



How to assess the influence of research - translating user feedback into tools

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LIBER, Barcelona , 30 June 2011

Overview

- SciVerse Scopus content selection – criteria
- The diverging role of data in universities – performance evaluation
- The traditional way of slicing up databases is not always enough
- Examples of novel approaches to organising data and resulting insights



SciVerse Scopus - content selection criteria

Eligibility

- Peer-review
- English abstracts
- Regular publication
- All cited references in Roman script
- Publication ethics and malpractice statement

Quantitative and qualitative criteria

Journal policy	<ul style="list-style-type: none">• Convincing editorial concept/policy• Level of peer-review• Diversity in provenance of editors• Diversity in provenance of authors
Quality of content	<ul style="list-style-type: none">• Academic contribution to the field• Clarity of abstracts• Conformity with journal's aims & scope• Readability of articles
Citedness	<ul style="list-style-type: none">• Citedness of journal articles in Scopus• Citedness of editors in Scopus
Regularity	<ul style="list-style-type: none">• No delay in publication schedule
Accessibility	<ul style="list-style-type: none">• Content available online• English-language journal home page• Quality of home page



The Content Selection and Advisory Board

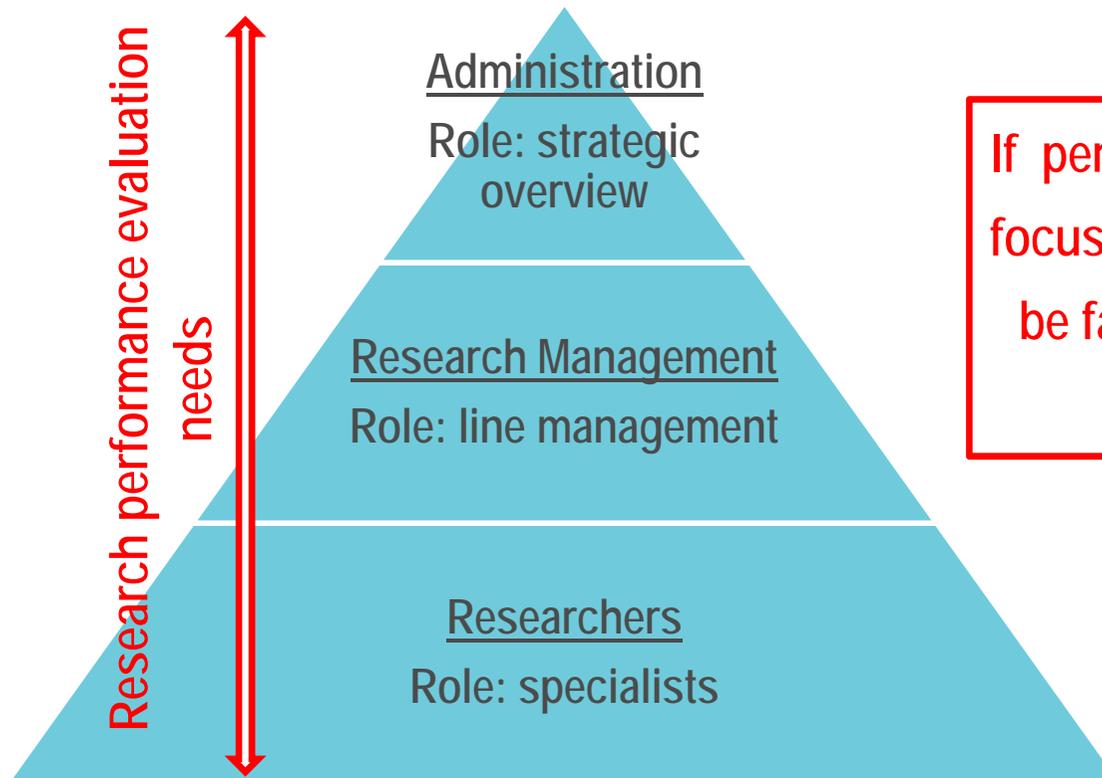


The need for data is strong and growing

- Librarians traditionally need data to enable knowledge discovery and prestige
 - Driven evolution of SciVerse Scopus' comprehensive coverage of relevant content
- **Growing hunger for data to inform performance evaluation**
 - *"Unless you have data you cannot make informed decisions; you would be acting based on opinions and hearsay"*
- **Needs are distributed amongst all roles in the higher education sector**
 - *"We want a system that is user-friendly and captures all the data we need to inform senior management, but which also enables individual academics to present their profile."*
 - *"Research systems are a nebulous totality which mean different things to different people."*



There is a demand to benchmark flexibly



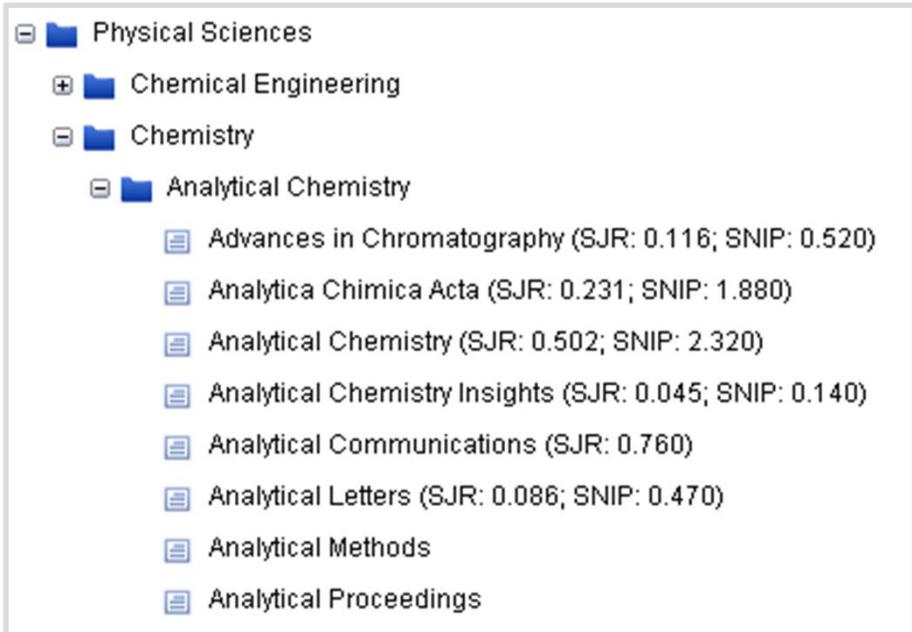
If performance evaluation tools only focus on one of these roles, they will be failing to meet the needs of the higher education sector

BENCHMARKING

FLEXIBILITY

Standard subject fields – the traditional way of viewing data slices

Data sources are organised into a pre-grouped structure



Excerpt of the SciVerse Scopus All Science Journal Classification

Sometimes an imposed, ready-made structure is OK...

... But on its own it is not sufficient and can lead to problems in relevant performance evaluation...

Problems with traditional slicing of data by fixed subject fields

Problem 1: Subject field structure is difficult to generate

- Need expert input – they are not transparent
- Time-consuming – they are not often updated
- Emerging fields and journal scope changes are largely unaccounted for

Problem 2: Not all relevant information is contained within the 'relevant' subject field

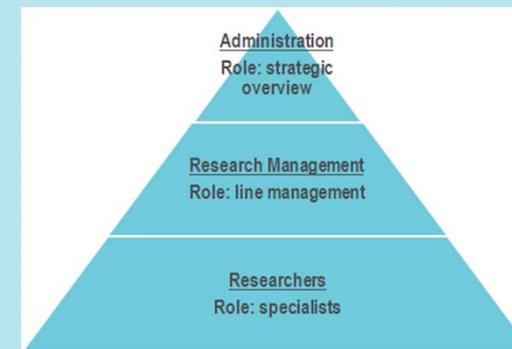
Table 3 | Renal practice evidence was published across journals from many disciplines

Primary discipline	No. of journals (n=466)	No. of articles (n=2779)	% of articles
Nephrology and Transplantation	59	1155	42.0
General and Internal Medicine	74	432	16.0
Endocrinology (Diabetes) and Metabolism	18	182	6.5
Surgery	39	171	6.2
Cardiovascular Diseases	41	170	6.1
Pediatrics	30	120	4.3
Radiology	21	91	3.3
Pharmacology	21	68	2.4
Critical Care and Emergency Medicine	11	53	1.9
Urology	7	49	1.8
Anesthesiology	14	43	1.5
Oncology	16	32	1.2
Rheumatology	8	31	1.1
Infectious diseases	9	26	0.9
Hematology	12	20	0.7
Nutrition	5	11	0.4
Obstetrics and gynecology	5	9	0.3
Gastroenterology	6	8	0.3

An additional 70 journals that contributed 108 articles were scattered across other disciplines.

Looking at an institution's output in a fixed subject field will only consider half of its output in that field – rest is published in other fields

Problem 3: Subject fields mean different things to different people with different degrees of specialty



Biochemistry may be meaningful for an overview, but a researcher works in e.g. protein structure

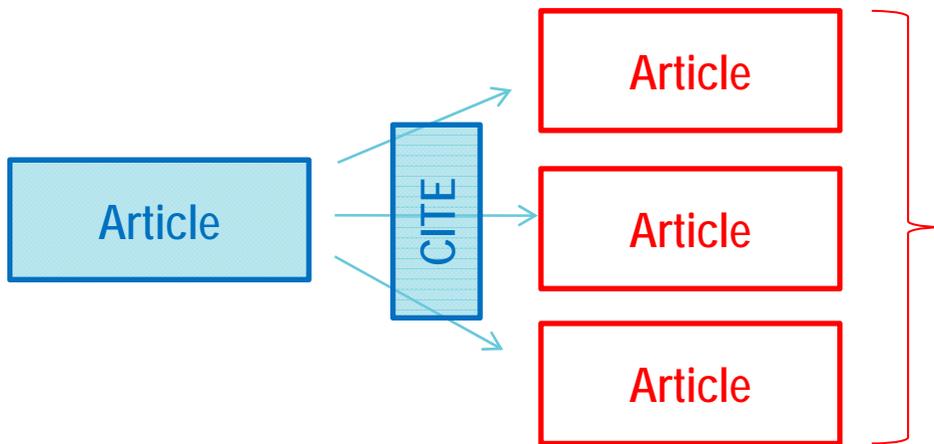
From *Kidney International* (2006) 70, 1995-2005

Classical disciplinary approach not compatible with 21st century science

- “The increasingly multidisciplinary nature of scientific research renders the classical disciplinary approach to classification meaningless.
- “For example, a group involved in energy research might have interests in fuel cell research, global warming, pollution and renewable energy sources. **This one research group carries out work that cuts across chemistry, environmental sciences, ecology, physics, climatology and economics, and it is precisely this multidisciplinarity that contributes to the value of 21st century science.**”
- Insights, Elsevier’s SciVal Spotlight and the Circle Of Fame, David Bousfield, Vice President & Lead Analyst, United Kingdom, 21 June 2011
- (Highlights applied by Lisa Colledge)



Documents create their own subject fields, independently of journals



These articles fall into the same field according to the author of Article

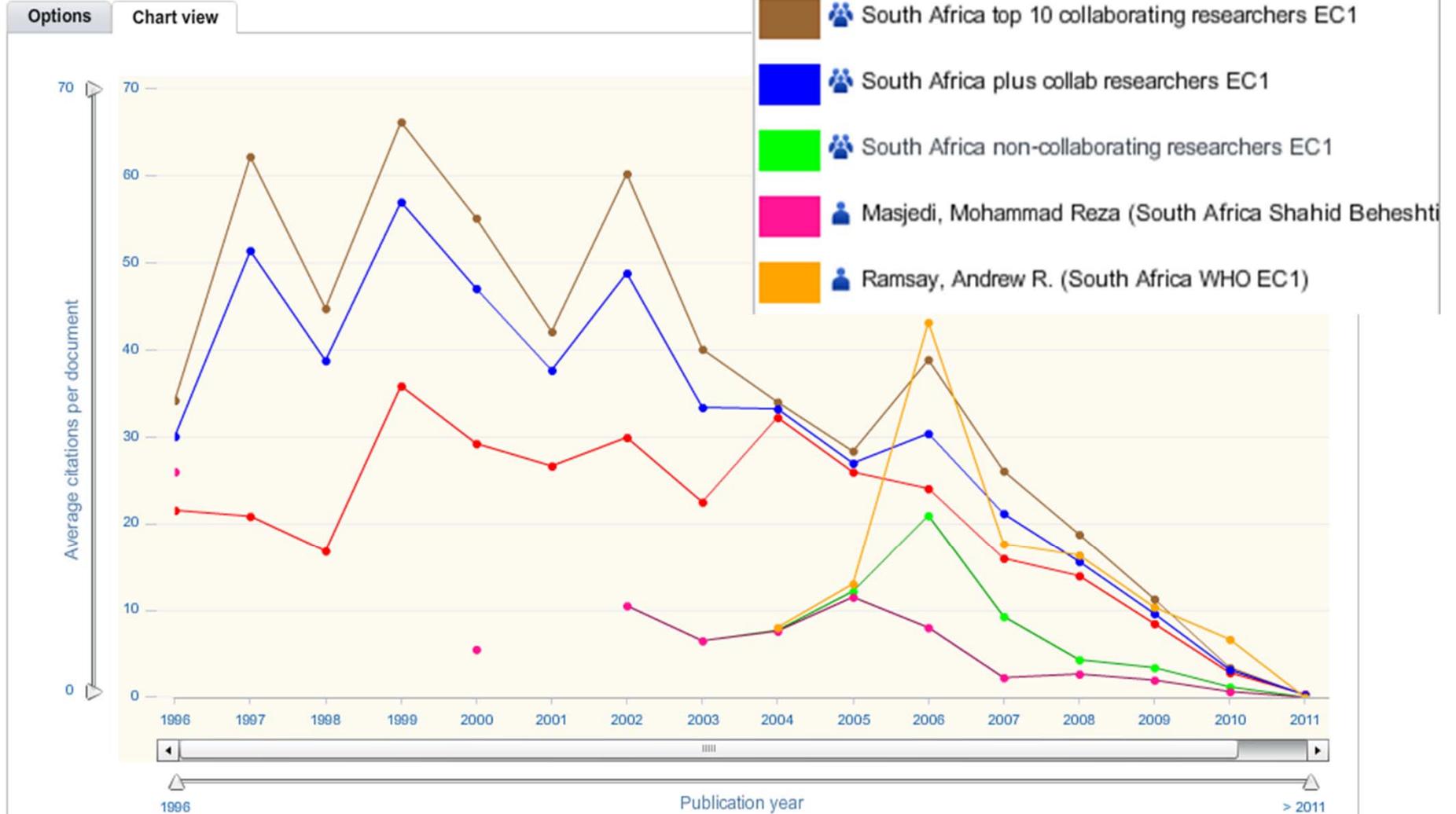
Field is independent of journals and of the supplier



Highlight emerging and / or interdisciplinary article-based fields that do not fit well in a ready-made journal classification

Author-created clusters can suggest collaborations that can be modelled

Citations Received [i](#)



Summary

- Drive to diversify the uses to which content databases are put
- One key need is in the evaluation of research performance
- The traditional way of slicing databases by discipline is not always enough
- Complementing the traditional approach with tools enabling a data-driven view highlights opportunities that might otherwise be hidden

Parting question: What should be the library's role in performance evaluation?





Thank you for your attention!

