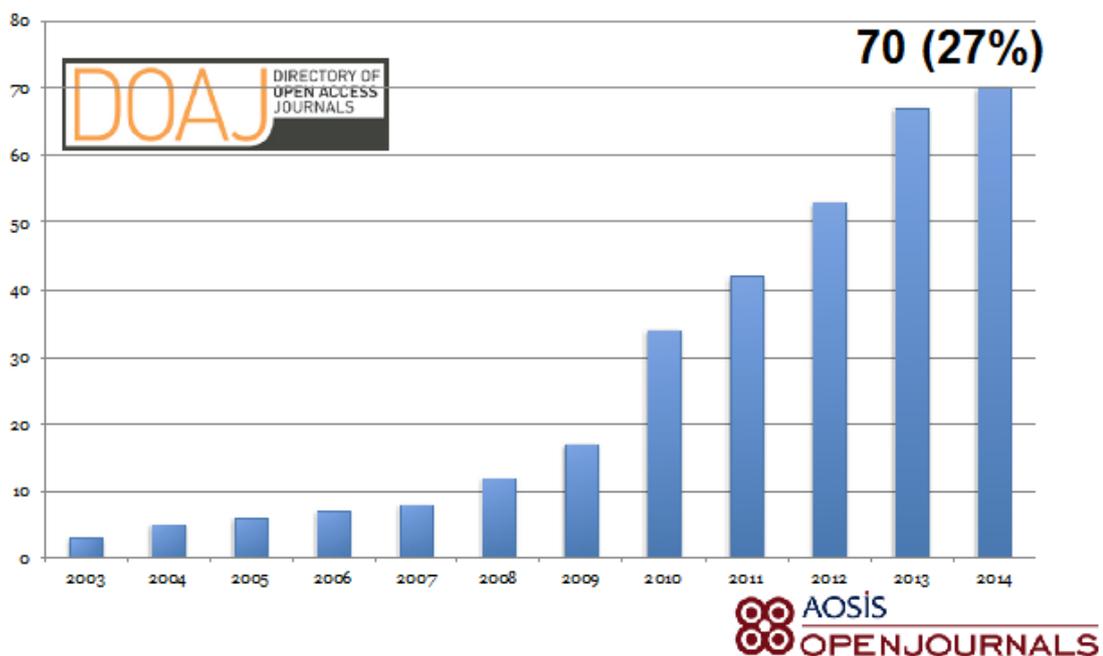
All 23 South African public HEIs have developed institutional repositories in support of the so called “green route” to open access, out of a [total of 54 in Africa](#).

Currently only three HEI's have established limited article processing charges (APC) funds to support researchers to publish in open access journals: Stellenbosch University (2011) - R2.0m, Cape Town University (2014) - R2.0m, and Pretoria University (2014) - R2,9m.

### Growth of open access journals

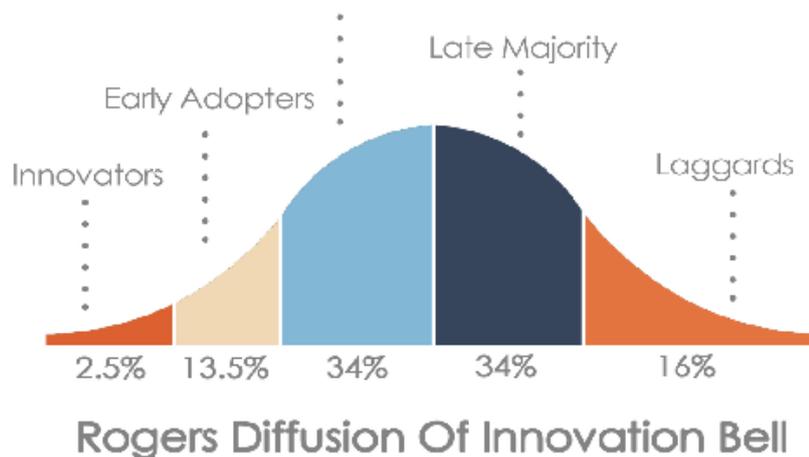
Only 70 South African journals are registered in the [Directory of Open Access Journals \(DOAJ\)](#), making up 27% of the accredited journals (262) in SA. There has been strong growth since 2008, albeit from a very low base.

## DOAJ.org - RSA (n = 262) 2014



However, personal research of all South African journals (262), by visiting their journal websites, demonstrated that 152 (56%) of them are already publishing in open access form. Many maintain subscription models, but their content is actually available on a website without any pay wall. This probably means that the tipping point in terms of open access may have been reached in SA, with the country having reached the 'late majority' stage.

## OA - Late majority phase of innovation



### Current challenges for open access in South Africa

#### *Perception of poor quality of open access*

One of the original detractors of open access journals was the perception of “poor quality” and that they do not perform proper peer review. Unfortunately the [Science “Sting”](#) of October 2013, demonstrating that a large number of open access journals did not perform proper peer review, did not help the cause of open access in SA (and worldwide).

There is no question that the Internet and Gold open access model (author and/or institution pays for the article to be published) lowered the threshold for poor-quality open access journals to operate. Beal coined the term “[predatory journals](#)” to describe them. There is another side to this coin, namely the “publish or perish” pressure on academics to publish to advance their academic career. Together these create the ideal circumstances for proliferation of poor-quality publications.

The upshot of the Science Sting is that it created much-needed awareness about the peer review process at journals (especially open access journals, but also toll access journals). It also highlighted the need for organisations such as Open Access Scholarly Publishers Association (OASPA) and DOAJ to act as important

signals of reliable and high-quality publishing operations, and both organisations have strengthened their selection criteria.

DOAJ made its [journal inclusion requirements more stringent](#), in order to weed out poor-quality journals. [OASPA, also responded](#) by suspending membership of some members and performing more rigorous screening of new membership applications.

### *Journal hijacking*

Another less well-known detractor of open access is “[journal hijacking](#)”. This refers to the practice of taking over the identity of a journal by creating a fake website and running a fake publishing operation from it. The fake journal follows an open access publishing model and requires the authors to pay APCs. The authentic journal is usually a subscription, print-only journal without a web identity. The well-known South African journal “[Bothalia](#)” was the victim of such a scam.

### *Impact Factor “pressure” persists*

The phenomenon of the research community and hiring committees at universities having an over-reliance on assessing research by the journal in which it appears, or the Impact Factor (IF) of that journal, still persists. A journal’s IF is a measure of how often its papers are cited, and is used as a proxy for quality. Most open access journals are new, and as a result will have lower IFs, although many have achieved excellent IFs. In order to promote open access, Government and universities need to put less insistence on publication in high-impact journals and use other measures to assess quality of research.

### *Public-funded institutions rendering publishing services*

A more recent trend is public university libraries and even public-funded repositories (such as Scielo) taking on publication services (hosting of manuscript management systems for peer review administration, copy editing and typesetting).

This happens against the backdrop of the changing role of the university library brought about by the Internet and the demise of print publication of research articles. Publishing services seem to be a meaningful, value-adding service for such libraries to retain their budgets. Likewise, Scielo has declared its intention to add publishing services to its repository function, and even to charge APCs for these.

The question remains whether such publishing services by public-funded entities are warranted, against a backdrop of already high demands on the fiscus (RSA

Government debt is 46% of GDP), and whether quality publishing services can be offered by these entities in view of the constraints on public budgets.

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## COMMENTS & RESPONSES

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**Susan Veldsman [Director: Scholarly Publishing Unit, Academy of Science of South Africa (ASSAf)] - 22 October 2014**

*"I would like to offer the following position of ASSAf:*

*We are considering and investigating the hosting of manuscript management systems for peer reviewing administration, as well as the technical support and training associated with it. But we are definitely not considering to offer the service to copy edit and type set manuscripts.*

*Furthermore, we will definitely not charge any APC's for these publishing services."*

SciELO SA is managed by the Academy of Science of South Africa (ASSAf), funded by the South African Department of Science and Technology and endorsed by the South African Department of Higher Education and Training (DHET).

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**Pierre de Villiers (author) - 22 October 2014**

*"I am grateful for this clarification by ASSAf. I based my comments on the presentation by Abel Packer (Director: Scielo) at the COASP 2014 conference (Slides) on September 17th and assumed his viewpoints would be applicable to the Scielo organisation as a whole.*

*ASSAf is adding tremendous value to scholarly publication in South Africa through inter alia its peer review of scholarly journals and books, its support for the National Scholarly Editors Forum and its scientific reports on scholarly publication. The Scielo SA platform is also providing valuable international exposure for selected South African scholarly journals.*

*However, in view of the prevailing economic situation in South Africa and other important demands on state funding, one has to question the rendering of any publication services by public-funded entities, if those same services could be efficiently and at a reasonable cost be provided by private enterprise."*