Empower: SciVal for Faculty and Librarians

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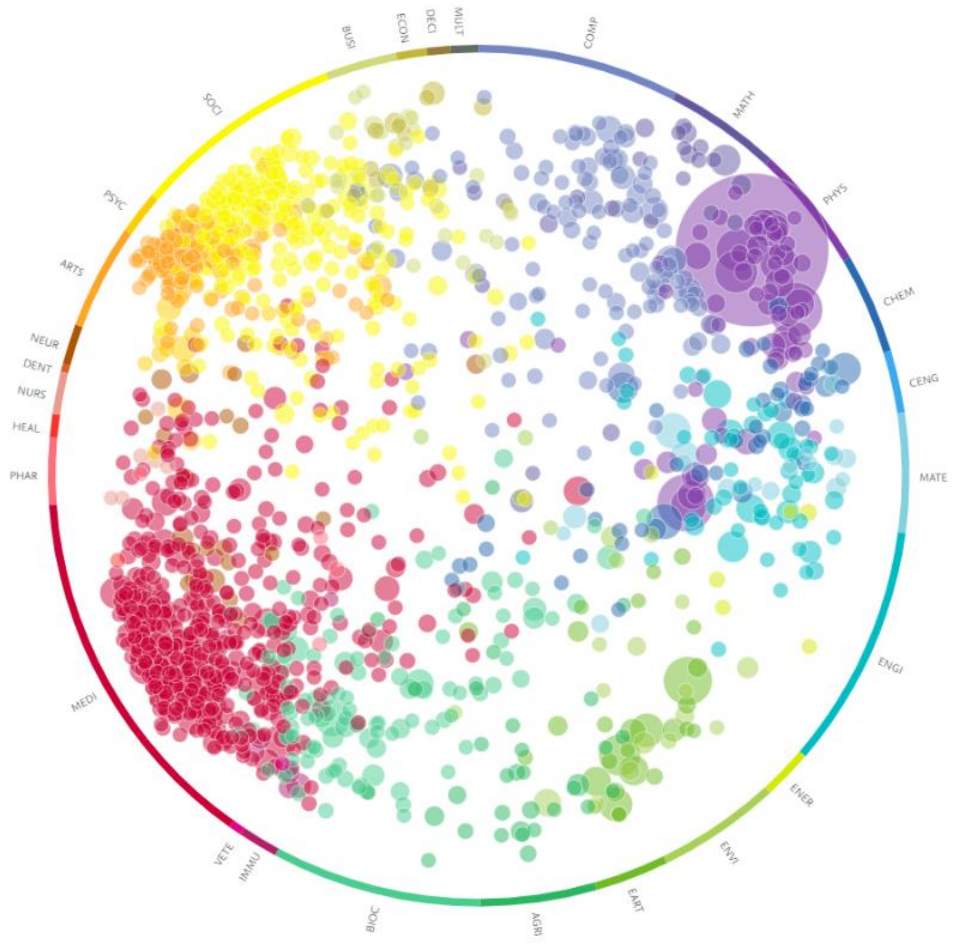
October 2019

Agenda

- SciVal – brief intro
- Predictive analytics in SciVal
  - Topic Prominence description
- Practical applications of SciVal data and metrics
- Q & A



Elsevier Research Intelligence Portfolio

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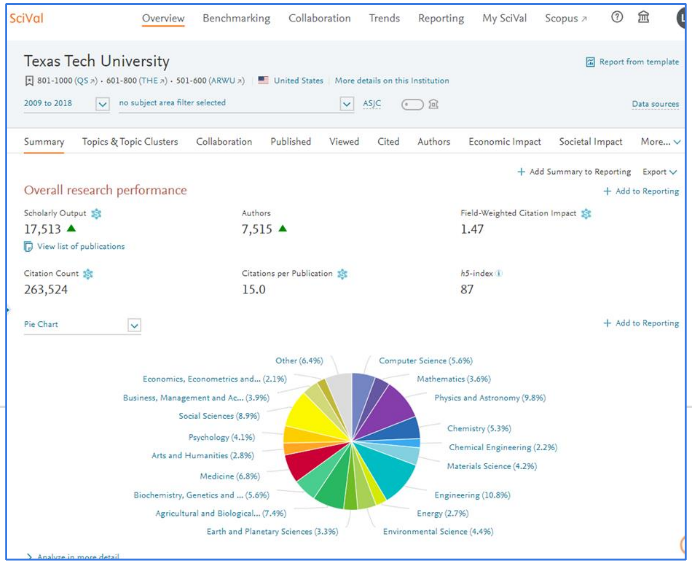
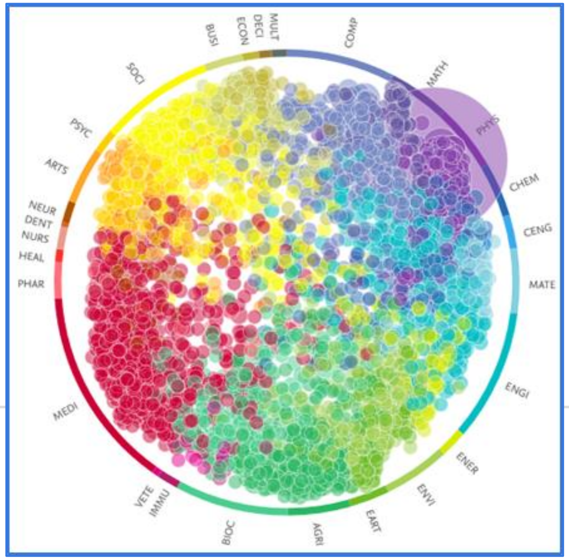
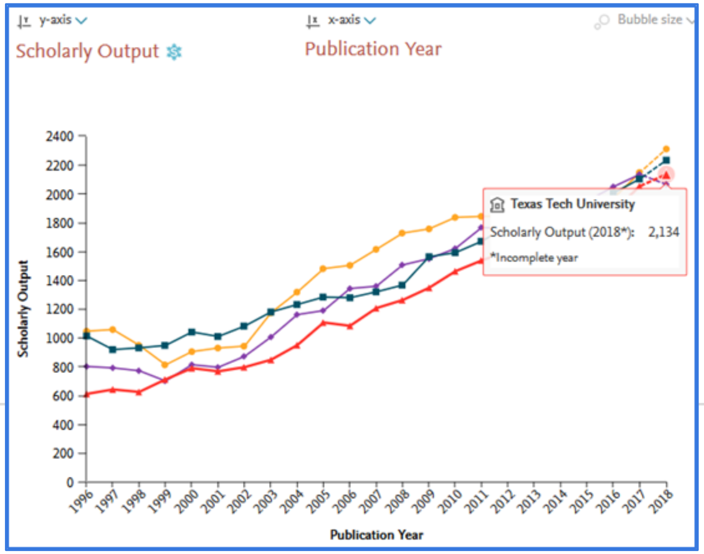
SciVal is an analytical tool that allows you to:

- Characterize research portfolio for any profiled Academic/Corporate/Government entity
- Benchmark performance against any set of peers
- Find top performers/rising stars in research fields
- Aid in research planning and analysis:
  - Pinpoint the research areas where your institution excels
  - Find out which areas your peers and competitors are active in
  - Identify research topics that are likely to be well funded

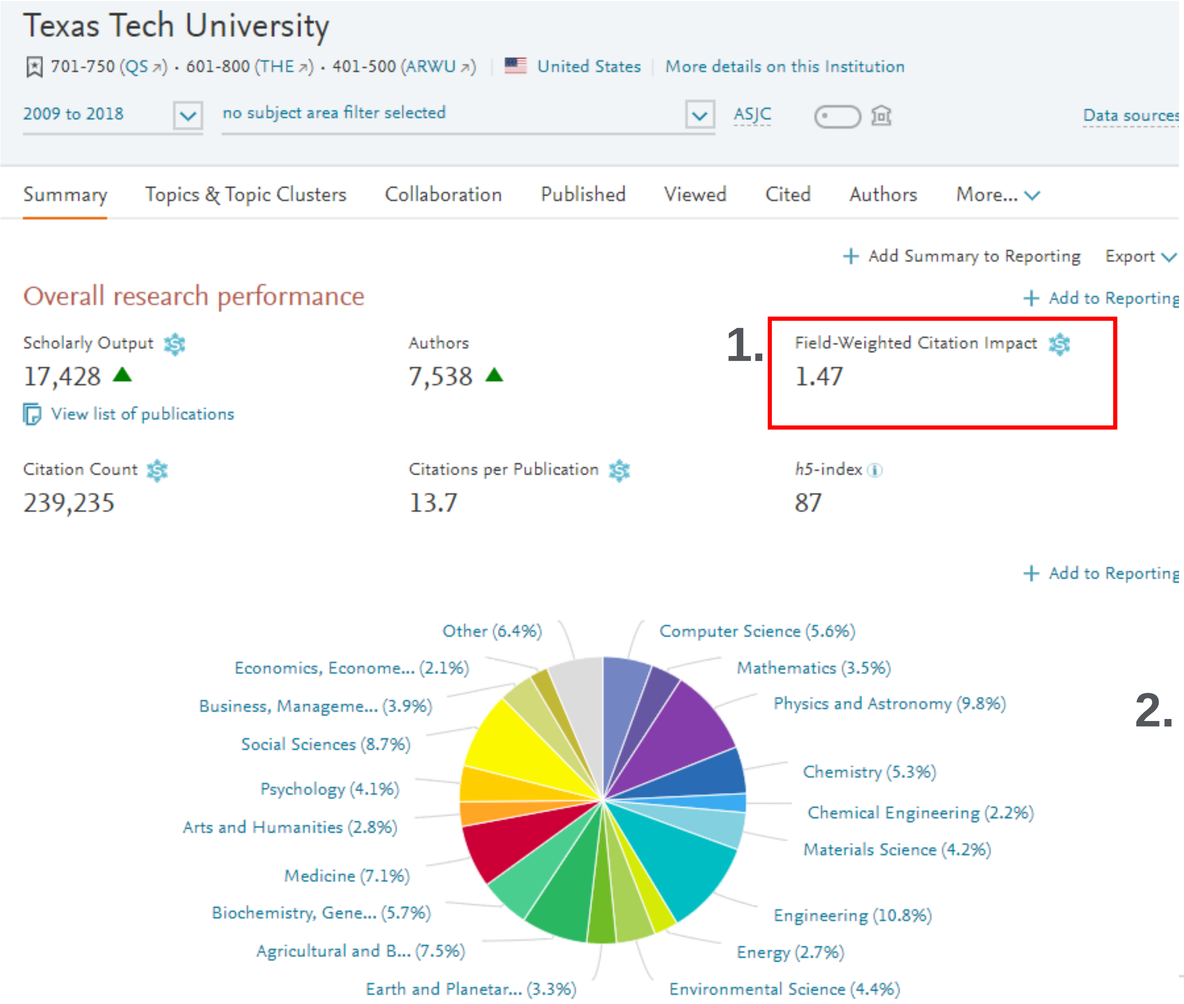


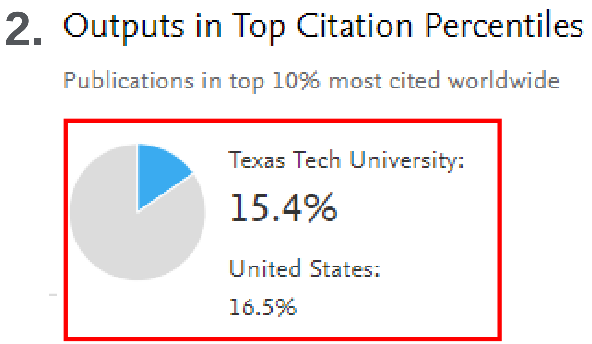


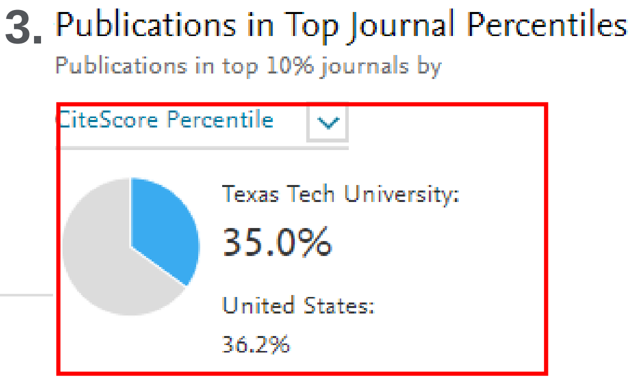


Metrics Highlights

1. Field Weighted Citation Impact (FWCI)
2. Outputs in top citation percentiles
3. Publications in Top Journals percentiles (SNIP and CiteScore)







Date range 2009 to 2018

How SciVal works

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Empowering Knowledge

The Layers of SciVal

Overview | Benchmarking | Collaboration | Trends

Create and select research entities

Select metrics

Big Data technology

Publication, citation and Scopus usage data
awarded grants, mass media mentions, patent-article citations

15,000+ research institutions and 230 countries worldwide

Query around 200 trillion metric values

A ready-to-use resource used 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

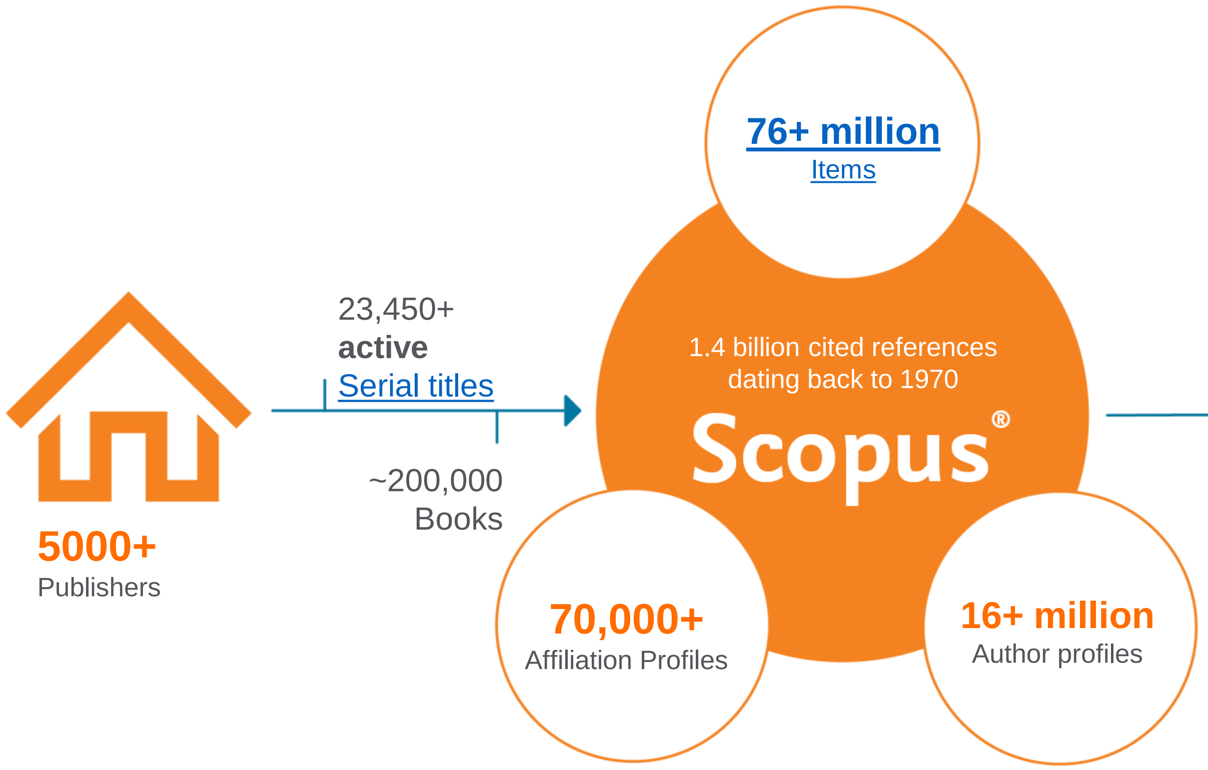
On what time period?

- 1996
- 10y: 2009-2018
- 5y: 2014-2018
- 3y: 2016-2018
- 2019>

Underlying data source - Scopus

largest curated abstract and citation database of peer-reviewed literature

featuring smart tools to track, analyze and visualize research



- Identify and analyze which journals to read/submit to
- Help researchers manage career-citation counts and h-index
- Decide what, where and with whom to collaborate
- Track impact of research; monitor global research trends
- Find out what already exists in the global world of research
- Determine how to differentiate research topics, find ideas

Scopus Data Matters | Relational Data Model

Scopus can tell you **who** is doing **what** in global literature and **where** they are doing it with **higher accuracy** than anyone else.

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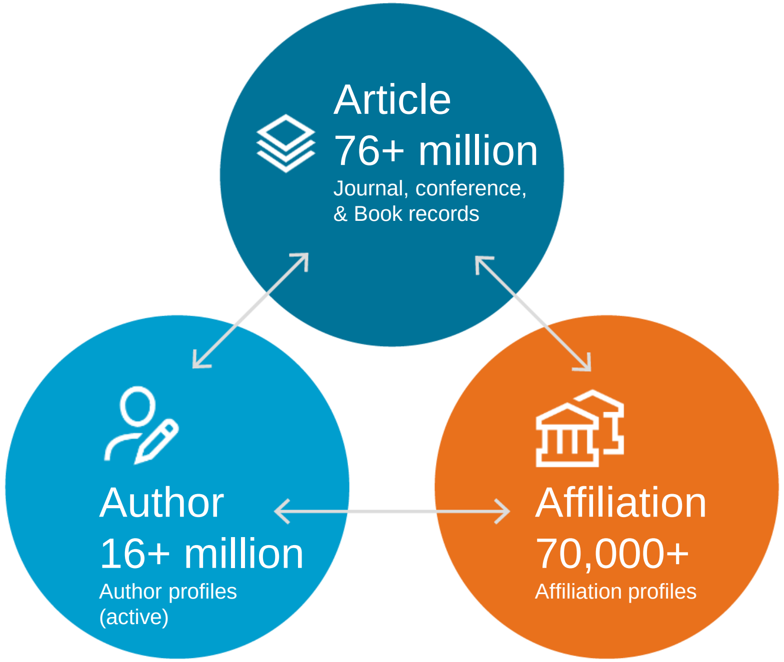
The Scopus data model

The Scopus data model is designed around the notion that ***articles*** are written by ***authors*** that are ***affiliated*** *with institutions*. Visually and rather simplistically, this relational model is represented below.

Scopus Data Model Simplified



What is the value of this structured data? This relational data model means that Scopus can tell you **who is doing what** in global literature and **where they are doing it** with **higher accuracy** than anyone else

Power of

Scopus | Curated Author Profiles

Scopus includes over 16 millions Author Profiles, which are automatically created whenever new data is uploaded. We offer a feedback feature to ensure each author's profile is distinct and kept up-to-date. No other A&I database matches Scopus for precision and recall.

Author Profile Generation

Scopus is the only database that implements algorithmic & systematic author disambiguation.

The most powerful **algorithmic data processing** in the industry groups papers to to an individual's profile with a high degree of accuracy based on matching of name, email, affiliation, subject area, citations, co-authors, etc.

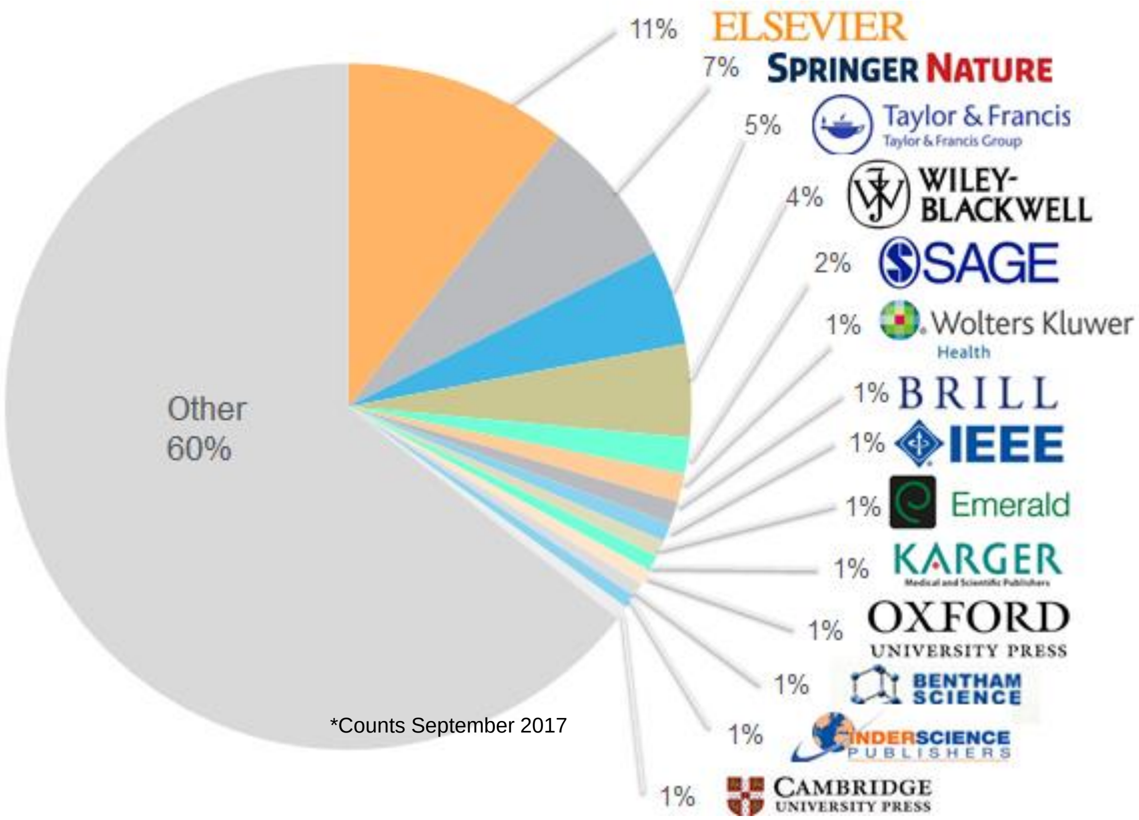
+

The **Author Feedback Wizard** is available for Author Profile changes to be requested due to the complexities of disambiguation, such as common names, name changes, incomplete metadata from publishers, etc. Scopus makes every effort to update & maintain precise & complete profiles. To date we have curated 1.2 million Author Profiles, with approximately 34,000 Profiles corrected monthly.

The Bibliographic Index Leader

>76M records and **>23,450** active titles from more than **5K** international publishers. More than **3,759** Gold Open Access journals indexed, **156K** books and **8,1M** conference proceedings*

Unbiased, comprehensive journal coverage with titles from **many reputable scholarly publishers**:



*Counts September 2017

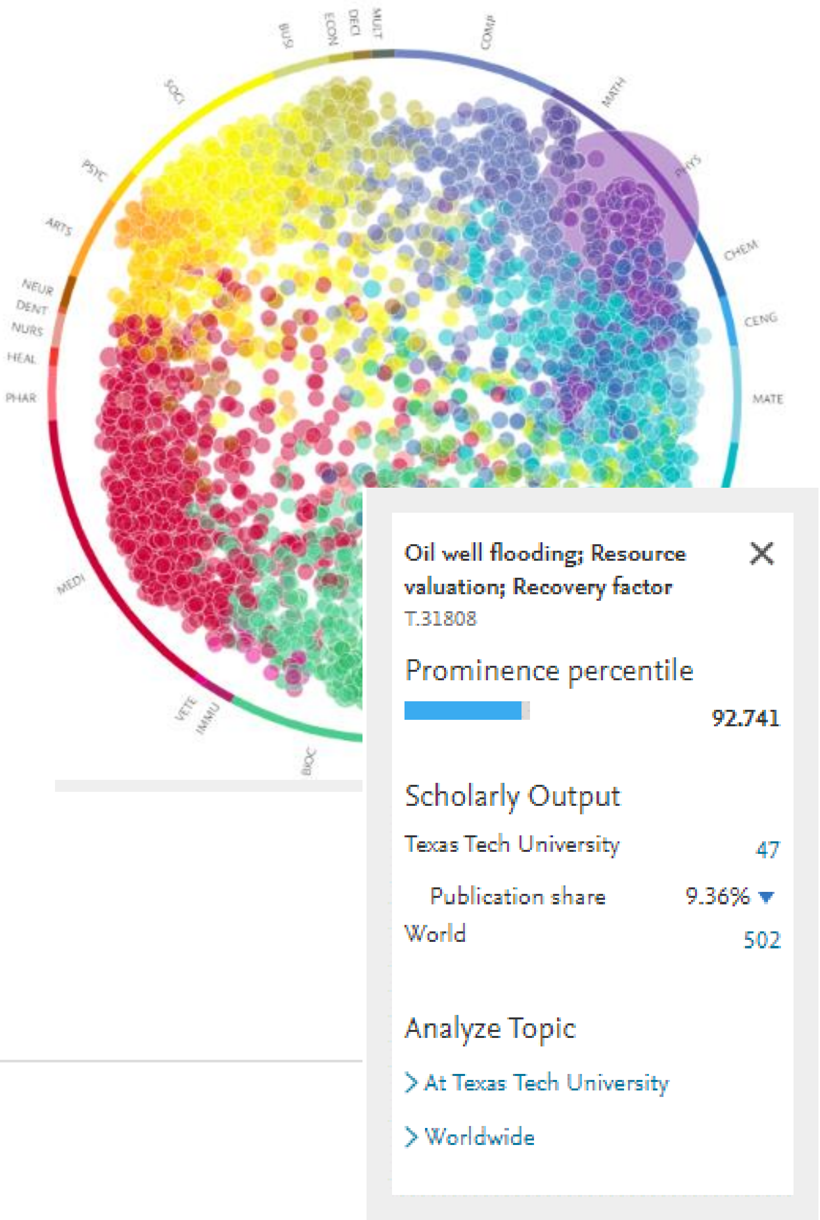
Topics of Prominence: Predictive Analytics

Use Topics of Prominence to:

* Tell the story of your research focus.
* Highlight areas of significant research contributions.
* Evaluate your position relative to others

Introducing Topic Prominence

- Users needed a more granular way to group research topics:
- One of the most common categorization methods is based on the publication's journal subject areas
  - –Scopus has 334 ASJC categories
- Other groupings have to be created by the user, which is very unstructured
  - –e.g. Research Areas in SciVal
- But what if we could help the user find their topics of interest at a much more granular level?



A powerful tool to build a progressive and resilient research portfolio

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Topic Prominence in Science:
Moving beyond evaluation and benchmarking to research planning and analysis

…Help users

Identify pockets of **well funded research** in the **research portfolio**

Find the **top performers** and **rising stars** in those areas for recruitment, tenure and collaboration

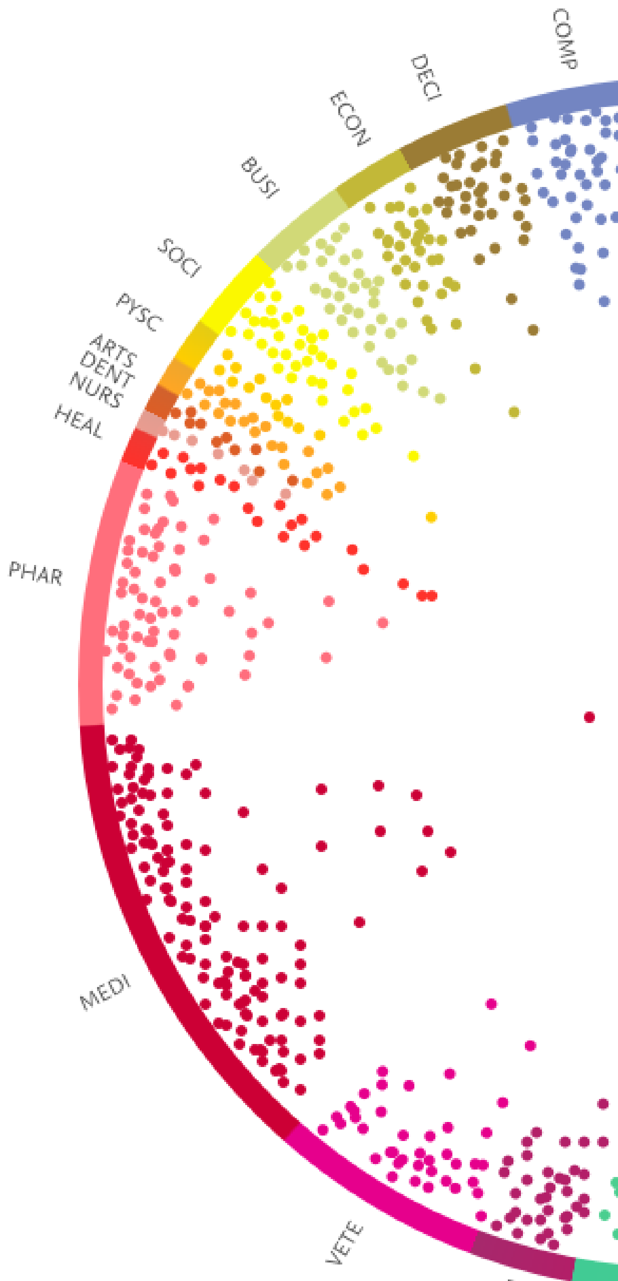
Showcase that they or their institution is active in topics with high momentum

Identify which topics other researchers and universities are active in that have high momentum

…and uncover the impact

Solution – Topic Prominence

- We have identified **~96,000 global research topics by clustering all of Scopus** and ranked them by **Prominence.**
- **Prominence is a new indicator** that shows the **current momentum** of a topic by looking at **very recent citations**, **views** and **CiteScore** values.
- **Prominence = momentum** (not the same as importance!).
- **Prominence predicts funding** – helps researchers and research managers identify topics in which funding will increase.



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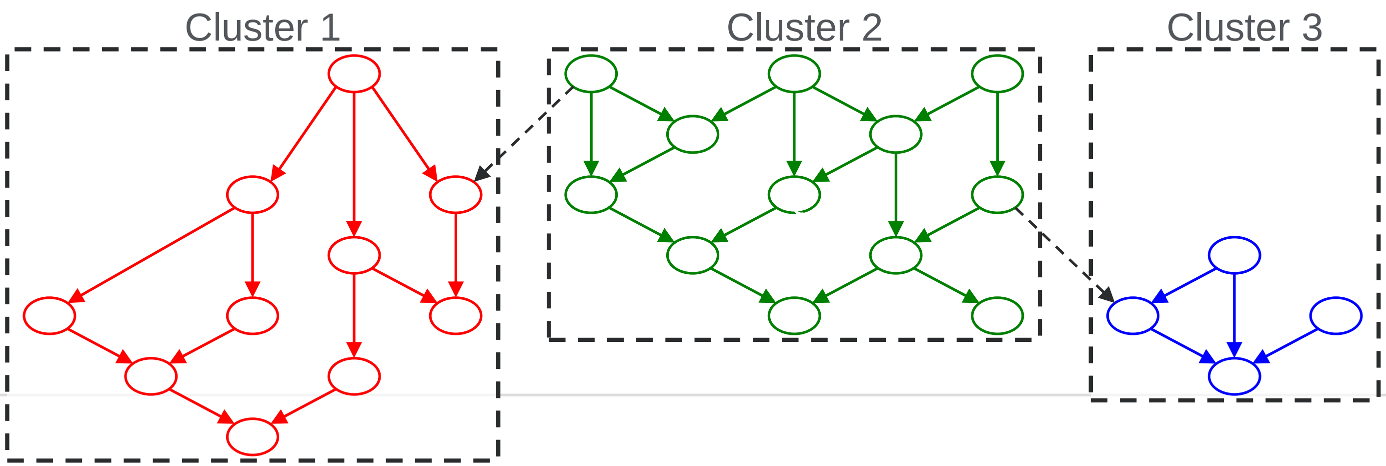
How are “Topics” identified

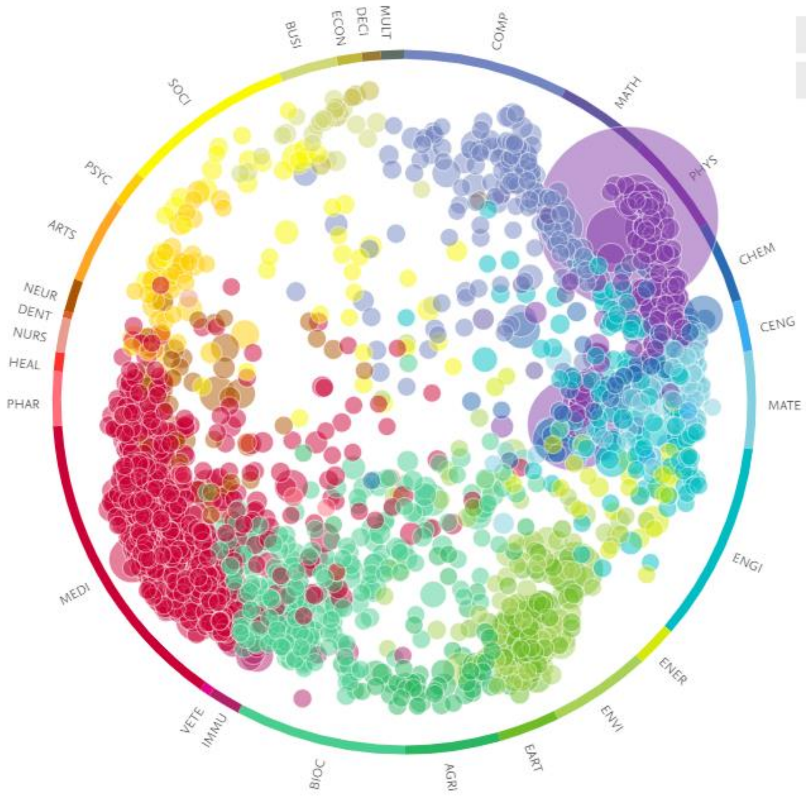
- All Scopus publications are clustered into topics using citation links
- ~46 million publications (1996-present) in ~96,000 topics
- Clustering is done using algorithms that
    - Divide the documents into groups
    - Have a resolution parameter where increasing the resolution increases the number of clusters and reduces cluster sizes
    - Maximize the links within clusters and minimize the links between clusters



Prominence Indicator:

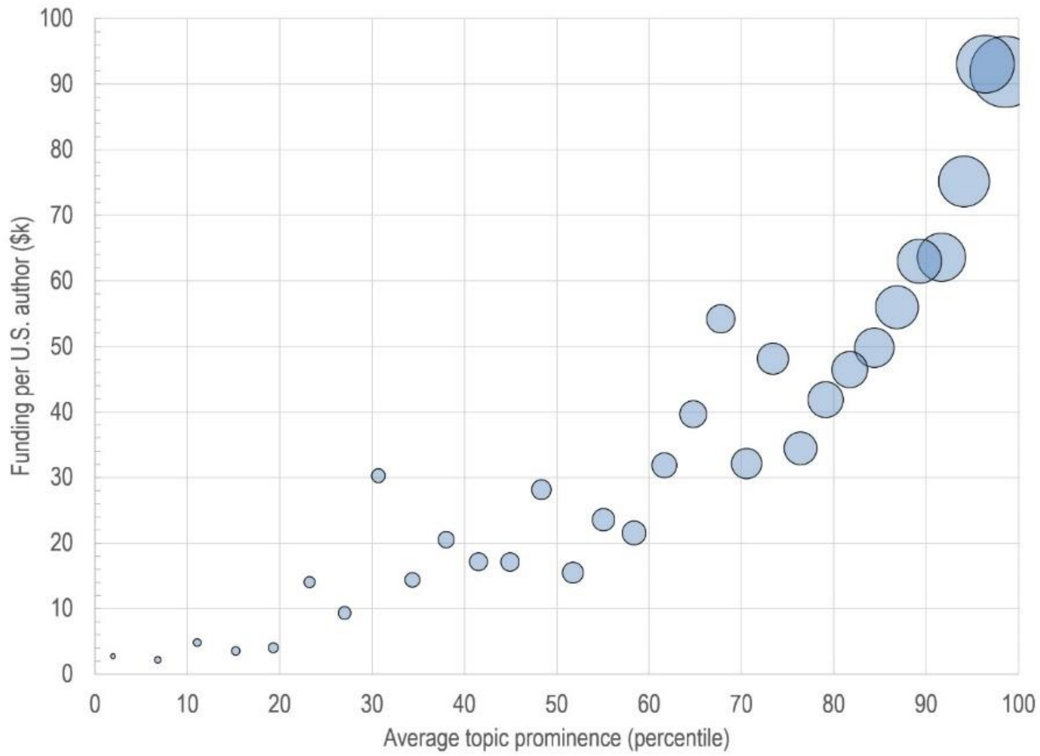
- Prominence combines 3 metrics to indicate the momentum of the topic
  - **Citation Count** in year n to papers published in n and n-1
  - Scopus **Views Count** in year n to papers published in n and n-1
  - Average **CiteScore** for year n

- Why call it “Prominence”
  - Prominence ≠ Importance (Topics can be important but not prominent)
  - Prominence ~ Visibility



Prominence and funding

- Grant data (314K grants, $203 billion) from STAR METRICS database were assigned to topics using textual similarity
- Dependent variable = Funding per topic 2011-2013
- Prominence + Funding (2008-2010) together explain 66% of the variance

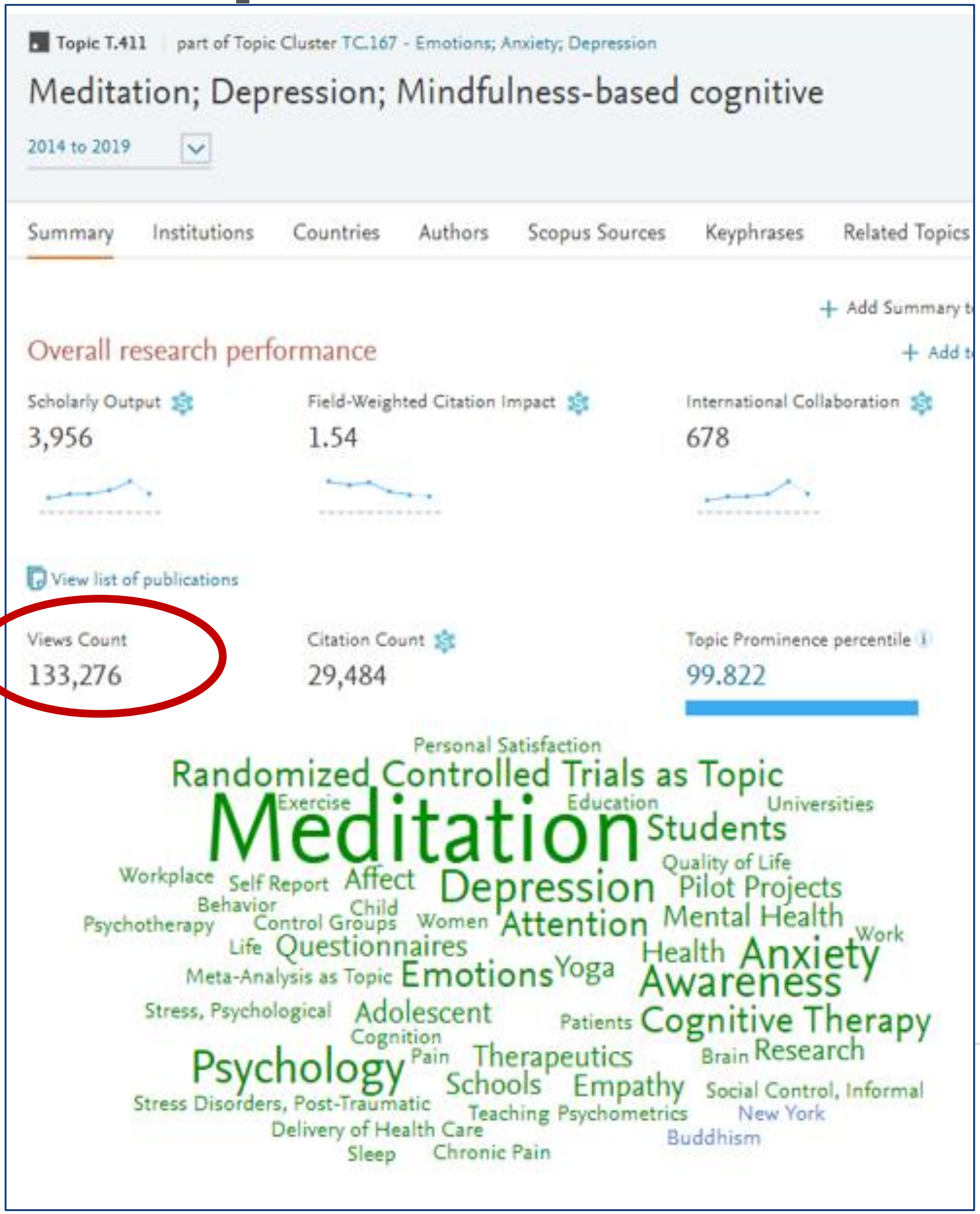


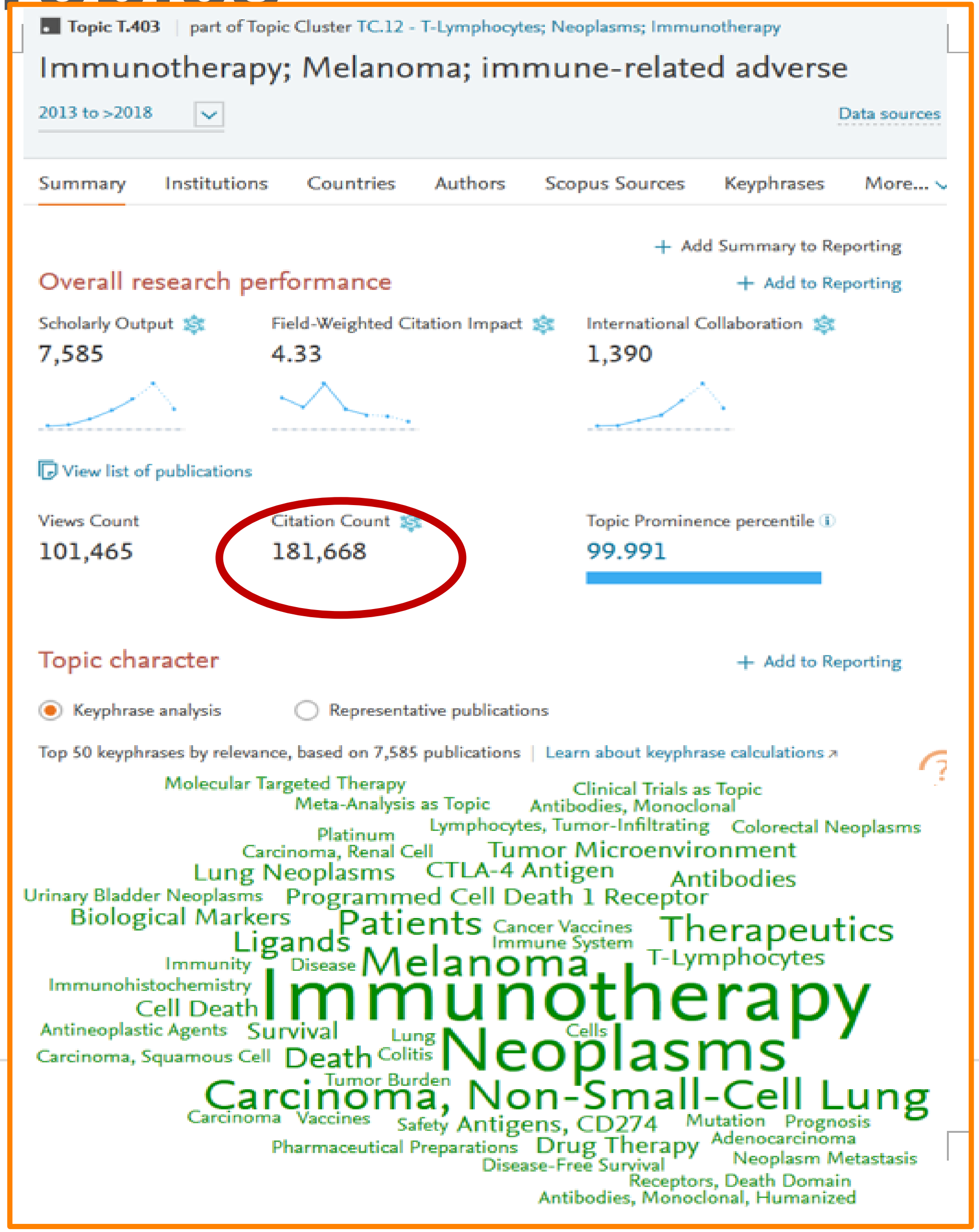
Klavans, R. and K.W. Boyack. (2017). Research portfolio analysis and topic prominence. *Journal of Informetrics*

What is a Topic?

- **A cluster of documents with a common intellectual interest**
  - **Instantly recognizable by researchers**
- **Easy to interpret**
  - **Articles that cite each other are generally in the same topic**
- **Accurate** problem-level subdivisions of science
  - **We use the most accurate clustering methods available**
- Nearly **complete coverage**
  - **Papers from 1996-**

Examples of Prominent Topics





What can you do with Topics?

1. **Help your researchers and faculty identify funding opportunity areas**

2. **Assess which research areas to invest in:**

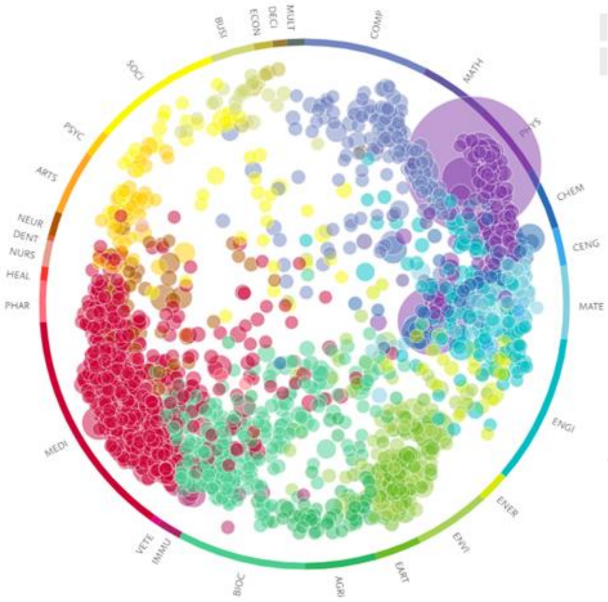
   Identify top researchers for **recruitment** or **collaboration**

   Find top institutions to partner with

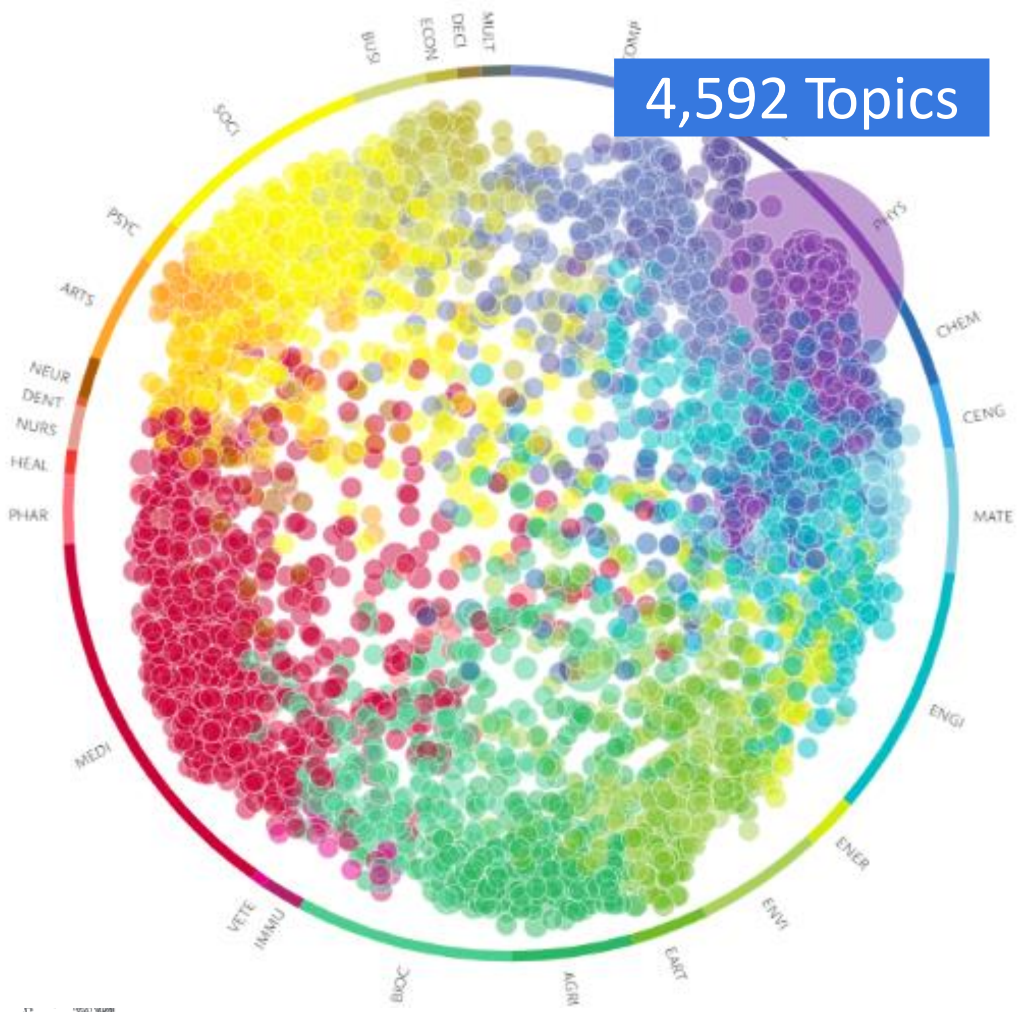
   Retain your best researchers

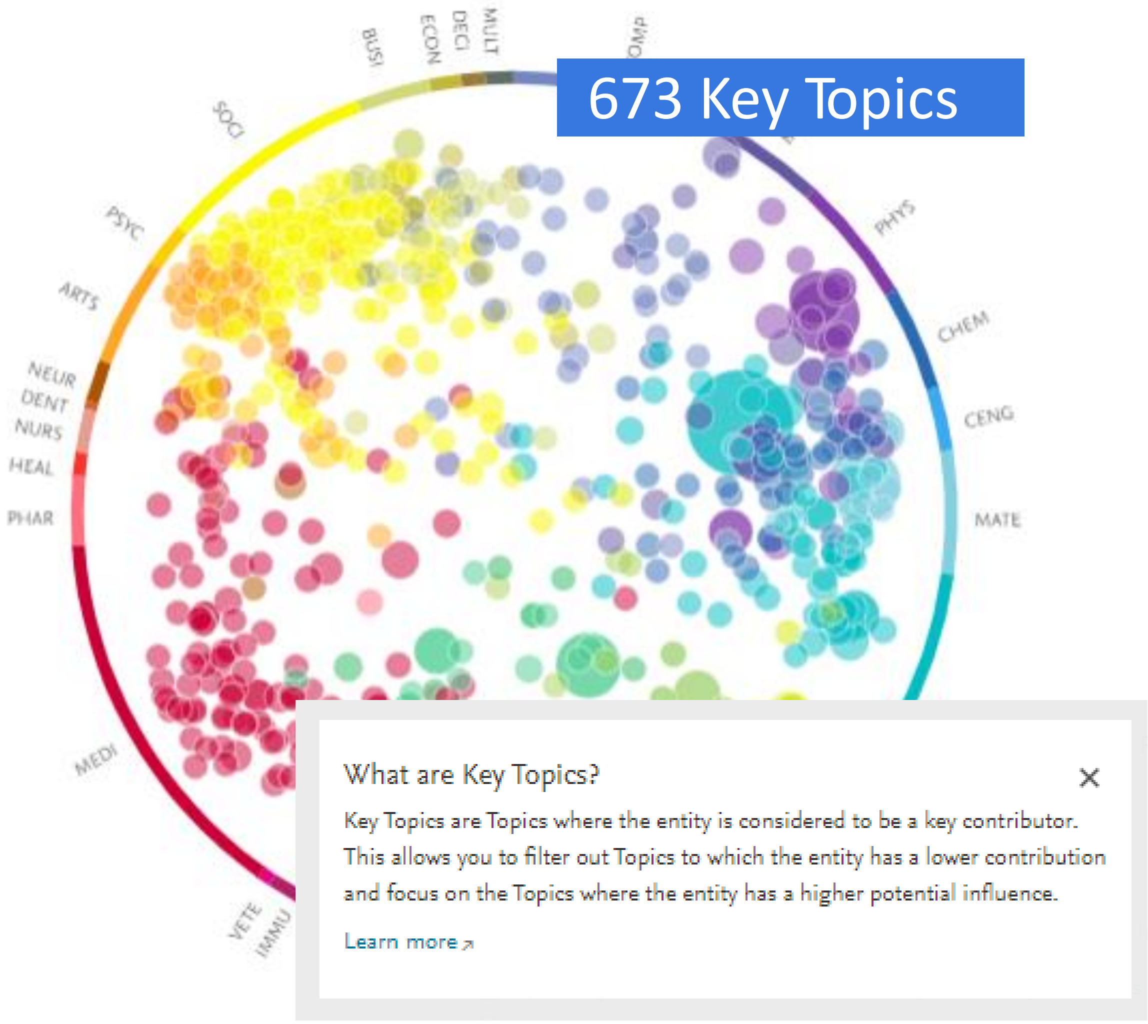
3. **Help you showcase your achievements**

   To taxpayers and stakeholders
   To funding agencies
   To potential collaboration partners



Key Topics





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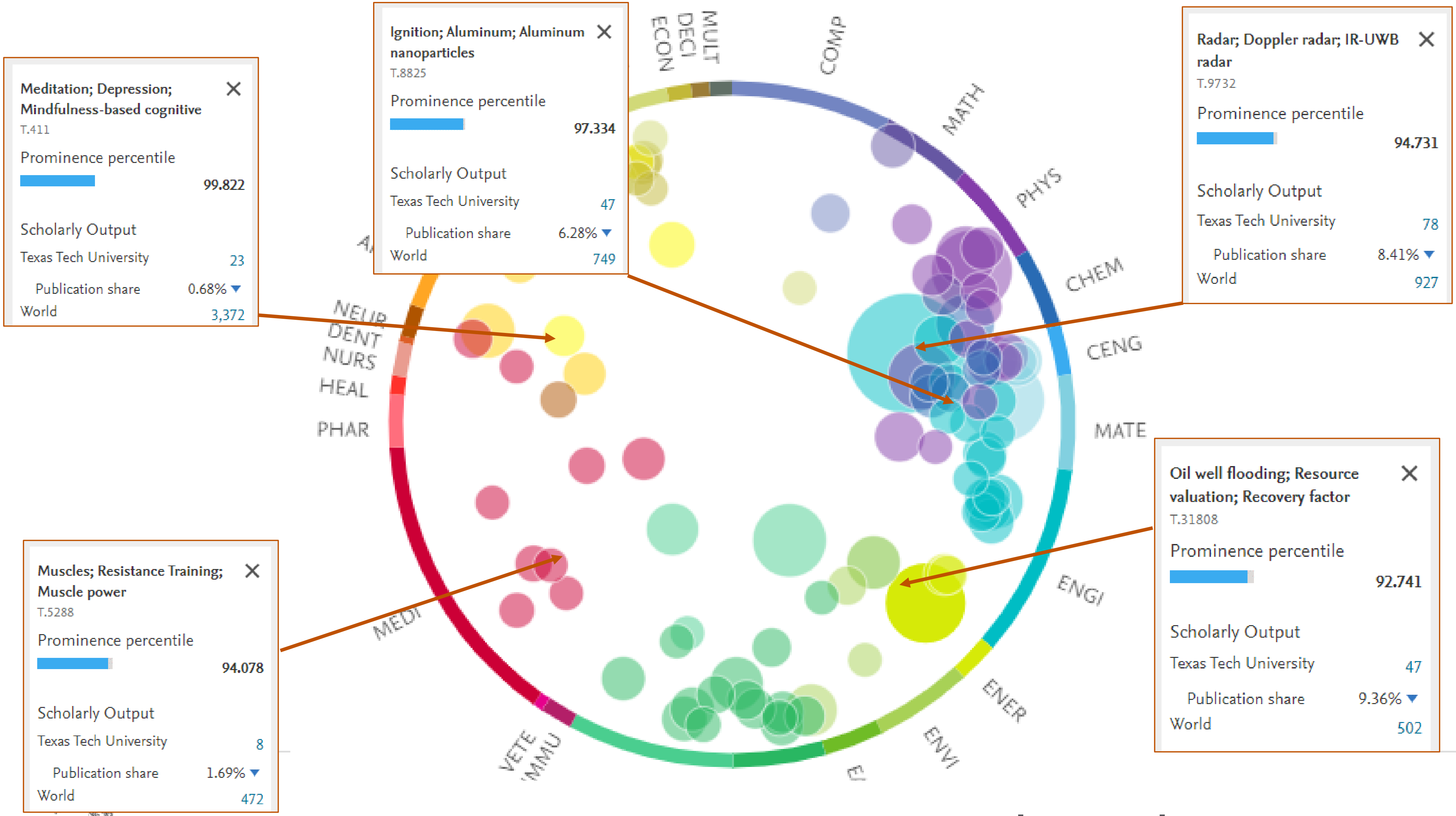
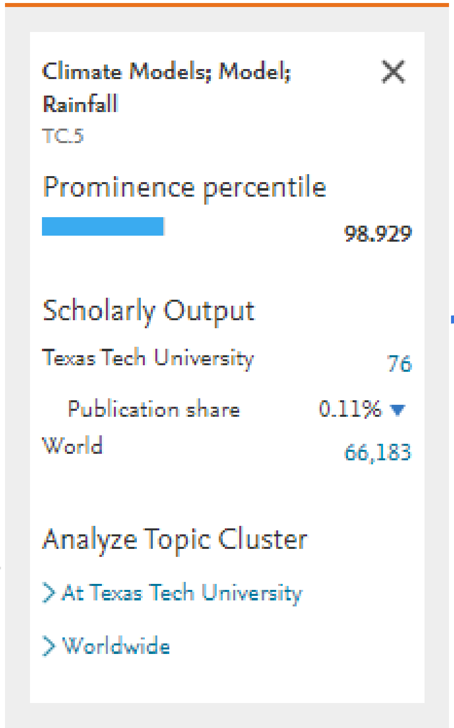


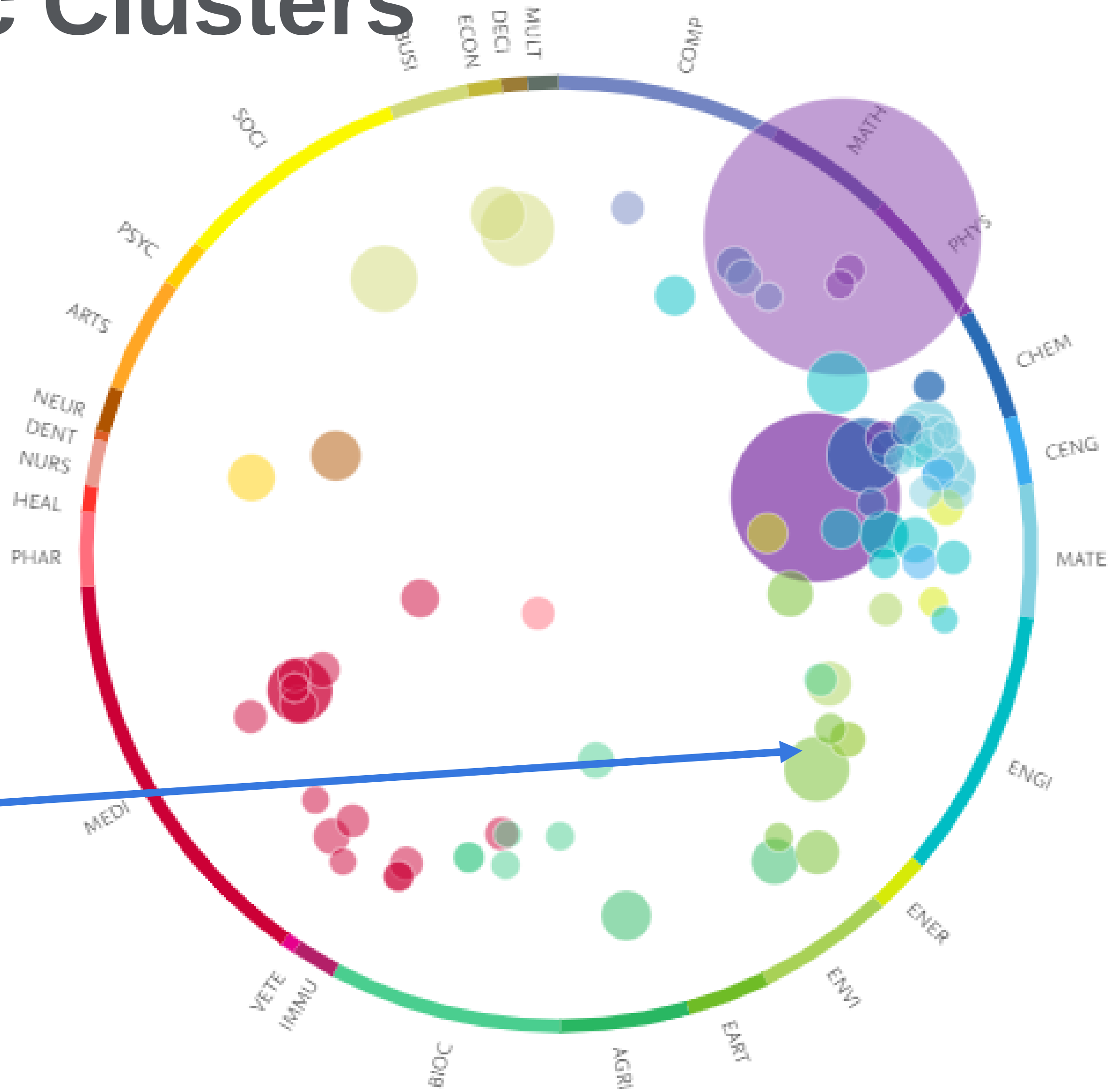
TTU Top 100 Key Research Topics

Introduced in 2019:Topic Clusters

Formed by aggregating **Topics** with similar research interest together to form a broader, higher-level area of research.

Top 5% Topic Clusters





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Topics in Scopus

- For docs from 1996-
- Each document belongs to one Topic
- Books and book chapters also have topics

Environmental Earth Sciences
Volume 71, Issue 6, 2014, Pages 2491-2501

Standardized precipitation evaporation index (SPEI)-based drought assessment in semi-arid south Texas (Article)

Hernandez, E.A. , Uddameri, V.

Save all to author list

Department of Civil and Environmental Engineering, Texas Tech University, Box 41023, Lubbock, TX, 79409-1023, United States

Abstract

View references (29)

The coastal semi-arid region of south Texas is known for its erratic climate that fluctuates between long periods of drought and extremely wet hurricane-induced storms. The standard precipitation index (SPI) and the standard precipitation evaporation index (SPEI) were used in this study in conjunction with precipitation and temperature projections from two general circulation models (GCMs), namely, the National Center for Atmospheric Research (NCAR) Parallel Climate Model (PCM) and the UK Meteorological Office Hadley Centre model (HCM) for two emission scenarios-A1B (~720 ppm CO_2 stabilization) and B1 (~550 ppm CO_2 stabilization) at six major urban centers of south Texas spanning five climatic zones. Both the models predict a progressively increasing aridity of the region throughout the twenty-first century. The SPI exhibits greater variability in the available moisture during the first half of the twenty-first century while the SPEI depicts a downward trend caused by increasing temperature. However, droughts during the latter half of the twenty-first century are due to both increasing temperature and decreasing precipitation. These results suggest that droughts during the first half of the twenty-first century are likely caused by meteorological demands (temperature or potential evapotranspiration (PET) controlled), while those during the latter half are likely to be more critical as they curtail moisture supply to the region over large periods of time (precipitation and PET controlled). The drought effects are more pronounced for the A1B scenario than the B1 scenario and while spatial patterns are not always consistent, the effects are generally felt more strongly in the hinterlands than in coastal areas. The projected increased warming of the region, along with potential decreases in precipitation, points toward increased reliance on groundwater resources which are noted to be a buffer against droughts. However, there is a need for human adaptation to climate change, a greater commitment to groundwater conservation and development of large-scale regional aquifer storage and recovery (ASR) facilities that are capable of long-term storage in order to sustain groundwater availability. Groundwater resource managers and planners must confront the possibility of an increased potential for prolonged (multi-year) droughts and develop innovative strategies that effectively integrate water augmentation technologies and conservation-oriented policies to ensure the sustainability of aquifer resources well into the next century. © 2013 Springer-Verlag Berlin Heidelberg.

SciVal Topic Prominence

Topic: Drought | Stream flow | Evapotranspiration index

Prominence percentile: 99.361

Identify institutional research strengths

Topics & Topic Clusters

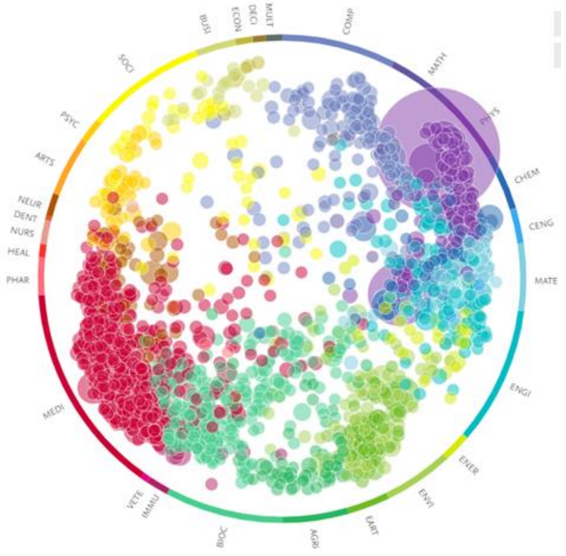
+ Add to Reporting   Export

Between 2014 to 2018, researchers at Texas Tech University have contributed to:

- 1,096 Topic Clusters | Learn about Topics and Topic Clusters
- 4,592 Topics
  - only show the 673 Key Topics for this Institution

Table | Wheel   Top 5% of worldwide Topics by Prominence   Filter by keyphrase(s)

Topic	At this Institution: Scholarly Output	At this Institution: Publication Share	At this Institution: Field-Weighted Citation Impact	Worldwide: Prominence percentile
Ignition; Aluminum; Aluminum nanoparticles T.8825	47	6.28% ▼	0.85	97.334
Supersymmetry; Collisions; Squark pair T.23456	45	12.53% ▲	3.89	95.678
Polysaccharides; Glycosylation; Glycosylation sites T.1551	39	3.26% ▼	1.86	99.374
Gravitational waves; Neutron stars; Electromagnetic counterparts T.8569	33	2.87% ▲	28.88	99.896
Gravitational waves; LIGO (observatory); Stochastic gravitational-wave	28	10.49% ▲	4.77	96.749



Compare institutions’ research strengths

Top 100 Topics in this Institution group, by Scholarly Output

View the Scholarly Output by Institution group member, by Topic 0 1,208

Show navigator

Topic	Scholarly Output	Prominence Percentile	Texas State University	Texas Tech University	University of Houston	University of North Texas	of Texas at Arlington	University of Texas at Austin	University of Texas at Dallas	University of Texas at El Paso
Galaxies; Stars; Planets TC.1	2,387	99.264	4	284	10	27	49	1,208	44	5
Decay; Quarks; Neutrinos TC.6	2,281	98.394	0	496	443	0	607	876	661	16
Reservoirs (Water); Oil Well Flooding; Hydraulic TC.164	2,112	84.070	0	188	199	1	3	958	2	0
Graphene; Carbon Nanotubes; Nanotubes TC.22	1,913	99.866	18	69	105	97	46	508	290	65
T-Lymphocytes; Neoplasms; Immunotherapy TC.12	1,736	99.665	0	7	17	31	2	197	31	8
Secondary Batteries; Electric	1,593	100.000	23	43	121	47	69	627	111	14

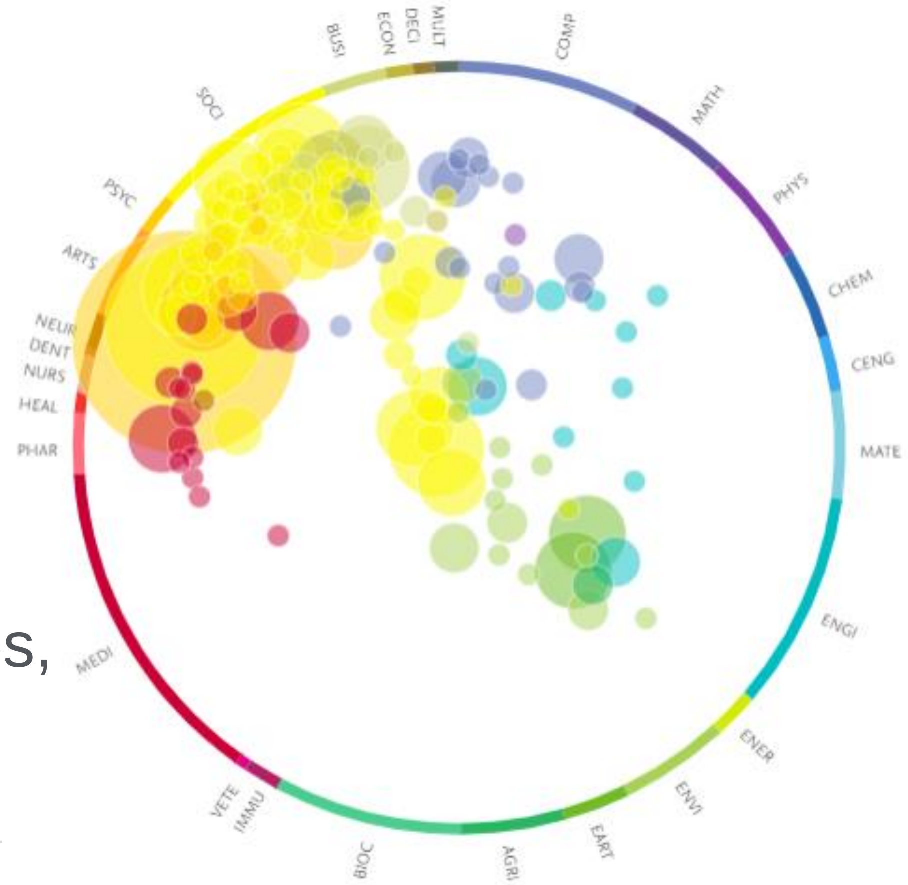
What about Social Sciences & Humanities?

- Topics in SSH are just as valid as topics in STEM – this visualization shows TTUs key SS topics

- SSH topics are typically smaller and less prominent than STEM topics

- This is OK! Prominence ≠ Importance

- Comparisons of topics are best made within fields (e.g., Natural Sciences, Medical Sciences, SSH), rather than between fields



With Topic Prominence we can …

…Help Researchers

- **Identify topics with high momentum** and most likely **high funding success rates.**
- **Showcase** that they are active in topics with high momentum.
- **Find the best potential co-authors** in those topics.
- **Identify emerging & related topics** with high momentum they should be aware of.

…Help Research managers

- Identify pockets of **well funded research** in the **research portfolio**.
- Find the **top performers** and **rising stars** in those areas for recruitment, tenure and collaboration.
- **Showcase** that they or their institution is active in topics with high momentum
- **Identify which topics other researchers and universities** are active in that have high momentum.

Questions?

Author profiles in Scopus – feed into SciVal

30 Documents | Cited by 161 documents | 16 co-authors | Topics

SciVal Topics this author has contributed to between 2014 to 2020

Topic	Author documents	Worldwide documents	Topic FWCI	Worldwide prominence percentile
[Drought | Stream flow | Evapotranspiration index] Documents by this author	2	2116	1.38	99.361
[Groundwater resources | Irrigation | Groundwater remediation] Documents by this author	2	469	0.78	89.083
[Coastal aquifer | Salt water intrusion | Coastal aquifers] Documents by this author	2	614	0.87	94.360
[Decision making | Fuzzy sets | Linguistic term] Documents by this author	1	3978	2.90	99.901
[GRACE | Geodetic satellites | Storage TWS]	1	1117	1.38	98.011

Profile actions

- Edit author profile
- Connect to ORCID
- Alerts
  - Set citation alert
  - Set document alert
- Save to author list
- Export profile to SciVal

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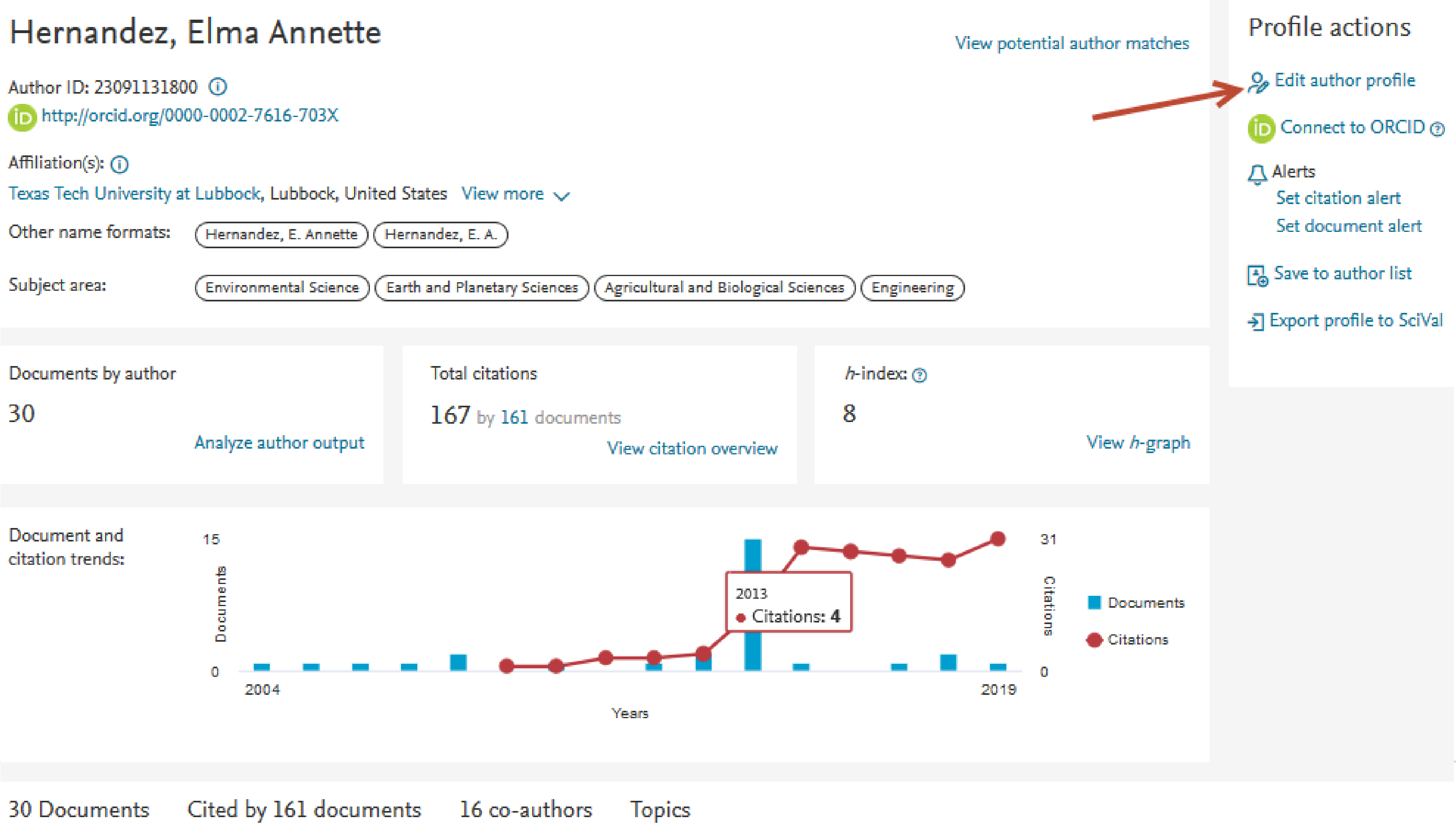
View in search results format › View 1007 references ›

Sort on: Date (newest)

Author profiles in Scopus – author or informed user can edit profile



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Journals in SciVal – metrics and research areas

List of Scopus Sources

Year range: 2014 to 2018 · CiteScore Percentile by top 6-10% of absolute share

Export

View the Scholarly Output of the selected entities, by Scopus Source:

Low High

Scopus Source	CiteScore 2018	Texas Tech University
ACS Catalysis	12.34	1
Manufacturing Letters	10.70	1
Cold Spring Harbor perspectives in biology	10.58	1
IEEE Transactions on Sustainable Energy	10.32	1
ACS applied materials & interfaces	8.69	7

Show next 100 Scopus Sources

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Scopus & SciVal: better together

https://insomniacookies.com

How are Scopus and SciVal complementary?

Scopus

Primary use cases

Search for and **analyze** publication and citation activity for specific research topics, authors, institutions, countries and journals

For whom?

Primarily researchers, but also research managers

SciVal

Primary use cases

Compare and **benchmark** research areas, groups of authors, institutions, countries and journals

For whom?

Primarily research managers, but also researchers

Why both?

- The use cases are complementary to each other; Scopus looks at “how much output” while SciVal focuses on “how well that output compares” (data vs.context)
- Identical data source: all users within institutions work with exactly the same data.

Five key research activities are jointly supported by Scopus and SciVal

- Searching for and evaluating **topics and documents**
- Searching for and evaluating **authors**
- Searching for and evaluating **journals**
- Searching for and evaluating **institutions**
- Searching for and evaluating **countries**

Scopus and SciVal:
Global University Rankings

THE WORLD UNIVERSITY RANKINGS

PROFESSIONAL JOBS EVENTS RANKINGS STUDENT ABOUT US

World University Rankings 2020

The *Times Higher Education* World University Rankings 2020 includes almost 1,400 universities across 92 countries, standing as the largest and most diverse university rankings ever to date.

The table is based on 13 carefully calibrated performance indicators that measure an institution's performance across teaching, research, knowledge transfer and international outlook.

Read more ...

IN PARTNERSHIP WITH ELSEVIER

2020

How to get your uni ranked

THE WORLD UNIVERSITY RANKINGS

Methodology

Teaching (the learning environment) **30%**
- Reputation survey 15%
- Staff-to-student ratio 4.5%
- Doctorate-to-bachelor's ratio 2.25%
- Doctorates awarded-to-academic staff ratio 6%
- Institutional income 2.25%

Research (volume, income and reputation) **30%**
- Reputation survey 18%
- Research income 6%
- Research productivity 6%

Citations (research influence) **30%**

International outlook (staff, students, research) **7.5%**
- International-to-domestic-student ratio 2.5%
- International-to-domestic-staff ratio 2.5%
- International collaboration 2.5%

Industry income (knowledge transfer) **2.5%**

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THE Methodology

Affiliations: Primarily SciVal institutions

Support:

- **Customized bibliometric data from Scopus**: Citations (**30% of score**), research productivity (**6%**) & international collaboration (**2.5%**)
- **Reputation data**: Elsevier runs the reputation survey (**15% of score**) using Elsevier author list for THE
- **Affiliation handling**: Affiliation corrections, mergers, splits, etc. handled with THE for the respective universities

Source: THE

Publications in SciVal, 2014-2018....however, not all pub types are eligible...

Publications at the University of California at Irvine

Year range: 2014 to 2018

Export

University of California at Irvine

Harvard University	1,619
University of California at Los Angeles	1,557
Stanford University	1,262
University of Washington	1,258

Show more

- Countries & regions
- Scopus Sources
- Subject Areas
- Publication years
- Publication types

All publication types	
Article	17,637
Conference Paper	2,812
Review	1,721
Chapter	1,151
Editorial	520
Note	430
Letter	321
Article in Press	160
Book	153
Erratum	115
Short Survey	83
Data Paper	3

Show less

25,106 publications | Save as Publication Set

Title	Authors	Year	Scopus Source	Citations
Diverse Applications of Nanomedicine View abstract View in Scopus	Pelaz, B., Alexiou, C., Alvarez-Puebla, R.A. and 83 more	2017	ACS Nano	254
Baryon acoustic oscillations in the Lyα forest of BOSS DR11 quasars? View abstract View in Scopus	Delubac, T., Bautista, J.E., Busca, N.G. and 35 more	2015	Astronomy and Astrophysics	253
The global methane budget 2000-2012 View abstract View in Scopus	Saunois, M., Bousquet, P., Poulter, B. and 78 more	2016	Earth System Science Data	250
A pilot trial using lymphocytes genetically engineered with an NY-ESO-1-reactive T-cell receptor: Long-term follow-up and correlates with response View abstract View in Scopus	Robbins, P.F., Kassim, S.H., Tran, T.L.N. and 15 more	2015	Clinical Cancer Research	248
Genome-wide association analysis of more than 120,000 individuals identifies 15 new susceptibility loci for breast cancer View abstract View in Scopus	Michailidou, K., Beesley, J., Lindstrom, S. and 240 more	2015	Nature Genetics	247
Evolutionary algorithms and other metaheuristics in water resources: Current status, research challenges and future directions View abstract View in Scopus	Maier, H.R., Kapelan, Z., Kasprzyk, J. and 19 more	2014	Environmental Modelling and Software	245
Cosmological implications of baryon acoustic oscillation measurements View abstract View in Scopus	Aubourg, É., Bailey, S., Bautista, J.E. and 92 more	2015	Physical Review D - Particles, Fields, Gravitation and Cosmology	242
Epidemiological studies of CHD and the evolution of preventive cardiology View abstract View in Scopus	Wong, N.D.	2014	Nature Reviews Cardiology	239

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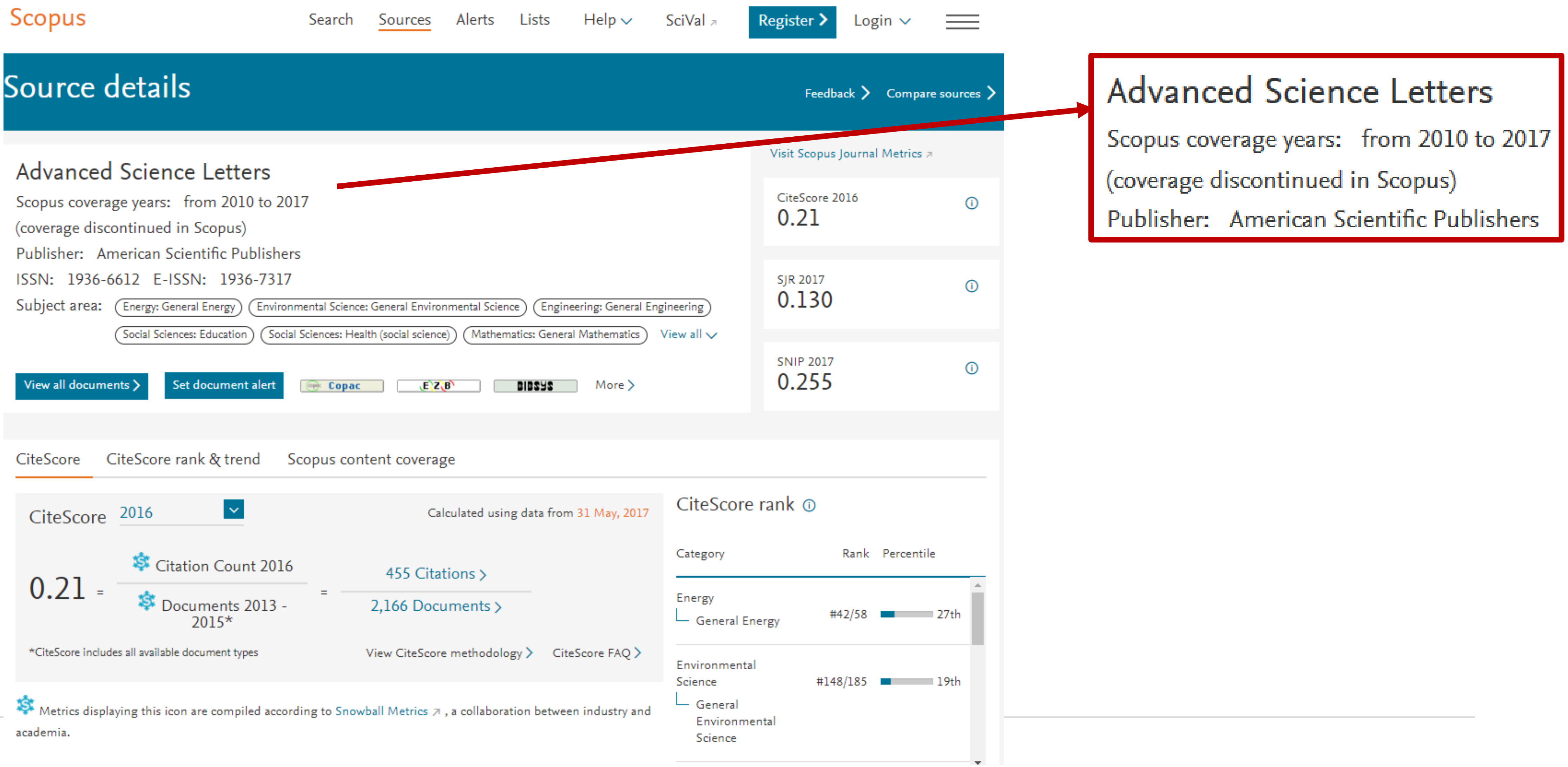
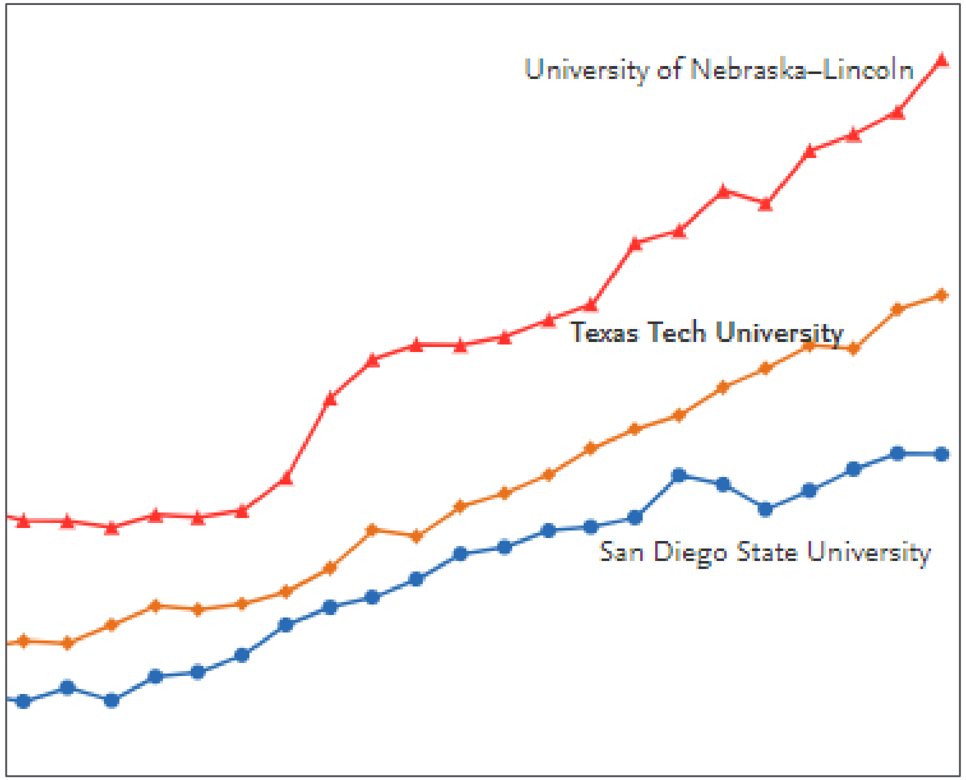
Discontinued titles in Scopus - example



Scopus re-evaluated 777 titles from 2016-2018; **447 were discontinued – 58%**

Steps to raise THE ranking

- Manage your research reputation
  - Researchers
  - Institution
- Strengthen your research influence via citations
- Collaborate with impactful partners



Scopus Author profiles

Holmar

Author ID: 70(

Affiliation(s): (

University of (

Other name fo

Subject area:

Documents by

46

Document an

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- Make sure your work is accurately showcased
- Ensure your h-index reflects your accomplishments
- Find out who's citing your work
- Be discoverable to mentors and collaborators

Featuring the largest collection of author profiles, Scopus is trusted by 4,500 universities and 150 research organizations. Its data powers the decisions of global rankings organizations and academic research leaders around the world.

46 Documents | Cited by 1386 documents | 41 co-authors | Topics

Scopus Institutional Profiles

Texas Tech University at Lubbock

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Modify institution profile | Set feed

Documents, whole institution
50,333

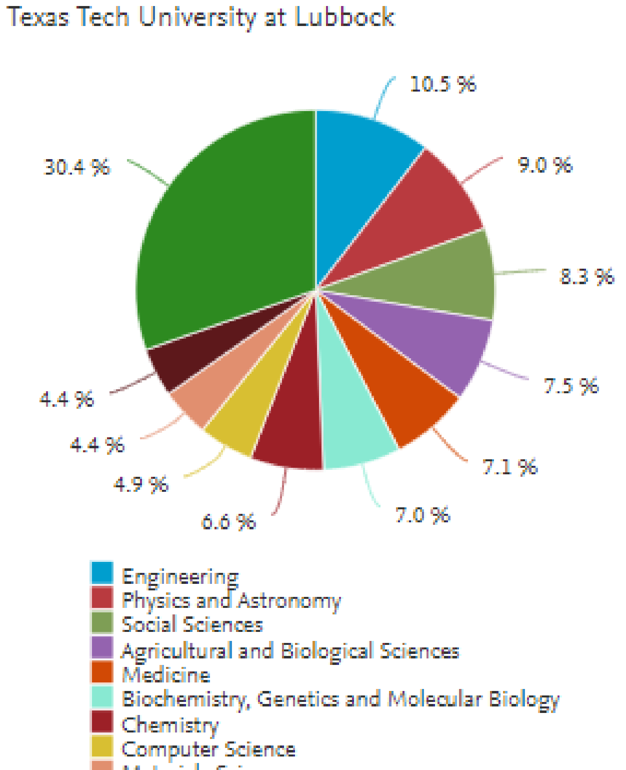
Documents, affiliation only
39,141

Authors
11,052

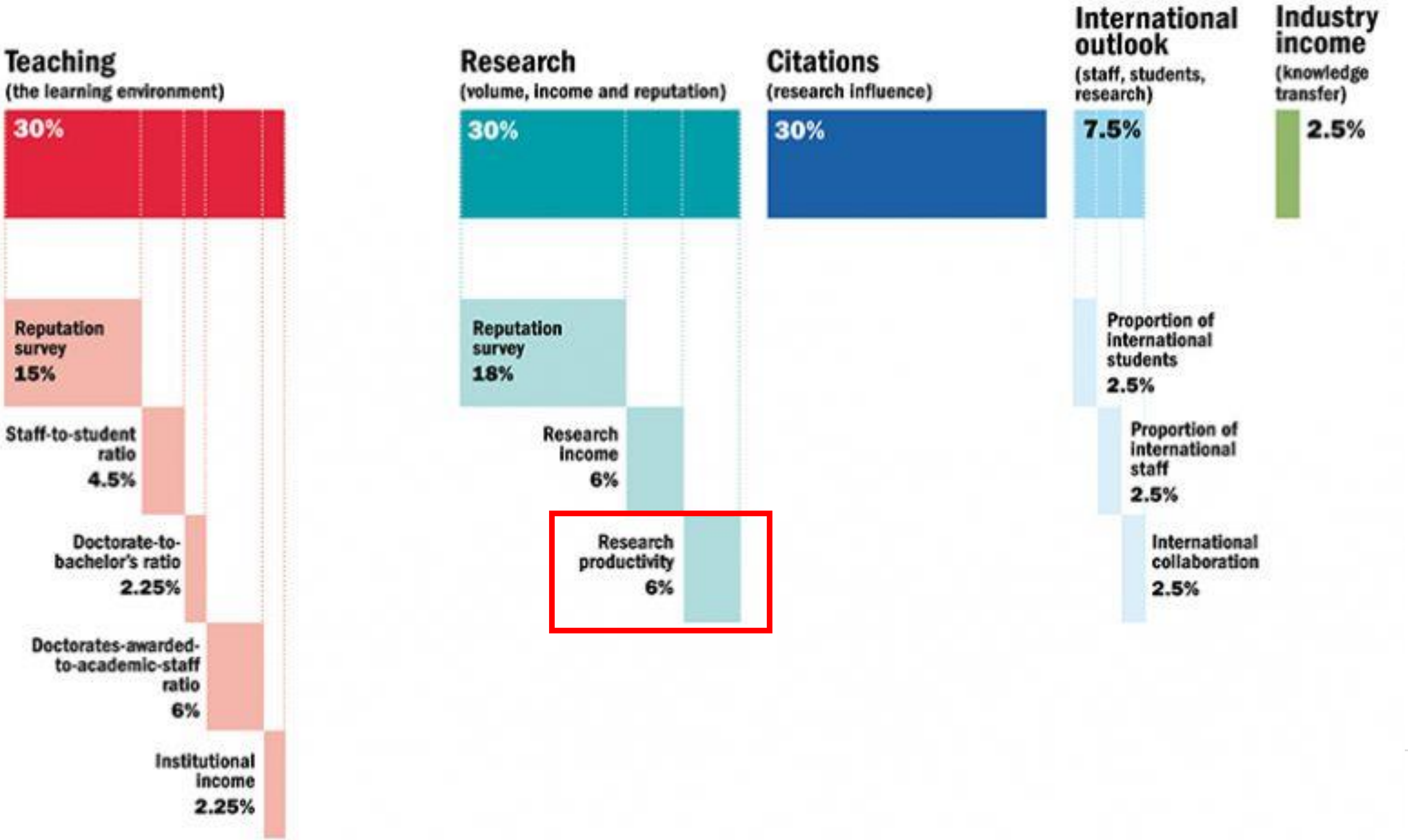
Documents by subject area | Collaborating affiliations | Documents by source

Sort by: Document count (high-low)

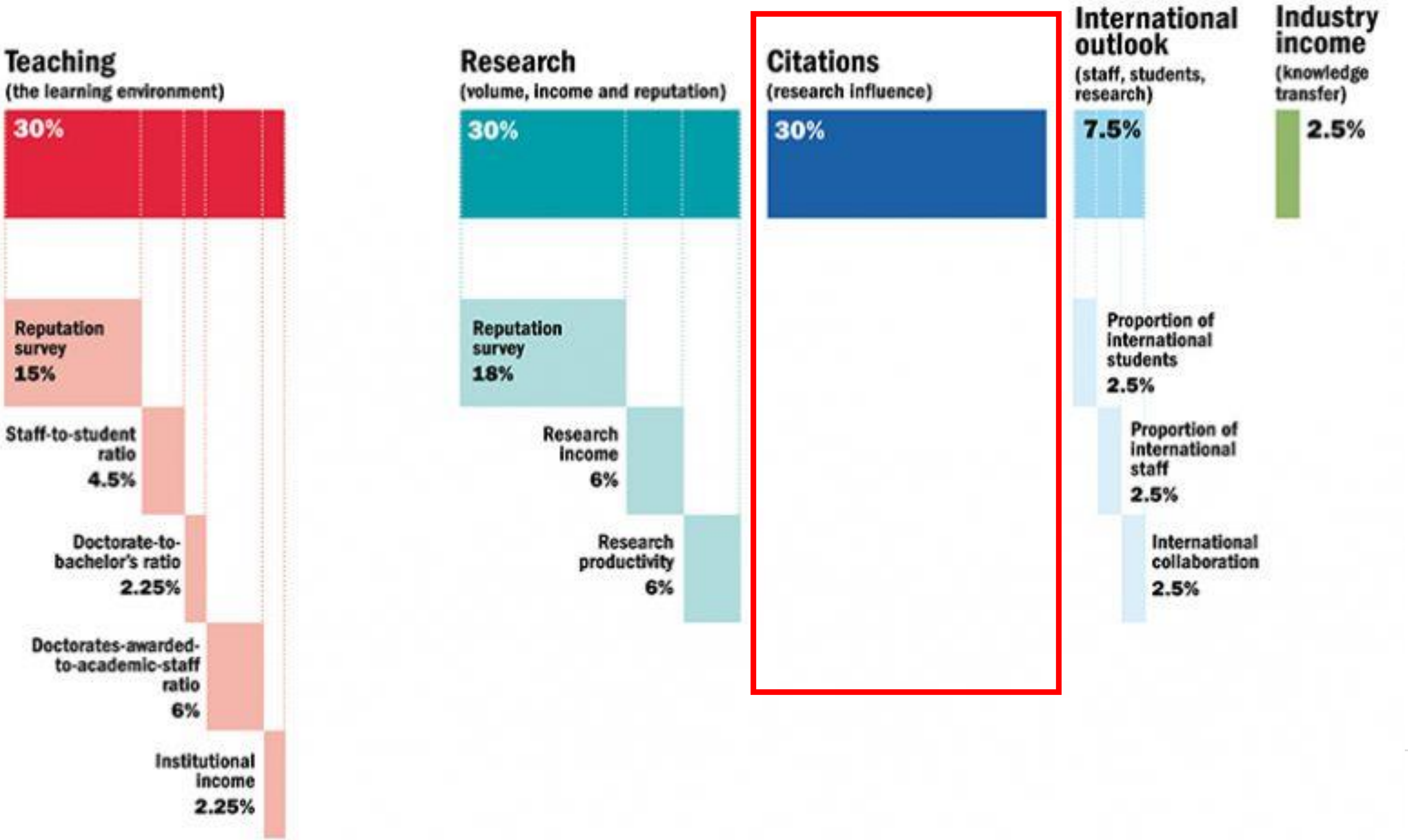
Engineering	6964	Arts and Humanities	1754
Physics and Astronomy	5947	Chemical Engineering	1490
Social Sciences	5485	Energy	1429
Agricultural and Biological Sciences	4987	Economics, Econometrics and Finance	1183
Medicine	4728	Pharmacology, Toxicology and Pharmaceutics	974
Biochemistry, Genetics and Molecular Biology	4631	Decision Sciences	702
Chemistry	4392	Immunology and Microbiology	655
Computer Science	3272	Neuroscience	651
Materials Science	2920	Nursing	570
Environmental Science	2912	Health Professions	445
Psychology	2824	Multidisciplinary	305
Mathematics	2669	Veterinary	255
Business, Management and Accounting	2337	Undefined	69



All publications properly attributed



2. Strengthen Research Influence: Citations



What is an influential publication?

< Back to results | < Previous 14 of 21,260 Next >

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Journal of Environmental Management
Volume 92, Issue 3, March 2011, Pages 331-362

Urban ecological systems: Scientific foundations and a decade of progress (Review)

Pickett, S.T.A.[a], Cadenasso, M.L.[b], Grove, J.M.[c], Boone, C.G.[d], Groffman, P.M.[a], Irwin, E.[e], Kaushal, S.S.[f], Marshall, V.[g], McGrath, B.P.[h], Nilon, C.H.[i], Pouyat, R.V.[j], Szlavecz, K.[k], Troy, A.[l], Warren, P.[m]

[a]Cary Institute of Ecosystem Studies, Box AB, Millbrook, NY 12545, United States
[b]Department of Plant Sciences, University of California, Davis, CA 95616, United States
[c]USDA Forest Service, Northern Research Station, Burlington, VT, United States

View additional affiliations

Abstract

View references (410)

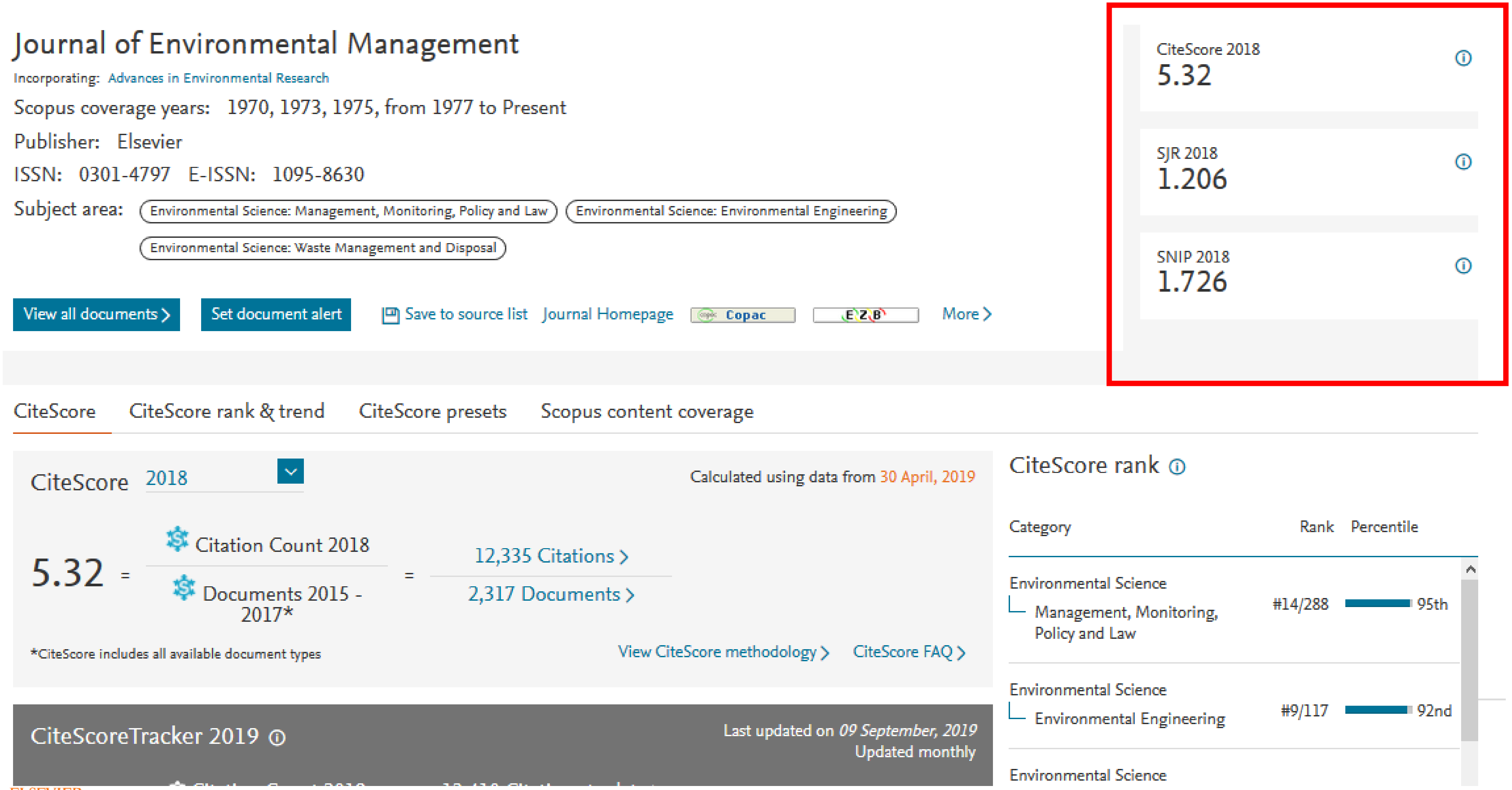
Urban ecological studies, including focus on cities, suburbs, and exurbs, while having deep roots in the early to mid 20th century, have burgeoned in the last several decades. We use the state factor approach to highlight the role of important aspects of climate, substrate, organisms, relief, and time in differentiating urban from non-urban areas, and for determining heterogeneity within spatially extensive metropolitan areas. In addition to reviewing key findings relevant to each state factor, we note the emergence of tentative " urban syndromes" concerning soils, streams, wildlife and plants, and homogenization of certain ecosystem functions, such as soil organic carbon dynamics. We note the utility of the ecosystem approach, the human ecosystem framework, and watersheds as integrative tools to tie information about multiple state factors together. The organismal component of urban complexes includes the social organization of the human population, and we review key modes by which human populations within urban areas are differentiated, and how such differentiation affects environmentally relevant actions. Emerging syntheses in land change science and ecological urban design are also summarized. The multifaceted frameworks and the growing urban knowledge base do however identify some pressing research needs.

Cited by 440 documents

Investigating urban heat island through spatial analysis of New York City streetscapes
Shaker, R.R. , Altman, Y. , Deng, C.
(2019) Journal of Cleaner Production

Envisioning present and future land-use change under varying ecological regimes and their influence on landscape stability
Prokopová, M. , Salvati, L. , Egidi, G.
(2019) Sustainability (Switzerland)

Scholarly documents: Publish in more highly ranked journals



CiteScore – free, open, transparent journal metrics

Journal of Environmental Management

Incorporating: Advances in Environmental Research

Scopus coverage years: 1970, 1973, 1975, from 1977 to Present

Publisher: Elsevier

ISSN: 0301-4797 E-ISSN: 1095-8630

Subject area: Environmental Science: Management, Monitoring, Policy and Law | Environmental Science: Environmental Engineering | Environmental Science: Waste Management and Disposal

View all documents > | Set document alert | Save to source list | Journal Homepage | Copac | EZB

More >

CiteScore 2018
5.32

SJR 2018
1.206

SNIP 2018
1.726

CiteScore | CiteScore rank & trend | CiteScore presets | Scopus content coverage

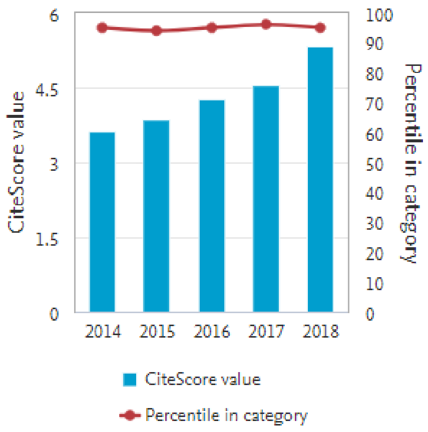
Export content for categ

CiteScore rank 2018 In category: Management, Monitoring, Pol...

#14 / 288	Journal of Environmental Management	5.32	95th percentile

Rank	Source title	CiteScore 2018	Percentile
#1	Global Environmental Change	10.29	99th percentile
#2	Applied Energy	9.54	99th percentile
#3	Business Strategy and the Environment	7.93	99th percentile
#4	Fish and Fisheries	7.63	98th percentile
#5	Corporate Social Responsibility and Environmental Management	7.18	98th percentile
#6	Ecosystem Services	6.44	98th percentile
#7	Landscape and Urban Planning	6.43	97th percentile
#8	Biotechnology for Biofuels	5.84	97th percentile
#9	Weather and Climate Extremes	5.67	97th percentile

CiteScore trend



Citescore methodology

CiteScoreTracker 2019 uses the same methodology with citations based on the latest 2019 data.

Discover more highly ranked journals within same category

Quality of scholarly outputs

- Top performance indicators

Performance indicators

Outputs in Top Citation Percentiles

+ Add to Reporting

Publications in top 10% most cited worldwide

University of California at Irvine:

23.2%

United States:

15.9%

Publications in Top Journal Percentiles

+ Add to Reporting

Publications in top 10% journals by CiteScore Percentile

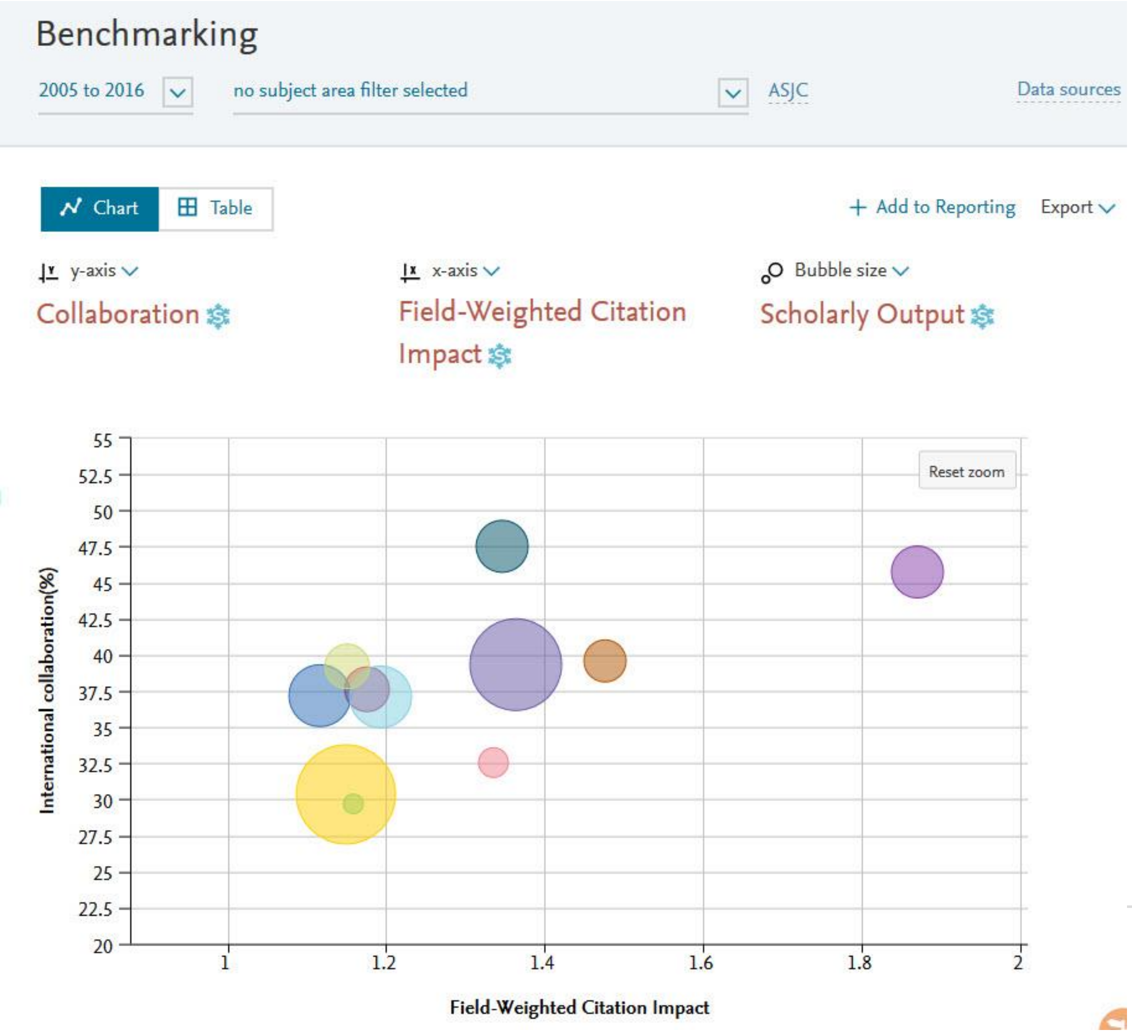
University of California at Irvine:

45.9%

United States:

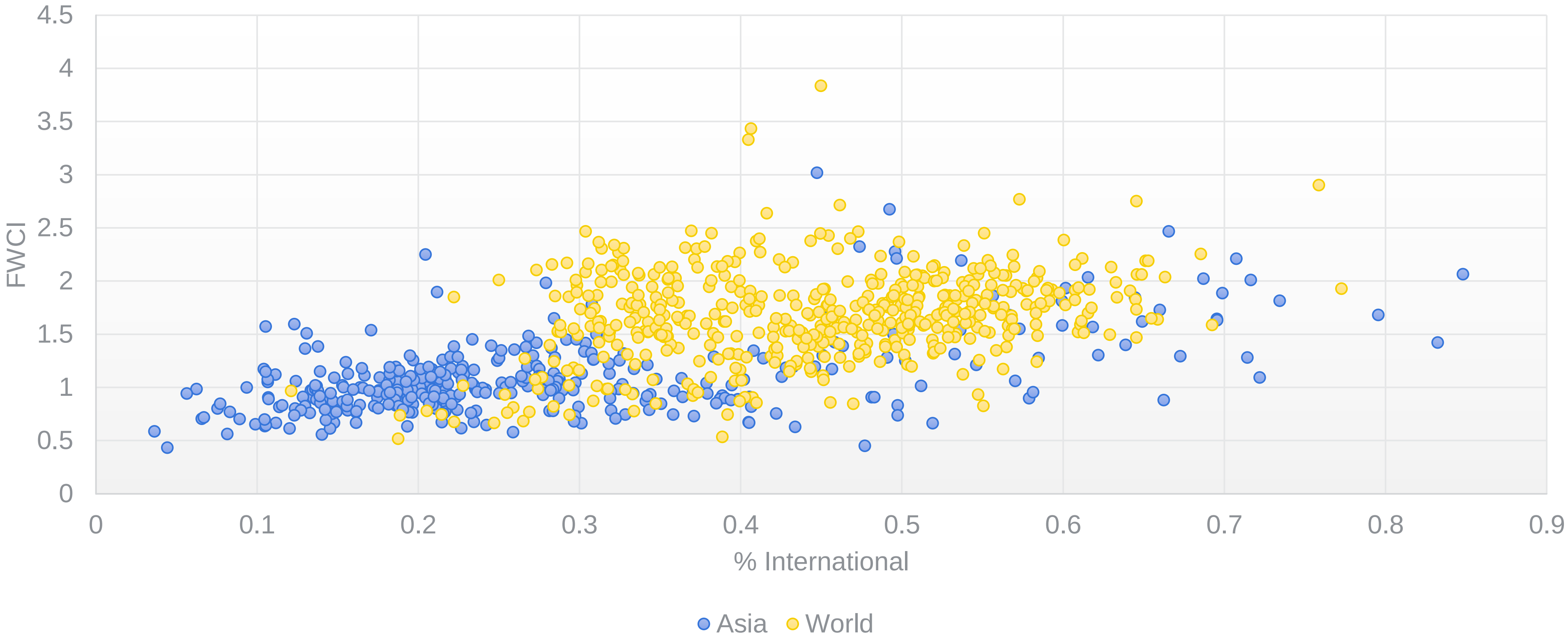
36.6%

3. Engage in impactful collaborations



- International collaboration is growing globally
- **International collaboration is strongly correlated to citation impact**
- Citation impact is one of the performance indicators used in the academic rankings
- Proxies for quality such as FWCI can be useful to spot strengths and weaknesses

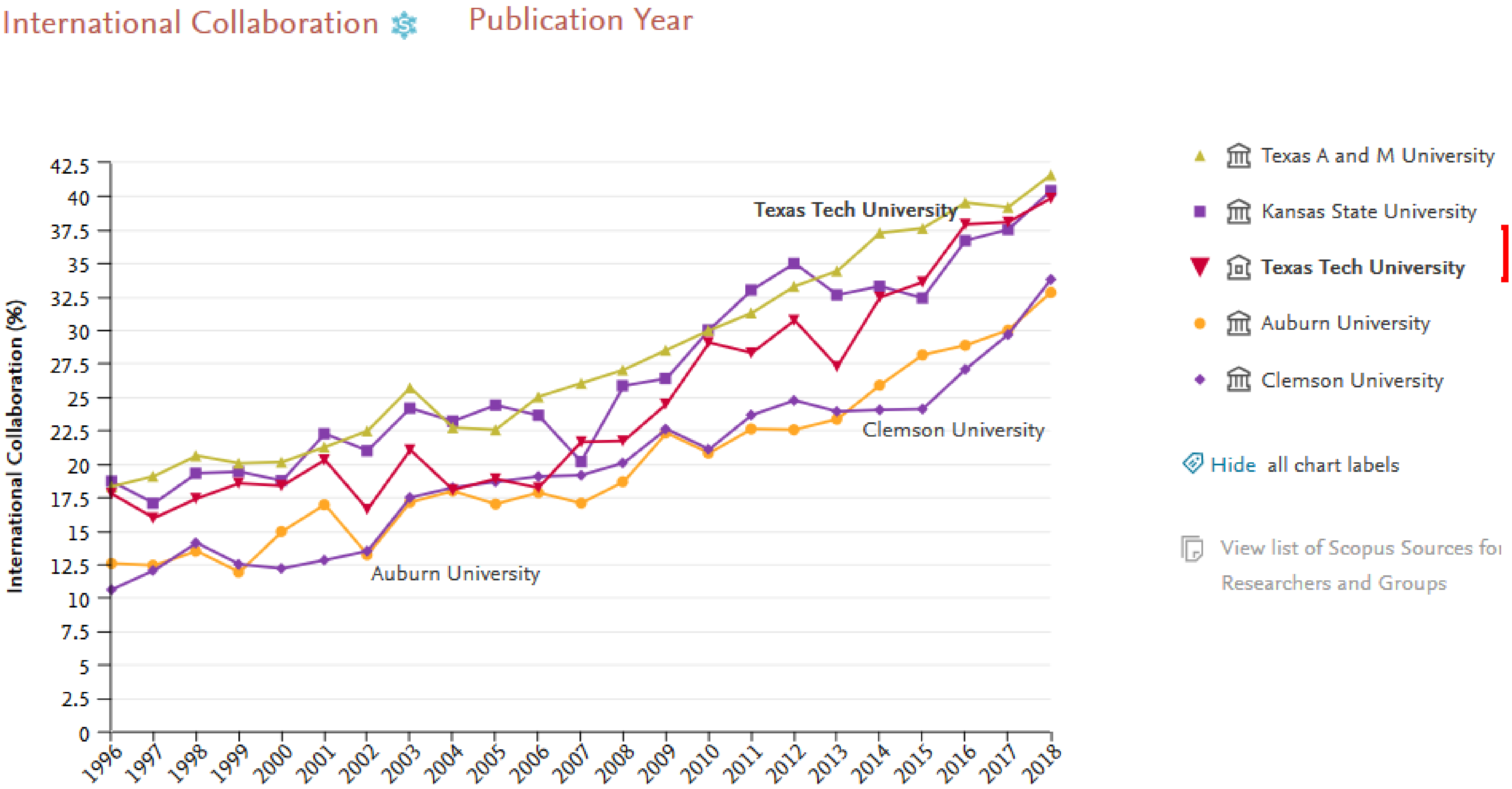
How does international collaboration affect institutional FWCI on a global scale?



* FWCI for the top 100 Asian institutions by output from each region vs the top 500 international institutions by output

Source: Scopus.com, May 1, 2018

International collaboration in SciVal

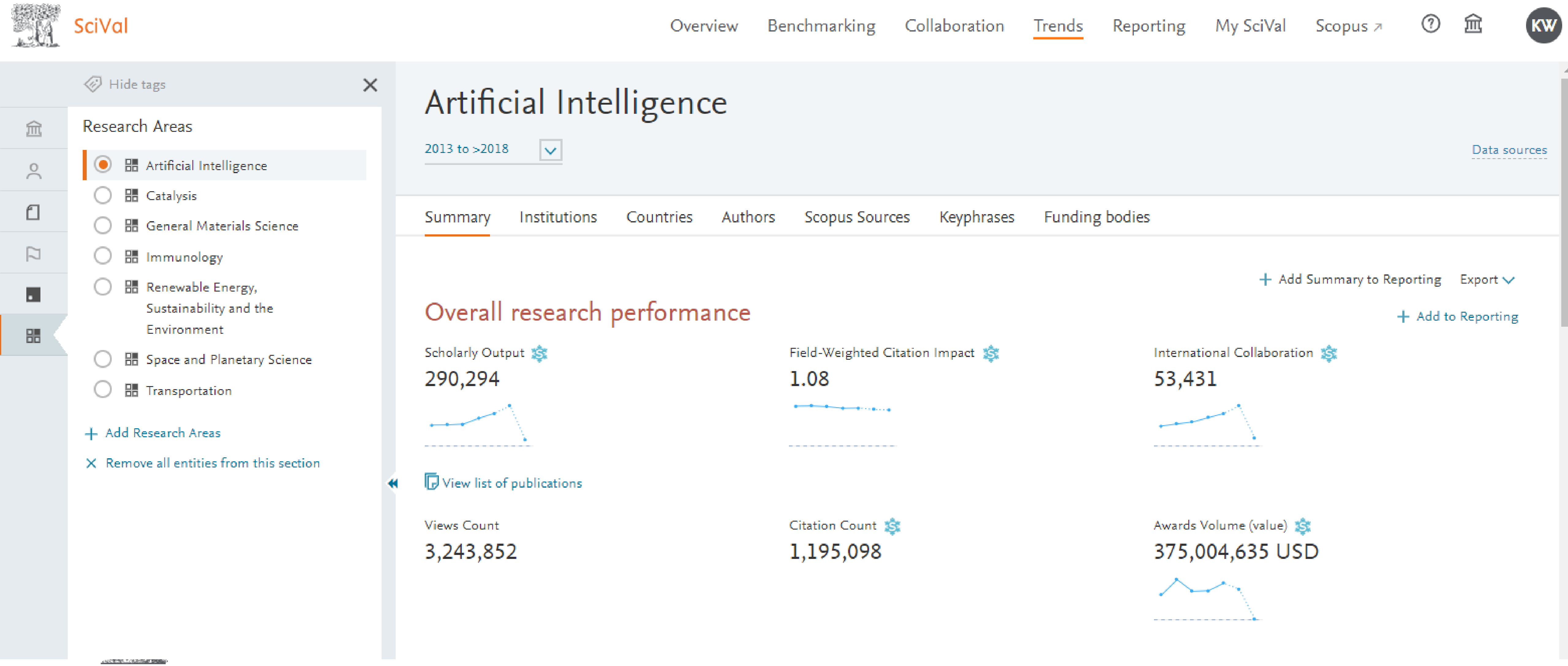


SciVal for Competitive Intelligence

SciVal Use Case - Competitiveness

- Using SciVal Trends to see where your university ranks in a particular topic.
- Where does our institution rank in *artificial intelligence?*
- Used SciVal to look at publications in the field from 2013-2018.
  - Limit to US academic institutions to narrow to our closest competitors for funding resources
- Cross-compare with awards (in this case, HERD rankings) for a complete picture

Exploring Competitiveness



Exploring Competitiveness

Artificial Intelligence

2013 to >2018

Summary | Institutions | Countries | Authors | Scopus Sources | Keyphrases | Funding bodies

Top Institutions

North America | United States | Academic | reset filter

Table | Map | Chart

Top 100 Institutions in this Research Area, by Scholarly Output

View on Chart

	Institution	Scholarly Output	Citation Count
1.	Carnegie Mellon University	1,822	16,230
2.	Massachusetts Institute of Technology	1,448	20,582
3.	Georgia Institute of Technology	1,086	6,679
4.	University of Southern California	909	6,966
5.	Stanford University	792	12,930
6.	University of California at Berkeley	751	11,159
7.	University of Illinois at Urbana-Champaign	687	7,915
8.	Harvard University	667	6,601
9.	University of Michigan, Ann Arbor	610	8,662
10.	**Arizona State University**	593	4,663

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Exploring Competitiveness

SciVal

Overview | Benchmarking | Collaboration | Trends | Reporting | My SciVal | Scopus

Artificial Intelligence

2013 to >2018

Data sources

Summary | Institutions | Countries | Authors | Scopus Sources | Keyphrases | Funding bodies

Top Institutions

North America | United States | Academic | reset filter

Map | Table | Chart

Add to Reporting | Export

Top 100 Institutions in this Research Area, by Scholarly Output

View on Chart

	Institution	Scholarly Output	Citation Count	Field-Weight...	Views Count
1.	Carnegie Mellon University	1,800	15,684	2.34	21,614
2.	Massachusetts Institute of Technology	1,427	19,868	2.96	21,151
3.	Georgia Institute of Technology	1,072	6,464	1.73	13,963
4.	University of Southern California	897	6,747	2.08	10,684
5.	Stanford University	781	12,433	3.41	10,319
6.	University of California at Berkeley	743	10,784	3.34	9,974
7.	University of Illinois at Urbana-Champaign	681	7,695	2.29	9,297
8.	Harvard University	655	6,423	2.41	10,225
9.	University of Michigan, Ann Arbor	600	8,350	2.63	8,358
10.	**Arizona State University**	586	4,492	2.08	9,130

Exploring Competitiveness

Academic Rankings for top universities in AI are based on publication metrics from SciVal for the Artificial Intelligence category. The universities' Higher Education Research and Development Survey (HERD) rank and expenditures for computer science is also shown

Rank	University	# of Publications 2013-Present	Citation Count	HERD Rank and Expenditures, Computer Science	
1	Carnegie Mellon University	1538	9994	2	$123.5M
2	Massachusetts Institute of Technology	1239	12544	7	$74.5M
3	Georgia Institute of Technology	901	4230	3	$114.7M
4	University of Southern California*	711	4495	5	$87.8M
5	Stanford University	643	6857	15	$25.2M
6	University of California at Berkeley	618	6182	51	$9.9M
7	University of Illinois at Urbana-Champaign	551	5079	4	$94.7M
8	Harvard University	530	4146	48	$11.2M
9	University of Michigan	509	4658	64	$8.1M
10	University of Maryland	470	3550	9	$44.7M
11	**Arizona State University**	**456**	**2889**	**30**	**$17.0M**

*home of the Institute of Creative Technologies, Army-funded research lab for virtual reality, AI, and computer graphics

AN INTERACTIVE REPORT BY **RESEARCH DEVELOPMENT**

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BrightTALK webinar: November 14, 2019, 12pm PST

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Intelligence Gathering in Higher Education

Academic institutions are facing increasing obstacles to fulfilling their mission of teaching, research and civic responsibility. The competition for

research funding and faculty has grown ever more intense and making decisions regarding where to allocate resources ever more critical. Gathering competitive intelligence on your academic peers will help guide decision making by transforming dis-aggregated information into actionable intelligence that can be used to capitalize on your institution's strengths and grow research dollars.

Join to learn how you can use research intelligence tools to support strategic decisions.

Thank you

Linda Galloway, Elsevier Research Intelligence Consultant

Hansa Magee, Arizona State University, Assistant Director, Knowledge Enterprise Analytics

Further reading

For further information regarding the methodology, how Prominence is calculated and assigned etc. please see the following papers:

- **Research Portfolio Analysis and Topic Prominence**
  Richard Klavans and Kevin Boyack

- **Identifying Emerging Topics in Science and Technology**
  Henry Small, Kevin W. Boyack and Richard Klavans

- **Which Type of Citation Analysis Generates the Most Accurate Taxonomy of Scientific and Technical Knowledge?**
  Richard Klavans and Kevin W. Boyack

- **A New Methodology for Constructing a Publication-Level Classification System of Science**
  Ludo Waltman and Nees Jan van Eck