Presentation of SciVal
Product architecture and main features

University of Michigan
March 31st and April 1st, 2020

Guillaume Warnan – Research Intelligence Senior Consultant – Canada & Great Lakes
The responsible use of metrics

Elsevier’s “Two Golden Rules”

Always use both qualitative and quantitative input into your decisions

Always use more than one research metric as the quantitative input

Best practice

Source: https://www.elsevier.com/research-intelligence/resource-library/response-to-hefces
Data source and product structure
Scopus data underpins our other Research Management solutions…

**SCIENTIFIC INTELLIGENCE**

- Scopus.com
- Scopus Data Services (Custom Data +APIs)
- SciVal.com
- SciVal Funding
- Pure Expert Lookup
- Fingerprint Engine
- Analytical Services

**METRICS**

**SCOPUS DATA**

Research Intelligence
About Scopus®

- The **largest** abstract and citation database of research information with over **77 million** records
- Updated daily, includes:
  - **24,500+ serial titles** from more than **5,000 international** publishers (independent review board)
  - **23,450+ peer-reviewed journals** (including 5,353 open access journals)
  - **290 trade publications**
  - **778 book series**
  - Over **200,000 books**
  - **9.6 million conference papers**
  - "**Articles-in-Press**" from more than **4,150 journals** and publishers
- Coverage of:
  - Life Sciences
  - Health Sciences
  - Physical Sciences
  - Social Sciences
  - Arts and Humanities
- Cited Reference expansion of pre-1996 references (back to **1970** – finalized in June 2017)
- Independent journal metrics:
  - **CS**: CiteScore
  - **SNIP**: The Source-Normalized Impact per Paper
  - **SJR**: The SCImago Journal Rank
- Connectivity with ORCID
Scopus coverage differs from one discipline to another

Source: 2018 Research Metrics Guidebook, p.17
Scopus offers a unique data-architecture with algorithmically generated profiles

Scopus delivers a comprehensive view on the world of research. No packages, no add-ons. One all-inclusive subscription.
Profiles in Scopus

- **Affiliation Profile**
  - Algorithm: 99% precision, 93% recall
  - Manual reassignment on feedback from official authority of affiliation for 100% precision

- **Author Profile**
  - Algorithm: 98% precision, 95% recall
  - Manual reassignment on feedback for 100% precision

77 million+ publications in Scopus
SciVal at a glance

SciVal offers quick, easy access to the research performance of 231 nations and 17,200+ research institutions worldwide, and groups of institutions

Overview
Visualize research performance

Benchmarking
Benchmark your progress

Collaboration
Develop collaborative partnerships

Trends
Analyze research trends

Overview:
- Ready-made-at-a-glance snapshots of any selected entity

Benchmarking:
- Flexibility to create and compare any research groups

Collaboration:
- Identify and analyze existing and potential collaboration opportunities

Trends:
- Analyze research trends to discover the top performers and rising stars
A ready-to-use solution flexible solution to analyze different entities, content types and time periods

**What you can analyze?**
- Topics
- Topic clusters
- Sub-disciplines
- Disciplines
- Overall entity

**On what content?**
- Publications (citations and usage)
- Patents
- Awarded grants
- Media mentions

**On what time period?**
- 1996
- 10y: 2009-2018
- 5y: 2014-2018
- 3y: 2016-2018
- 2019+
The structure of SciVal

Using advanced data analytics technology, SciVal allows you to instantly process an enormous amount of data to generate powerful data visualizations on-demand, in seconds.

- Scopus data only
- 1996 onwards
- Weekly update

Query over 300 trillion metric values

Overview
Benchmarking
Collaboration
Trends

Create and select research entities
Select metrics
High Performance Computing Cluster (HPCC) Systems

Patent data (LexisNexis), mass media mentions (Newsflo)
Topics of Prominence
What is a “Topic”?

• A topic is a collection of documents with a common intellectual interest – a “research problem”
• Topics can be large or small, new or old, growing or declining
• Topics are dynamic and can evolve
• New topics can be born
• Many topics are inherently multidisciplinary
• Old topics may be dormant, but still exist
• Researchers have mobility and can contribute to multiple topics
How can we identify topics

• The general approach is to take a set of documents and divide it into smaller groups

• The key is to do this in the most transparent and accurate manner possible
Identifying topics

- Clustering is done using the VOS algorithm
  - Create list of citing-cited (paper-reference) pairs using all of Scopus
  - Divide the documents into groups
SciVal topics

- Using source data 1996-present
  - ~40 million source docs
  - ~35 million cited non-indexed docs
- Calculated relatedness for 900 million pairs
- VOS code used for clustering
- Result – ~96,000 topics
Mapping Research Topics--History and competition

- **Research Fronts (1985)**  
  (Clarivate is still using this!)  
  2% coverage  10,000 clusters

- **Research Communities (1988)**  
  4% coverage  35,000 clusters

- **Distinctive Competencies (2007)**  
  15% coverage  200,000 clusters

- **Topics (2015)**  
  95% coverage  100,000 clusters

- **Topic Prominence (2017)**  
  95% coverage  Predicts funding

  Full coverage, accurately models supply/demand for science
Topic prominence

• Composite indicator including
  • Citation Count in year n to papers published in n and n-1
  • Scopus Views Count in year n to papers published in n and n-1
  • Average CiteScore for year n

• Other features were considered, but did not improve the indicator
  • Average number of authors per article for year n
  • Vitality – inverse reference age, similar to “state-of-the-art” from Competencies
  • Patent reference counts and fraction of industry authorship

• Prominence is a measure of visibility or momentum
  • Prominence ≠ Importance (Topics can be important but not prominent)
Prominence is highly correlated with funding

<table>
<thead>
<tr>
<th></th>
<th>L:Fund1113</th>
<th>L:Fund0810</th>
<th>Prom2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>L:Fund1113</td>
<td>1.000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>L:Fund0810</td>
<td>0.837</td>
<td>1.000</td>
<td></td>
</tr>
<tr>
<td>Prom2010</td>
<td>0.606</td>
<td>0.616</td>
<td>1.000</td>
</tr>
</tbody>
</table>

• Topic funding (NIH+NSF) in two time periods is very highly correlated
• Prominence is highly correlated with funding in both time periods
• Future funding is well predicted by past funding, but adding prominence improves this slightly
• In a perfect world, we would have all project-level funding data
  • But it’s not a perfect world

Ίn the absence of comprehensive funding data, prominence is an extremely valuable indicator because it acts as a proxy for funding
SciVal potential use cases
# Examples of potential use cases for University of Michigan

<table>
<thead>
<tr>
<th>Overview</th>
<th>Benchmarking</th>
<th>Collaboration</th>
<th>Trends</th>
</tr>
</thead>
<tbody>
<tr>
<td>How can I define my research strategy?</td>
<td>How do I compare with my peers?</td>
<td>How productive are my current collaborations?</td>
<td>How are highly strategic fields (for my institution) evolving?</td>
</tr>
<tr>
<td>How can I monitor it?</td>
<td>How do my faculties / research groups compare with one another?</td>
<td>How can I identify potential new collaborations?</td>
<td></td>
</tr>
<tr>
<td>How can I get a regular update of my research status?</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Faculties and research teams</th>
<th>How can I get a regular view of my department’s / institution’s / group’s research performance?</th>
<th>How do I compare with competing research groups?</th>
<th>How can I identify new collaborations to get more funding?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>How can I improve my funding applications?</td>
<td>How can I compare researchers for an open position?</td>
<td>How can I identify rising stars in my field of research to hire them or collaborate with them?</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>How am I positioned in my field(s) of research?</td>
</tr>
</tbody>
</table>

**1.** How can I define my research strategy?
**2.** How can I monitor it?
**3.** How do I compare with my peers?
**4.** How do I compare with competing research groups?
**5.** How can I improve my funding applications?
**6.** How can I compare researchers for an open position?
**7.** How productive are my current collaborations?
**8.** How can I identify new collaborations to get more funding?
**9.** How are highly strategic fields (for my institution) evolving?
**10.** How can I identify rising stars in my field of research to hire them or collaborate with them?
Use case 1 – How can I define my strategy?

18,946 Topics

only show the 5,136 Key Topics for this Institution

<table>
<thead>
<tr>
<th>Topic</th>
<th>Scholarly Output</th>
<th>Publication Share</th>
<th>Field-Weighted Citation Impact</th>
<th>Prominence percentile</th>
</tr>
</thead>
<tbody>
<tr>
<td>Collisions; Jets; Proton–proton collisions</td>
<td>291</td>
<td>14.04% ▲</td>
<td>4.08</td>
<td>99.939</td>
</tr>
<tr>
<td>Safety; Radiology; Local respiratory</td>
<td>220</td>
<td>69.18% ▲</td>
<td>0.07</td>
<td>76.121</td>
</tr>
<tr>
<td>Disks; Protoplanetary disks; Outer disk</td>
<td>118</td>
<td>9.52% ▲</td>
<td>2.11</td>
<td>99.247</td>
</tr>
<tr>
<td>Racisms; African Americans; Everyday discrimination</td>
<td>111</td>
<td>8.47% ▲</td>
<td>2.49</td>
<td>98.510</td>
</tr>
<tr>
<td>Analgesics, Opioid; Prescriptions; Long-term opioid</td>
<td>107</td>
<td>3.12% ▲</td>
<td>5.09</td>
<td>99.878</td>
</tr>
<tr>
<td>Clusters; Galaxies; Cluster mass</td>
<td>94</td>
<td>11.11% ▲</td>
<td>2.12</td>
<td>97.902</td>
</tr>
<tr>
<td>Photoacoustic effect; Photoacoustic microscopy; Optoacoustic imaging</td>
<td>89</td>
<td>3.31% ▼</td>
<td>0.92</td>
<td>99.601</td>
</tr>
<tr>
<td>Scintillation counters; Neutron detectors; Discrimination PSD</td>
<td>88</td>
<td>15.12% ▲</td>
<td>0.81</td>
<td>91.689</td>
</tr>
<tr>
<td>Mars; Mars atmosphere; Ion escape</td>
<td>87</td>
<td>17.30% ▼</td>
<td>2.26</td>
<td>95.491</td>
</tr>
<tr>
<td>Genome-Wide Association Study; Methods; Kernel association</td>
<td>86</td>
<td>8.88% ▲</td>
<td>2.97</td>
<td>96.955</td>
</tr>
<tr>
<td>Autophagy; Proteins; Autophagosome biogenesis</td>
<td>84</td>
<td>4.14% ▼</td>
<td>2.91</td>
<td>99.836</td>
</tr>
<tr>
<td>Hip; Femoroacetabular Impingement; Ligamentum teres</td>
<td>81</td>
<td>4.11% ▼</td>
<td>2.00</td>
<td>98.500</td>
</tr>
<tr>
<td>Heart-Assist Devices; Patients; Pump thrombosis</td>
<td>80</td>
<td>3.29% ▲</td>
<td>7.16</td>
<td>99.189</td>
</tr>
</tbody>
</table>

Source: SciVal (Scopus data up to 03/18/20); 2014-2018 data
Use case 2 – How can I monitor my strategy?

Summary for McGill University

Overall research performance at McGill University
- Year range: 2013 to 2018
- Data source: Scopus, up to 19 Oct 2018
- Scholarly Output: 48,220
- Authors: 23,572
- Field-Weighted Citation Impact: 1.82
- Citation Count: 546,180
- Citations per Publication: 11.3
- h-index: 165

Pre-defined reports

Research Topics at McGill University
- Year range: 2013 to 2018
- Data source: Scopus, up to 19 Oct 2018
- Key Topics
  - Jet production; parton shower ...
  - Incidental
  - Inconsolable; sonic collisions; viscous
  - Equations of motion; elasticity; modified couple
  - Mines; Open pit mining; mining operation ...

Outputs in Top Citation Percentiles summary at McGill University
- Year range: 2013 to 2018
- Data source: Scopus, up to 19 Oct 2018
- McGill University 24.4%
- Canada 18.9%

Publications in Top Journal Percentiles by CiteScore Percentile
- McGill University 43.2%
- Canada 36.8%

International Collaboration summary at McGill University
- Year range: 2013 to 2018
- Data source: Scopus, up to 19 Oct 2018
- McGill University 52.8%
- Canada 49.1%

Academic-Corporate Collaboration summary at McGill University
- Year range: 2013 to 2018
- Data source: Scopus, up to 19 Oct 2018
- McGill University 2.6%
- Canada 2.9%
Use case 2 – How can I monitor my strategy?

Self-defined reports

McGill University - Faculty of Law - Key figures from Scopus/SciVal

The following figures have been extracted from SciVal on February 14th, 2018. All these metrics are calculated using data from Scopus.

The first 2 pages concentrate on the University of McGill and the "quality" of its publications in the field of Law.

The following 2 pages are focused on the comparison of McGill University and the University of Toronto in the field of Law.

The remaining pages are based on a researcher comparison: Alumni vs. Non-alumni.

Scholarly Output at McGill University

Within Law: Year range 2012 to 2016 Data source: Scopus, up to 19 Jun 2016

Between 2012 and 2016, 207 publications from McGill are identified as "Law".

Field-Weighted Citation

2012 2013 2014 2015 2016 Overall

1.58 1.70 1.46 3.38 1.43 1.47

Overall: 1.47

1.8 means an impact lower than the world average. It indicates why McGill gets a lower score.
Use case 2 – How can I monitor my strategy?

Ad-hoc analysis

Source: SciVal (Scopus data up to 10/19/18); FP7 publications; time window: 2008-2015
Use case 3 – How do I compare with my peers?

Source: https://record.umich.edu/tags/rankings/
Use case 3 – How do I compare with my peers?

<table>
<thead>
<tr>
<th>Rank</th>
<th>Name</th>
<th>Overall</th>
<th>Teaching</th>
<th>Research</th>
<th>Citations</th>
<th>Industry Income</th>
<th>International Outlook</th>
</tr>
</thead>
<tbody>
<tr>
<td>17</td>
<td>University of California, Los Angeles</td>
<td>41,066</td>
<td>9.4</td>
<td>17%</td>
<td>54 : 46</td>
<td></td>
<td></td>
</tr>
<tr>
<td>18</td>
<td>University of Toronto</td>
<td>73,370</td>
<td>20.1</td>
<td>21%</td>
<td>59 : 41</td>
<td></td>
<td></td>
</tr>
<tr>
<td>19</td>
<td>Cornell University</td>
<td>22,319</td>
<td>9.8</td>
<td>25%</td>
<td>49 : 51</td>
<td></td>
<td></td>
</tr>
<tr>
<td>20</td>
<td>Duke University</td>
<td>15,309</td>
<td>4.3</td>
<td>19%</td>
<td>49 : 51</td>
<td></td>
<td></td>
</tr>
<tr>
<td>21</td>
<td>University of Michigan-Ann Arbor</td>
<td>42,982</td>
<td>8.3</td>
<td>17%</td>
<td>49 : 51</td>
<td></td>
<td></td>
</tr>
<tr>
<td>22</td>
<td>Northwestern University</td>
<td>17,951</td>
<td>12.8</td>
<td>20%</td>
<td>49 : 51</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: SciVal (Scopus data up to 03/18/20); 2014-2018 data
Use case 3 – How do I compare with my peers?

University Impact Rankings 2019

The Times Higher Education University Impact Rankings are the only global performance tables that assess universities against the United Nations' Sustainable Development Goals. We use carefully calibrated indicators to provide comprehensive and balanced comparisons across three broad areas: research, outreach, and stewardship.

This first edition includes more than 450 universities from 76 countries.

Read more...

Use case 3b – How to promote new habits?

Source: https://www.lib.umich.edu/research-data-services; SciVal (Scopus data up to 03/18/20); 2014-2018 data
Use case 3b – How to promote new habits?

Source: [https://www.lib.umich.edu/research-data-services](https://www.lib.umich.edu/research-data-services); SciVal (Scopus data up to 03/18/20); 2014-2018 data
Use case 4 – How do I compare with competing research groups?

Source: https://michiganross.umich.edu/faculty-research; SciVal (Scopus data up to 03/18/20)
Use case 4 – How do I compare with competing research groups? – Process

Source: https://michiganross.umich.edu/faculty-research, SciVal (Scopus data up to 03/18/20)
Use case 4 – How do I compare with competing research groups? – Process

Source: https://michiganross.umich.edu/faculty-research; SciVal (Scopus data up to 03/18/20)
**Use case 4** – How do I compare with competing research groups? – Process

![Import Researchers](image)

<table>
<thead>
<tr>
<th>Author</th>
<th>Publications</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adhivaru, Achyuta R.</td>
<td>11</td>
</tr>
<tr>
<td>Aribarg, Anocha</td>
<td>9</td>
</tr>
<tr>
<td>Bagozzi, Richard P.</td>
<td>228</td>
</tr>
<tr>
<td>Bhattacharya, Sugato</td>
<td>11</td>
</tr>
<tr>
<td>Bishara, Norman D.</td>
<td>9</td>
</tr>
<tr>
<td>Buchmueller, Thomas C.</td>
<td>79</td>
</tr>
<tr>
<td>Burson, Katherine A.</td>
<td>14</td>
</tr>
<tr>
<td>Cameron, George D.</td>
<td>4</td>
</tr>
<tr>
<td>Clyde, Paul S.</td>
<td>10</td>
</tr>
<tr>
<td>Costello, Anna M.</td>
<td>5</td>
</tr>
<tr>
<td>Crosignani, Matteo</td>
<td>1</td>
</tr>
</tbody>
</table>

**31 suggested authors** can be imported into SciVal after refinement or by dragging the best matched profile to the left.

**9 authors not found** and will not be imported into SciVal.

Source: [https://michiganross.umich.edu/faculty-research](https://michiganross.umich.edu/faculty-research); SciVal (Scopus data up to 03/18/20)
Use case 4 – How do I compare with competing research groups? – Process

Source: https://michiganross.umich.edu/faculty-research; SciVal (Scopus data up to 03/18/20)
Use case 4 – How do I compare with competing research groups? – Process

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Use case 4 – How do I compare with competing research groups? – Process

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Use case 4 – How do I compare with competing research groups? – Process

Source: https://michiganross.umich.edu/faculty-research; SciVal (Scopus data up to 03/18/20)
Use case 4 – How do I compare with competing research groups? – Process

Source: https://michiganross.umich.edu/faculty-research; SciVal (Scopus data up to 03/18/20)
Use case 5 – How can I improve my funding applications?

Preparation of your proposal (2): Decide whether to apply.

- Excellence
- Creativity
- Ambition
- Boldness

Source: ERC presentation, European Research Day, Ottawa (November 5th, 2018)
Use case 5 – How can I improve my funding applications?

Example analysis done by the Research Support Office to identify and evaluate their researchers for potential grant applications.

Source: https://www.elsevier.com/research-intelligence/resource-library/aarhus-university
Use case 6 – How can I compare researchers for an open position?

Source: SciVal (Scopus data up to 03/18/20)
Use case 6 – How can I compare researchers for an open position?

<table>
<thead>
<tr>
<th>Scopus Source</th>
<th>CiteScore 2018</th>
<th>Bagozzi, Richard P.</th>
<th>Buchmueller, Thomas C.</th>
<th>Gonzalez, Richard D.</th>
</tr>
</thead>
<tbody>
<tr>
<td>MIS Quarterly: Management Information Systems</td>
<td>11.80</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Journal of Clinical Oncology</td>
<td>11.08</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Journal of the Academy of Marketing Science</td>
<td>8.16</td>
<td>2</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Journal of the Association of Information Systems</td>
<td>6.51</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Journal of World Business</td>
<td>6.34</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Industrial Marketing Management</td>
<td>5.79</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Journal of Marketing Research</td>
<td>5.59</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Journal of Product Innovation Management</td>
<td>5.43</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Journal of Business Research</td>
<td>5.32</td>
<td>2</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Journal of Vocational Behavior</td>
<td>4.80</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Behaviour Research and Therapy</td>
<td>4.72</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>American Economic Journal: Economic Policy</td>
<td>4.63</td>
<td>0</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>Journal of Business Ethics</td>
<td>4.46</td>
<td>3</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

Source: SciVal (Scopus data up to 03/18/20)
Use case 7 – How productive are my current collaborations?

Source: https://global.umich.edu/
Use case 7 – How productive are my current collaborations?

Co-authored publications per country/region:

Source: SciVal (Scopus data up to 03/18/20)
Use case 7 – How productive are my current collaborations?

Source: SciVal (Scopus data up to 03/18/20)
Use case 7 – How productive are my current collaborations?

Source: SciVal (Scopus data up to 03/18/20)
Use case 7 – How productive are my current collaborations?

Collaboration with Addis Ababa University
Year range: 2014 to 2018

<table>
<thead>
<tr>
<th>University of Michigan, Ann Arbor</th>
<th>Co-authored</th>
<th>Addis Ababa University</th>
</tr>
</thead>
<tbody>
<tr>
<td>21 co-authors with Addis Ababa University</td>
<td>14 publications</td>
<td>30 co-authors with the University of Michigan, Ann Arbor</td>
</tr>
<tr>
<td>Field-Weighted Citation Impact: 2.08</td>
<td>Field-Weighted Citation Impact: 55.79</td>
<td>Field-Weighted Citation Impact: 2.62</td>
</tr>
</tbody>
</table>

- Authors: 34,241 ▲
- Scholarly Output: 69,364 ▲
- Views count (from Scopus): 1,510,070 ▲
- Field-Weighted Views Impact: 1.44 ▲
- Citation Count: 1,191,878 ▲

Source: SciVal (Scopus data up to 03/18/20)
Use case – How productive are my current collaborations?

Publications co-authored by the University of Michigan, Ann Arbor and Addis Ababa University

Year range: 2014 to 2018

<table>
<thead>
<tr>
<th>Authors</th>
<th>Title</th>
<th>Authors</th>
<th>Year</th>
<th>Scopus Source</th>
<th>Citations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abd-Allah, F.</td>
<td>Global, regional, and national disability-adjusted life-years (DALYs) for 315 diseases and injuries and healthy life expectancy (HALE), 1990–2015: a systematic analysis for the Global Burden of Disease Study 2015</td>
<td>Kassebaum, N.J., Arora, M., Barber, R.M. and 616 more</td>
<td>2016</td>
<td>The Lancet</td>
<td>794</td>
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</tbody>
</table>

Source: SciVal (Scopus data up to 03/18/20)
Use case 7 – How productive are my current collaborations?

Source: SciVal (Scopus data up to 03/18/20)
Use case 8 – How can I identify potential new collaborations?

Source: https://research.umich.edu/
Use case 8 – How can I identify potential new collaborations?

Collaboration by the University of Michigan, Ann Arbor

Institutions not yet collaborating with the University of Michigan, Ann Arbor

<table>
<thead>
<tr>
<th>Institution</th>
<th>Scholarly Output</th>
<th>Authors</th>
<th>Field-Weighted Citation Impact</th>
<th>Field-Weighted Views Impact</th>
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<tbody>
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Source: SciVal (Scopus data up to 03/18/20)
Use case 9 – How are highly strategic fields (for my institution) evolving?

Source: SciVal (Scopus data up to 03/18/20); 2014-2018
Use case 9 – How are highly strategic fields (for my institution) evolving?

Overall research performance

- **Scholarly Output**: 2,467
- **Field-Weighted Citation Impact**: 1.32
- **International Collaboration**: 356
- **Views Count**: 45,348
- **Citation Count**: 20,701
- **Topic Prominence percentile**: 99.482

Source: SciVal (Scopus data up to 03/18/20); 2014-2018
Use case 9 – How are highly strategic fields (for my institution) evolving?

Top 50 keyphrases by relevance, based on 2,467 publications | Learn about keyphrase calculations

Source: SciVal (Scopus data up to 03/18/20); 2014-2018
## Use case 9 – How are highly strategic fields (for my institution) evolving?

### Top Institutions

<table>
<thead>
<tr>
<th>Rank</th>
<th>Institution</th>
<th>Scholarly Output</th>
<th>Views Count</th>
<th>Field-Weighted Citation Impact</th>
<th>Citation Count</th>
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Source: SciVal (Scopus data up to 03/18/20); 2014-2018
### Use case 10 – How can I identify rising stars in my field of research to hire them or collaborate with them?

#### Top authors

<table>
<thead>
<tr>
<th>Rank</th>
<th>Author</th>
<th>Affiliation</th>
<th>Scholarly Output</th>
<th>Views Count</th>
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</table>

Source: SciVal (Scopus data up to 03/18/20); 2014-2018
Thank you!

Guillaume Warnan – Senior Consultant, Research Intelligence – Canada
+1 (514) 347-7997
@GWarnan

For product info, please visit: www.elsevier.com/research-intelligence
Two Golden Rules of using research metrics give a balanced, multi-dimensional view

Always use both qualitative and quantitative input into your decisions

This is about benefitting from the strengths of both approaches, not about replacing one with the other

Combining both approaches will get you closer to the whole story

Valuable intelligence is available from the points where these approaches differ in their message

Always use more than one research metric as the quantitative input

A research metric’s strengths can complement the weaknesses of others

There are lots of different ways of being excellent

Using multiple metrics drives desirable changes in behaviour
The “basket of metrics”