

# 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

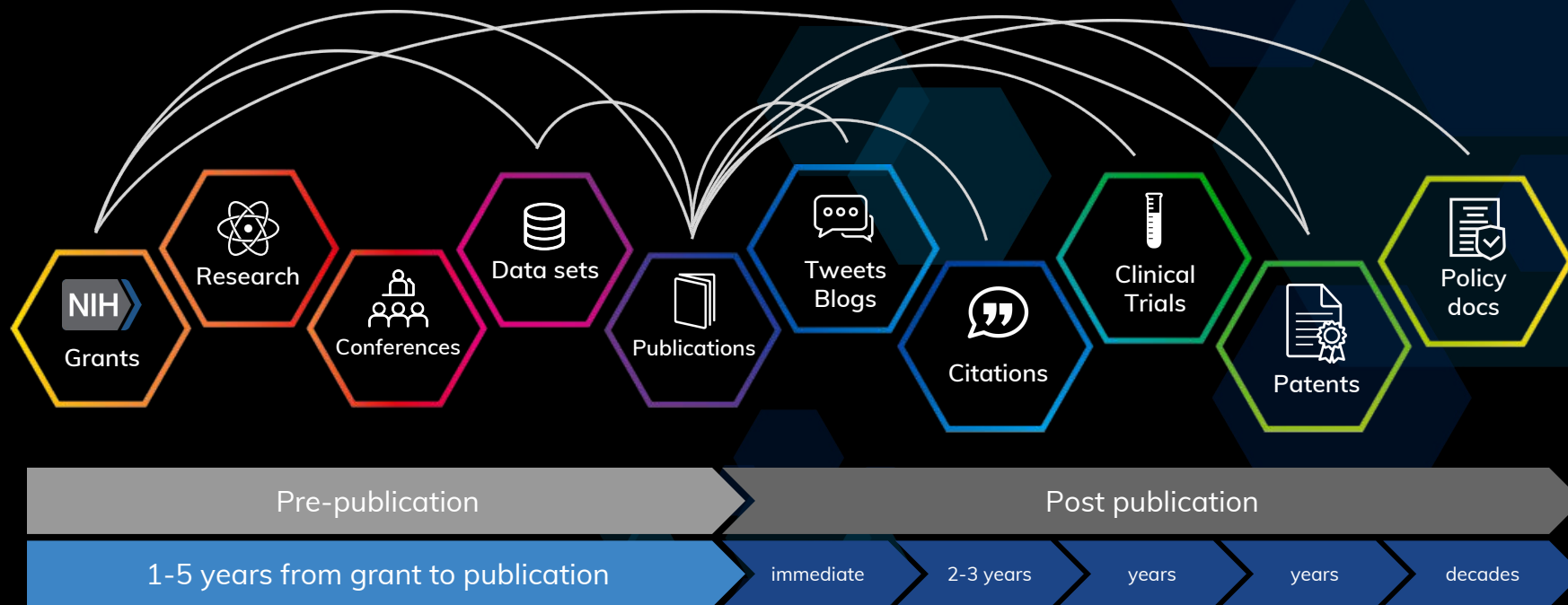
# Digital Science – a portfolio of innovative companies

- 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

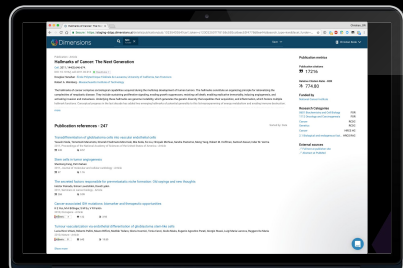


# The Dimensions Platform

A full and connected view of research activity

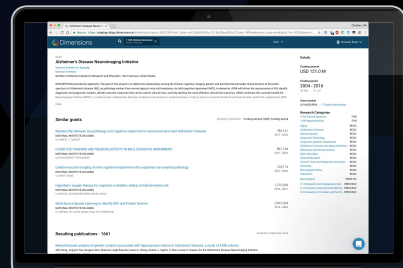


# Dimensions links between the different content sources



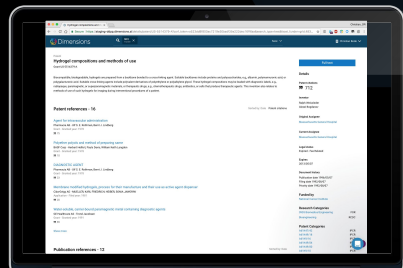
96m Publications

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



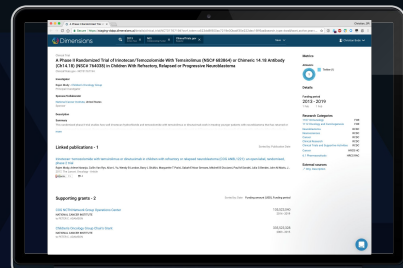
4.1m Grants

- 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

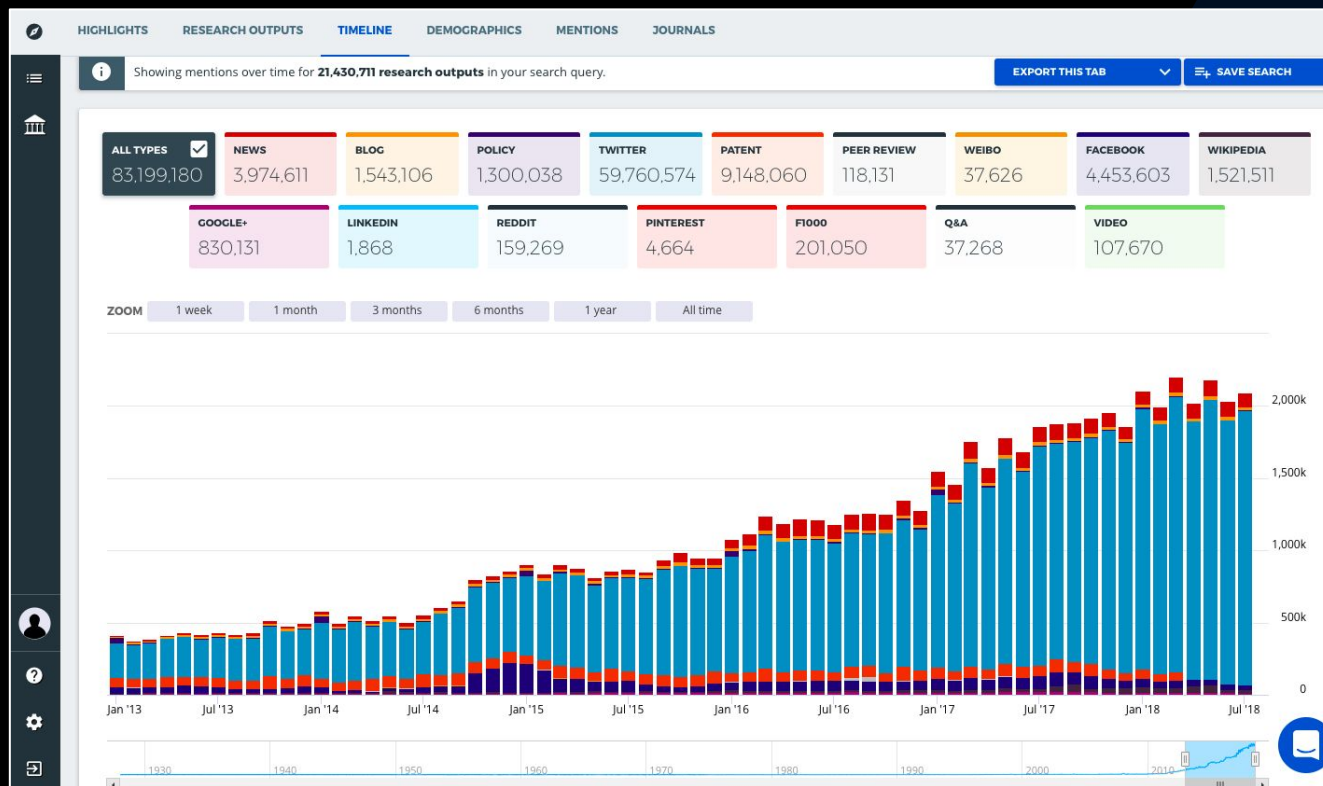
The screenshot displays the Altmetric Research Outputs interface. At the top, there are tabs for HIGHLIGHTS, RESEARCH OUTPUTS (selected), TIMELINE, DEMOGRAPHICS, MENTIONS, and JOURNALS. Below the tabs, a status bar indicates "Showing 21,430,711 research outputs from the results of your search query.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

Below the status bar, there is a "Sort by:" dropdown menu set to "Altmetric Attention Score (Highest first)". To the right of the dropdown is a "Next" link. The main content area is a grid of research outputs, each represented by a circular Altmetric logo with a number inside, followed by the title of the output and the journal or news source it appeared in.

 How Diversity Works Article in <i>Scientific American</i> , September 2014	 Republican lawmaker: Rocks tumbling into ocean causing sea level rise News story in <i>Science (AAAS) News</i> , May 2018
 The spread of true and false news online Article in <i>Science</i> , March 2018	 Mortality in Puerto Rico after Hurricane Maria Article in <i>New England Journal of Medicine</i> , May 2018
 United States Health Care Reform: Progress to Date and Next Steps Article in <i>JAMA: Journal of the American Medical Association</i> , July 2016	 The irreversible momentum of clean energy Article in <i>Science</i> , January 2017
 Trump White House quietly cancels NASA research verifying greenhouse gas cuts News story in <i>Science (AAAS) News</i> , May 2018	 Scientific method: Statistical errors News story in <i>Nature</i> , February 2014
 World Scientists' Warning to Humanity: A Second Notice Article in <i>BioScience</i> , January 2017	 Associations of fats and carbohydrate intake with cardiovascular disease and... Article in <i>The Lancet</i> , August 2017
 Simulations back up theory that Universe is a hologram News story in <i>Nature</i> , December 2013	 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

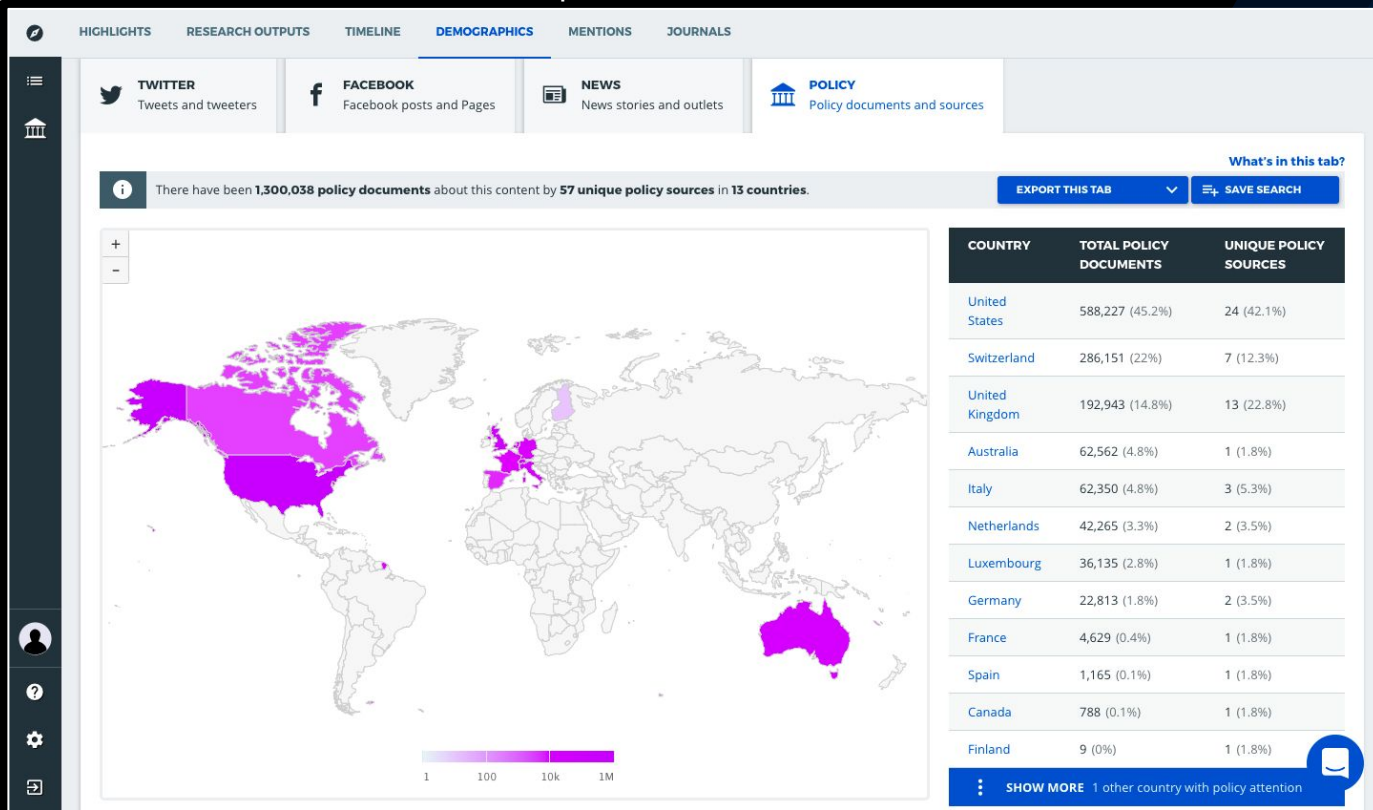
# The Altmetric Platform

## Tracking attention to research outputs online



# The Altmetric Platform

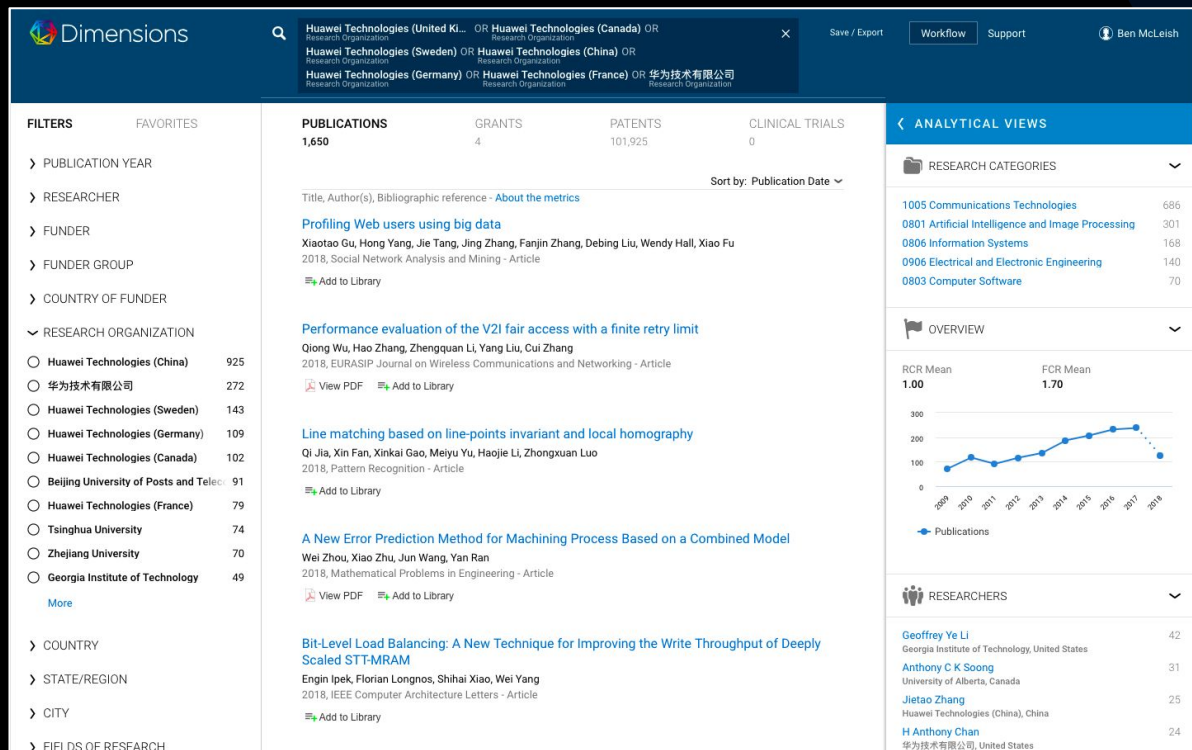
## Tracking attention to research outputs online





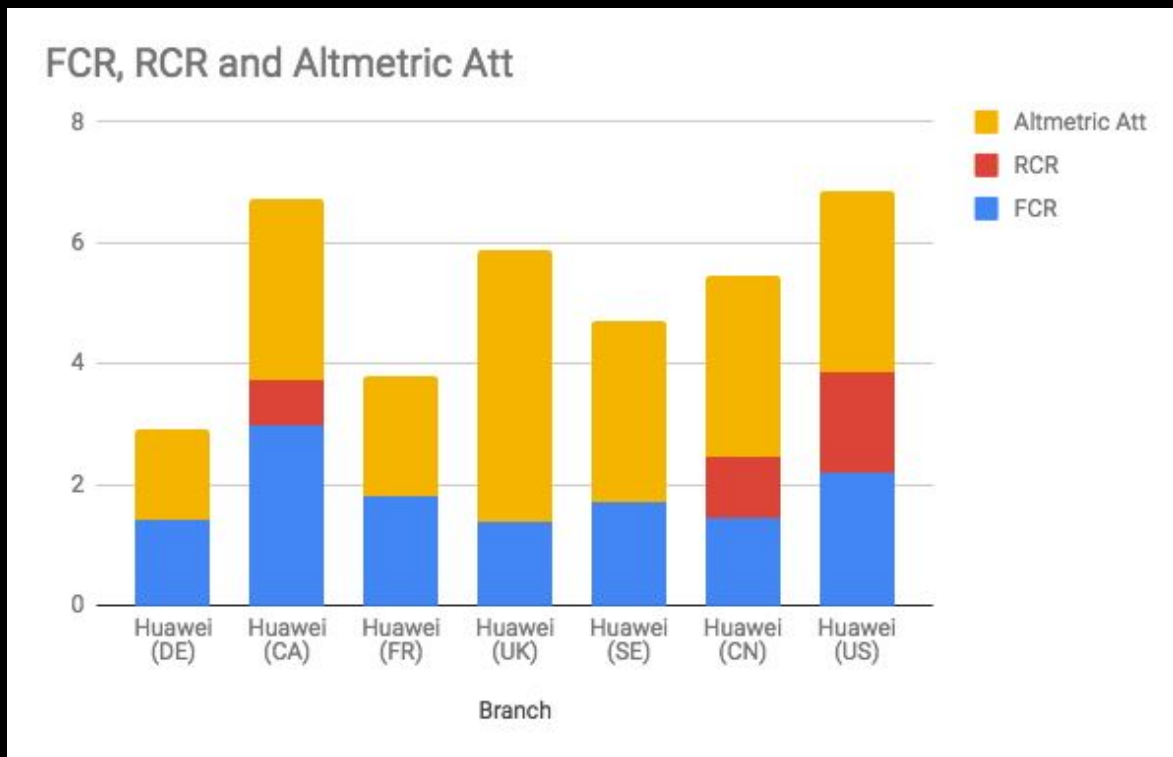
# Case Study: Huawei Technologies

## What do they publish, where do they publish?



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# Case Study: Huawei Technologies

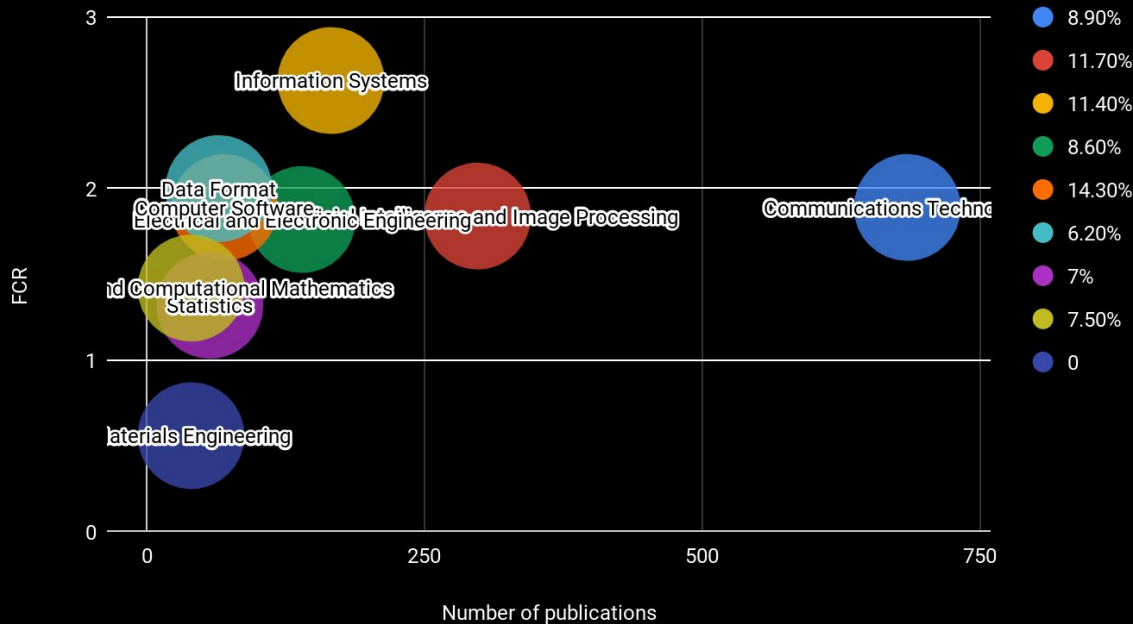
## What Fields of Research are they publishing in?

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

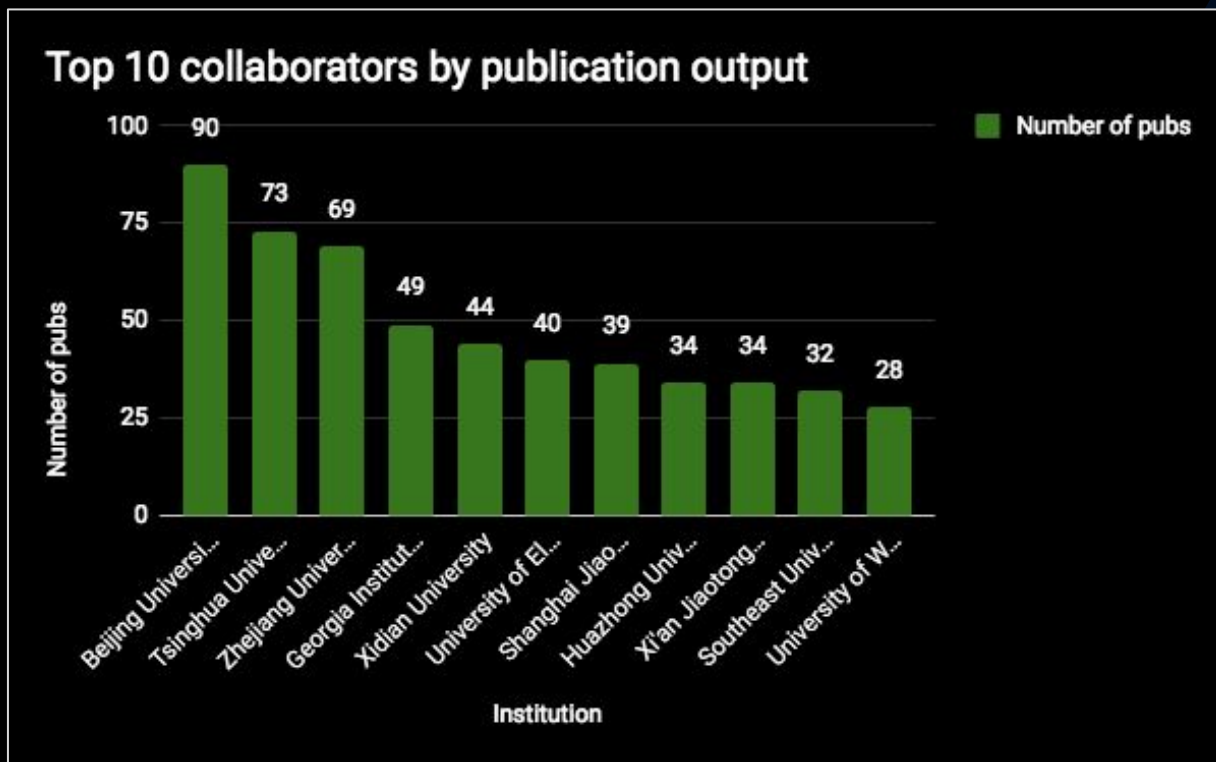


# Who is Huawei collaborating with on research?

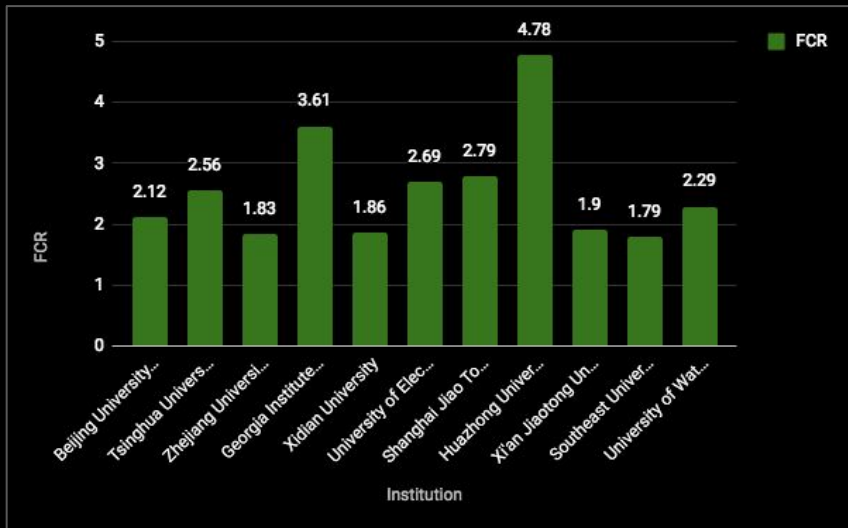
Institution	Country	Number of publications	FCR	RCR	Altmetric Attention median %
Beijing University of Posts and Telecommunications (BUPT)	China	90	2.12	0.74	7.80%
Tsinghua University (THU)	China	73	2.56	0.41	8.20%
Zhejiang University (ZJU)	China	69	1.83	3.86	4.30%
Georgia Institute of Technology (GT)	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%



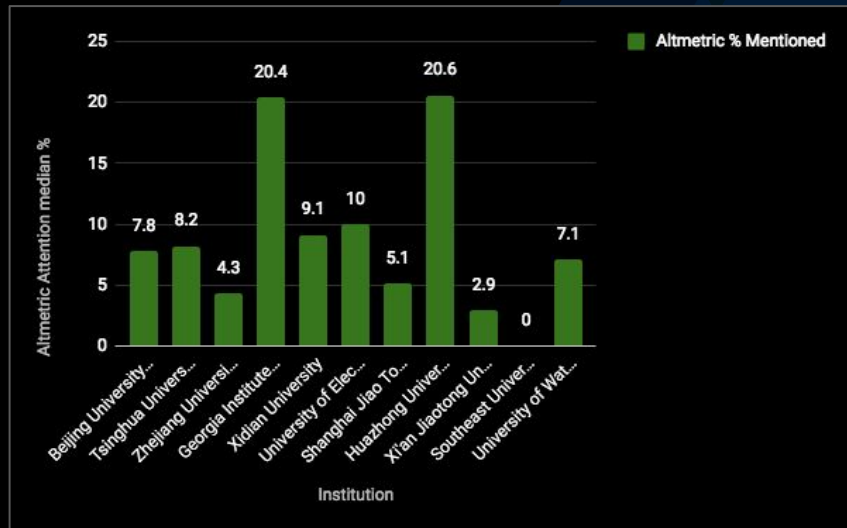
# Top Huawei collaborators by publication volume



# 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

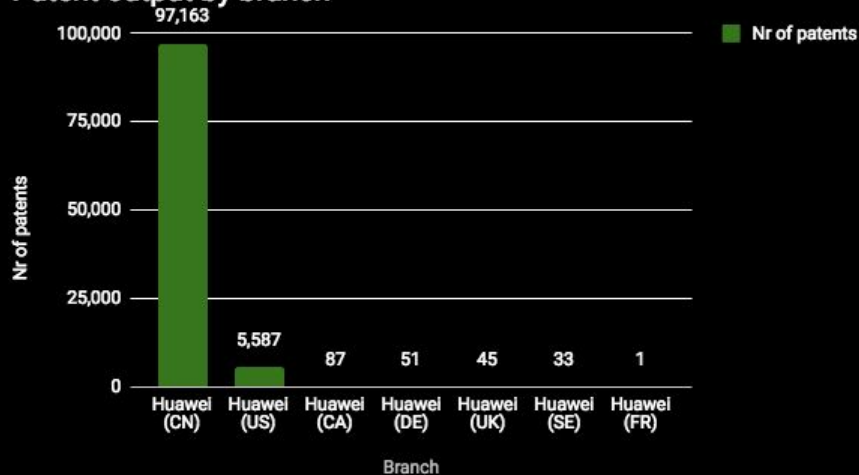


## Top 10 Countries on the list

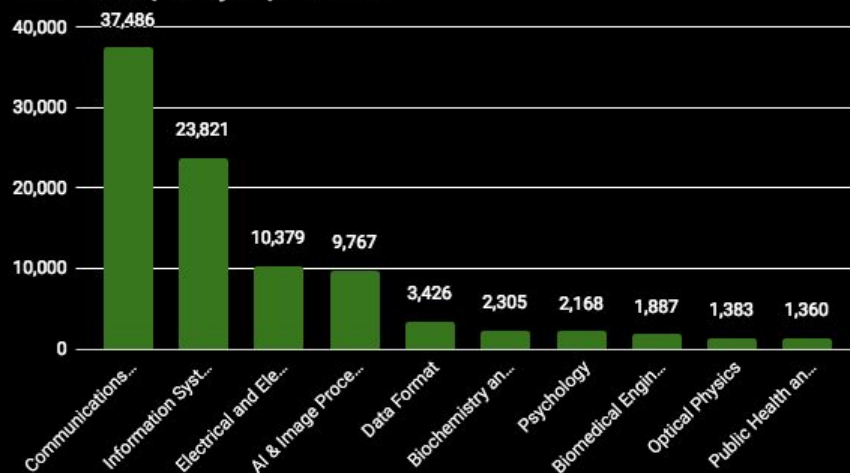
China	1,045
United States	480
Germany	181
Sweden	180
Canada	179
United Kingdom	142
France	116
Australia	47
Singapore	44
Italy	39

# 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?

 Dimensions

☒ 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>

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[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](#)

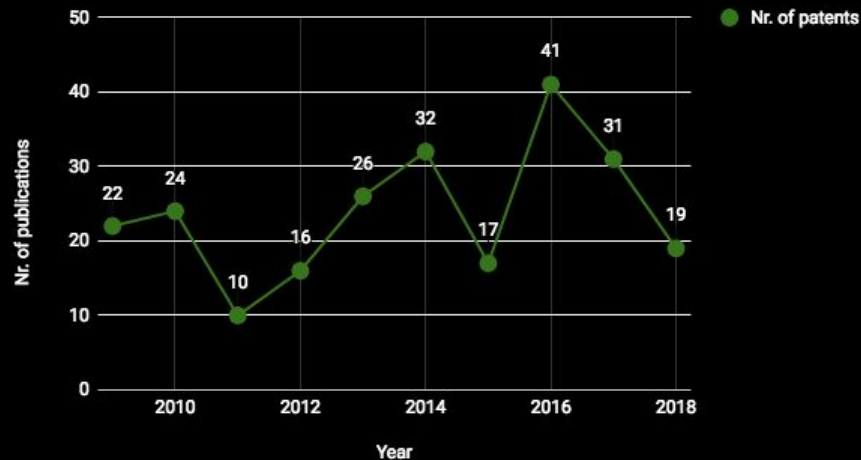


# Abstract Search: Profile of the results: On the Rise!

Publication output

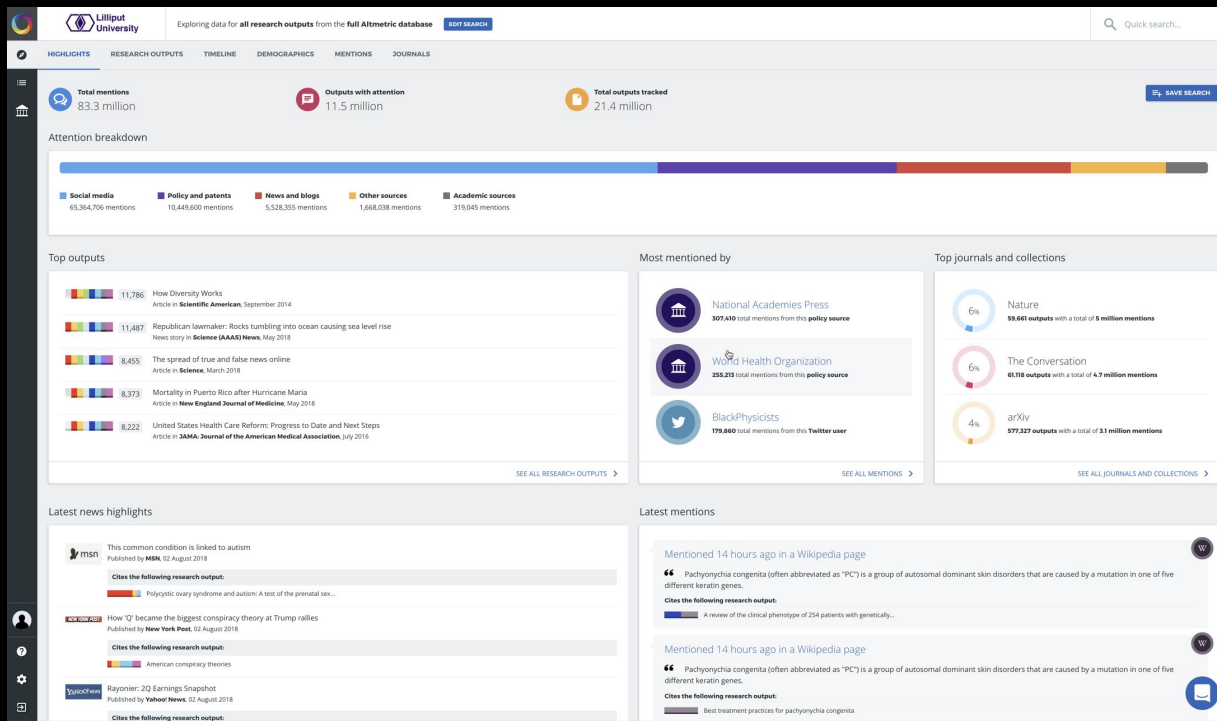


Patent output



# 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!

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@dsdimensions

@digisci

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