Conventional and innovative methods of research assessment

Workshop

15 November 2017

Agenda

- 14:05 14:20 Welcome & Round of introductions
- 14:20 14:40 A review of research assessments principles (Dr Birgit Schmidt)
- 14:40 15:00 Discussion
- 15:00 15:20 Data sources, metrics and methods (Najko Jahn)
- 15:20 15:40 Demo
- 15:40 16:00 Discussion
- 16:00 16:30 Coffee break
- 16:30 17:00 Exercises (and report of outcomes)
- 17:00 17:15 Summary & Close



Dr Birgit Schmidt

Project Coordinator Scholarly Communication Researcher

Göttingen State and University Library / Electronic Publishing Projects, e.g. OpenAIRE, OpenUP, FOSTER, EOSCpilot, ERC Open Science Study

Committees, e.g. LIBER, Knowledge Exchange, Research Data Alliance Member of EC Expert Group on the Future of Scholarly Publishing and Scholarly Communiction

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ORCID: orcid.org/0000-0001-8036-5859

Other: @bschmid1

Our back-grounds

- Not research assessment as such but management of research information
- Open Science policies and their implementation, incl. OA monitoring, at institutional, national, European levels
- Data analytics, e.g. in support of institutional information management, proposal writing, benchmarking

Hello my name is

A review of research assessments principles

Dr. Birgit Schmidt (SUB Göttingen)

How to share and promote your scholarly record?

Data sources, metrics and methods

Overview – Profiles: A typology

PRODUCTIVITY

IMPACT

General Open Accessata & Coding Citation Usage Aggregators



NB: Categories are not mutually exclusive, and, of course, not all profile services are listed!

ORCID



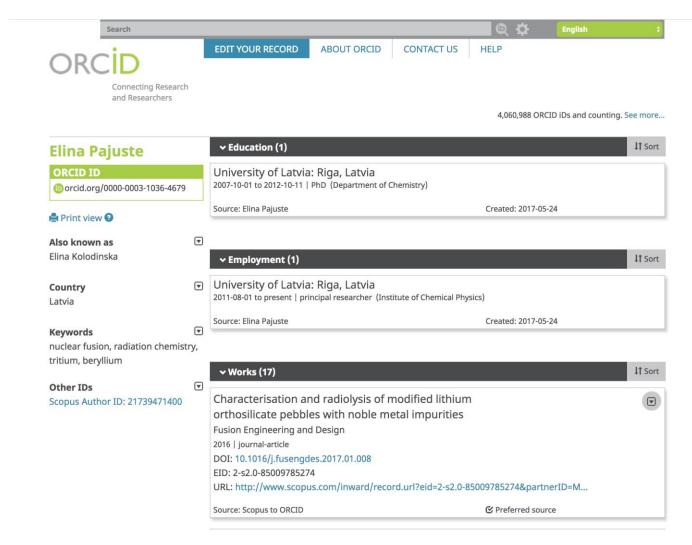
impressive production rates, is a who's who of conflated Zhangs,

Lis, Chens, Lees and other Wangs. But this confusing problem

could be solved following the launch later this year of the Open

will distinguish between authors who share the same name.

Researcher and Contributor ID (ORCID), an identifier system that



ORCID – Institutional Support

CHALMERS ORCID

Create and connect your ORCID to Chalmers

This is where you as a researcher at Chalmers create a new ORCID and connect it to Chalmers. If you already have an ORCID, just connect it to Chalmers.

Create a new ORCID

Connect existing ORCID

What is ORCID?

Open Researcher & Contributor ID (ORCID) is an international directory of unique IDs of researchers.

Read more »

Need help?

Problems signing in or questions about your ORCID connection to Chalmers? Contact us by email.

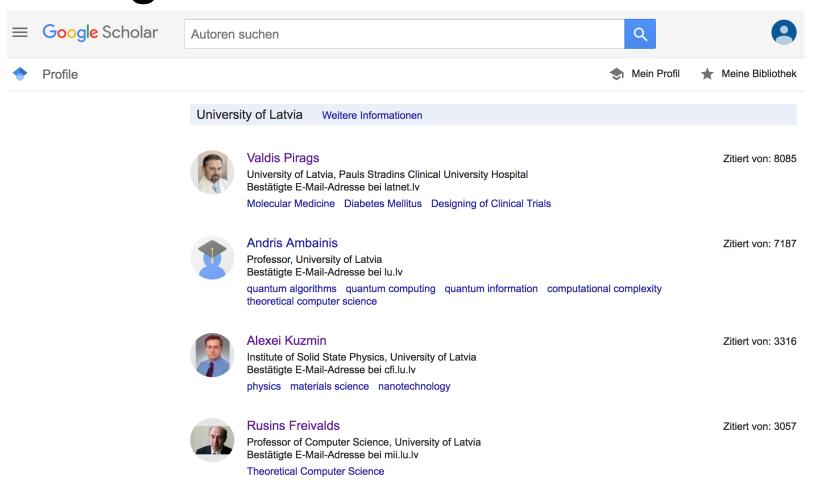
Get support »

ORCID at Chalmers

Chalmers offers researchers help with creating an ORCID and connecting this with the local research infrastructure at Chalmers.

Read more »

Google Scholar Author Profiles



Google Scholar Author Profiles

Google Scholar

Q

SIGN IN



Physical review letters 77 (18) 3865

et al.

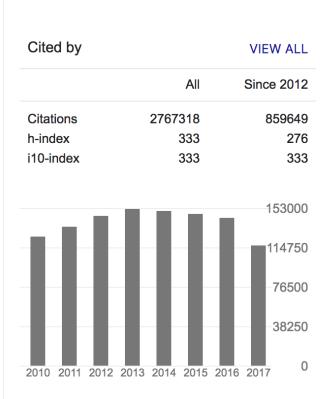
The academic superstar everybody wants to be co-author with. See Homepage for background & creator.

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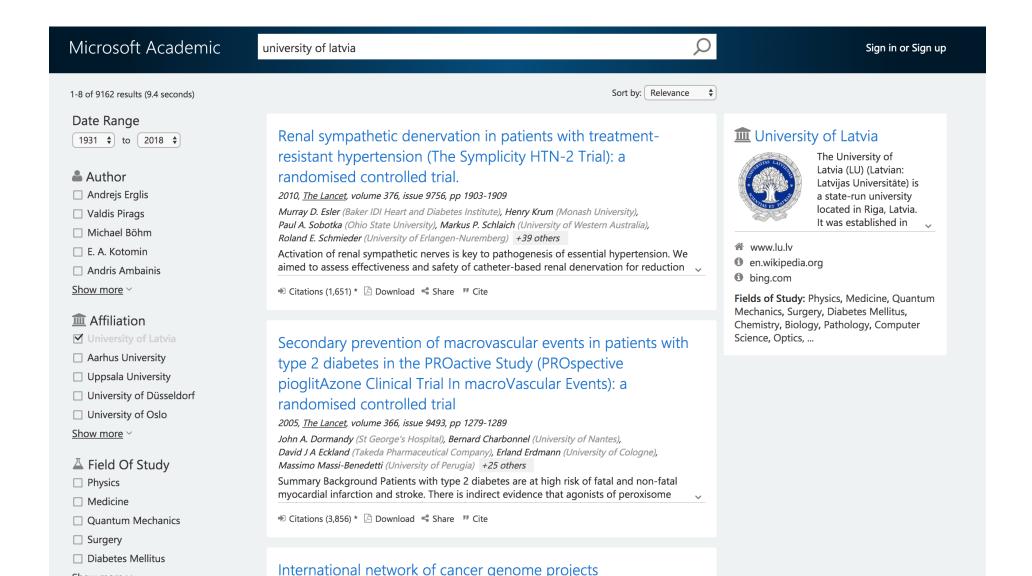
TITLE	CITED BY	YEAR
Protein measurement with the Folin phenol reagent OH Lowry, NJ Rosebrough, AL Farr, RJ Randall Journal of biological chemistry 193 (1), 265-275	211773	1951
Molecular cloning: a laboratory manual. J Sambrook, EF Fritsch, T Maniatis Molecular cloning: a laboratory manual.	180630	1989
Psychometric theory JC Nunnally, IH Bernstein, JMF Berge McGraw-Hill	100044	1967
Generalized gradient approximation made simple JP Perdew, K Burke, M Ernzerhof	78431	1996

GET MY OWN PROFILE

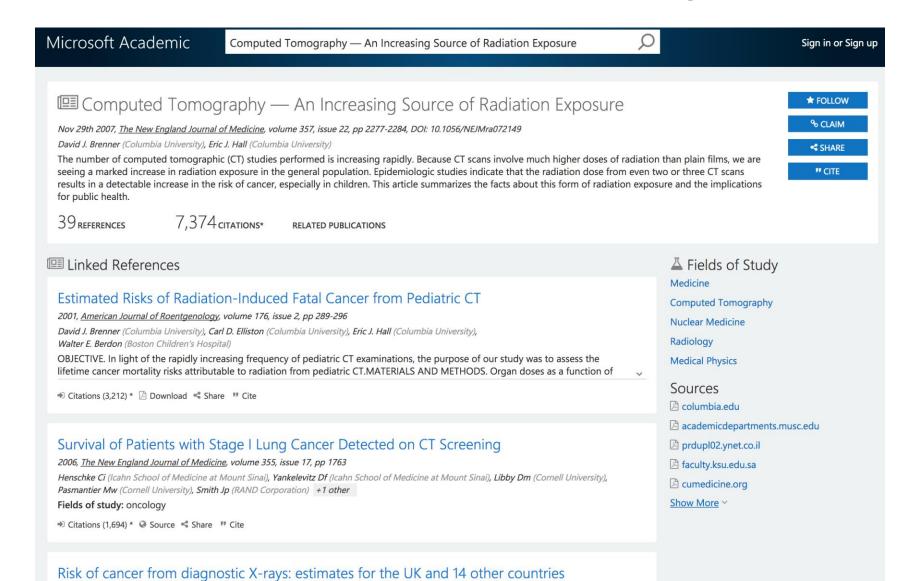
✓ FOLLOW



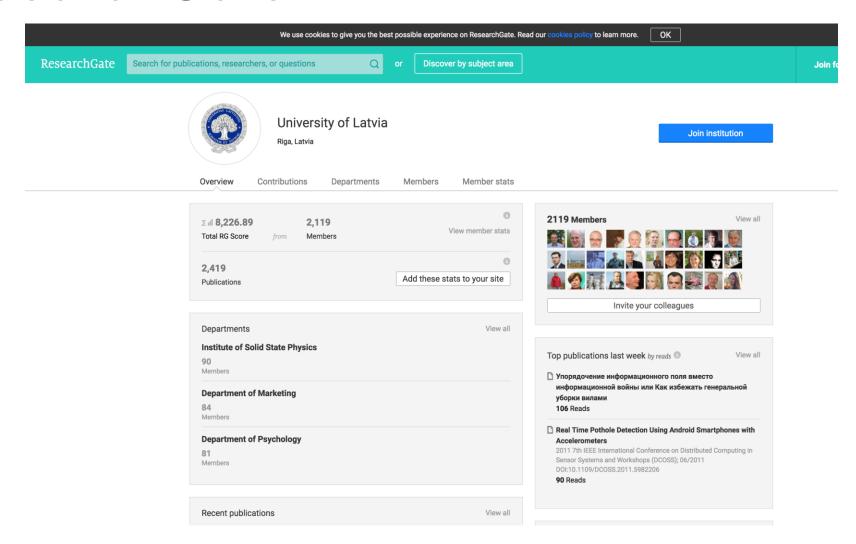
Microsoft Academic



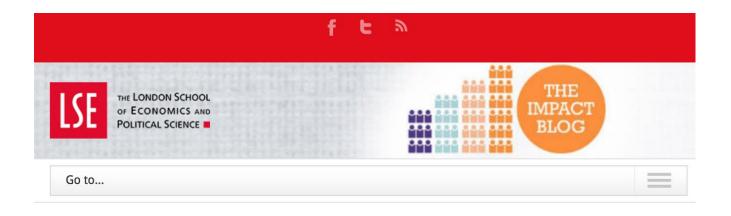
Microsoft Academic - Claiming



ResearchGate



ResearchGate - Critics



The ResearchGate Score: a good example of a bad metric





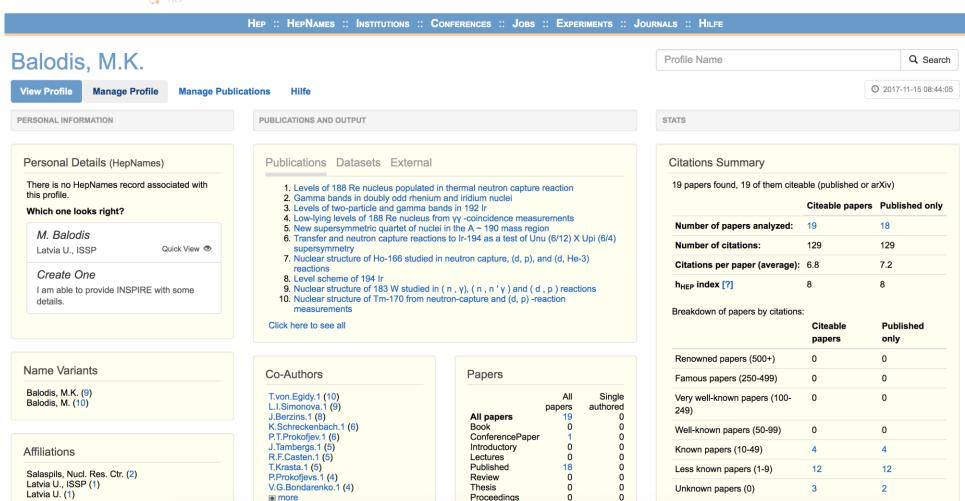
According to ResearchGate, the academic social networking site, their RG Score is "a new way to measure your scientific reputation". With such high aims, Peter Kraker, Katy Jordan and Elisabeth Lex take a closer look at the opaque metric. By reverse engineering the score, they find that a significant weight is linked to 'impact points' – a similar metric to the widely discredited journal impact factor. Transparency in metrics is the only way scholarly measures can be put into context and the only way biases – which are inherent in all socially created

metrics - can be uncovered.

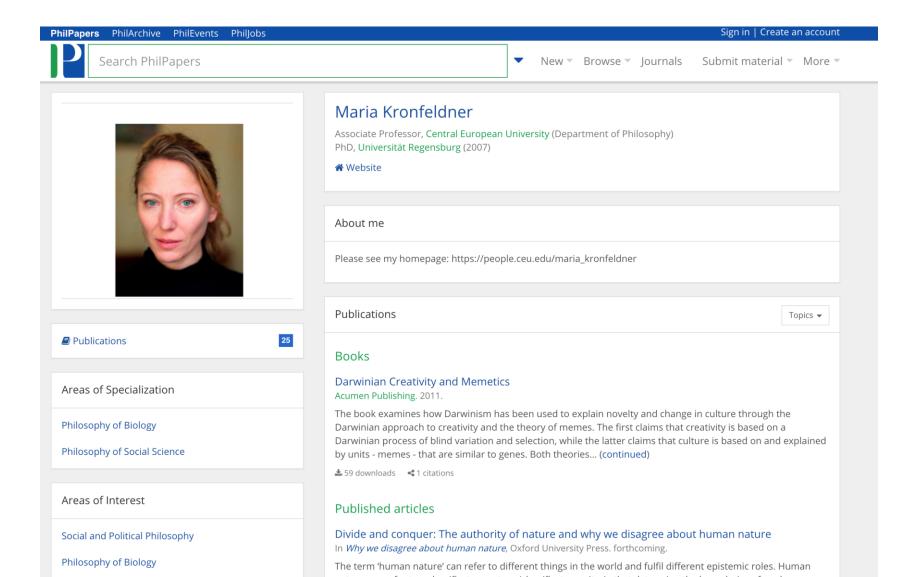
INSPIRE HEP Author Profiles



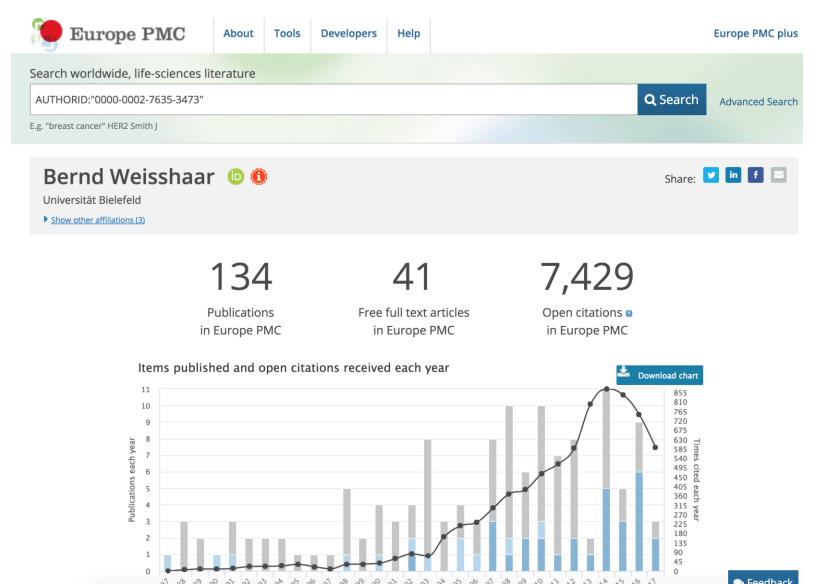
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PhilPapers Author Profiles



Europe PMC Author Profiles



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Bernd Weisshaar

Universität Bielefeld Professor, Chair of Genome Research

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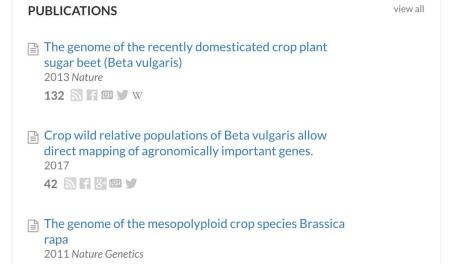
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DEPSY – software contributions



Search packages, authors, and topics



Carl Boettiger

99 percentile impact

Aggregated fractional credit, summed across all research software contributions

115k Downloads

11.34 Dependency PageRank

7 Citations

Top tags



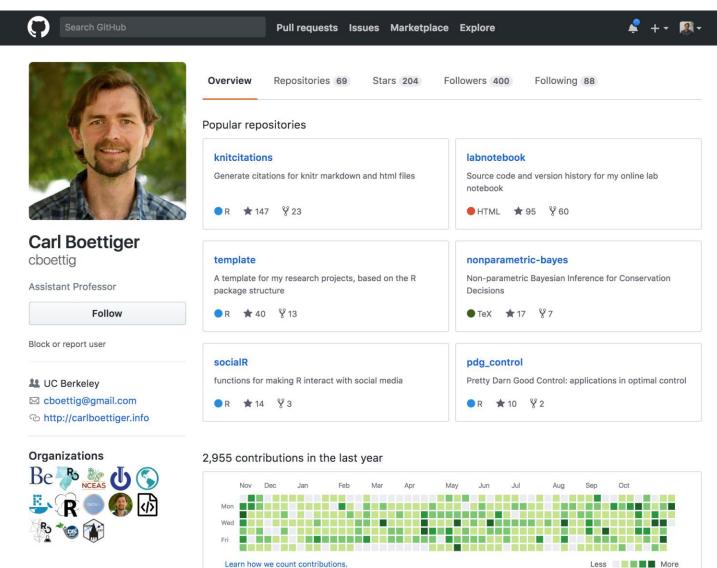
Top collaborators

- Scott Chamberlain
- Karthik Ram
- Duncan Temple Lang
- Matt Jones
- Andrew Dyck

19 research software packages shared on CRAN

- - 94 Provides the ability to create dynamic citations in which the bibliographic information is pulled fr...
- 🐧 🔳 🔞 **rplos** 🎓 by Ram, Chamberlain, Boettiger, and 5 others
 - 95 A programmatic interface to the 'SOLR' based search 'API' (http://api.plos.org/) provided by the Pub...
- - 76 Interface to the API for 'TreeBASE' (http://treebase.org) from 'R.' 'TreeBASE' is a repository of us...
- - 46 Monte Carlo based model choice for applied phylogenetics of continuous traits. Method described in ...
- 🐧 🔳 🔞 **rfishbase** by Lang, Chamberlain, Wainwright, and 7 others
 - 92 A programmatic interface to http://www.fishbase.org, re-written based on an accompanying 'RESTful' A...
- 🐧 🔳 🔞 **rfigshare** by Hart, Chamberlain, Ram, and 2 others
 - 90 An interface to 'figshare' (http://figshare.com), a scientific repository to archive and assign 'DOI...

GitHub



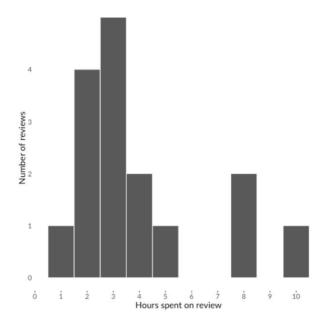
Peer Review for Software – rOpenSci onboarding

.org with R



Review takes a lot of time

We asked reviewers to estimate how much time each review took, and here's what they reported:



Answers varied from 1-10 hours with an average of 4. This is comparable to how long it takes researchers to review scholarly papers, but it's still a lot of time, and does not include further time corresponding with the authors or re-reviewing an updated package.

Summary

Variety of services exists that allows researchers to showcase their work

Build on shared identifiers (ORCID, DOI)

Rich sources of curated data that can be re-used not only for research assessment

CV Fatigue

Different business models including access levels to metadata

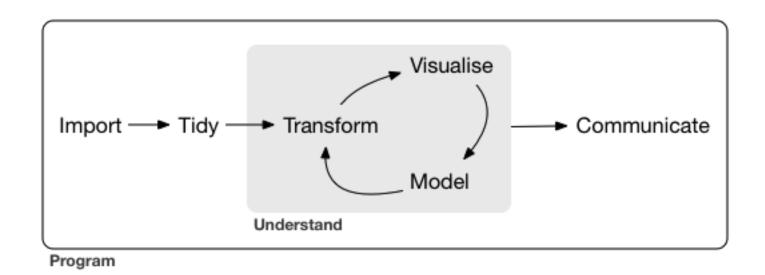
Indexing coverage and possible overlap needs to be examined

Tension between manually and automatic data curation

DEMO

Methods

Figure taken from H. Wickham & G. Grolemund, 2017. R for Data Science. Boston.



Data sources

- Publications from researchers affilated with the university of Latvia indexed in the Web of Science (Year published 2017)
- Crossref Event Data to gather a wide range of usage events different to citations
- Analysis written as Open Notebook!

Data source	Event type
Cambia Lens	Citations in Patents
Crossref Metadata	Links to DataCite registered content
DataCite Metadata	Links to Crossref registered content
Hypothes.is	Annotations in Hypothes.is
Newsfeed	Discussed in blogs and media
Reddit	Discussed on Reddit
Reddit Links	Discussed on sites linked to in subreddits
Stack Exchange Network	Discussed on StackExchange sites
Twitter	Mentions in tweets
Wikipedia	References on Wikipedia pages
Wordpress.com	Discussed on Wordpress.com sites

Exercise

Task

Please discuss:

What are the challenges of showcasing academic work?

How can your university contribute to productive and transparent research assessment exercises? List three measures:

- one short-term
- one middle-term
- one long-term