



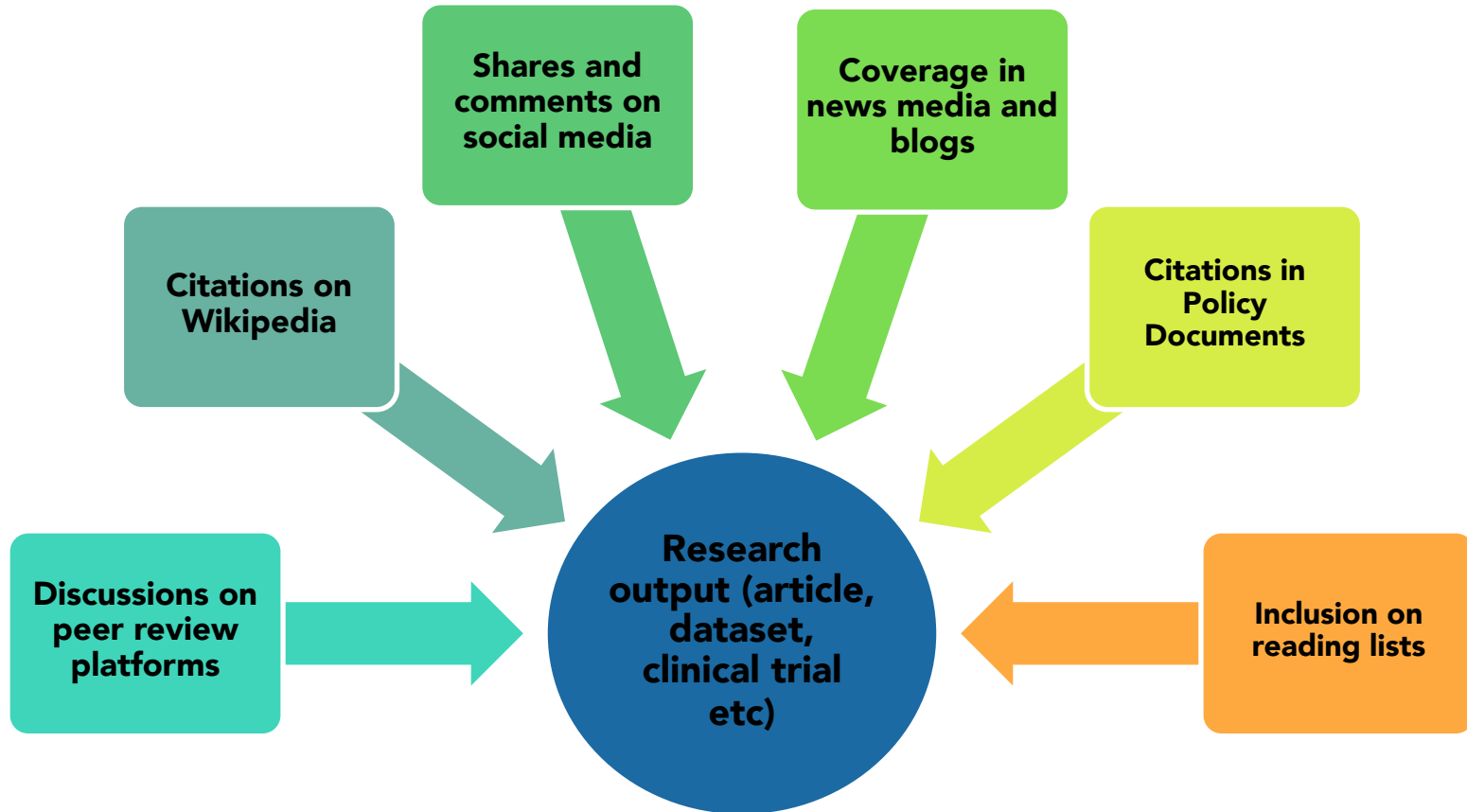
# Introduction to alternative metrics and Altmetric data

# Today...

- **What are alternative metrics?**
- **Who are we at Altmetric.com?**
- **Understanding Altmetric data**



# Alternative metrics = online indicators of engagement



Behaviors identified here are specifically captured by [Altmetric.com](https://www.altmetric.com) and do not represent the entirety of behaviors alternative metrics can measure.



**Altmetric LLP is a UK-based data science company dedicated to tracking and analyzing the online activity around scholarly research outputs.**





# Global multi-industry customer base



ELSEVIER

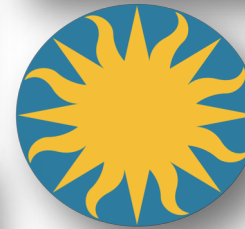


BILL & MELINDA  
GATES foundation



wellcome trust

Duke  
UNIVERSITY



Canadian Institutes  
of Health Research



Smithsonian



SPRINGER NATURE



Centers for Disease Control and Prevention  
CDC 24/7: Saving Lives, Protecting People™



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# Differences between alt and traditional metrics

## – *they're complementary*

### Traditional journal

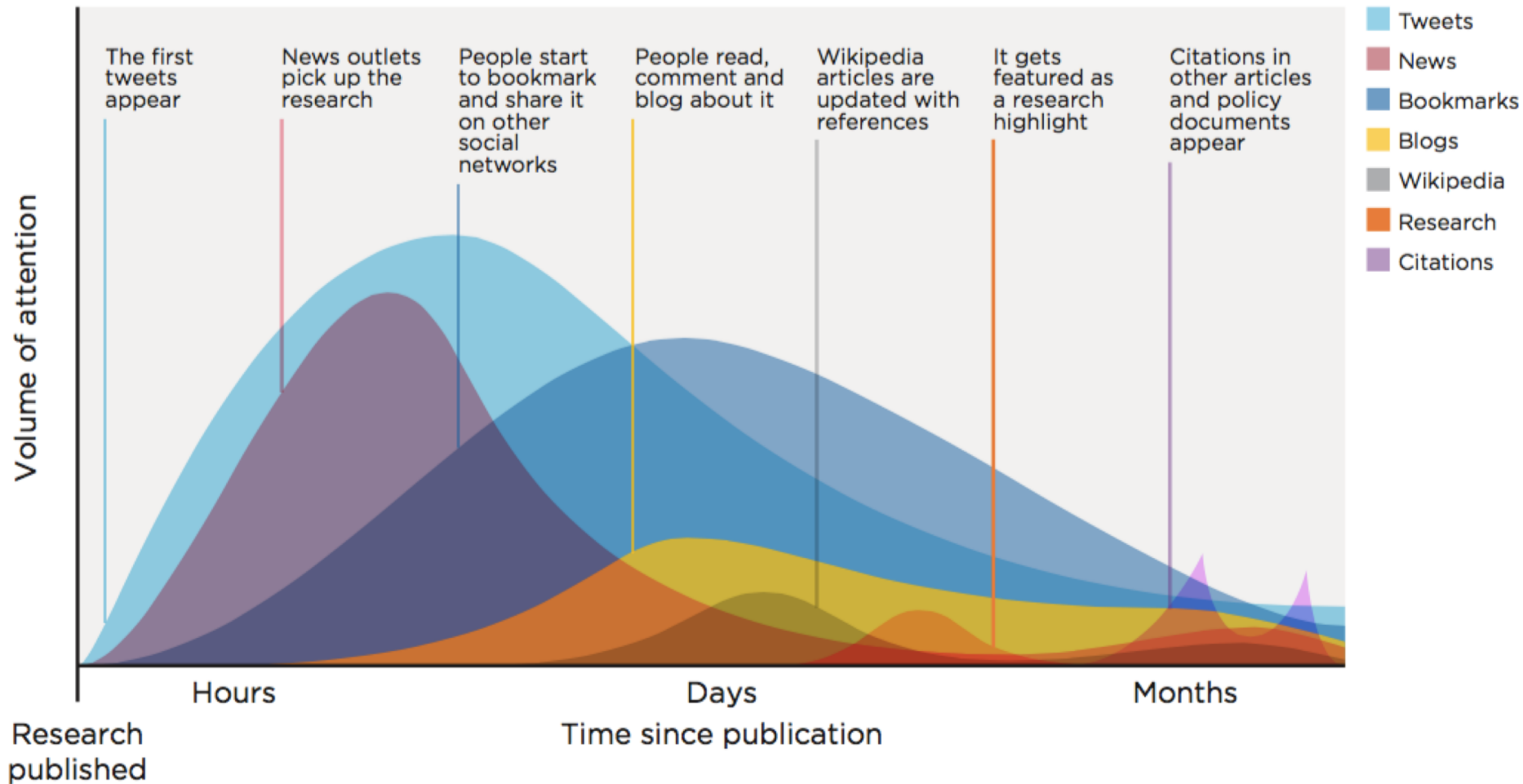
- Slow; take months/years
- Only for journal articles
- Reflect one stakeholder group: Other researchers who read/cite journals articles

### Alternative metrics

- **Immediate**; take hours/days/weeks
- Apply to scholarly outputs **broadly** (clinicaltrials.gov, articles, data set, books, websites)
- Reflect **diverse stakeholder engagement** from policy makers to educators to patients/practitioners



## A typical timeline of attention



Known for our  
Altmetric  
Attention Score  
in thousands of  
academic  
journals,  
repositories,  
and websites

**This Issue** Views **11,58** Citations **2** Altmetric 1,748

**Original Investigation**  
December 6, 2016


**Prevalence of Depression, Depressive Symptoms, and Suicidal Ideation Among Medical Students: A Systematic Review** Department of Psychiatry Faculty

Lisa S. Rotenstein, BA<sup>1,2</sup>; Marco A. Ramos, MPhil<sup>3</sup>; Srijan Sen, M.D., Ph.D.<sup>4</sup>

✶ Author Affiliations

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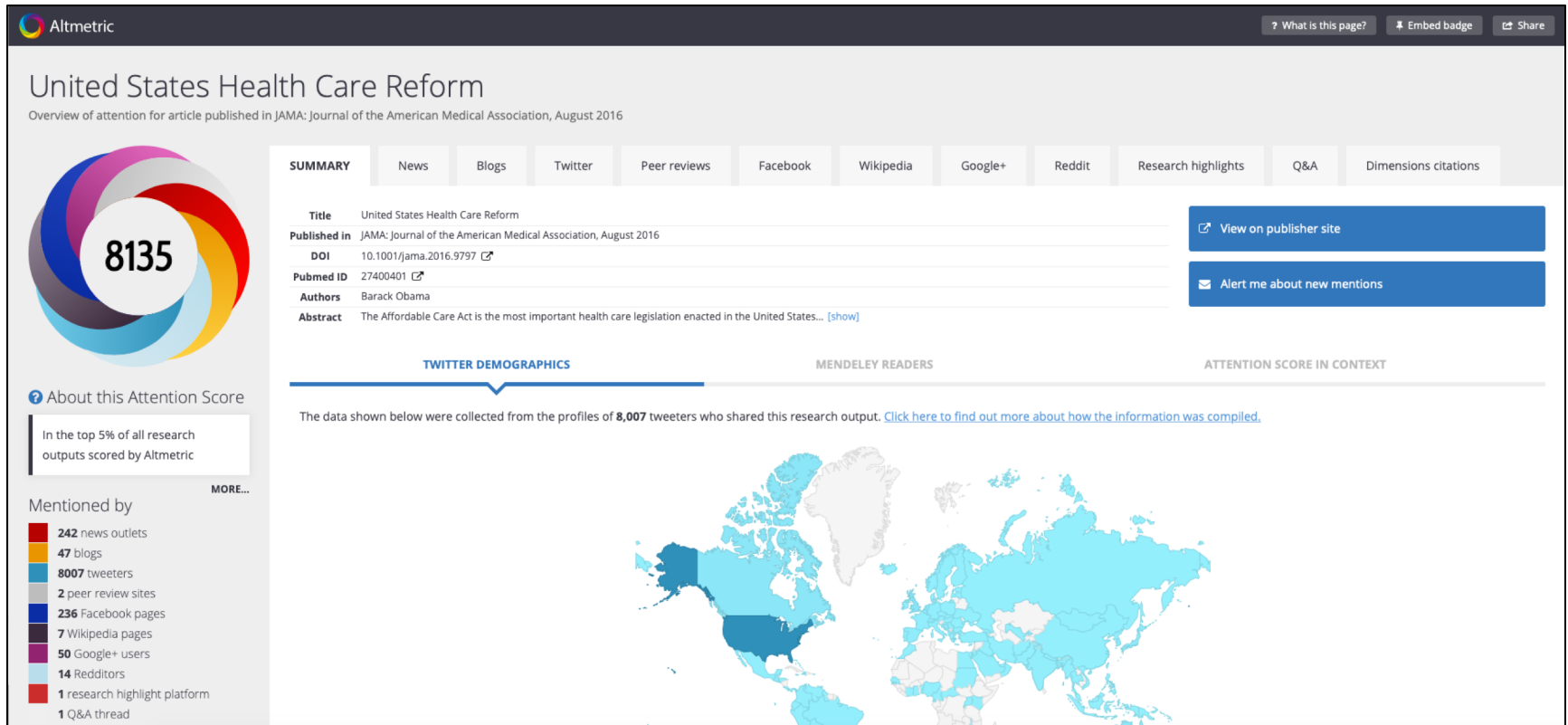
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Primary Programs/Services: [Ambulatory - Stress, Anxiety and Personality](#)



Data as of 26 Jan 2017, 6pm eastern

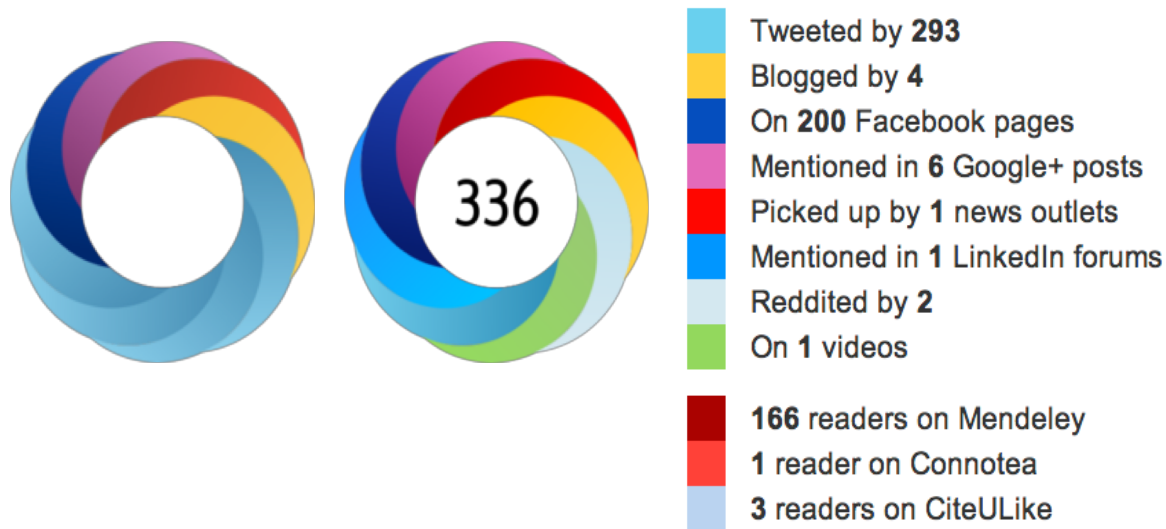


# Known for our colorful donut and real time attention gathering (see tabs)



Data as of 19 Nov 2018, 5pm GMT

# What is the donut? What does it indicate?



More info at: [www.altmetric.com](http://www.altmetric.com) - About altmetrics — The donut and score; Algorithm and score are publicly available.

Mention type	Points
News	8
Blogs	5
Twitter	1
Facebook	0.25
Sina Weibo	1
Wikipedia	3
Policy Documents (per source)	3
Q&A	0.25
F1000/Publons/Pubpeer	1
YouTube	0.25
Reddit/Pinterest	0.25
LinkedIn	0.5
Open Syllabus	1
Google +	1
Patents	3



# **The Altmetric Attention Score is generated by a weighted algorithm**

<b>Volume</b>	<b>Sources</b>	<b>Authors</b>
<b>The score for an article rises as more people mention it.</b>	<b>Each source category contributes a different base amount to the final score.</b>	<b>Assess the author of each mention in terms of their reach, promiscuity and bias.</b>

More info at: [www.altmetric.com](http://www.altmetric.com) - About altmetrics – The donut and score; Algorithm and score are publicly available.





# ATTENTION *not quality* indicator

- Majority of articles receive *no attention*
- Some fields/subjects are *noisier* than others
- Most articles with attention score  $>15$
- Attention can be negative (sentiment analysis)
  - Fraud, misconduct, unclear data, issues with methodology, etc



# What about gaming?

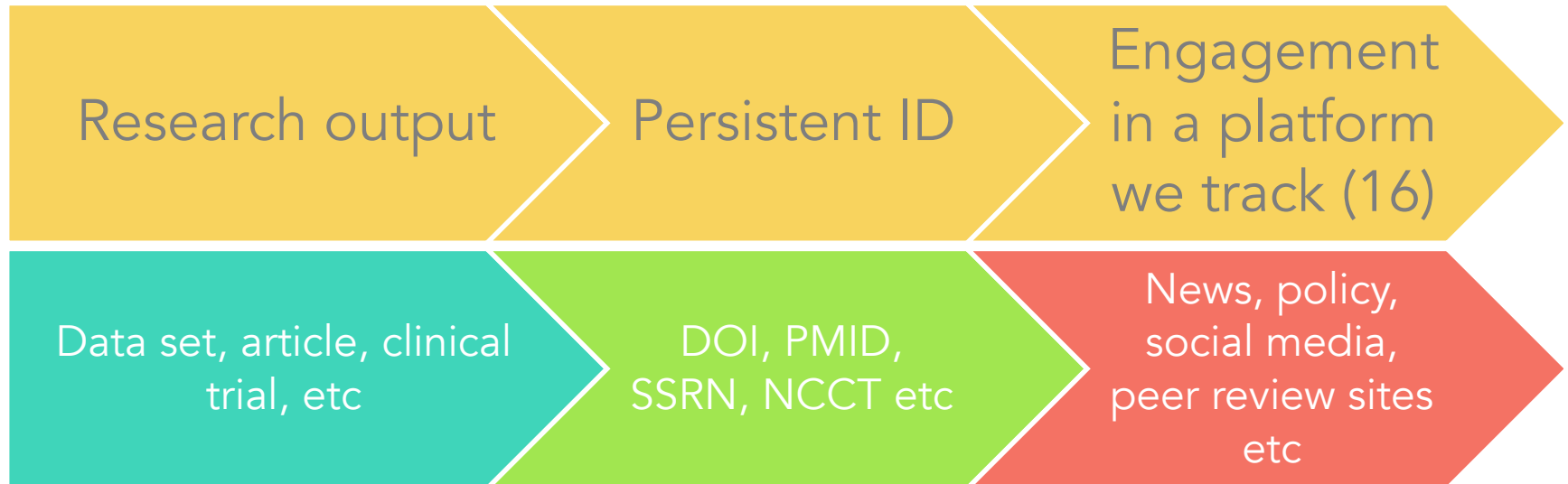
- Tough to do because
  - Traps for crawlers/spam
  - Data transparency means you can tell us when you see incorrect mentions captured
  - Scholarly sites don't allow spam (F1000, peer-review sites)
  - (and if you can get the Washington Post to write about your work, is that gaming? Or doing your job?)



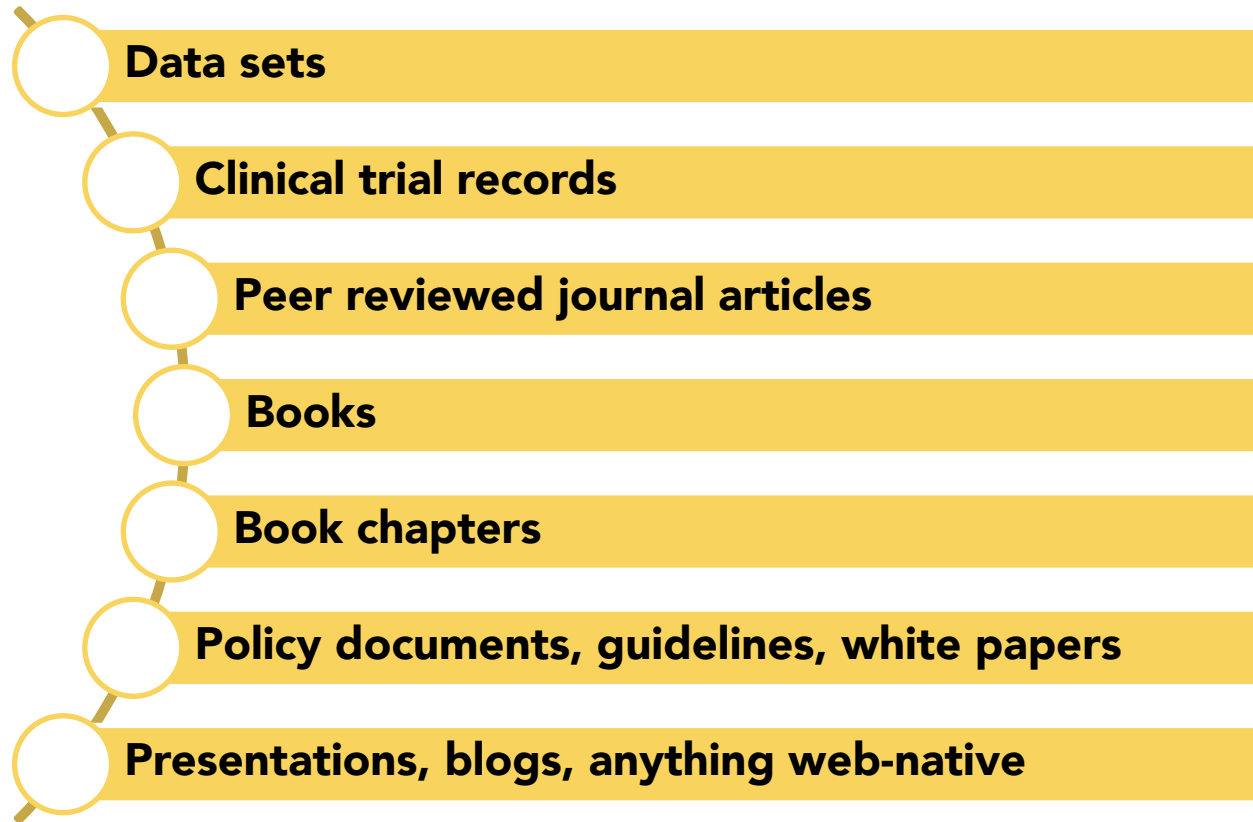
# Altmetric data capture and transparency

Or: We already have your attention data

# 3 things required to capture attention

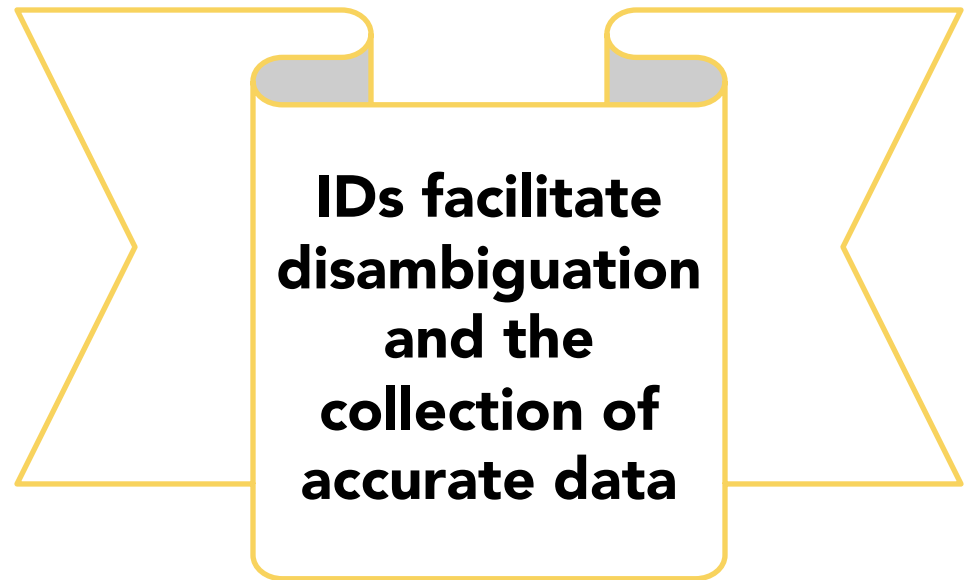


# Research output - any part of the research lifecycle



# Persistent IDs

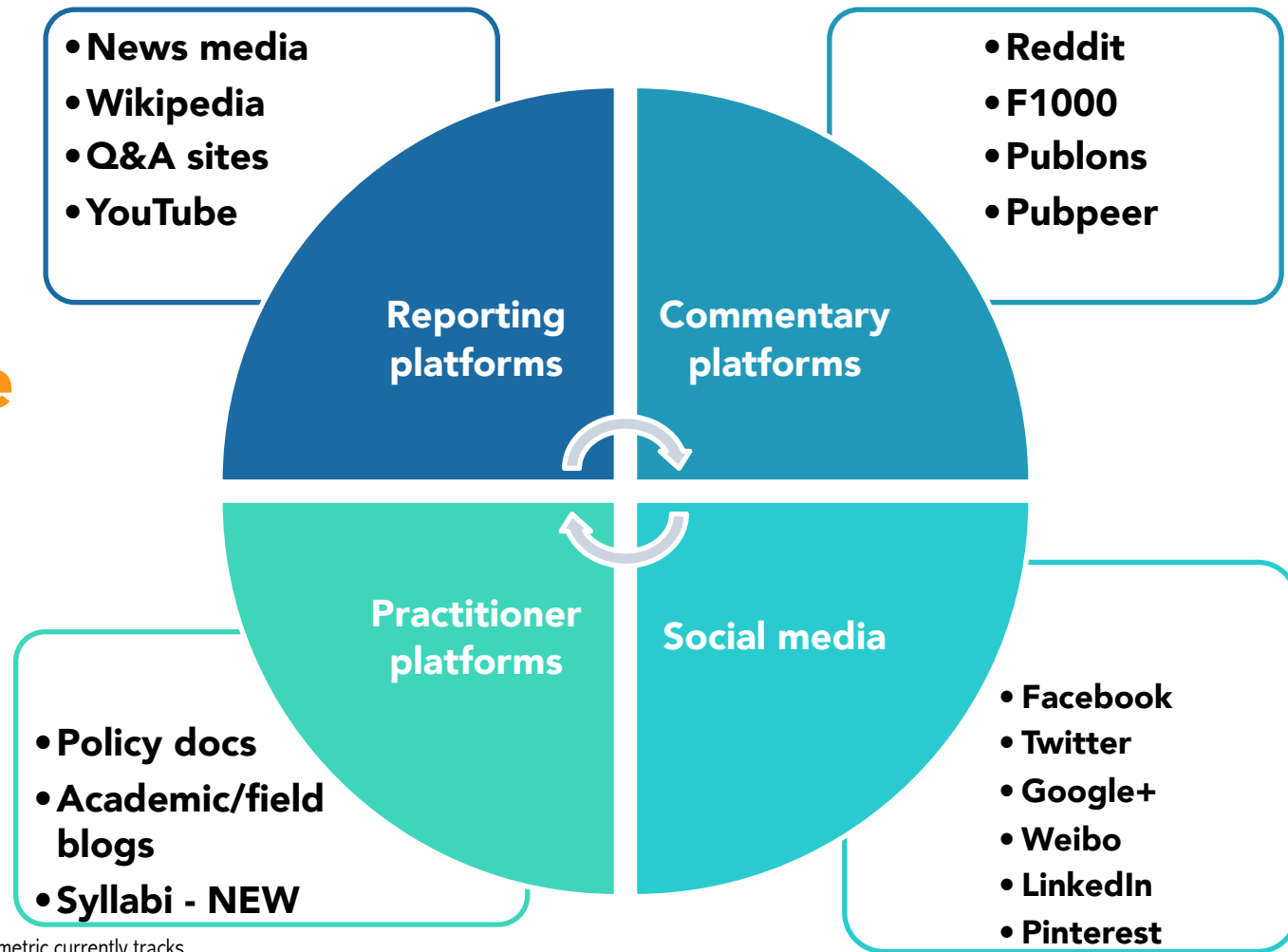
- DOIs
- PubMed IDs
- ISBNs
- Handles
- arXiv IDs
- ADS IDs
- SSRN IDs
- RePEC IDs
- ClinicalTrials.gov records
- URLs



Altmetric is fully integrated with ORCID but ORCIDs remain the one of the least accurate IDs as they require manual curation by their owners.



# Platforms we track

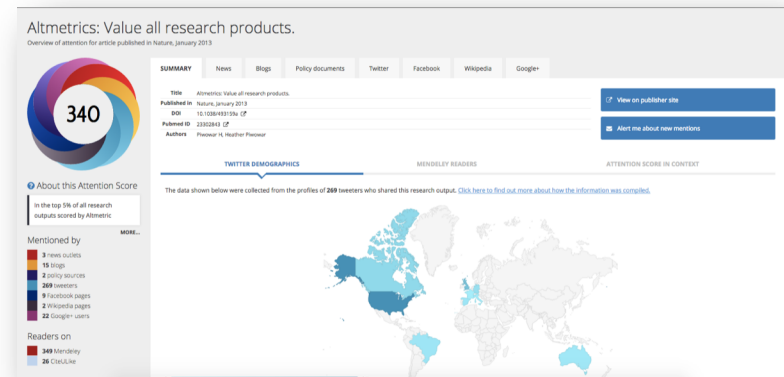
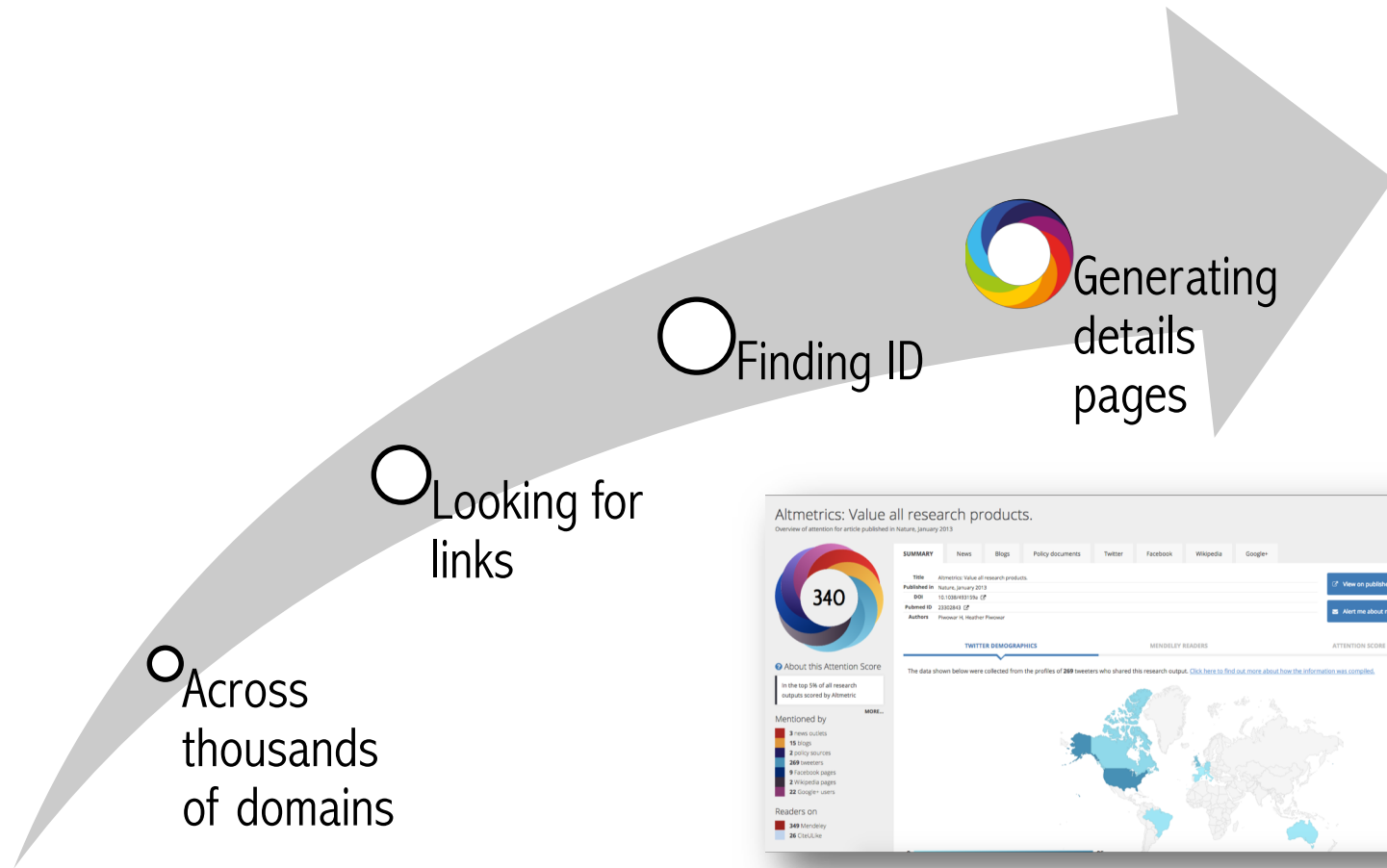


These are the 16 source types (channels) Altmetric currently tracks.





# How data capture works



# How data capture works: Exceptions

- News
  - Looking for keywords (journal and author name), cross referencing with PubMed or CrossRef
- Policy documents
  - Scraping bibliographies
- Syllabi
  - Feed from Harvard Open Syllabus Project



# **So we are already capturing *your data!***

## **We just don't know it's *yours***

You need to feed us your data

- So we can identify what's yours
- And group your research into authors/departments/funding areas/etc
- Via:
  - RIM/CRIS system - *preferred*
  - Custom homegrown database - *preferred*
  - .csv file updated quarterly
  - *Ask me for our Data Implementation Guide*

