

What is impact and how might we measure it?

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Opening argument

- Most of what we know as ‘impact’ is rooted in technology of 40-50 years.
- The ‘fit for purposeness’ comes from our knowledge of what metrics look like, and how we derive concepts of impact.
- Three stages of existing metrics:
 - Discover / index
 - Count
 - Interpret
- The combination of dis-satisfaction from some, familiar comfort for others and legacy IP must indicate a vulnerability to disruption

Is altmetrics the revolution?

- Five years old
- Great interest
- Increasing use
- Some criticisms:

Overview

Data from Scopus, SciVal, Mendeley, Altmetric.com

Citation Count

82

Cited by in Scopus



Field-Weighted Citation Impact

69.47



Citation Benchmarking

99th percentile

Compared to Medicine (all) articles of the same age and document type



Mendeley

111 Readers

Mass Media

39 Items

Blogs

12 Posts

F1000Prime

2 Reviews

Twitter

132 Tweets

3 Other sources

29 Mentions

Engagement highlights

Scholarly Activity - 125 readers from 2 sources

Downloads and posts in common research tools



Mendeley: 111 Readers
Top Discipline: Biological Sciences
Top Demographic: Ph D Student
[Save to Mendeley](#)



CiteULike: 14 Saves

Benchmark highlights

Based on 125 readers from 2 sources

Compared to Medicine (all) articles of same age and document type

All Scholarly Activity - 125

98TH PERCENTILE

Social Activity - 161 mentions from 4 sources

Mentions characterized by rapid, brief engagement on platforms used by the general population, such as Twitter, Facebook, and Google +.

132 tweets from 127 accounts 1 Reddit post from 1 account

12 Facebook posts from 11 accounts

16 Google+ posts from 14 accounts

Benchmark highlights

Based on 161 mentions from 4 sources

Compared to Medicine (all) articles of same age and document type

All Social Activity - 161

99TH PERCENTILE[View all Social Activity](#)

Altmetrics is (mostly) too small (at the moment?)

Data from Mendeley, Scopus and Altmetric

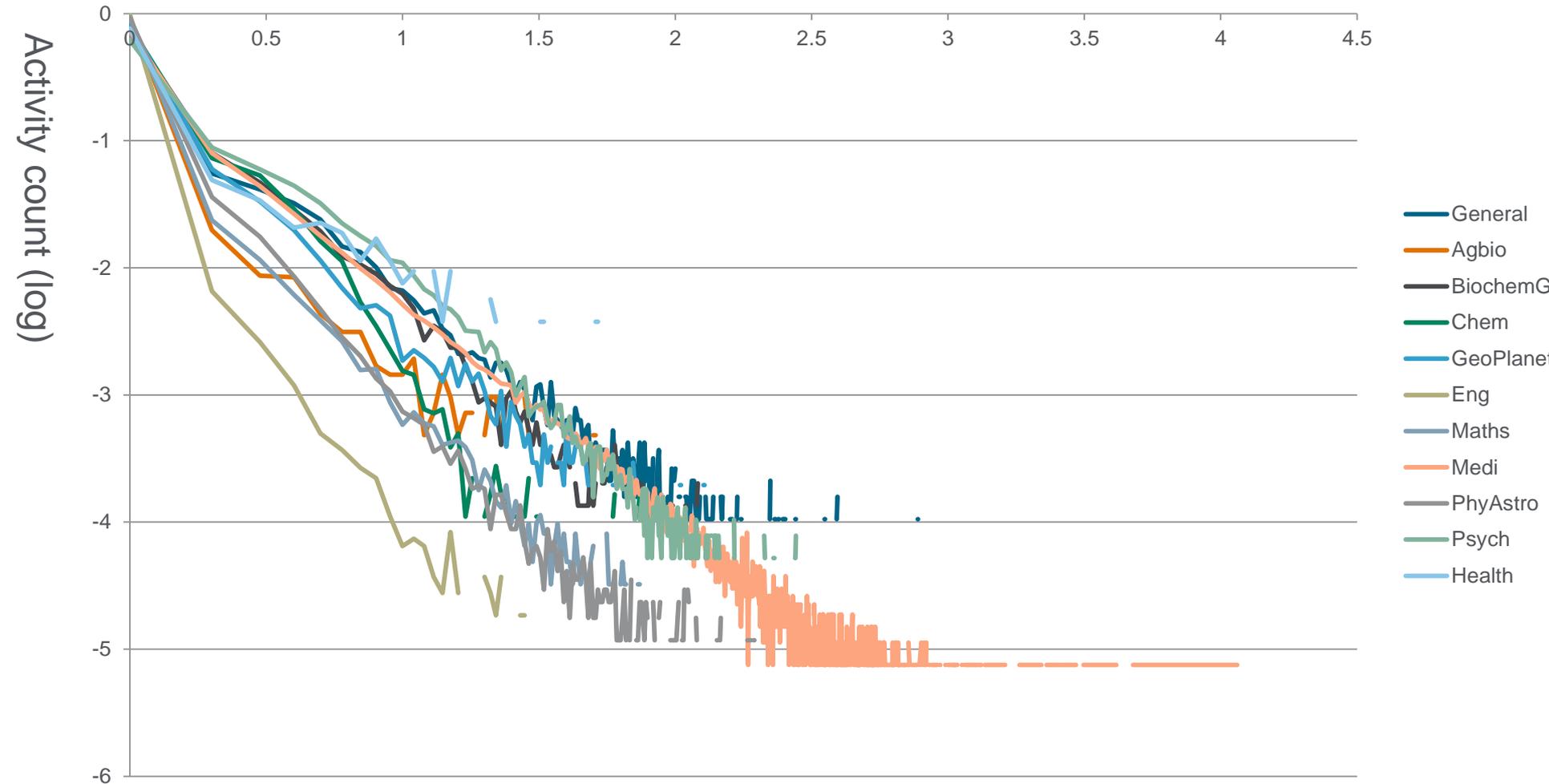


What do we know about altmetrics?

- Scholarly networks don't show the same discipline variation that citation does.
- Citation rates are still accelerating after 1 year of publication, social network activity is over.
- Scholarly networks have a reasonable correlation with citation, but there is virtually no correlation between other altmetrics and citation.
- Users of scholarly networks have readership, sharing, reference motivations, as well as citation.
- Twitter is highly focussed on a small number of publications (to make sense of the data, you have to use a log-log scale – appears to be a double power relationship at the top end)
- Mendeley is the biggest data source for scholarly activity, and the richest (demographics, discipline, location, groups)

The distribution of social activity for papers (2.4M)

Number publications (log)



Altmetrics is not the revolution

- Altmetrics is an incremental step (an important one!)
- The same paradigm: *search, count, analyse*
- But without the benefit of 40 years research

The secret life of the citation

- Citations are great – and counting means a lot.

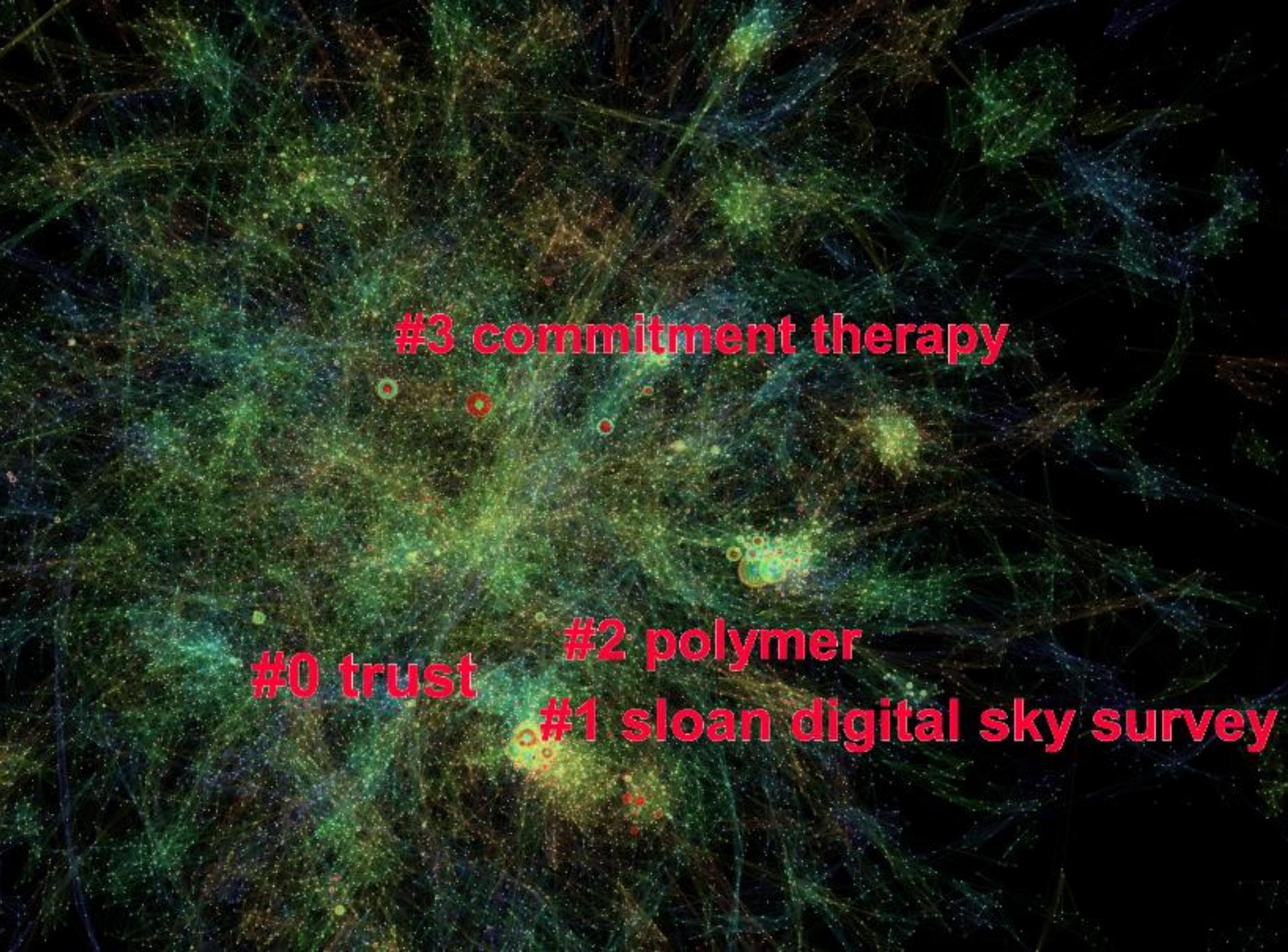
But...

- *Where* is the citation coming from? (Introduction? Methodology? Conclusion?)
- *Why is it coming?* What is the sentiment of the citing paper?
- *Who is it coming from?* Is the citing author / paper / journal ... important? Senior? International?

Concluding thought

- Altmetrics and citation analysis show similar patterns: we focus on the simple (and leave the complex to the bibliometricians, the altmetricians, the specialists, the academics...)
- But the imperative to 'make simple' means we have to stretch for meaning



A visualization of the cosmic web, showing a complex network of dark matter filaments and galaxy clusters. The filaments are colored in shades of blue and green, while the clusters are highlighted in yellow and red. The background is a deep black, representing the vastness of space.

#3 commitment therapy

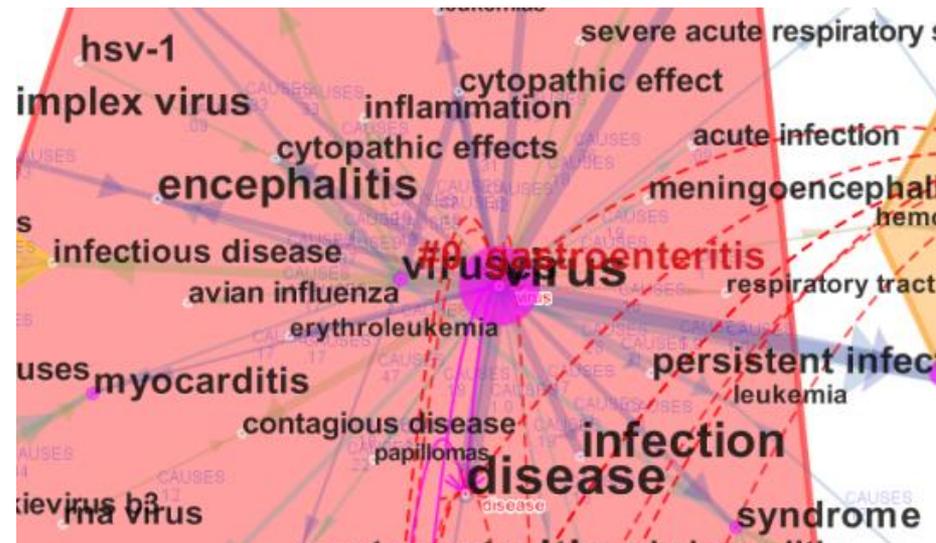
#0 trust

#2 polymer

#1 sloan digital sky survey

A move from counting to measuring

- The technology that supports massive networks of connected documents exists – not just scholarly but all digital documents that contain scholarly thoughts
- Timeline – 10 years
- Once built, the properties of a network can be measured
- We can describe the impact on the shape and size of the network, the complexity of the network, the speed of the network
- We can describe the context of the disruption
- We can visualize it and report it – simply
- **Search – count – analyse**
- **Connect – measure – understand**



Thank you (and come to the theatre in Oxford!)

- December 15-19
- www.111theatre.co.uk
- I'm directing 😊

