



Photograph: Rob Deutscher/flickr, CC BY-SA, 2017.

University of Technology Sydney

Research Talent

Signature Report 2017

Global Performance
Signature Strengths
Research Strengths

SAMPLE

League of Scholars
© 2016 League of Scholars Pty Ltd
www.leagueofscholars.com

PO BOX R1690
Royal Exchange
NSW 1225
AUSTRALIA
Email info@leagueofscholars.com

Table of Contents

University of Technology Sydney	4
Introduction	4
Global coverage	6
National Scale	7
Executive Summary	8
Critical Mass and Comparative Advantage	9
Critical Mass: Top 10 Research Topics by Authors	9
Comparative Advantage: Top 10 Global Research Strengths	10
Authors in areas of Critical Mass and Comparative Advantage	11
Artificial Intelligence	11
Bioinformatics	13
Climate Change	15
Computer Vision	17
Data Mining	19
Desalination	21
Education	23
Human Computer Interaction	25
Machine Learning	27
Public Health	29
Robotics	31
Industry Linkages by Topic	33
Industry Connections	33
Connected Researchers	34
Signature Strengths	36
Today's Stars	36
Tomorrow's Stars	37
All Rounders	38
Special Lists	39
Youngest Upcoming Stars	39
Youngest Proven Stars	40
Top Ranked by Recent Citations across all fields	41

University of Technology Sydney

Introduction

The League of Scholars® Signature Report provides fresh perspectives on your organisation's research strengths through the lens of your most important asset — your researchers. It provides unique and global perspectives on both the individual and collective talents of your organisation.

The Signature Report enables you to:

- Identify early career-talent within your organisation for future investment, fast-track career attention and promotion.
- Better understand institutional research specialisation strengths at a super fine level of granularity — the League of Scholars Topic.
- Reveal areas of comparative advantage — by statistical comparison to the Top 2000 Universities and Research organisations worldwide, you can understand specific areas of distinctive advantage and individuals who lead these areas.

Global Scale and Context

League of Scholars currently covers almost one million scholars worldwide from the world's top 2000 universities. Authors are categorised by *League of Scholar Topics* which are 15,000 specific areas of research drawn from fields, subfields and keywords used in research papers.

We have also indexed basic publications data about each author such as their total career citations to date, their Hirsch Index (H-Index) and their total citations in last five years from Google Scholar and Microsoft Academic.

Industry, media and public impact

In addition to scholarly impact, we recognise that influence outside the traditional peer-reviewed journals is of increasing interest to Universities and other research investors, Government and Industry. To help you better understand influence beyond the academy, League of Scholars is linking to an increasing variety of non-traditional or 'altmetrics' data sources such as social media. These sources can provide insights into industry linkages, media impact and public influence of your research efforts.

The percentage of Professors in your institution with LinkedIn Profiles for example, relative to peer organisations and to others worldwide for example, provides a useful indicator of the relative industry-connectedness of your institution. Identifying who these Professors are can be a useful way of identifying the most engaged and outward-focussed of your researchers.

Introducing WoW Rankings — a new tool to help predict the stars of the future

Whole-of-Web or WoW Rankings are part of our secret sauce designed to help you find (and keep) tomorrow's superstars.

While it is easy to spot talent once it has ripened — predicting future success and discovering tomorrow's best talent today is notoriously difficult. Publication counts, citation counts and H-Indexes are excellent tools for benchmarking researchers output towards the end of their careers but not that useful in understanding the future potential of early and mid-career researchers they are not that useful.

In response to this, League of Scholars has created an index to predict future success and authority. Using a *Google-like* ranking algorithm, we have ranked all the authors in our universe by their relevance and authority in over 15,000 fields. Our WoW rankings incorporate a range of factors including the quality of venues published in as well as industry linkages.

WoW rankings are very granular and based on specific League of Scholars topics which means they only compare apples with apples. It enables you to drill down to see the relative world ranking of your team at a topic level within faculties, domains and subdomains and thus get a true sense of global expertise and comparative advantage. University of Technology Sydney for example is not #1 Environmental Engineering but it is #1 in the world when it comes to the topic of Desalination.

League of Scholar's WoW rankings provide a strategic and practical tool to help institutions with early-identification of global talent in any field.

Scope and Scale of League of Scholars Data Coverage

League of Scholars aims to provide a comprehensive collection of active researchers from the World's largest and highest impact universities and research organisation. We work hard to ensure our data on universities, authors and research topics is as up-to-date and representative as we can.

Our data is sourced from partner universities and their researchers as well as credible third-party online data collections including Google Scholar, Microsoft Academic and LinkedIn.

While not exhaustive, our collection is very large and a representative global sample of almost a million authors from over 2000 of the world's top universities and research organisations.

We estimate our collection represents approximately 85% of all researchers at Universities and Research organisations we cover. Below is a table of count of the number of Authors we index by country.

Global coverage

Rank	Country	Universities and Research Institutions	League of Scholars Indexed Researchers
1	United States	591	176,081
2	United Kingdom	120	38,507
3	Australia	40	25,542
4	Canada	61	16,431
5	Italy	66	13,893
6	Spain	63	12,359
7	Iran	49	11,897
8	India	70	11,412
9	Malaysia	22	10,830
10	Brazil	81	8,761
11	France	122	8,656
12	Turkey	67	7,941
13	China	184	7,720
14	Egypt	16	6,694
15	Netherlands	18	6,651
16	Germany	88	6,537
17	Japan	125	6,405
18	South Korea	61	5,745
19	Sweden	23	4,442
20	Poland	50	4,236
21	South Africa	14	3,794
22	Singapore	6	3,734
23	Belgium	11	3,685
24	Switzerland	16	3,586
25	Israel	10	3,470
26	Finland	13	3,191
27	Ireland	12	2,933
28	Saudi Arabia	14	2,904
29	Indonesia	14	2,757
30	Hong Kong	10	2,728
31	New Zealand	9	2,589
32	Taiwan	55	2,410
33	Austria	16	1,949
34	Mexico	26	1,845
35	Kenya	3	1,723
36	Colombia	16	1,685
37	Romania	14	1,533
38	Greece	23	1,470
39	Jordan	5	1,437
40	Norway	15	1,333
	Rest of World (66 Countries)	286	136,375
	Additional authors outside Top 2500 Institutions		343,053
	Global Total	2505	920,924