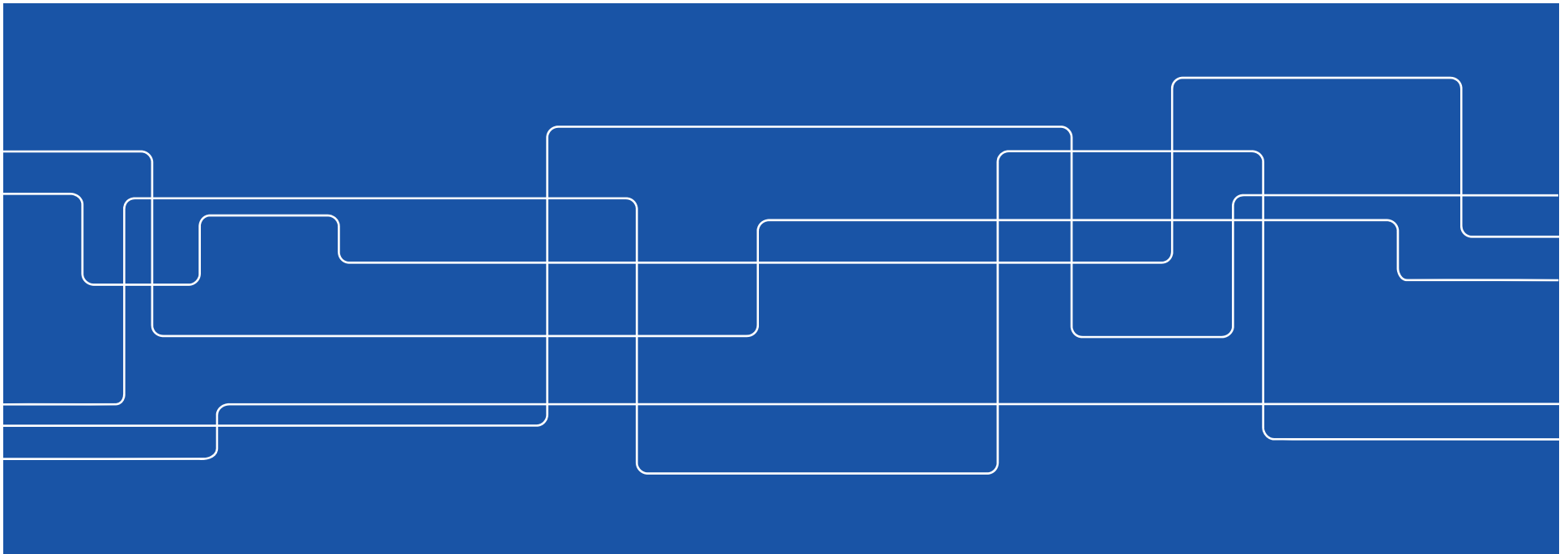# Publish for impact: Guidance for publishing

Peter Sjögårde, Bibliometric analyst
ECE School
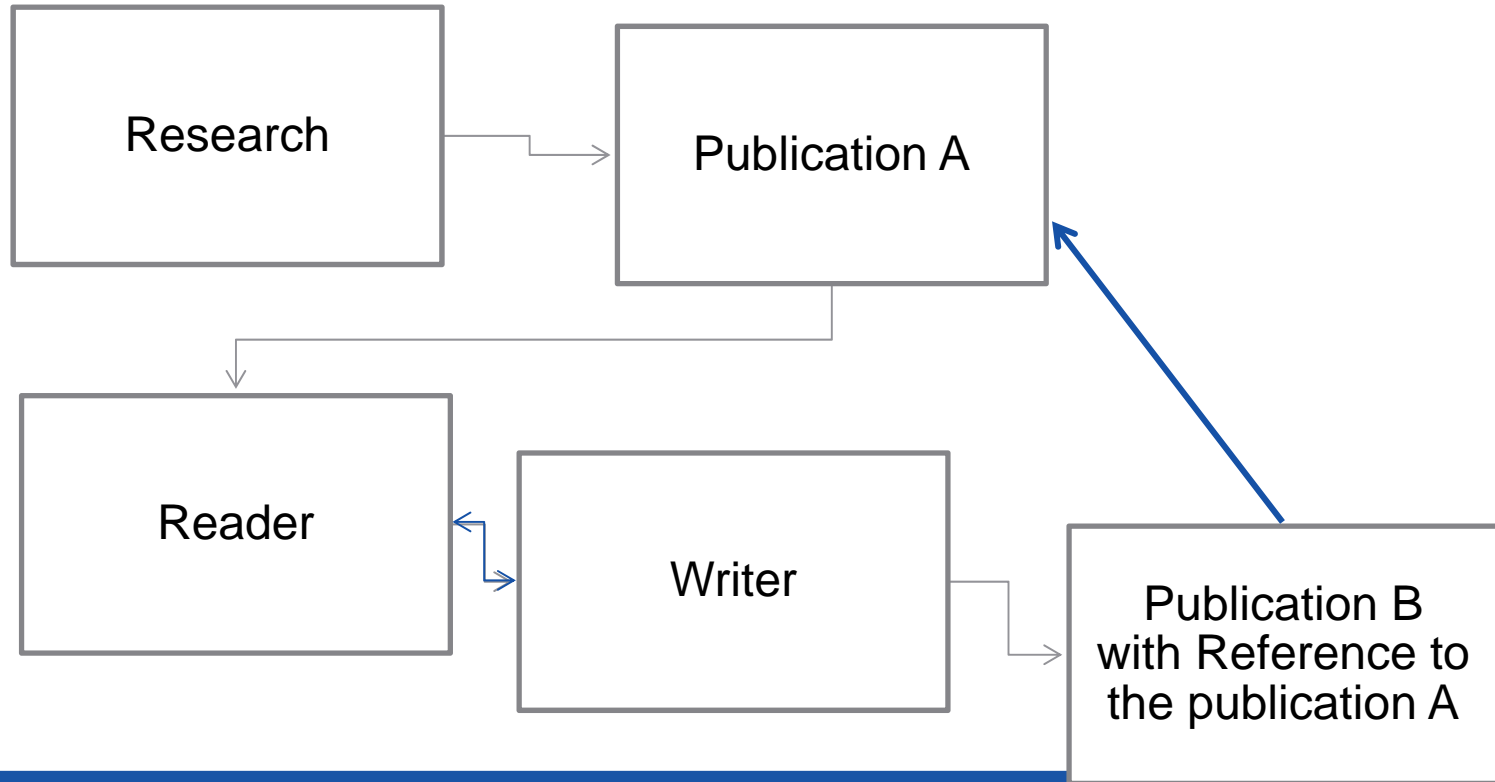
What is bibliometrics?

Biblio – book

Metri – measure
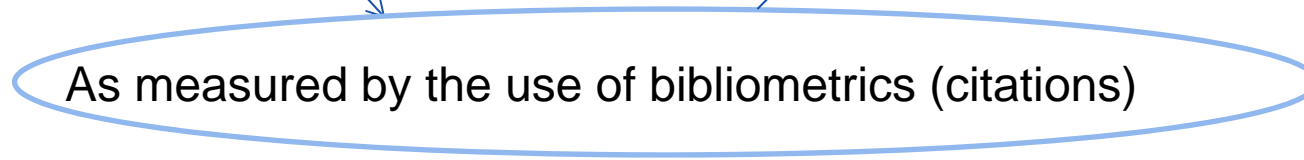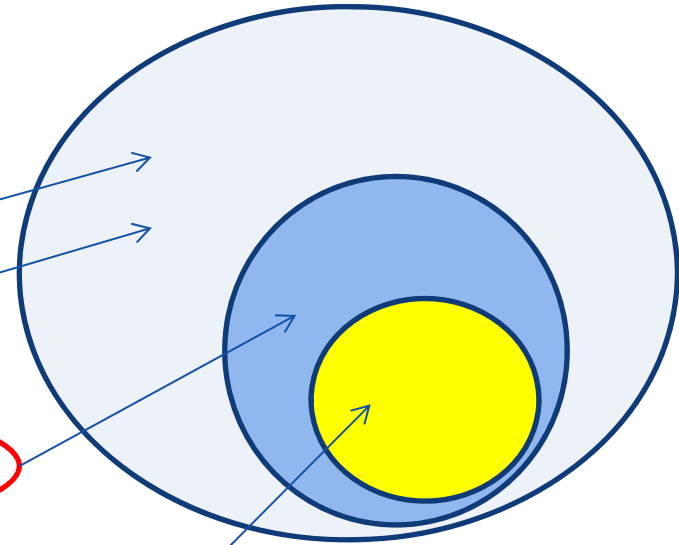
Statistics on publications and citations

Citation

Impact?

- On society
- On industry
- On research community

As measured by the use of bibliometrics (citations)

What is bibliometrics and why bother about it?

Are your result reaching out to the research community?

Measuring Impact on research society

Used for evaluation of research

- Impact of a single publication
- Impact of a researcher
- Impact of a group of researchers
- Impact of a university

Use of bibliometrics

University rankings

Recruitment of researchers

Research assessment at KTH

RAE2012

Funding allocation
(part of future peer assessment?)

Research funders

Biblometrics at KTH

1. Research Assessment Exercise (research groups, UoA)
2. Yearly indicator report (KTH Schools)
3. Funding allocation (KTH Schools)

Other

- Studies of citation impact, publication patterns and collaboration patterns
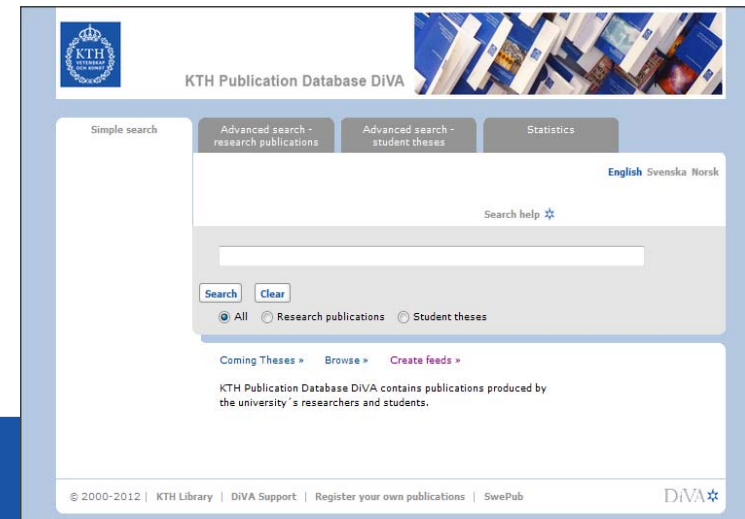
DiVA – KTH:s publication database

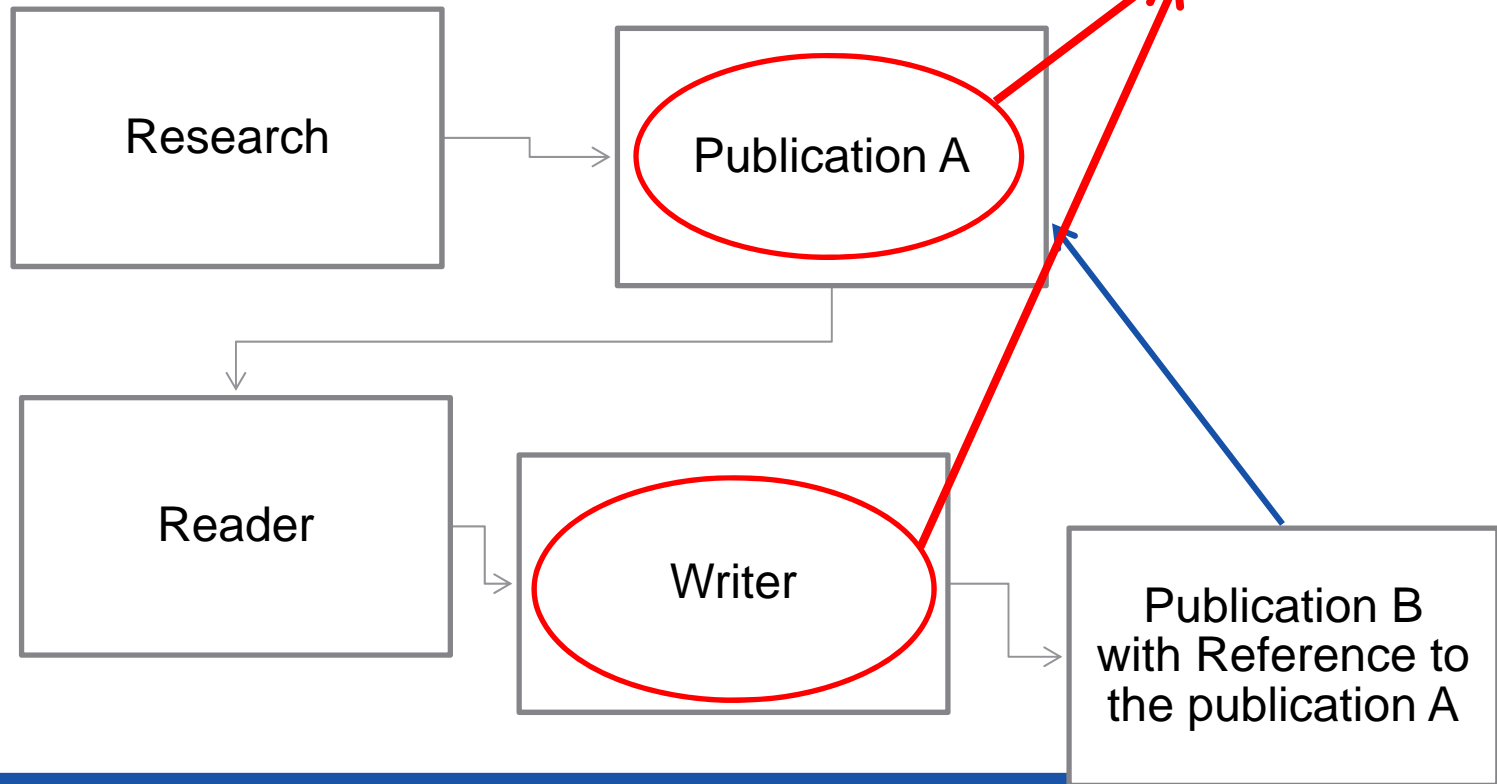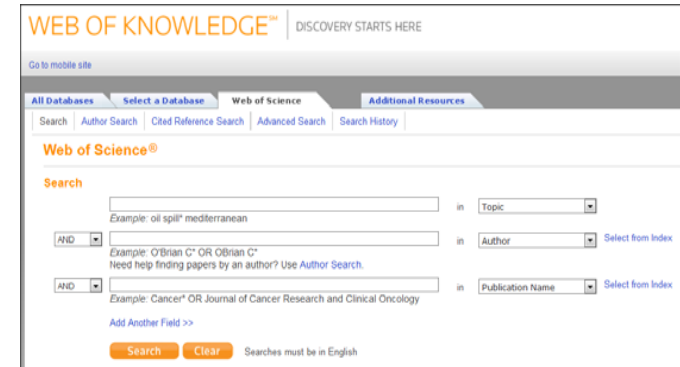- Publications has to be indexed in DiVA to be counted in the bibliometric analyses at KTH.

Will be used for

- CV-system
- Profile pages
- Swepub > Prisma

(funding application system)

Citation

Databases used for citation analysis

- Web of Science is the most important database for bibliometric analyses
- Scopus is the second most important, (and more or less the only alternative)
- Google Scholar can be used for single publications and researchers but not at aggregated levels
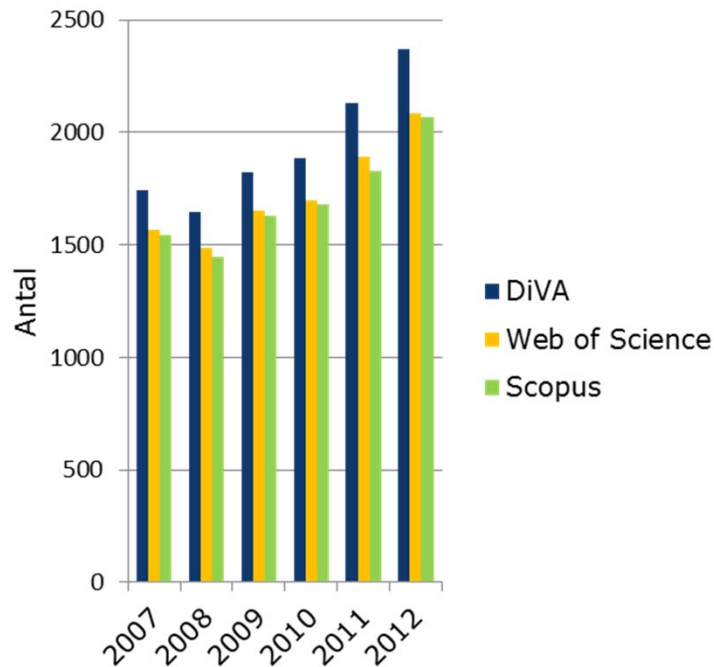
Consider publication type when publishing - Is the publication channel covered in the Web of Science

Antal artiklar i olika databaser

Antal konferensbidrag i olika databaser
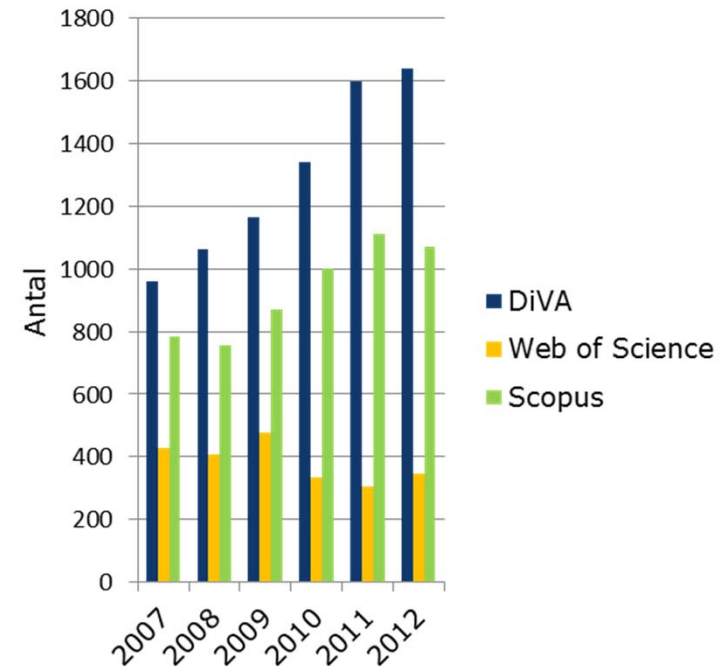
Some important non-qualitative variables influencing citations

➢ Time (publication date, citation window)

➢ Research field

- Size
- Coverage in database
- Publication pace
- Number of references
- Length of publications

➢ Document type (e.g. reviews get more citations)

➢ Coverage of database

➢ Language

➢ …

Field normalized citation rate

For a *publication*:

$$\frac{Number\ of\ citations}{average\ number\ of\ citations\ for\ similar\ publications}$$

Used at different levels
- Rankings (university level)
- Funding allocation (university level)
- Assessment (research groups)

Same research field
same year
same document type

Average = 1

Some important bibliometric indicators used at KTH

- Number of peer reveiwed articles

- Field normalized citation rate

- Number and share of top10% publications

- Share of publications co-published internationally

- Number and share of level 2 publications in the norwegian evaluation system

What should a researcher think of when publishing?

1. Quality of the research and publication
2. Participation in the international research community
   - Choice of publication channel
   - Communication of research in relevant networks

From article to reader/citer
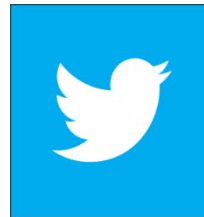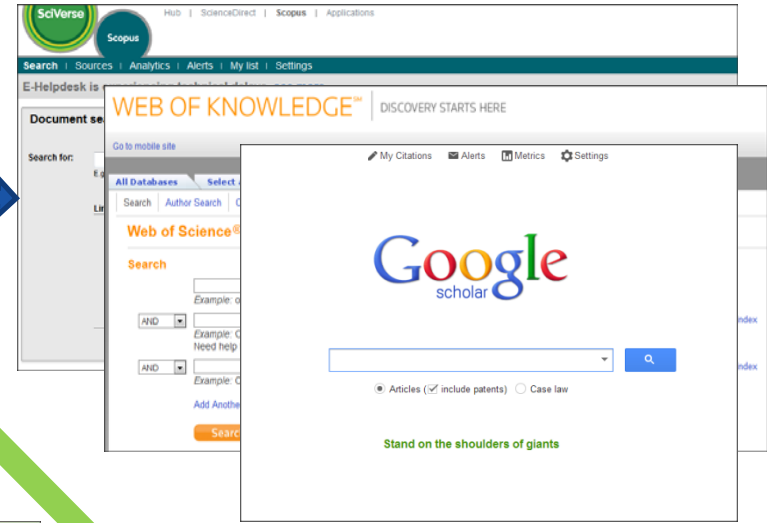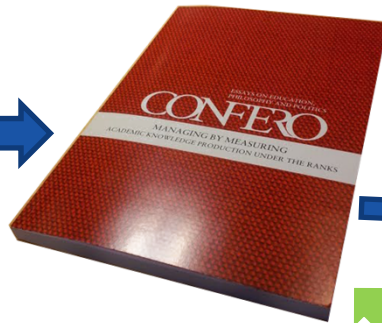
The journal/conference proceedings

- Relevant to subject?
- Peer review process
- Indexing of journal
  - Web of Science?
  - Scopus?
  - Google Scholar?
  - Other relevant databases?
- Prestige
  - Outreach?
  - Journal impact factor
  - Other journal metrics
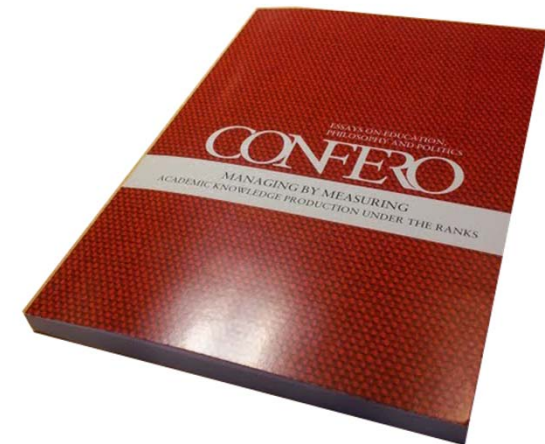
Journal Impact Factor (JIF)
How is it calculated?

JIF = Citations 2012/Citable Items 2010-2011

Citations from 2012

Issues from 2010-2011
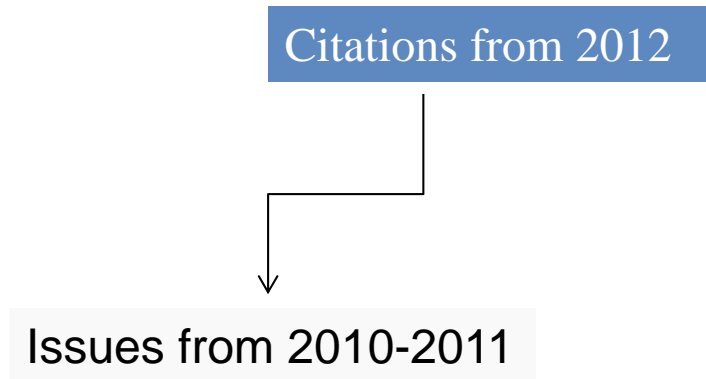
Journal Impact Factor

Much discussed and critized

eg http://www.sciencemag.org/content/340/6134/787.full

and http://am.ascb.org/dora/

- JIF is a poor proxy for the number of citations to expect. Overrated as an indicator of where to publish to maximize citations

- Could be useful as a proxy for the "brand value" of a paper - for individuals and universities

To access Journal Citation Reports

Search for "Journal Citation Reports" in KTHB Primo and open JCR from the results list

https://www.kth.se/kthb

SNIP and SJR

Alternative to JIF

Scopus data - Different coverage

Normalized to field

To access Scopus journal analyzer

Search for "Scopus" in KTHB Primo and open Scopus from the results list

In Scopus – Click "Analytics"

https://www.kth.se/kthb

Channels in the Norwegian system

Covers journals, series and publishers

Level 1 – Scientific

Level 2 – Prestigious

http://dbh.nsd.uib.no/kanaler/

Open Access

Green – Parallel publishing

Gold – Publishing in Open Access journals
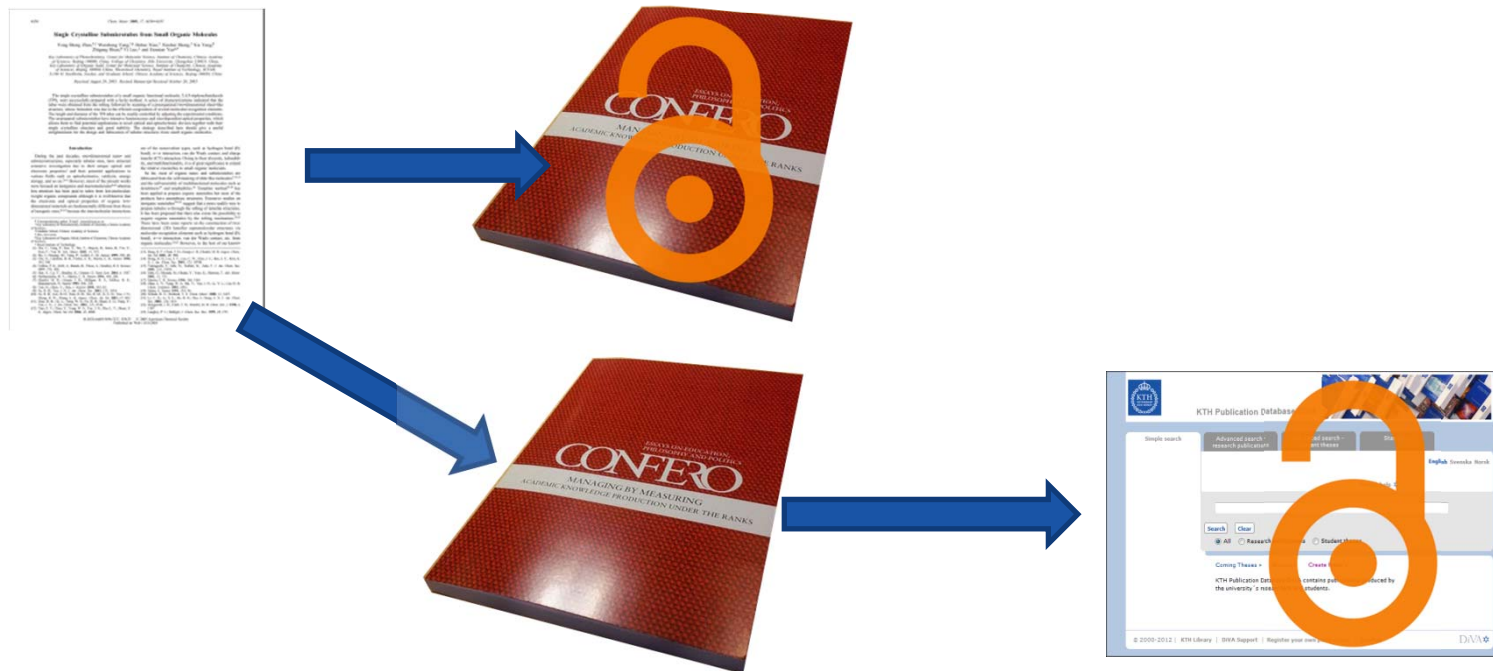
Open Access

Mandated by

- VR
- Riksbankens jubileumsfond
- Formas
- Knut och Alice Wallenbergs stiftelse
- Seventh Framework Programme (FP7)
- European Research Council (ERC)

Open acccess and the publishing infrastructure
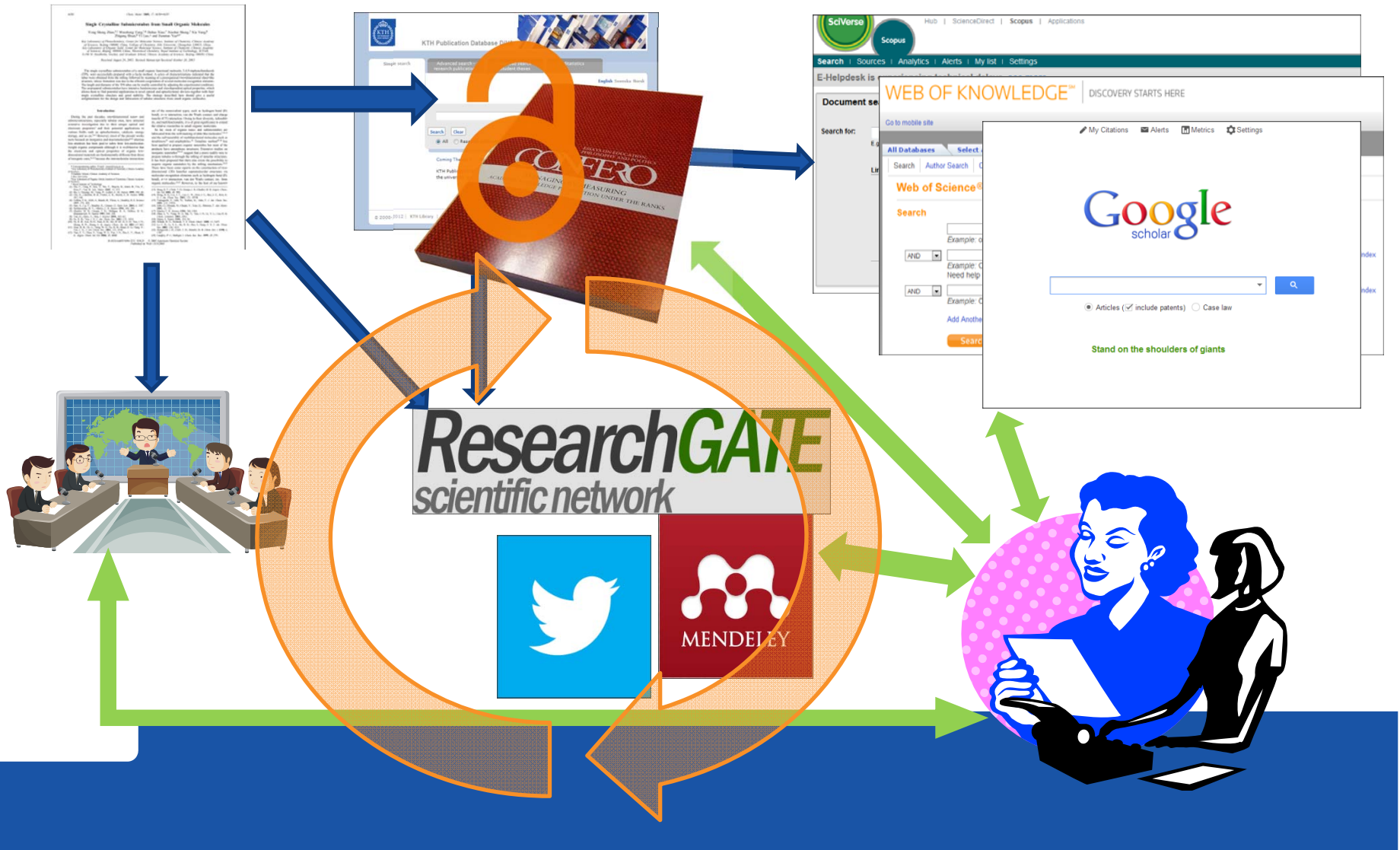
More impact/citations with Open Access?

Some studies show that OA articles get more downloads and more citations - Other show no advantage - debate is still going on

- More possible citers
- Easier access
- Easier indexing for web crawlers
- Better visibility outside the research community
- Easier to share in social media and other networks

Traditional, prescription accessed high impact journal
or
new Open Access journal?

No contradiction between OA and high impact factor journals

- If choosing to publish in OA journals the same recommendations apply
  - Check outreach and impact
  - Check the peer review process
  - Relevance
  - …
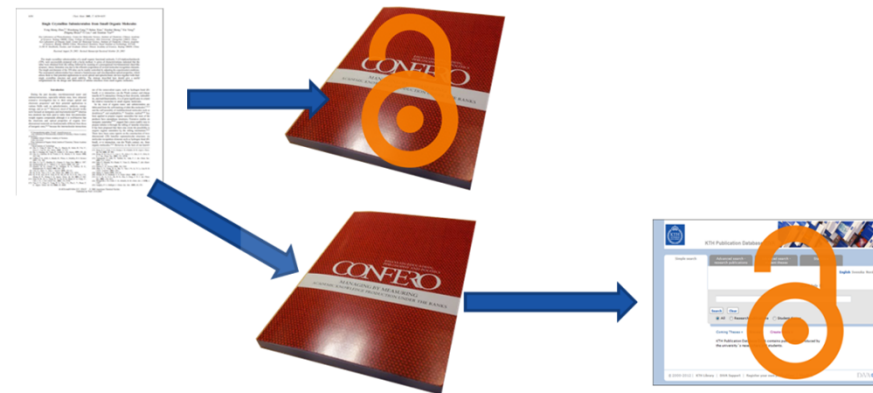
Citations and conference participation

More citations?

Research communication as a networking activity

Citations as communications

= more citations?

Citations and collaboration

Correlation between citation rates and number of authors in RAE2012
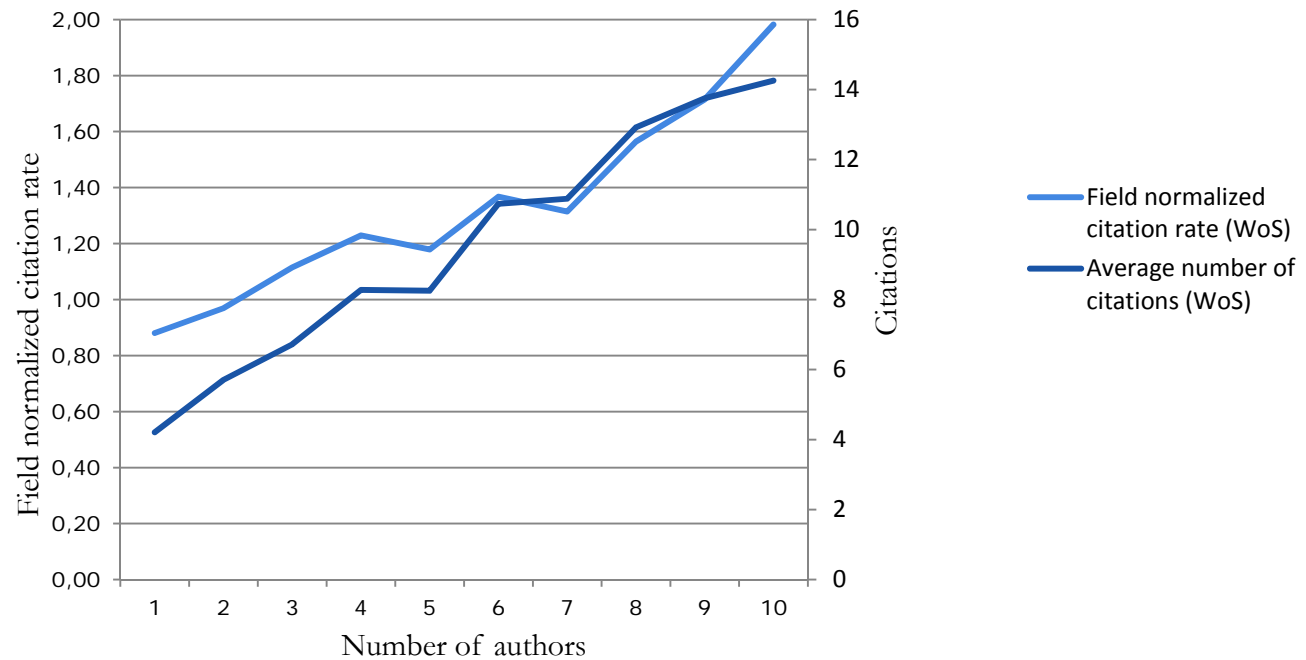
Citations and collaboration

Correlation between citation rate and number
of authors in RAE2012
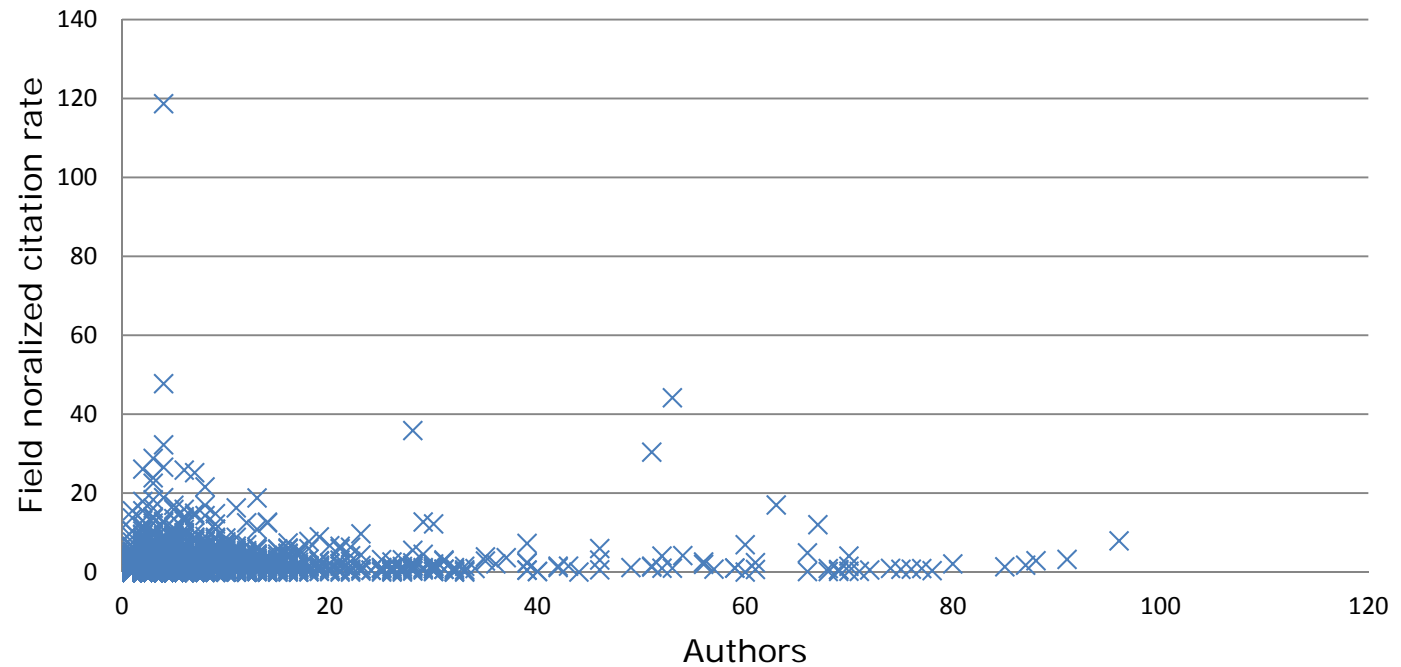
Publications with less than 100 authors included

Social media

Why?

- Find publications

- Share publications

- Make research visible

- Collaborate

Correlation between social media impact and bibliometrics?

Differences between research fields
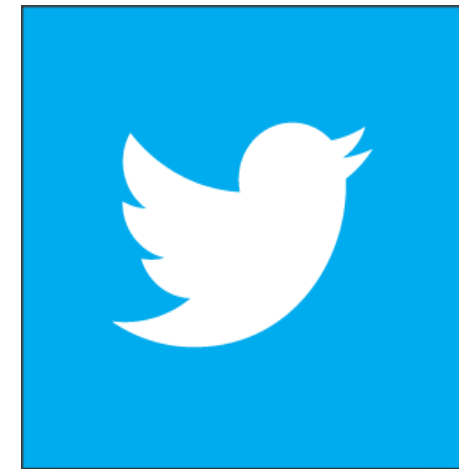
KTH's *policy* for scientific publishing

Aim: To make KTH's scientific publishing more visible
for the international scientific community and the general public

Publish in international peer reviewed high-impact journals

Strive to make articles freely available by publishing in
Open Access journals or do parallel publishing

Participate in popular science presentations to increase
KTH visibility and impact on society

Register publications in the KTH publication database DiVA

http://www.kth.se/en/kthb/publicering/vagledning/policydokument-1.182530

Affiliation

KTH Royal Institute of Technology

Improving your visibility using uniqe author identifiers

Open **R**esearcher and **C**ontributor **ID**

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and link to your other identifiers (such as Scopus or ResearcherID
or LinkedIn).

3 USE YOUR
ORCID ID   Include your ORCID identifier on your
Webpage, when you submit publications,
apply for grants, and in any research
workflow to ensure you get credit for
your work.

Summary of KTH's *Publishing guide*

Check the outreach of your publishing channel.

Check the impact of your journal.

Publish in English.

Plan your research and publishing for cooperation.

Use a unique and consistent author name.

Write your organizational affiliation in a way that is easy to identify by an international audience.

Register your publication in the KTH publication database DiVA.

Publish your article Open Access if possible.

Contact the Department of Publication Infrastructure at the ECE School for support and more information.

Ulf Kronman, 2011, *Guide to Scientific Publication Management for Researchers at the KTH Royal Institute of Technology,* URL: http://kth.diva-portal.org/smash/record.jsf?pid=diva2:450945

Further information

www.kth.se/kthb > Publishing

Comments/questions to:

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pi@ece.kth.se

KTH Royal Institute of Technology

School of Education and Communication in Engineering Sciences (ECE)

Unit for Publication Infrastructure