



Gathering Strategic Intelligence for R&D using Altmetric and Dimensions

August 2, 2018

Re-imagining discovery
and access to research:
Grants, publications,
citations, clinical trials
and patents in
one place

Today's Host



Ben McLeish
Director of Engagement & Advocacy
Altmetric & Dimensions

Today's agenda

- Overview of Digital Science
- Dimensions & Altmetric platforms
- Tracking a company's publications and intellectual property
- Analysing their fields of research, top authors, collaborators
- Using Altmetric to track attention to a company's publications within patent literature
- Q&A

Notes:

- We are recording the session. Slides and recording available post webinar
- Connection Issues: Please use the chat box

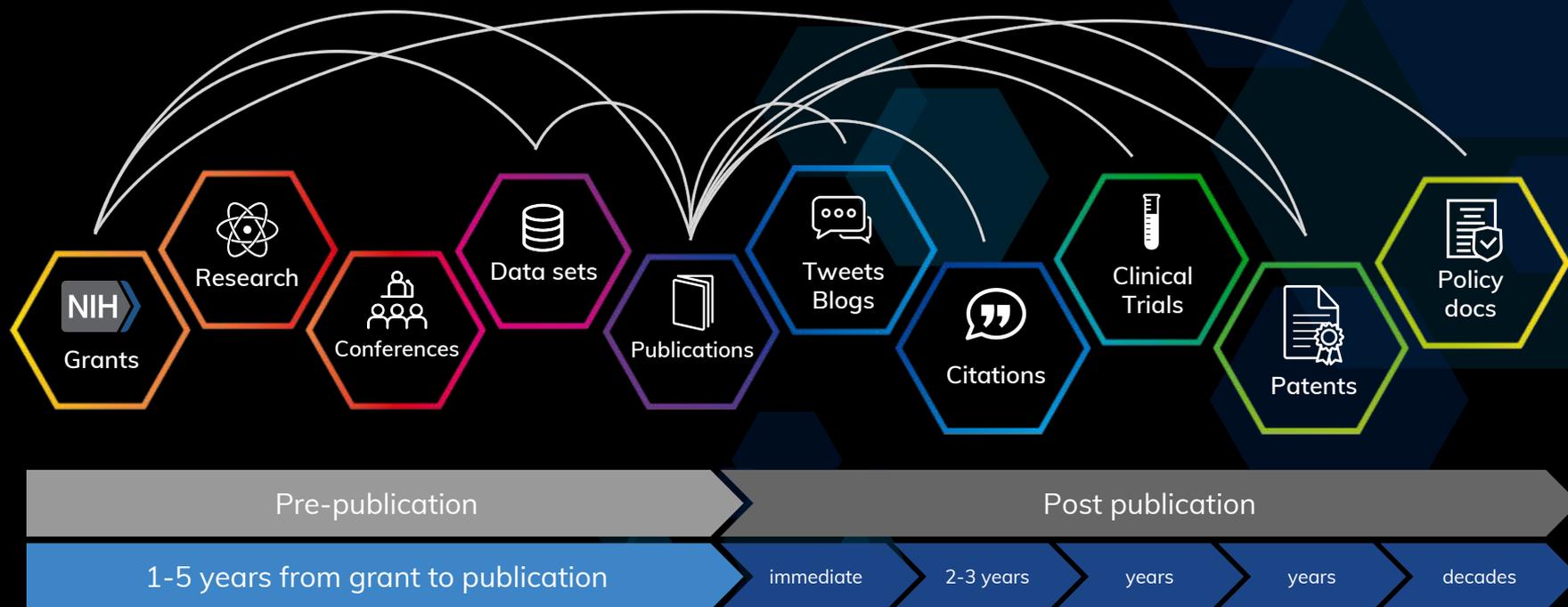
Digital Science – a portfolio of innovative companies

- Investment and support of small innovative software companies
- Rooted in research background and immediate need
- Companies have rich expertise in specific pieces of the research life cycle
- Started in 2009, invested and started 12 companies to date, about 300 colleagues
- Not a monolithic company, rich portfolio structure, nurtured, given freedom and guided by Digital Science

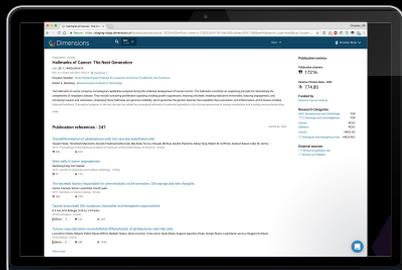


The Dimensions Platform

A full and connected view of research activity

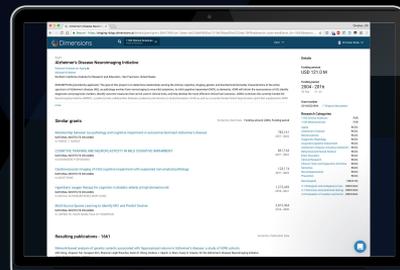


Dimensions links between the different content sources



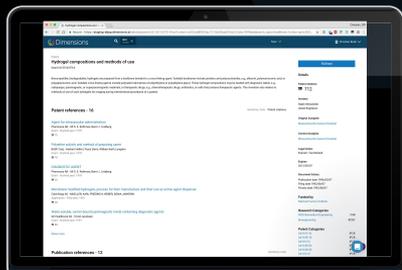
96m Publications

- Publication references
- Publication citations
- Supporting grants
- Patent citations
- Linked clinical trials



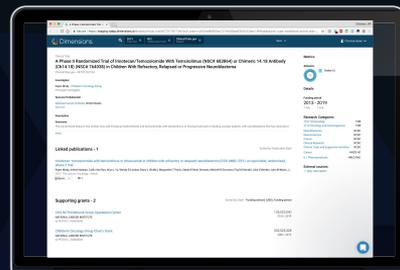
4.1m Grants

- Resulting publications
- Resulting patents
- Resulting clinical trials



36m Patents

- Patent references
- Publication references
- Supporting grants
- Patent citations



423k Clinical trials

- Linked publications
- Supporting grants

All Items have been categorized via AI Technologies

The Altmetric Platform

Tracking attention to research outputs online

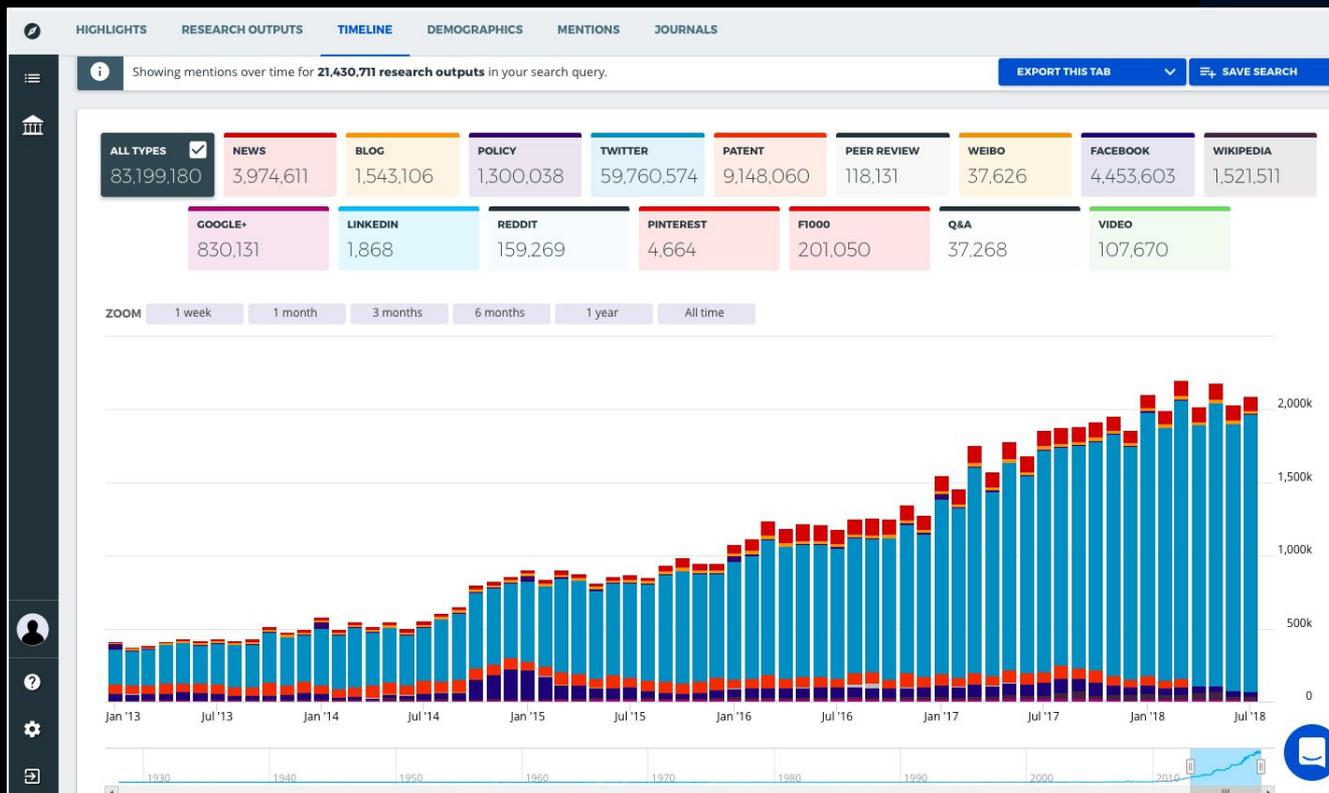
The screenshot displays the Altmetric Research Outputs interface. At the top, there are navigation tabs: HIGHLIGHTS, RESEARCH OUTPUTS (selected), TIMELINE, DEMOGRAPHICS, MENTIONS, and JOURNALS. Below the tabs, a status bar indicates "Showing 21,430,711 research outputs from the results of your search query. Of those, 11,535,988 have been mentioned." To the right of this bar are buttons for "EXPORT THIS TAB" and "SAVE SEARCH".

The main content area is a grid of research outputs, sorted by "Altmetric Attention Score (Highest first)". Each output consists of a circular Altmetric Attention Score icon, the title of the research output, and the journal or news source it was published in, along with the date. The grid shows 12 items in two columns and six rows.

Altmetric Attention Score	Research Output Title	Source	Date
11786	How Diversity Works	Article in <i>Scientific American</i>	September 2014
11485	Republican lawmaker: Rocks tumbling into ocean causing sea level rise	News story in <i>Science (AAAS) News</i>	May 2018
8452	The spread of true and false news online	Article in <i>Science</i>	March 2018
8375	Mortality in Puerto Rico after Hurricane Maria	Article in <i>New England Journal of Medicine</i>	May 2018
8225	United States Health Care Reform: Progress to Date and Next Steps	Article in <i>JAMA: Journal of the American Medical Association</i>	July 2016
7661	The irreversible momentum of clean energy	Article in <i>Science</i>	January 2017
7628	Trump White House quietly cancels NASA research verifying greenhouse gas cuts	News story in <i>Science (AAAS) News</i>	May 2018
7465	Scientific method: Statistical errors	News story in <i>Nature</i>	February 2014
7384	World Scientists' Warning to Humanity: A Second Notice	Article in <i>BioScience</i>	January 2017
6920	Simulations back up theory that Universe is a hologram	News story in <i>Nature</i>	December 2013
6907	Associations of fats and carbohydrate intake with cardiovascular disease and...	Article in <i>The Lancet</i>	August 2017
6907	Experimental evidence of massive-scale emotional contagion through social...	Article in <i>Proceedings of the National Academy of Sciences of the United States of America</i>	June 2014
	When Facts Backfire		
	Sex redefined		

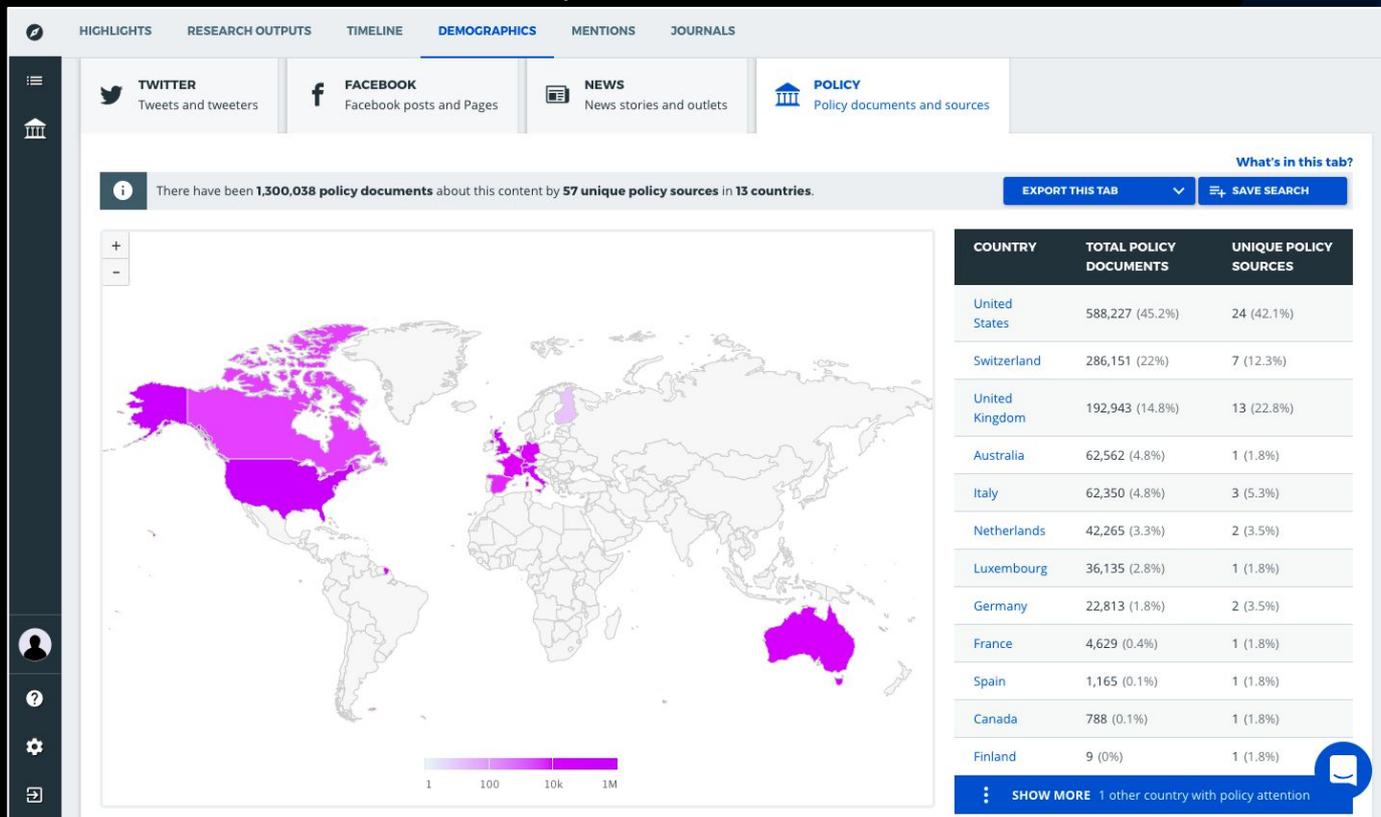
The Altmetric Platform

Tracking attention to research outputs online



The Altmetric Platform

Tracking attention to research outputs online



Case Study: Huawei Technologies

What do they publish, where do they publish?

The screenshot displays the Dimensions research platform interface. The search bar at the top contains the query: "Huawei Technologies (United Kingdom) OR Huawei Technologies (Canada) OR Huawei Technologies (Sweden) OR Huawei Technologies (China) OR Huawei Technologies (Germany) OR Huawei Technologies (France) OR 华为技术有限公司". The interface is divided into several sections:

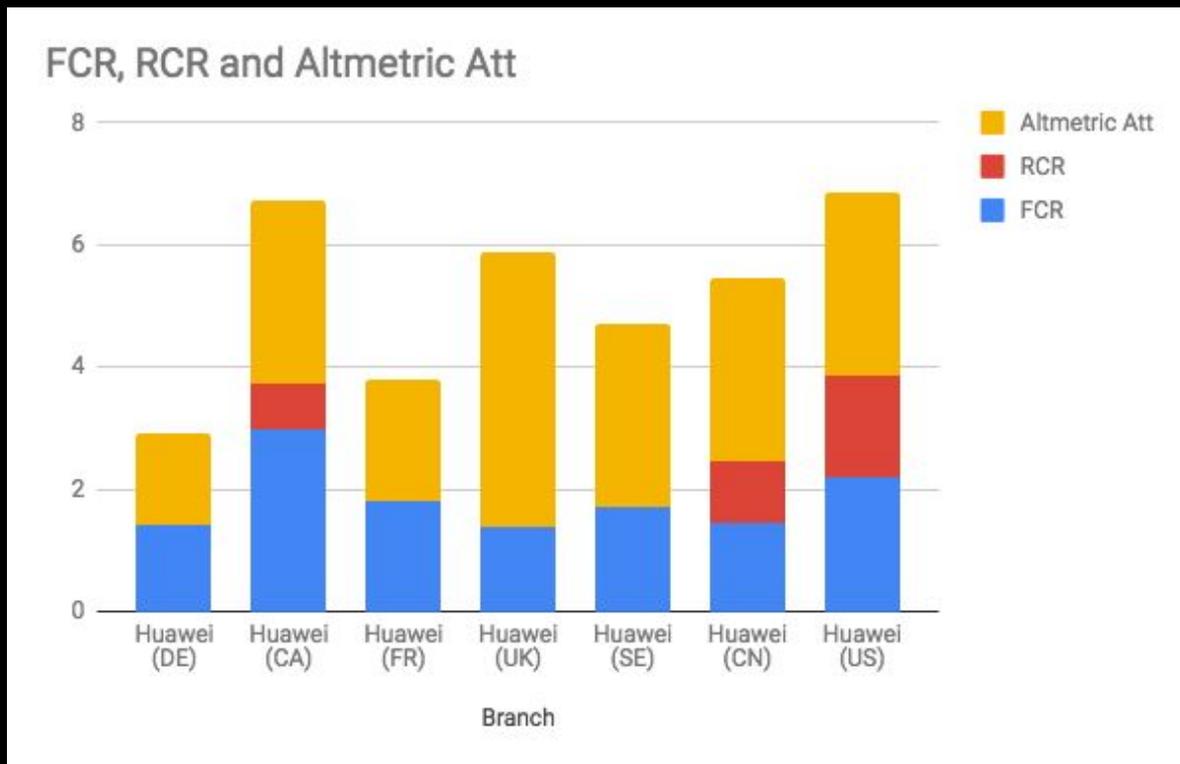
- Filters:** Includes categories like PUBLICATION YEAR, RESEARCHER, FUNDER, FUNDER GROUP, COUNTRY OF FUNDER, RESEARCH ORGANIZATION, COUNTRY, STATE/REGION, CITY, and FIELDS OF RESEARCH.
- Summary:** Shows 1,650 publications, 4 grants, 101,925 patents, and 0 clinical trials. The results are sorted by Publication Date.
- Publication List:** Displays three sample publications:
 - Profiling Web users using big data** by Xiaotao Gu, Hong Yang, Jie Tang, Jing Zhang, Fanjin Zhang, Debing Liu, Wendy Hall, Xiao Fu (2018). Field: Social Network Analysis and Mining.
 - Performance evaluation of the V2I fair access with a finite retry limit** by Qiong Wu, Hao Zhang, Zhengquan Li, Yang Liu, Cui Zhang (2018). Field: EURASIP Journal on Wireless Communications and Networking.
 - Line matching based on line-points invariant and local homography** by Qi Jia, Xin Fan, Xinkai Gao, Meiyu Yu, Haojie Li, Zhongxuan Luo (2018). Field: Pattern Recognition.
- Analytical Views:** Includes a table of Research Categories and an RCR Mean chart.

RESEARCH CATEGORIES	Count
1005 Communications Technologies	686
0801 Artificial Intelligence and Image Processing	301
0806 Information Systems	168
0906 Electrical and Electronic Engineering	140
0803 Computer Software	70

The RCR Mean chart shows a value of 1.00 for Publications from 2009 to 2018, with an FCR Mean of 1.70.
- Researchers:** Lists researchers such as Geoffrey Ye Li (42), Anthony C K Soong (31), Jietao Zhang (25), and H Anthony Chan (24).

Case Study: Huawei Technologies

What do they publish, where do they publish?



Case Study: Huawei Technologies

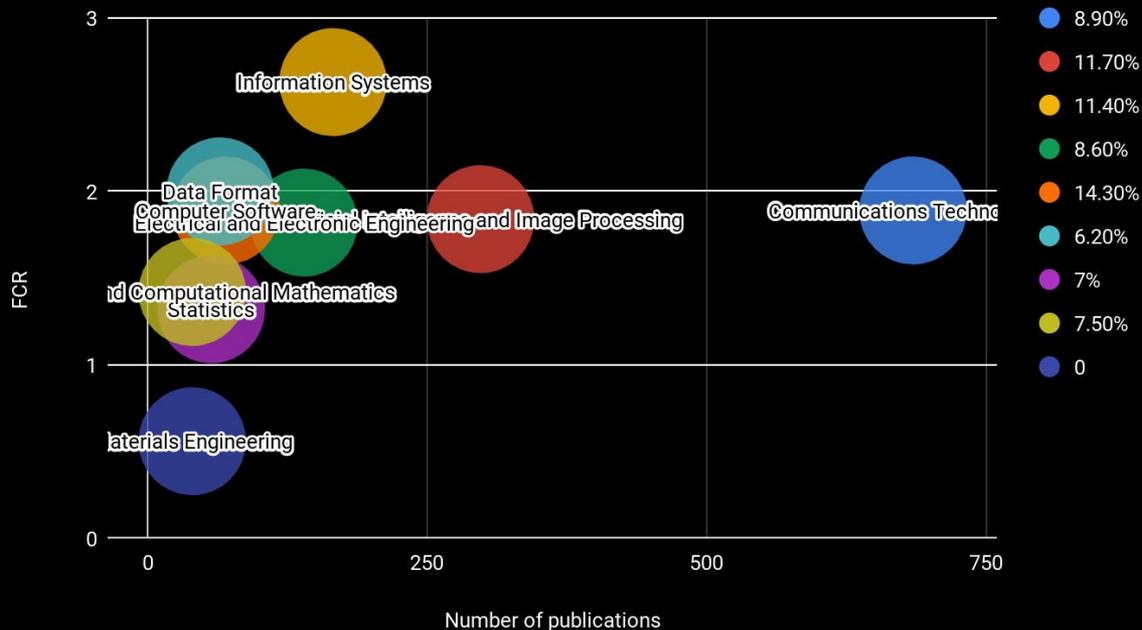
What Fields of Research are they publishing in?

Field of Research	Publications	FCR	Altmetric Attention Score
Communications Technologies	685	1.89	8.90%
Artificial Intelligence and Image Processing	298	1.84	11.70%
Information Systems	166	2.63	11.40%
Electrical and Electronic Engineering	140	1.82	8.60%
Computer Software	70	1.89	14.30%
Data Format	65	2	6.20%
Statistics	57	1.32	7%
Numerical and Computational Mathematics	40	1.42	7.50%
Materials Engineering	40	0.56	0

Case Study: Huawei Technologies

What Fields of Research are they publishing in?

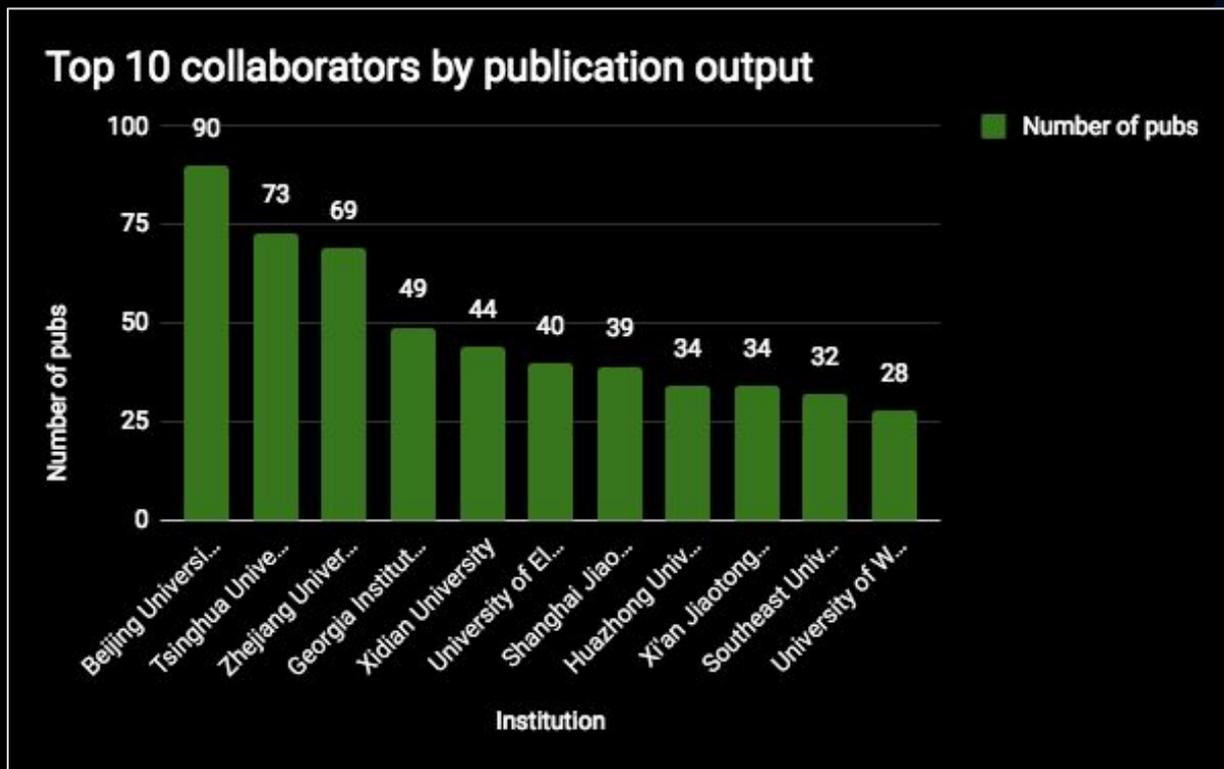
Top 10 Fields of research



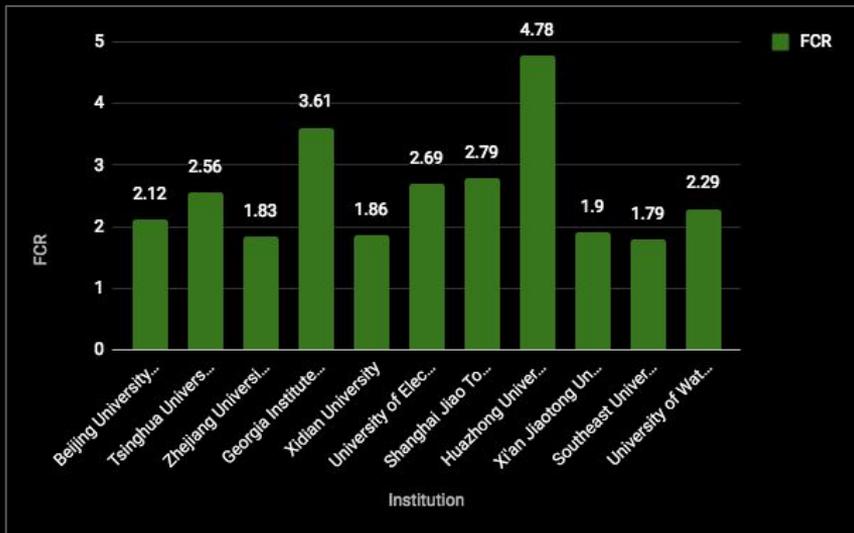
Who is Huawei collaborating with on research?

Institution	Country	Number of publications	FCR	RCR	Altmetric Attention median %
Beijing University of Posts and Telecommunications (BUPT)	China	90	2.12	0.74	7.80%
Tsinghua University (THU)	China	73	2.56	0.41	8.20%
Zhejiang University (ZJU)	China	69	1.83	3.86	4.30%
Georgia Institute of Technology (GT)	United States	49	3.61	0	20.40%
Xidian University	China	44	1.86	0.87	9.10%
University of Electronic Science and Technology of China (UESTC)	China	40	2.69	0	10%
Shanghai Jiao Tong University (SJTU)	China	39	2.79	0	5.10%
Huazhong University of Science and Technology (HUST)	China	34	4.78	0.62	20.60%
Xi'an Jiaotong University (XJTU)	China	34	1.9	0	2.90%
Southeast University (SEU)	China	32	1.79	0	0
University of Waterloo (UW)	Canada	28	2.29	0.23	7.10%

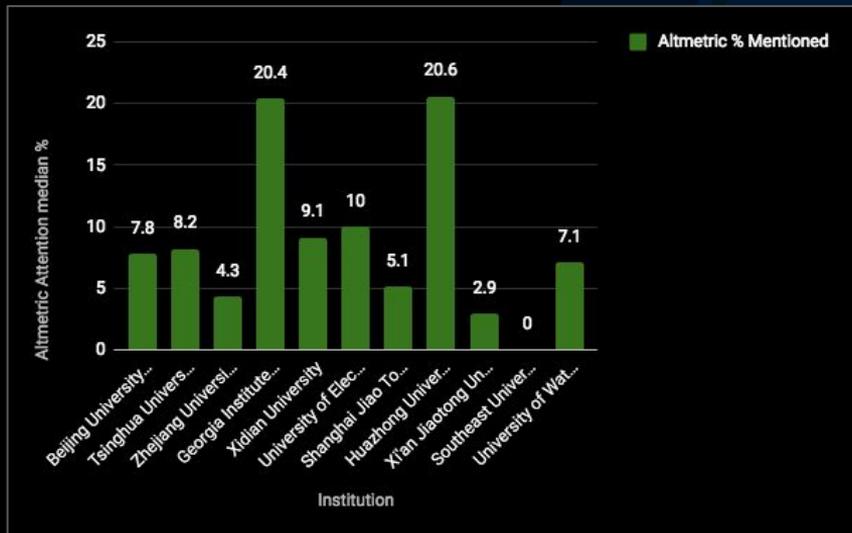
Top Huawei collaborators by publication volume



Top Huawei Collaborators by Field Citation Ratio/Altmetric



The higher the FCR, the higher the average citations received by that institution for the relevant Field of Research



The percentage of the collaborative publications receiving at least one online mention (tweet, news story, blog etc)

Global Collaboration Network: Huawei

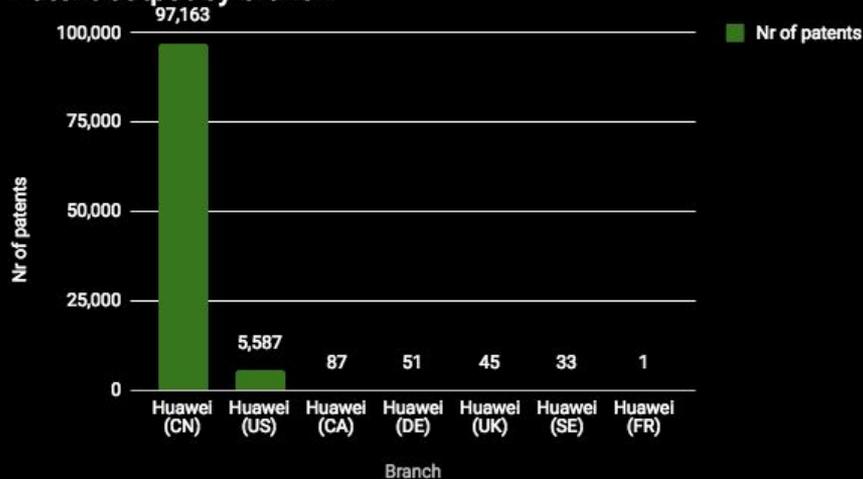


Top 10 Countries on the list

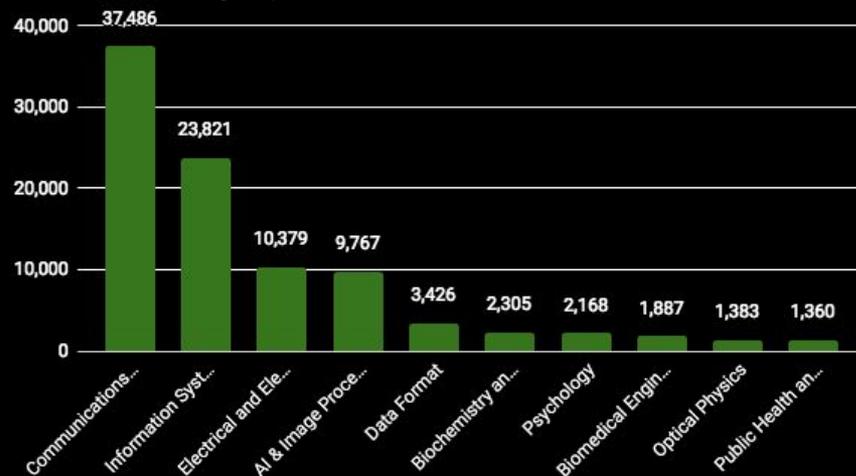
China	1,045
United States	480
Germany	181
Sweden	180
Canada	179
United Kingdom	142
France	116
Australia	47
Singapore	44
Italy	39

Huawei's Patents

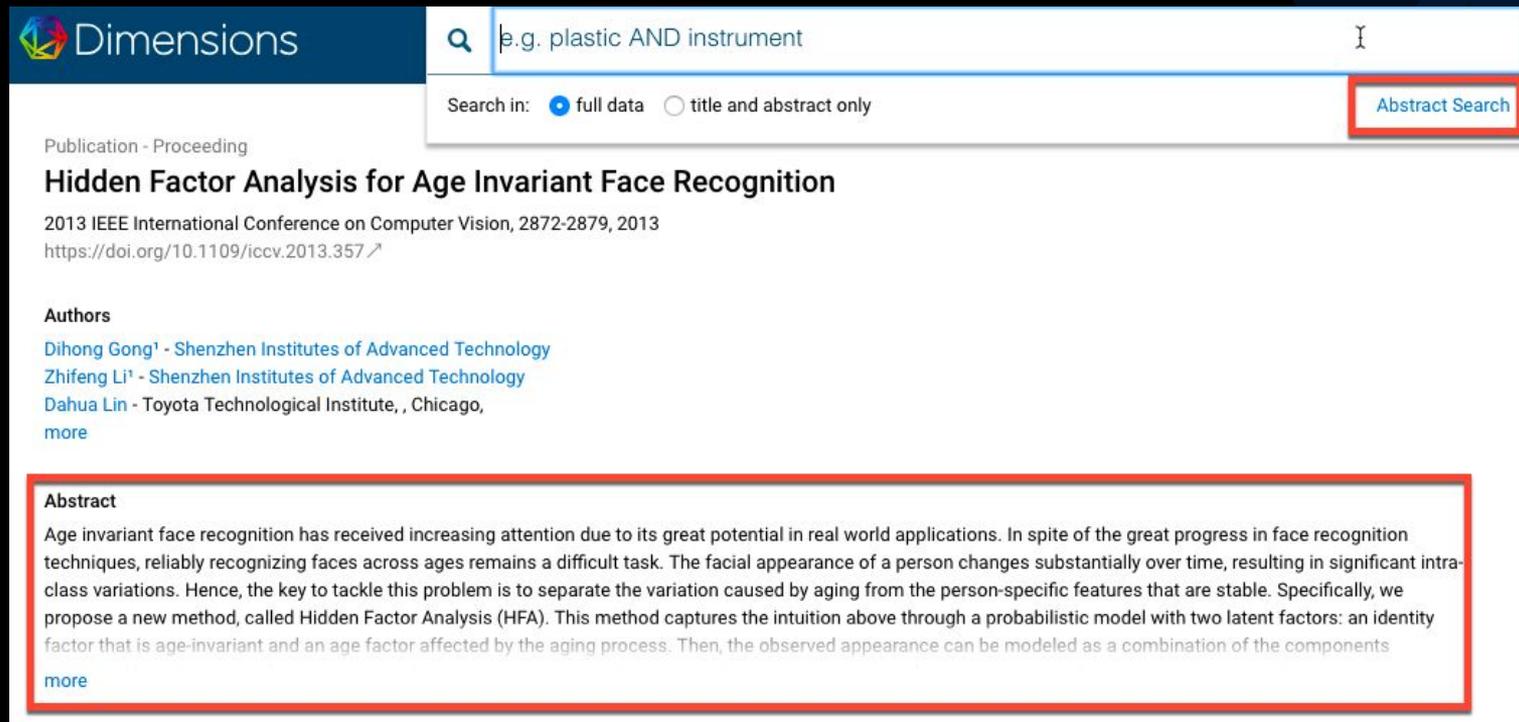
Patent output by branch



Patent output by top 10 FOR



Concerning AI: Who else is working on reliable Face Recognition for mobile devices?



The screenshot shows a search interface for Dimensions. The search bar contains the text "e.g. plastic AND instrument". Below the search bar, there are radio buttons for "full data" (selected) and "title and abstract only". A red box highlights the "Abstract Search" button. The search results show a publication titled "Hidden Factor Analysis for Age Invariant Face Recognition" from the 2013 IEEE International Conference on Computer Vision. The authors listed are Dihong Gong, Zhifeng Li, and Dahua Lin. A red box highlights the abstract text, which discusses the challenges of age-invariant face recognition and the proposed Hidden Factor Analysis (HFA) method.

Dimensions

Search: full data title and abstract only Abstract Search

Publication - Proceeding

Hidden Factor Analysis for Age Invariant Face Recognition

2013 IEEE International Conference on Computer Vision, 2872-2879, 2013
<https://doi.org/10.1109/iccv.2013.357>

Authors

[Dihong Gong](#)¹ - Shenzhen Institutes of Advanced Technology
[Zhifeng Li](#)¹ - Shenzhen Institutes of Advanced Technology
[Dahua Lin](#) - Toyota Technological Institute, , Chicago,
[more](#)

Abstract

Age invariant face recognition has received increasing attention due to its great potential in real world applications. In spite of the great progress in face recognition techniques, reliably recognizing faces across ages remains a difficult task. The facial appearance of a person changes substantially over time, resulting in significant intra-class variations. Hence, the key to tackle this problem is to separate the variation caused by aging from the person-specific features that are stable. Specifically, we propose a new method, called Hidden Factor Analysis (HFA). This method captures the intuition above through a probabilistic model with two latent factors: an identity factor that is age-invariant and an age factor affected by the aging process. Then, the observed appearance can be modeled as a combination of the components
[more](#)

Abstract Search: Profile of the results: On the Rise!

Publication output

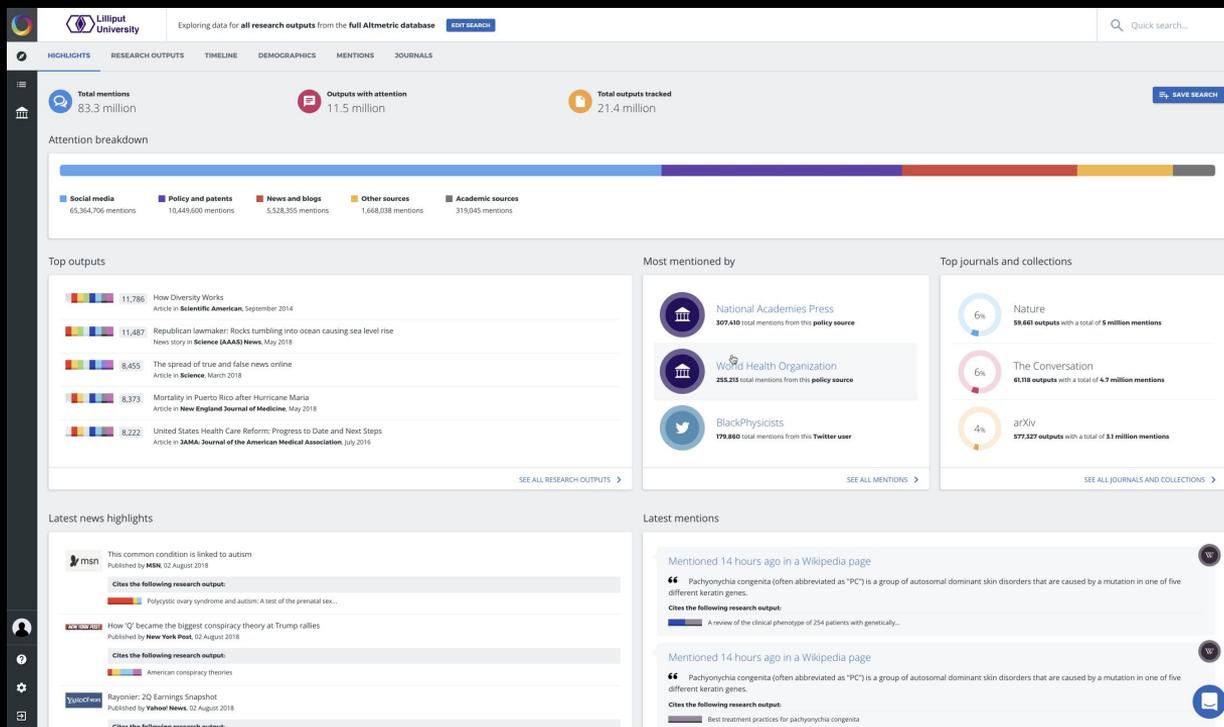


Patent output



Exporting Publications similar to this to:

- Analyse attention in the Altmetric Explorer
- Search for use of these data within patents



Thanks! Q&A?

Contact us!

Twitter:

@altmetric

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@digisci

Me:

ben@altmetric.com