ALTMETRIC EXPLORER
FOR INSTITUTIONS

How to browse, monitor and report on indicators of research reach and impact
Some definitions

What are altmetrics? What do they track?
Altmetrics are non-traditional indicators proposed as an alternative to more traditional citation impact metrics, such as impact factor and h-index.
Alternative, web-based metrics

Any trace or indicator of online behavior surrounding research

- Web analytics
- Commentary on social media
- Coverage in news media/blogs
- Sharing/downloading/saving
- Citations in non-journal sources (grey lit, policy, Wikipedia)
- Engagement on scholarly platforms (F1000, peer review sites)
- Research output (article, dataset, clinical trial etc.)
alt + metrics

Complementary to traditional citation metrics

Altmetric Attention Score is an *indicator* and the underlying, qualitative data tells you who’s saying what about research.
Why altmetrics?

What are the benefits of using altmetrics data?
1. RESEARCH IS MORE ACCESSIBLE

Altmetric tracks online attention to your research from multiple audiences.

- General Public
- Government & Policy Makers
- Academia
- Mainstream Media
- Practitioners
- Education
- Industry
- Special Interest Groups
2. TRACK ATTENTION IN **REAL-TIME**

Altmetric help you track research attention as soon as it is published online.

**TRADITIONAL METRICS**
Often slow to accrue

**ALTMETRICS**
Immediate
3. RESEARCH IS MORE THAN THE ARTICLE

Altmetric can track any digital object produced in the research life-cycle, as long as it has a suitable identifier.
Altmetric helps you meet reporting requirements and showcases your research.

### REPORTING
- Grant applications
- Funder reporting
- Reputation management
- Benchmarking and KPIs
- Recruitment & review

### SHOWCASING
- Identifying research to share
- Integration in profiles/IRs
- Impact on public policy
- Identifying key researchers
- Recognizing ECRs

### DISCOVERY
- Finding trending research
- Identifying collaborators
- Collection development
- Encourage IR/CRIS deposit
- Liaison - share top mentions
5. LIMITATIONS

Altmetrics don’t tell the whole story
A complement, not a replacement for things like informed peer review.

Like any metric, there’s potential for gaming
Providers have measures in place to identify gaming. Look at the underlying qualitative data.

Altmetrics are relatively new
We’re learning a lot about how often research is shared online, we don’t know much about why – more research is needed.
How does Altmetric work?
TRACKING A RESEARCH OUTPUT

An **output** (journal article, dataset, etc)

An **identifier** attached to the output (DOI, PMID, etc)

Mentioned in a **source**
1. We find a mention to a domain that we are interested in
2. We follow the link to the page
3. We look for the item’s identifier in the HTML metadata tags
4. We record the connection between the item and the mention in our database
1. We find a mention that links to growkudos.com
2. We follow the link to the Kudos page
3. We extract the item’s DOI from the HTML metadata tags
4. We record the connection between the item and the mention in our database
SOURCES OF ATTENTION

News outlets & Blogs
- Over 2000 news sites
- Global coverage
- 9,000+ Blogs

Social media
- Twitter, Facebook, Google+, Public posts only

Policy documents
- NICE Evidence
- Intergovernmental Panel on Climate Change
- Many more...

Reference managers
- Mendeley, Citeulike etc
- Reader counts

Post-publication peer review
- Publons
- PubPeer
- F1000

Other sources
- Scopus Citations
- Wikipedia
- Open Syllabi Project
- YouTube
- StackExchange
- Reddit

...
NATIONALITIES OF TRACKED NEWS
LANGUAGES OF TRACKED NEWS

- English: 62.7%
- Spanish: 9%
- German: 7.5%
- Portuguese: 4.2%
- French: 4.2%
- Dutch: 4.2%
- Italian: 4.2%
- Japanese: 4.2%
- Danish: 4.2%
- Swedish: 4.2%
- Korean: 4.2%
- Greek: 4.2%
- Polish: 4.2%
- Norwegian: 4.2%
- Turkish: 4.2%
- Russian: 4.2%
- Icelandic: 4.2%
- Chinese: 4.2%
- Other: 5.3%
# FINNISH NEWS SOURCES

<table>
<thead>
<tr>
<th>Finnish Sources</th>
<th>English Sources</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aamulethi</td>
<td>Good News from Finland</td>
</tr>
<tr>
<td>Etelä-Suomen Sanomat</td>
<td>Uusi Suomi</td>
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<tr>
<td>Helsingin Sanomat</td>
<td>Tekniika &amp; Talous</td>
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<td>Kaleva</td>
<td>Pohjalainen</td>
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<td>Kauppalehti</td>
<td>Talouselämä</td>
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<td>KP24Kotimaa24</td>
<td>Tivi</td>
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<td>Maaseudun Tulevalsuus</td>
<td>MTV</td>
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<td>Suomen Kuvalehti</td>
<td>YLE Arena</td>
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<td>Iltalehti</td>
<td>Media Kaskas</td>
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<td>Ilta Sanomat</td>
<td>Radio Jyväskylä</td>
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<td>Turun Sanomat</td>
<td>Digitoday</td>
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<td>Yle.fi</td>
<td>Keskisuomalainen</td>
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<td>Tekniik Katalous</td>
<td>Aalto-yliopisto</td>
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<td>Me Naiset</td>
<td>Jyväskylän Ilyopisto</td>
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<td>Policy Documents Coverage</td>
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<td>ASHA Practice Policy</td>
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<td>Australian Policy Online</td>
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<td>British Thoracic Society Guidelines</td>
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<td>Brookings Institute</td>
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<td>Bureau of Economic Analysis</td>
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<td>CARE International - CARE Insights</td>
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<tr>
<td>Centers for Disease Control and Prevention (CDC)</td>
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<tr>
<td>Chatham House</td>
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<tr>
<td>European Agency for Safety and Health at Work</td>
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<tr>
<td>European Food Safety Authority</td>
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<tr>
<td>Food and Agriculture Organization of the United Nations</td>
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<tr>
<td>GOV.UK – Policy papers, Research &amp; Analysis</td>
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<tr>
<td>HEFCE</td>
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<tr>
<td>Institute for Fiscal Studies</td>
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<td>Intergovernmental Panel on Climate Change</td>
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<td>International Committee of the Red Cross</td>
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<td>International Labour Organization</td>
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<td>International Monetary Fund</td>
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<td>International Organization for Migration</td>
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<td>Mental Health Foundation</td>
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<td>MSF UK</td>
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<td>MSF USA</td>
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<td>National Bureau of Economic Research</td>
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<td>National Endowment for the Arts</td>
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<td>National Institute for Health and Care Excellence</td>
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<td>NICE Evidence Services</td>
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<td>Oxfam GB Policy &amp; Practice</td>
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<td>Scottish Intercollegiate Guidelines Network</td>
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<tr>
<td>The Association of the Scientific Medical Societies in Germany</td>
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<tr>
<td>The Carnegie Endowment for International Peace</td>
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<tr>
<td>The Food and Drug Administration (FDA)</td>
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<tr>
<td>The Institute for Women’s Policy Research</td>
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<tr>
<td>The Inter-American Development Bank</td>
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<tr>
<td>The International Fund for Agricultural Development</td>
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<td>The International Institute for Sustainable Development</td>
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<tr>
<td>The Microbiology Society</td>
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<tr>
<td>The National Association of Development Organizations</td>
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<tr>
<td>UK Parliament Briefing Notes</td>
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<td>UNESCO</td>
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<td>United States Environmental Protection Agency</td>
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<td>World Bank</td>
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<td>World Economic Forum</td>
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<td>World Health Organization</td>
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<td>World Health Organization</td>
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</table>
SCHOLARLY IDENTIFIERS TRACKED: MORE THAN DOIs

- CrossRef DOIs: Articles, eBook Chapters, etc
- DataCate DOIs: Research Data (e.g. figshare, Zenodo)
- ISBNs: Books, Reports etc
- PubMed ID: Health Sciences articles etc
- arXiv ID: Physics, Mathematics & Computer Sciences preprints
- ADS ID: Astrophysics data system
- SSRN ID: Social Sciences preprints
- RePEc ID: Economics preprints
- Handles: Repositories, Digital Libraries, etc
- NCT ID: Clinical Trials
- NCT ID: Clinical Trials
- Canonical URL: Web pages
We can track:

1. Items in institutional repositories, digital libraries etc that have any of the required identifiers in their HTML metadata tags

2. Institutional Press Releases, Blog posts etc that have any of the required identifiers in their HTML metadata tags
   - Typically this means a canonical URL metadata tag in the HTML of the required page
   - We would also need to know which folders of the web site to harvest, or for their to be an RSS feed of the required pages
**ALTMETRIC ATTENTION SCORE**

Provides an indicator of the attention surrounding a research output.

<table>
<thead>
<tr>
<th><strong>Volume</strong></th>
<th><strong>Sources</strong></th>
<th><strong>Authors</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>The score for an article rises as more people mention it.</td>
<td>Each source category contributes a different base amount to the final score.</td>
<td>How often the author of each mention talks about scholarly articles influences the contribution of the mention.</td>
</tr>
</tbody>
</table>

Read more about the score here: [altmetric.com/blog/scoreanddonut/](http://altmetric.com/blog/scoreanddonut/)
Look at who is saying what, where
Not just at the numbers

Attention ≠ Quality
Altmetric Explorer for Institutions

Search, filter, sort, save, analyze and export altmetrics data
OVERVIEW OF KEY FEATURES

- Browse altmetrics for your institution or search across the entire Altmetric database of over 5.3 million research outputs
- Filter by your authors and departments
- Search by item type: articles, data sets, books, etc.
- Save searches and export data
- Sort results by Altmetric Attention Score, mentions in a chosen source, or publication date
- Analyze and visualize results
Who should use Altmetric Explorer for Institutions?

Researchers who want to...

- Assess the reach, engagement, and influence of their own research outputs
- Demonstrate evidence of engagement and influence in promotion and funding applications
- Find potential collaborators, e.g. for EU funding bids
- Establish their academic social network
- Inform decisions on publishing choices
Who should use Altmetric Explorer for Institutions?

**Librarians** who want to...

- Support researchers by identifying the reach and response to their work
- Monitor and report on the performance of their institution's research outputs
- Enhance the repository or discovery service
- Demonstrate the value of the library’s Open Access activities and expenditure
- Provide a novel current awareness service
Who should use Altmetric Explorer for Institutions?

Research administrators who want to...

- Compare the performance and achievements of groups in their institution
- Demonstrate the key achievements of their institution to external stakeholders
- Find leads for Impact Case Studies
Who should use Altmetric Explorer for Institutions?

Members of the Comms/PR team who want to...

- Find institutional success stories
- Manage the institution’s reputation
- Understand the reach of your research
- Find media-friendly stories/researchers
Demo
1. SEARCH + BROWSE
SEARCH, SORT & FILTER
Quickly find what you need using our powerful search

**SEARCH**
- Start in central search bar
- You can enter keywords, author name, department name, journal name, publication title, or DOI

**SORT**
- Sort results by Altmetric Attention Score, publication date or specific attention sources, e.g. Mendeley readers or News

**FILTER**
- Build complex queries and refine with *Advanced Search*
- Filter by identifier, mention timeframe, output type, author, department, etc.
BROWSE ALTMETRIC DATA

Explore research outputs and view Altmetric Details Pages

Donuts with a blue tick in the screenshot above indicate a verified institutional output. These outputs were added to the database as part of your data implementation. Keep an eye out for the blue ticks when searching across the entire database as they help identify your institutional outputs!
ADVANCED SEARCH
Build complex queries in advanced search and save for later

1. Construct your advanced search
2. Browse results, sort and save
SEARCH BY ITEM TYPE

e.g. journal article, data set, book, book chapter, clinical trial

Enter output type, e.g. “book” or “article” or filter in advanced search
SORT RESULTS
Sort results by score, publication date or attention source

Try sorting by:
- Altmetric Attention Score to see outputs with high attention
- Publication date for recently published items
- Mendeley readers to see outputs with high academic readership

In EFI, you might see transparent donuts with a ? in the center, as in the example on the right. This is indicates a research output without an Altmetric Attention Score but was added to the database during your data implementation. These donuts might still have underlying data, e.g. Mendeley and Scopus, that do not contribute to the score. The donut will light up when it gets a score!
TOGGLE BETWEEN DATABASES
Switch between institutional view and entire Altmetric database.

- Select Full Database to search all outputs Altmetric has ever tracked
- Select Your Institution Only to search across your verified research outputs
SAVE SEARCHES

1. Hit Save Search for any query

2. View your Saved Searches via the sidebar
2. ANALYZE RESULTS
ANALYZING ALTMETRIC DATA
Analyze and report on attention to your research
ANALYZING ALTMETRIC DATA
Analyze and report on attention to your research

• Summary: Monitor online engagement with research outputs over time.

• Highlights: Follow research that’s making headlines, and see which contributors from your institution are making the biggest splash.

• Demographics: Discover the global reach of your research outputs on Twitter.

• Mentions: Focus on specific attention source types and browse through the mentions.
Browse the *Summary* tab, which includes total counts and attention over time for research outputs in your results list.

Adjust the time period that the mentions timeline covers.
View Attention Highlights in your search results

RESULTS ANALYSIS
Analyzing results for all research outputs from Lilliput University sorted by Altmetric Attention Score.

HIGH-PROFILE ATTENTION HIGHLIGHTS
Showing 25 interesting highlights of attention from the results of your search query.

MENTIONED IN A HIGH-PROFILE NEWS OUTLET
02 September, 2016
"When your football team wins, so does Obama"
Ohio State running back Ezekiel Elliott celebrates after one of his four rushing touchdowns against Oregon in the 2015 college football championship.

Related research outputs:
- Irrelevant events affect voters' evaluations of government performance
  Article in Proceedings of the National Academy of Sciences of the United States of America, July 2010
- Sources of Bias in Retrospective Decision Making: Experimental Evidence on Voters' Limitations in Controlling Incumbents
  Article in American Political Science Review, January 1970

2 contributors from Lilliput University
- BANNER, Britney
- STARK, Tommy
VIEW GEOGRAPHIC REACH

View visualizations in the Demographics tab

There have been 47,330 tweets about this content by 40,397 unique tweeters in 198 countries.
VIEW MENTION ACTIVITY

View a chronological attention breakdown in the Mentions tab.

View a latest feed of attention activity by individual mention, sorted by date mentioned.

The list can be limited to the sources and time period of your choice.

Donuts with a blue tick in the screenshot above indicate a verified institutional output. These outputs were added to the database as part of your data implementation. Keep an eye out for the blue ticks when searching across the entire database as they help identify your institutional outputs!
Choose **Export results as CSV** for any search and the file download will begin.

The exported file includes the authors and department names from your institution.
Tips for finding evidence of Impact
KEY CHANNELS FOR EVIDENCE OF IMPACT

- **Policy Documents** – evidence that your research has reached policy makers (but still need to check for significance of mention – just a literature review?)

- **Peer Reviews** and **F1000 Recommendations** – positive reviews are an indicator of likely future citations

- **Blog posts** – may include in-depth discussion of the research outputs and its significance/impact

- **Social Media** – a Tweet or a Facebook post from a key individual or organisation can be followed up to discover if it is evidence of real impact
KEY CHANNELS FOR EVIDENCE OF IMPACT

- **News sources** – evidence that the general public will be aware of your research (but of course biased by subject area etc, and the significance/reach of the outlet can be key)

- **Wikipedia** – a key resource for global information discovery for both the general public and domain experts – citations in Wikipedia article are a key indicator that your research output will have a wide readership (especially if it is Open Access)

- **Mendeley** – Mendeley readership is correlated with future citations
TIPS FOR FINDING EVIDENCE OF IMPACT

○ At the **Institution, Department** or **Author** Level:
  ○ Use the timeline on the **Mentions Summary** time to find peaks in attention and then click on them to see details of the mentions responsible.
  ○ Use the **Highlights** tab to see the most significant News mentions (other significant mention types will be added to the Highlights tab in future releases)
  ○ Use the **Mentions** tab shows to see the mentions from the Source(s) of your choice, in any time period (e.g. a single Month or Week)
  ○ Use **Saved Searches & Alerts** to push results to you
  ○ Sign up to email alerts for new mentions to individual publications
Implementing Altmetric at the University of Tampere
TRIAL ACCESS for UNIVERSITY OF TAMPERE

- Trial with our dummy “Lilliput University” data: http://www.altmetricexplorer.com/
  username: t.bucknell+tampere@digital-science.com
  password: Kalevantie4

- Saved searches: UTA publications with DOIs from Scopus:
  - 2016 - 782 identifiers
  - 2015 - 1,016 identifiers
  - 2014 - 867 identifiers
  - 2013 - 863 identifiers
  - 2012 - 852 identifiers
  - 2011 - 780 identifiers
  - pre 2011 - 5,794 identifiers

- And the full Altmetric data to explore!
INTEGRATING WITH SoleCRIS

• Does it have an API or OAI-PMH endpoint?
• Can they expose the required fields:
  – Author name
  – Unique IDs for your authors
  – Identifiers for Publications
  – Organizational group hierarchy

How comprehensive is its coverage?
INTEGRATING WITH TamPub via OAI-PMH

We need to access the following information:

- Author name
- Unique IDs for your authors
- Identifiers for Publications
- Organizational group hierarchy

Data review required to assess the quality of your metadata

Your Explorer site will: replicate data/structure from your OAI-PMH endpoint, have your colour scheme / logo, and be updated daily
A QUICK TamPub DATA REVIEW

TamPub records contain:
- handles
- URNs
- DOIs
- ISBNs

- But does it contain all UTA publications or just Open Access ones?
- Does it have an OAI-PMH feed?
- Does its OAI-PMH fee expose all the required fields?
  - Author name
  - Unique IDs for your authors
  - Identifiers for Publications
  - Organizational group hierarchy
INTEGRATING WITH CSV FILES

One file with columns for:

- Persistent identifiers for publications, e.g. DOI
- Author names (optionally with unique IDs)
- Departmental affiliations

<table>
<thead>
<tr>
<th>Author ID</th>
<th>Author name</th>
<th>Department</th>
<th>DOI</th>
</tr>
</thead>
<tbody>
<tr>
<td>123456</td>
<td>Carberry, Josiah</td>
<td>School of Pottery</td>
<td>10.1234/psycer123</td>
</tr>
</tbody>
</table>

Another file for:

- Organizational group hierarchy

Your Explorer site will: replicate data/structure from your CSV files, have your colour scheme / logo, and be updated quarterly
Altmetric vs Plum
for the same University of Helsinki researchers

Data compiled November 2015
RELATIVE NUMBER OF MENTIONS FOR EACH SOURCE

- Altmetric
- Plum
NUMBER OF RESEARCHERS WITH MENTIONS FOR EACH SOURCE

<table>
<thead>
<tr>
<th>Source</th>
<th>Altmetric</th>
<th>Plum</th>
</tr>
</thead>
<tbody>
<tr>
<td>News</td>
<td>55</td>
<td>10</td>
</tr>
<tr>
<td>Blogs</td>
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<td>Twitter</td>
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<td>60</td>
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<tr>
<td>Reddit</td>
<td>30</td>
<td>20</td>
</tr>
<tr>
<td>Mendeley</td>
<td>55</td>
<td>55</td>
</tr>
</tbody>
</table>
SOURCES UNIQUE TO EACH TOOL

• Altmetric
  – Policy Documents
  – Peer Reviews
  – F1000 Recommendations
  – (Now – Open Syllabi Project)
  – Several minor or discontinued sources

• Plum
  – Usage (downloads/views from EBSCO and 1 publisher platform)
  – Facebook likes etc (not auditable, can be gamed)
  – Citations (PMC and CrossRef as well as Scopus which Altmetric now has too)
THANKS!

Any questions?

You can find us at:

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@altmetric
t.bucknell@digital-science.com

All illustrations by Jean Liu @jean_draws