

The Chair was **Renato Paiva, who is a Professor at the Federal University of Lavras and editor-in-chief of two Scielo journals.**

We were reminded that Scielo is an outstanding and extremely valuable resource. The Working Group 4 session was intended to show the value – to show the impact of Scielo through the performance of its journals. Scielo-Brazil does receive some support from Brazilian govt, and this is probably the case for the other countries that have adopted Scielo. Of course governments would like to know that their funding has had an impact.

Several of the speakers highlighted the purpose of Scielo, as it was articulated 20 years ago. This purpose was to address the problem of invisible science: science being performed in Brazil, and subsequently in the other 14 Scielo countries, but not published. Scielo was intended to make such science visible.

**James Testa – Vice President Emeritus, Editorial Development & Publisher Relations, Clarivate Analytics**

His presentation was on International Collaboration and Top Cited Journals.

Mr Testa's focus is the development of relationships with the world-wide publishing community whose works are indexed in WoS. He is involved in the selection of journals for the WoS. His view is that Scielo has had a positive effect on scholarly communication, bringing more journals into the international mainstream from the countries that have adopted Scielo.

He showed that there has been a healthy supply of papers from the 15 Scielo countries over the period 2007-2016, and there is an increasing trend in the number of papers. In total, the 15 countries produced over 300,000 papers over the period.

Information was then presented on Argentina, Brazil, Chile, Colombia, Mexico: these 5 countries produce 77% of all the papers from the 15 Scielo countries.

In terms of international collaboration, it was shown that the top 1% of papers in terms of citations, had 420 countries of authorship, while the bottom 1% had only 64 countries of authorship. This of course demonstrates the importance of international collaboration for higher citation counts and impact. Citation counts are only one indicator of impact, though.

Mr Testa raised the challenge of assessing the importance and influence of a publication in its country of origin, which is not reflected in citation metrics.

Some of the metrics described by some of the subsequent speakers do begin to address different ways of assessing impact.

**Cathy Holland – Business Development Manager, Digital Science**

Ms Holland presented on the performance of Scielo journals through the lens of Dimensions, which she calls a networked knowledge system.

Dimensions is a tool that collects citation data and links this data to other data points for a fuller research picture.

Ms Holland reminded us of the new perspective on impact that has emerged – we are not only interested in academic impact, meaning journal impact factors and citation counts, but we also interested in societal impact, as measured by altmetrics. The kinds of indicators that feature in altmetrics include:

Mentions in news reports

Social media reach

Mentions in blogs

Patent citations

and Policy citations

These indicators are of course relevant at the article, rather than the journal, level.

Now, what do these metrics mean, why are newer metrics important? Broadly:

- They're considered a real measure of influence in a changing world.
- They're an indicator to researchers of whether their work is being noticed by the broader public.

Ms Holland presented some data on the Scielo publications. She showed that citations rates are clearly increasing.

What is also notable is that patent citations are increasing – what is meant by patent citations, is that Scielo publications are being cited in patent documents.

There is also a general upward trend in policy documents citing Scielo publications. An example of such policy citation is a policy document by the Centre for Disease Control, on the Zika virus. This shows recognition by a prestigious international institution of a paper on a topic that is highly relevant in Brazil.

So, in terms of these two new forms of impact measure – patent citations and policy citations - Scielo is doing very well.

Two areas of research for which the number of open-access publications in Brazil is increasing substantially, are:

Crop and pasture production; and

Plant biology

It was suggested that these are areas to which Scielo could pay attention.

### **Stephanie Faulkner – Product Manager at the Elsevier Research Metrics group**

She presented the performance of SciELO journals based on CiteScore, on citation index comparisons and on PlumX metrics.

Citescore is an alternative impact metric, based on Scopus, and is calculated slightly differently from the journal impact factor.

Based on CiteScore, only one Scielo journal is in the 90% percentile in its category: Revista de Saude Publica – I gather that in translation is the Journal of Public Health.

9 journals are placed in 75-89% percentile – so 10 journals in 1<sup>st</sup> quartile for their categories.

49 journals are in the 2<sup>nd</sup> quartile – the 50<sup>th</sup> to the 74<sup>th</sup> percentile.

Ms Faulkner also described PlumX which uses a set of altmetrics indicators, but also including citations. PlumX provides article-level metrics, and is available in Scielo. The metrics provided can give journal editors and indication of whether they need to do more promotion on social media, for example.

**José Roberto de França Arruda – who is a Professor at the University of Campinas, and an Advisor to FAPESP**, which is the research funding agency for the state of Sao Paulo. Scielo-Brazil started off as a FAPESP project and is funded by FAPESP.

Professor Arruda presented the preliminary results of an evaluation by FASESP of the Scielo journals that it supports. FASESP would like to know whether their investment in Scielo has paid off. The journals are asked to provide information on their Editorial Development Plan. They're being evaluated on:

Their editorial board

The significance of the field they represent

Their international visibility; and

Their institutionalization and sustainability

35% of the journals have been evaluated, and 77% of these have been categorized as good or very good. Only 6% of the evaluated journals are considered poor and are cause for concern.

These are of course preliminary results, but they do show a high percentage of journals considered good or very good – this is indeed encouraging.

Some challenges encountered in the evaluation process were mentioned:

For example, the reviewers were not always unbiased, as many were involved in the journals they were asked to evaluate. There were some conflicts of interest.

The quality of the reviews has been variable.

But, there are some suggestions from the reviewers that will be useful to the journals.

And there is the question of what to do about journals in the poor category – should their funding be withheld, for example. Or should they be given an opportunity to improve. These are matters that the evaluation committee are still considering.

### **Isidro Aguillo – Spanish Research Council in Madrid**

This talk was about Web Identity and Positioning, with a focus on Scielo-Brazil.

We heard that journals lose their individual identity in internet search results – they are lost in the Scielo brand. What search engines typically deliver is the reference to Scielo rather than to the specific journal.

There is often also an absence of journal metadata that would aid in their visibility.

These gaps are related to the structure of the Scielo platform, which in turn shapes the content for a particular journal. The recommendation is to reorganize the internal structure of the Scielo platform and the website, and to pay particular attention to search engine optimization.

Another difficulty that was mentioned is the absence of metadata in article pdfs. We heard this morning about JATS and XML; these tools might be able to address some of these concerns that have been highlighted with regard to metadata.

**To summarise the discussion of Working Group 4:**

We heard not only about the performance of Scielo journals, but also about how to measure performance.

The various speakers highlighted that journal editors and managers have a fairly complex world of metrics to navigate, and that these tools can guide journals in their dissemination strategy.

The metrics are also useful for funding agencies, which expect researchers to show potential impact in their funding applications, beyond the scientific merit. The range of metrics that are becoming available makes this task easier.

The analyses that were presented on Scielo journals, show that Scielo journals are performing well, and the results suggest that Scielo is indeed making visible the research from in the countries that it serves.