Discovering information

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Key points[1]

1. Learn about the increased importance of innovation in information discovery
2. Learn about barriers to innovation
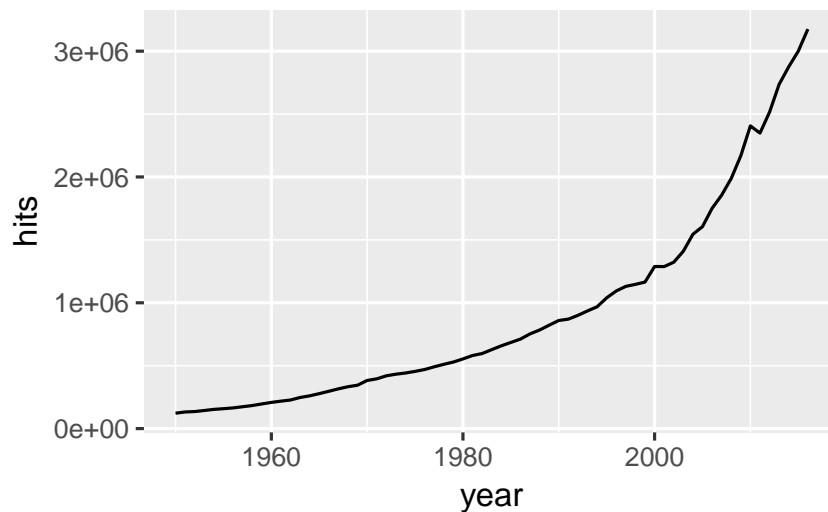3. Learn about an innovative information discovery tool

But much more information available than to cover in 20 minutes!

Importance of discovery

1. Discovery is proportional to production of information
2. Digital age allows for many ways to discover/consume information

- No longer limited by physical restrictions of paper :-)

Discovery and production

Importance of discovery

1. Production exploded!
2. Has discovery changed much in last decades?

- digitization of databases
- speed of discovery has changed
- Has mode of discovery changed?

Production changes

1. Previously, discovery primarily related to scholarly reports
2. Now, more and more data discovery!

- Due to easier options to share
- Due to increased data production
- Due to efficiency in research process

DataCite

1. DataCite is the CrossRef of data
2. Aggregates metadata about data sets from ICPSR, DANS, and other trusted repositories

- See also re3data.org for finding trusted repositories to post data to

Data production
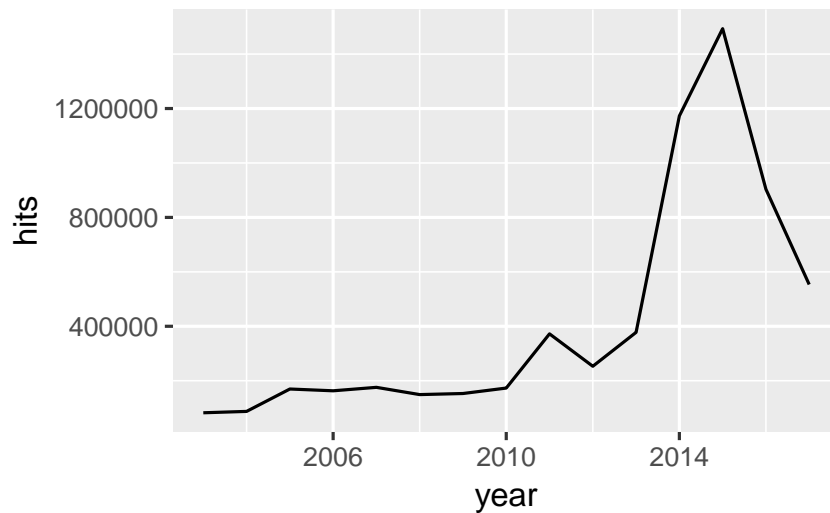
Data discovery

1. Data can be discovered reactively when reading a paper
2. Or by central searches for relevant data
3. What is more common?
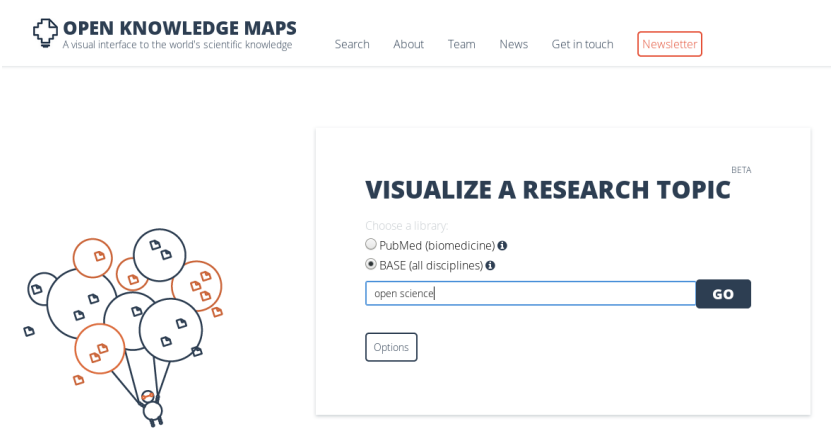4. How much data that is in papers can be found with central searches?

Combining data and reports
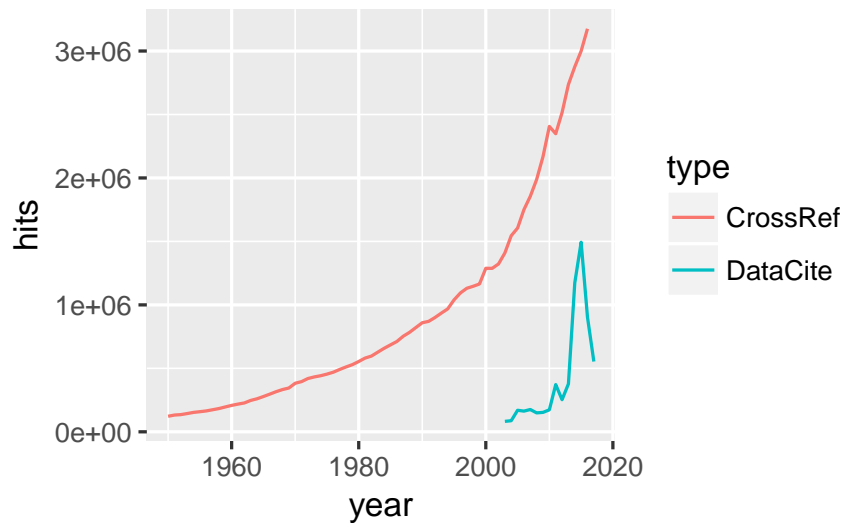
Barriers to improved discovery

1. Innovation requires diversity

- Diversity of innovators
- Diversity of content
- Diversity of business models
- Diversity of ...?

2. As such, for maximum innovation in information discovery, content needs to be available
3. For metadata, already possible with CrossRef, DataCite.
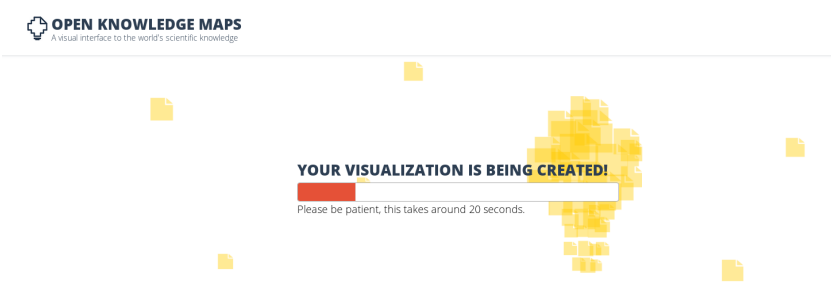4. For more in-depth discovery (beyond abstract), copyrighted material limits innovation

Innovations in information discovery

1. Open Access content gives us a glimpse into the potential for innovation
2. Because content is still limited, innovation is only in early stages

- Predict that we'll see more innovation as more content becomes reusable also for commercial purposes
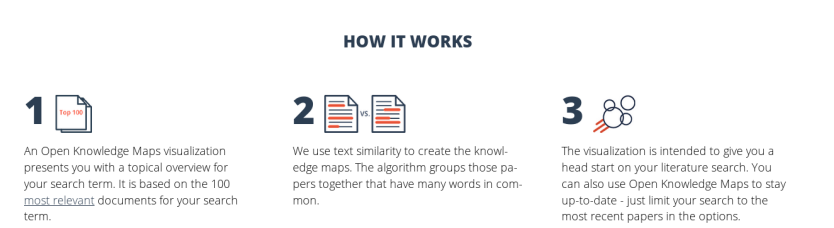
3. Some examples already present
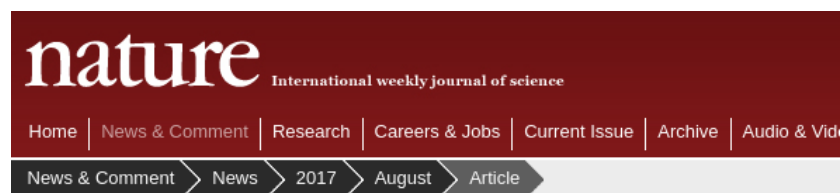
Example: OpenKnowledge Maps

OPEN KNOWLEDGE MAPS
A visual interface to the world's scientific knowledge

Search   About   Team   News   Get in touch   Newsletter

VISUALIZE A RESEARCH TOPIC BETA

Choose a library:
- PubMed (biomedicine) ⓘ
- BASE (all disciplines) ⓘ

open science   GO

Options

Example: OpenKnowledge Maps

OPEN KNOWLEDGE MAPS
A visual interface to the world's scientific knowledge

YOUR VISUALIZATION IS BEING CREATED!

Please be patient, this takes around 20 seconds.

Example: OpenKnowledge Maps

HOW IT WORKS

1 Top 100

An Open Knowledge Maps visualization presents you with a topical overview for your search term. It is based on the 100 most relevant documents for your search term.

2 vs.

We use text similarity to create the knowledge maps. The algorithm groups those papers together that have many words in common.

3

The visualization is intended to give you a head start on your literature search. You can also use Open Knowledge Maps to stay up-to-date - just limit your search to the most recent papers in the options.

Example: OpenKnowledge Maps

Example: OpenKnowledge Maps

Example: papr

Example: papr

Example: papr

Most similar Papr users to you.

Anna Gogleva: 🐦 Follow @useless_ulysses
Tanai: 🐦 Follow @Tanai_Cardona
Ryan: 🐦 Follow @rynamoshow
Steve Buyske: 🐦 Follow @ste
Jakub: 🐦 Follow @jmazur41

Using your past paper rankings, these are the users that have the most similar taste in preprints to you.

Follow them, tweet at them, collaborate with them, write a new paper for people to rate on Papr!

Exercise: information discovery

1. Determine a topic you want to do some literature search on.
2. Conduct a literature search in a database of your choice (Utrecht University has access to Scopus)
3. Conduct the same literature search in OpenKnowledge Maps
4. What is the added value of each search?
5. Do you think the searches are alternatives or complements in discovery of information?
6. In a utopia, how would you like to be able to discover information? Get funky with ideas, nothing's too crazy!