InCites bringing "Insights" into UP Research Output
Case Study: CCNY Research Management Tool Project

Sunette Steynberg and Marié Theron, UP Library Services (UPLS), University of Pretoria

Introduction

The vision statement of the University of Pretoria states that they are striving to be a leading research-intensive university in Africa. The University also strives to be internationally recognized as such. For that reason one of the strategies is to focus on publishing in Web of Science' indexed journals. There is an emphasis on the ability to monitor, measure and manage research output.

Content

In this presentation we will focus on the following:

- Reasons for choosing InCites

- Changes that took place since InCites' introduction

- New role profiles emerging within UP

- Examples of InCites reports used by UP

- 'Insights'

Reasons for choosing InCites

The first reason for choosing InCites, would be to align with the DHET, who acknowledges Web of Science journals as being accredited.

We wanted to be able to download bibliometric reports from a constant dataset, namely Web of Science.

We liked the fact that one can download customized and benchmarking reports from Incites.

It also compliments our usage of Essential Science Indicators, Web of Science and Scopus as a bibliometric tool.

There were also 10 other SA universities, DST and the NRF, that chose InCites.

Changes since the introduction of InCites

After the introduction of InCites, the UP management were able to do better substantiated strategic planning. They now had access to the strong and weak points within disciplines.

BRICS is the acronym for an association of five major emerging national economies: Brazil, Russia, India, China and South Africa. In Dec 2013 the *Times Higher Education* published the world's first ranking of

universities in BRICS countries. With the help of InCites we can compare SA with the other BRICS countries. This is of great assistance to our economists and technologists.

InCites is no longer an exclusive library tool. With IP authentication everybody at the University has access to it.

Benchmarking within SA used to be mostly between the 5 largest research universities. Now Disciplines are benchmarked against all universities that teaches them.

The University of Pretoria's Faculty of Veterinary Science is the only Veterinary faculty in SA. With InCites they can now benchmark internationally.

Since 2013 national and international research output are separated within InCites, which is an added benefit.

New role profiles within research performance measurement and evaluation, emerging within UP

The key role players of the University are:

- Executive Office

- Department of Research and Innovation Support (DRIS)

- Bureau for Institutional Research and Planning (BIRAP)

But, the new role players that emerged from InCites, were

- University of Pretoria Library Services

- Faculty Deans and Deputy-Deans of Research and Postgraduate Support

- Heads of Departments

- UP researchers interested in bibliometric studies

We would like to show how the following role players used InCites reports.

- The Senate and Council of UP

- Bureau for Institutional Research and Planning

- Dean: Faculty of Theology

- Deputy-Dean: Faculty of Natural And Agricultural Sciences

- Head of Department: Electrical, Electronic and Computer Engineering

- Researcher: Graduate School of Technology Management

This report to the Senate and Council of the University of Pretoria, is a comparison of the Research Output over 5 years of the top five research universities in SA. The green bar represents the total number of Web of Science documents per institution. The Blue bar represents all those documents that were written with international collaboration outside the country.

This report is a comparison of the amount of times documents by these institutions were cited by Web of Science documents over 5 years. Again the green bar represents the total amount of citations, while the blue bar indicates citations generated from documents that were written with international collaboration. All these citations were generated by documents indexed in Web of Science only.

Many other kinds of reports were also used by the Senate and Council of UP, for example the subject discipline impact. The Web of Science has 22 broad subject categories, but also 251 more specific categories. All of these can be used for benchmarking reports. Here you can see the impact relative to the subjects of **Forestry** at the top and **Music** at the bottom. These are typically used for strategic planning of research output improvement. There was an investigation of the journals selected for publishing. Benchmarking is extended to other universities.

The Head of the Bureau for Institutional Research and Planning, Hugo Mouton, says that Incites data forms a cornerstone in their reporting on progress against UP's strategic plan.

A core strategic indicator for UP in measuring success in becoming a research intensive university, is the expansion of international collaboration initiatives and part of this measurement is the InCites information on **joint publications** with international authors.

The reports compiled from InCites have established respected **trend lines** which now are used in a number of **bench marking** exercises.

In addition the focus has moved to **discipline related management information** and InCites offer the type of information that is needed for reports to the Executive and Deans.

Here is an example of how the Dean of Theology used these reports in their **Faculty plan**. This graph indicates that the Faculty (Pretoria is at the top) makes a significant national and international impact with regard to research.

The Deputy Dean: Research, of the Faculty of Natural and agricultural sciences, prof. Brenda Wingfield

- Uses InCites to benchmark the different disciplines within her faculty against the output of other SA Universities.

- This is to determine their current position and future potential.

- Especially the graphs provide an immediate visual overview.

- Uses it for departmental and discipline analyses

- It provides her with a global overview for impact and output analyses.

The Head of Department of Electrical, Electronic and Computer Engineering, prof. Sunil Maharaj, used Incites and Essential Science Indicators as a marketing tool. In this advertorial of the Mail and Guardian of October 2012, he recruits post graduate students for his department. He mentions that UP's School of Engineering rates within the top 1% of the world and that his department is the leader within SA.

Prof. David Walwyn is a researcher at the Graduate School of Technology Management with an interest in bibliometrics.

The University of Pretoria dataset provided him with a rich source of information for his research. Amongst others he used it as a means to identify author collaboration networks in diverse research areas. The data on international comparisons has been very helpful in the development of background material for studies in the science and innovation policy.   Recently he has prepared a chapter for the Global Innovation Index 2013. The contents of this chapter have been supported with data extracted from InCites and Web of Science.

Here are some ego networks that demonstrate author collaboration (at the top) and institution collaboration (at the bottom). The bigger the circle, the more is the collaboration. The darker the circle, the higher is the impact of the documents.

'Insights'

We have shown now many advantages of using Incites. There are however some development areas that still need the attention of the product developers.

Incites does not have the history of previous affiliations for new researchers at an institution. Therefore it is hard to establish a proper H-index for those researchers. Web of Science and Scopus are being used to establish these H-indexes.

The Web of Science categories do not always have normalized subject data. Researchers are not always satisfied with the categories where Web of Science classifies their articles. For example: A Mechanical and aeronautical article on 'birdspan' was classified under Zoology. A Food science professor's work in dairy science, get categorized in microbiology. This reflects poorly on their topic fields when benchmarked.

We have realized that bibliometrics is a very specialized field of research performance measurement. It is one thing to generate data sets. It is quite another to be able to interpret them correctly. There were quite a few people that assisted us on this path and we would like to acknowledge the following:

- Carnegie Corporation of New York: funding
- Melissa Badenhorst, WWIS: InCites training
- Philip Purnell, Thomson Reuters: InCites training
- CREST University of Stellenbosch, DST Centre of Excellence: Bibliometrics and Scientometrics Workshops
- Felix Ubogu, University of the Witwatersrand Library
- Prof Stephanie Burton, UP Vice Principal, Research and Postgraduate Education, UP DRIS and BIRAP: partnership development with UPLS

- UP Faculties: partnership with UPLS