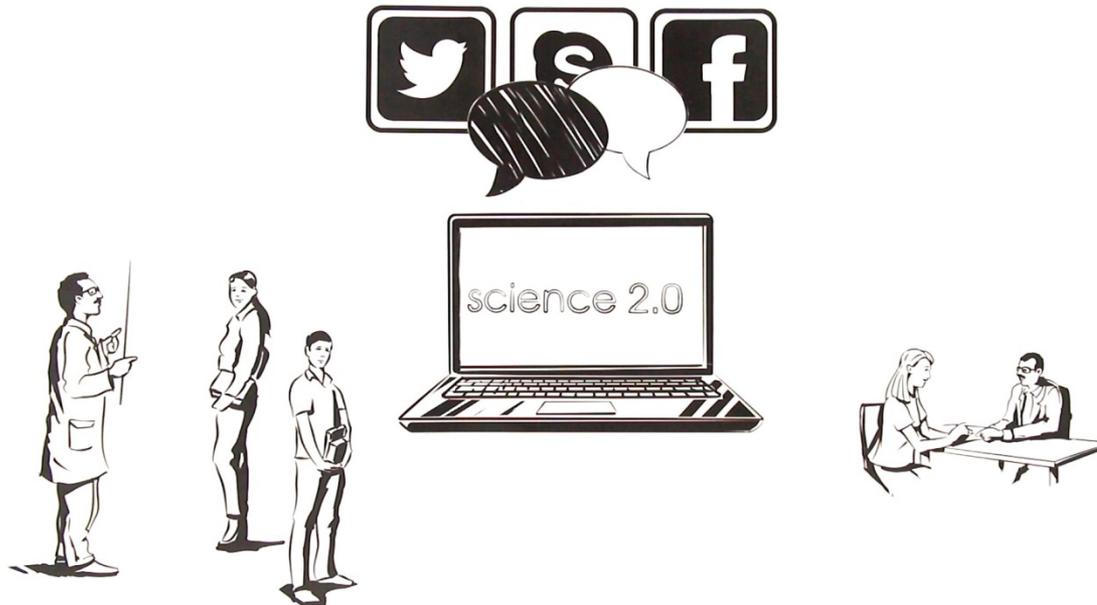


# About Science 2.0 and Open Science

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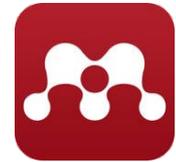
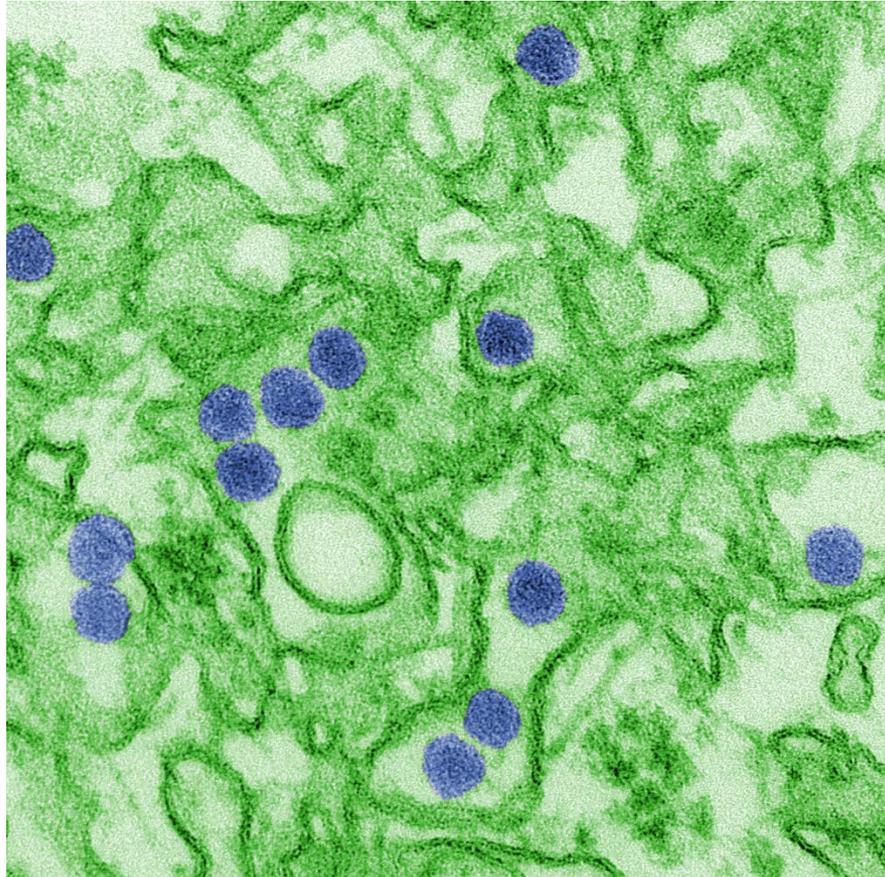
*Dr. Guido Scherp*

Coordinator Leibniz Research Alliance Science 2.0

ZBW – Leibniz Information Centre for Economics

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# Digitization of Research



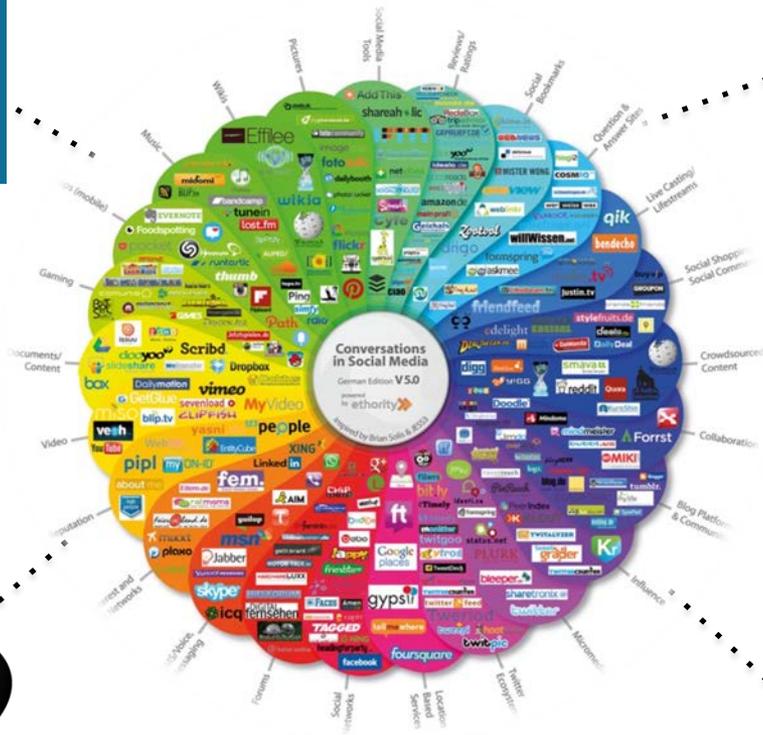
Gretchen Vogel, *A plea for open science on Zika*, ScienceMag, 2016

communication



open discourse

collaboration



participation



Science 2.0 is concerned with the use of participative internet technologies in all phases of research

# science 2.0

Leibniz Research Alliance

[www.leibniz-science20.de](http://www.leibniz-science20.de)

[@lvscience20](https://twitter.com/lvscience20)

# Objectives

- examine the effects of Science 2.0 on science and society
- establish Science 2.0 as new and transdisciplinary research discipline in the scientific community

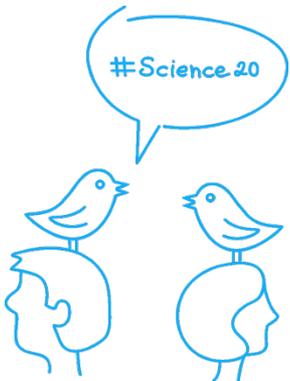
# Grand Challenges



new working habits



technological development



user behaviour research

Das Handbuch 'CoScience - Gemeinsam forschen und publizieren mit dem Netz' ist eine Wissens- und Bildungsressource, die kurz vor und während der CeBIT 2014 im Rahmen eines **Book Sprints** auf der kollaborativen Plattform **handbuch.io** entstanden ist.

Das Arbeiten mit dem Netz stellt etablierte wissenschaftliche Praktiken in Frage. Forschung wird zunehmend vernetzt, kollaborativ, multimedial und trans- bzw. interdisziplinär durchgeführt. Das Handbuch 'CoScience' beschreibt diese sich herausbildenden Praktiken in leicht verständlicher Form und gibt nützliche Tipps und Anregungen für all diejenigen, die am Anfang ihrer wissenschaftlichen Karriere stehen.

Die Inhalte des Handbuchs 'CoScience' stehen in drei Versionen zur Verfügung:

### **Dynamische Version**

Die dynamische Version ('Living Book') wird ständig bearbeitet, erweitert und verbessert.

Zitierungen und Verweise sollten sich daher auf eine stabile Version des Handbuchs beziehen. Sowohl das Buch als Ganzes als auch die einzelnen Kapitel der stabilen Versionen verfügen über einen **Digital Object Identifier (DOI)** und lassen sich so einfach zitieren.

Aus der dynamischen Version werden bei substantziellen inhaltlichen Veränderungen weitere stabile Versionen des Handbuchs generiert.

### **Version 2.0 (HTML)**

Version vom April 2015

### **Version 1.0 (HTML)**

Version vom Mai 2014

### **Version 1.0 (PDF)**

Die Version 1.0 ist auch als gelayoutetes Buch im PDF-Format verfügbar.



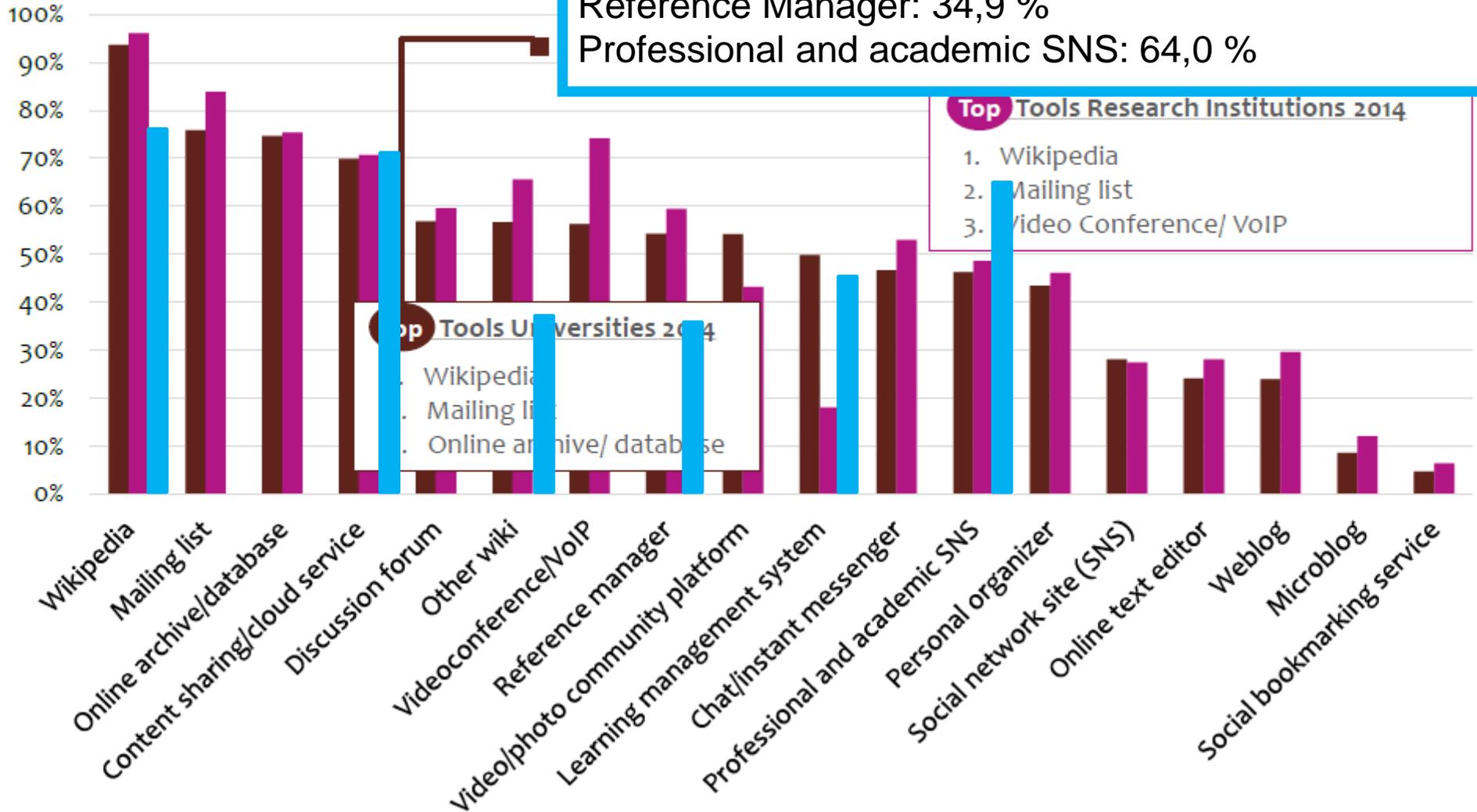
In Zukunft sollen Layoutierung und PDF-Erzeugung automatisiert stattfinden. Eine

Implementierung weiterer Ausgabeformate ist geplant.

# Economists 2015 n=458

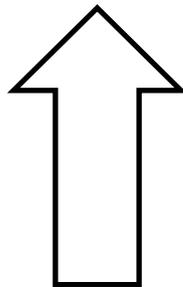
- Wikipedia: 77,5 %
- Content sharing/cloud service: 70,7 %
- Other Wiki: 37,6 %
- Learning management system: 46,9 %
- Reference Manager: 34,9 %
- Professional and academic SNS: 64,0 %

## Which tools do you use

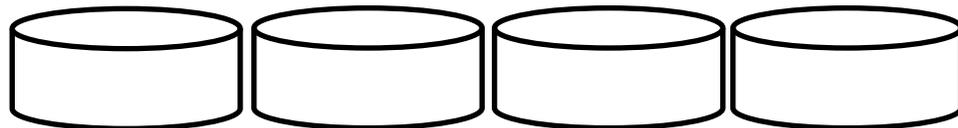


# Science 2.0 and Libraries

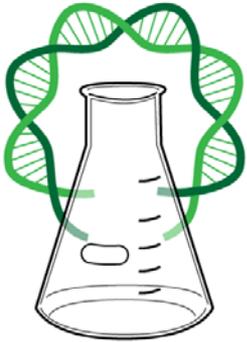
- New publication forms and processes
- New ways to search for and to disseminate scientific literature
- Scientists work online and mobile



*Bring the content  
to the user*



Check out prototypes at:  
[www.eexcess.eu](http://www.eexcess.eu) or at  
Science 2.0 Conference



open science

“Knowledge is open if anyone is free to access, use, modify, and share it ...”

[Open Definition]

- Scientific products: Open Access, Open Data, Open Source, Open Educational Resources, ...
- Scientific processes: Open Peer Review, Open Methodology, ...

# Science 2.0

How can I use participative internet technologies in my research?

- Collaboratively write a paper/project proposal
- Blog (intermediate) research results
- Discuss in Microblogs and (academic) Social Networks
- Exchange data and information via online storage

***Does not have to be open -  
But switching to openness is easy***

# Open Science

How can I open my research as much as possible?

- Publish open access
- Publish (raw) research data
- Publish scripts and code
- Use licences that allow reuse (e.g. CC-0)
- Report regularly about research progress and discuss early ideas

***Works without Science 2.0 –  
But Science 2.0 is suitable for it***

## Über offene-doktorarbeit.de

Im Rahmen von offene-doktorarbeit.de wird das Promotionsvorhaben mit dem Titel: "Von Open Access zu Open Science: Zum Wandel von wissenschaftlicher Kommunikation" **offen verfasst** und hier im Blog dokumentiert. "Offen verfassen" bedeutet in diesem Fall, dass die Arbeit direkt und unmittelbar bei der Erstellung für jeden, jederzeit frei zugänglich im Internet unter einer offenen und freien Lizenz (CC-BY-SA) veröffentlicht wird. Das wurde auch von der **Promotionskommission akzeptiert**. Weitere Informationen **hier**...

## Aktueller Stand der Arbeit

Der aktuelle Stand der Doktorarbeit kann jederzeit unter <http://live.offene-doktorarbeit.de> eingesehen werden:

live.offene-doktorarbeit.de

Offenes Promotionsvorhaben - Arbeitsheft | Autor: Christian Felix (Leipzig Universität)

### Von Open Access zu Open Science: Zum Wandel von wissenschaftlicher Kommunikation im Rahmen der Digitalisierung

Eine Studie zum Verständnis der Konzepte von Open Access und Open Science im Rahmen der Digitalisierung, der Differenzierung zwischen den verschiedenen wissenschaftlichen Disziplinen und vor dem Hintergrund wissenschaftlicher Reputation.

Auf dieser Seite können Sie jederzeit den aktuellen Stand der Arbeit einsehen. Mehr Informationen über dieses erste offene Promotionsvorhaben...

Kapitel anzeigen / Komplettansicht

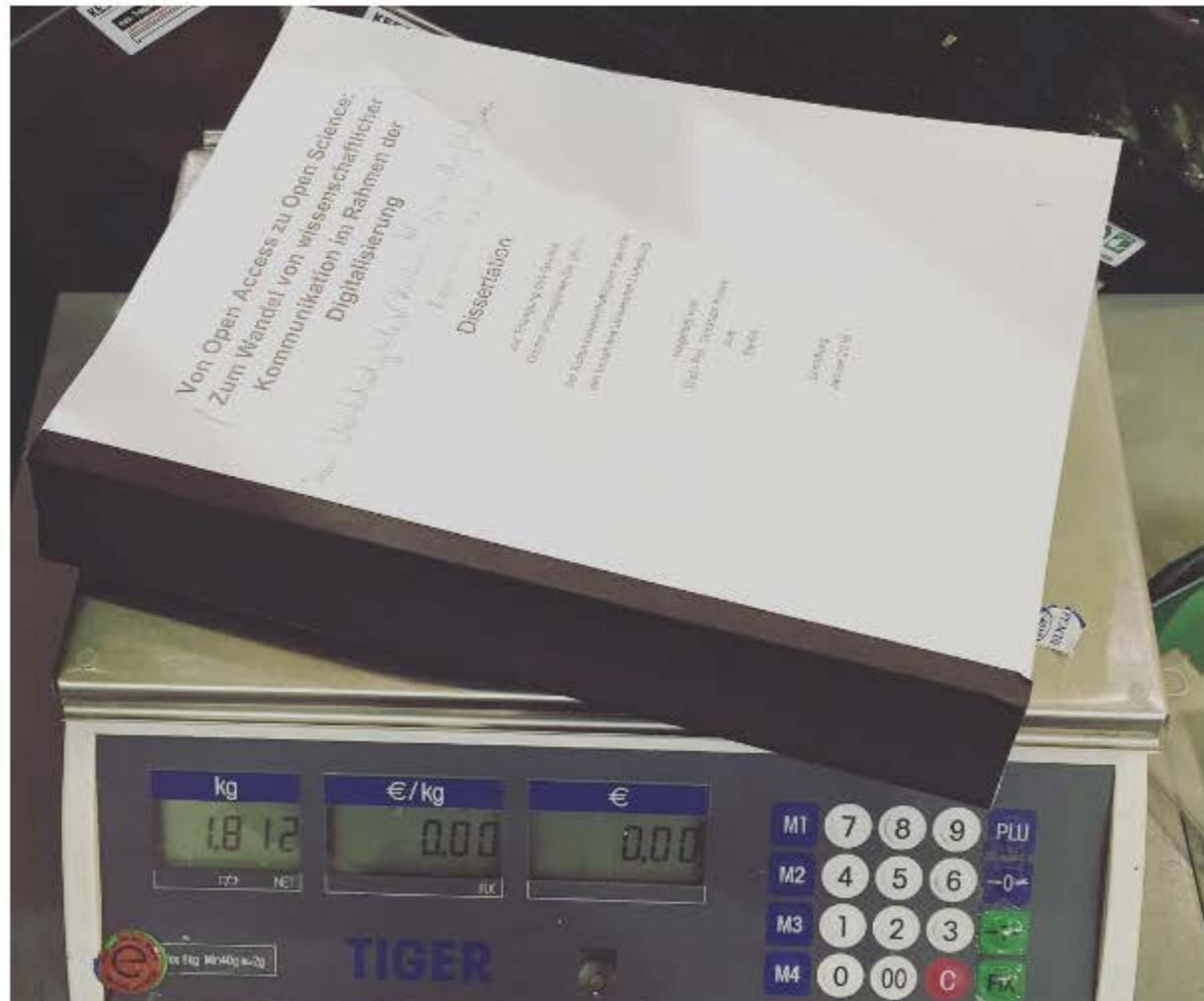
- 0. Abstract
- 1. Einleitung
- 2. Grundlagen
- 3. Methode
- 4. Herangehensweisen
- 5. Befragung
- 6. Experiment
- 7. Diskussion
- 8. Zusammenfassung
- 9. Komplettansicht

Home / Aktuelle Blogbeiträge:



notlikekittens • vor 2 Monaten

+ Folgen



# Changing hiring practices towards research transparency: The first open science statement in a professorship advertisement

 January 6, 2016 Filed in: [Open Science](#) | [Science](#)

Engaging in open science practices increases knowledge as a common good, and ensures the reproducibility, verifiability and credibility of research. But some have the fear that on an

” Our department embraces the values of open science and strives for replicable and reproducible research. For this goal we support transparent research with open data, open material, and pre-registrations. Candidates are asked to describe in what way they already pursued and plan to pursue these goals.

Katois, 2015), and Nosek, Spies, & Motyl (2012) mention “[...] the prevailing perception that publication numbers and journal prestige are the key drivers for professional success”.

We all know where this focus on pure quantity and too-perfect results led us: “In a world where researchers are rewarded for how many papers they publish, this can lead to a decrease in the truth value of our shared knowledge” (Nelson, Simmons, & Simonsohn, 2012), which can be seen in ongoing debates about low replication rates in [psychology](#), [medicine](#), or [economics](#).

Doing studies with high statistical power, preparing open data, and trying to publish realistic results that are not hacked to (unrealistic) perfection will slow down scientists. Researchers

# Research Ideas and Outcomes



## The Open Science Journal

ISSN 2367-7163 (online)

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The **Research Ideas and Outcomes (RIO)** journal publishes all outputs of the **research cycle**, including: project proposals, data, methods, workflows, software, project reports and research articles together on a single collaborative platform, with the most transparent, open and public peer-review process. Our scope encompasses all areas of academic research, including science, technology, humanities and the social sciences.

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The  
**Open  
Science  
Prize**

**Unique  
Insights  
From  
Shared  
Data**

## Enabling discoveries for health – let's harness the innovative power of open data

The **Open Science Prize** is a partnership between the Wellcome Trust, the US National Institutes of Health (NIH) and the Howard Hughes Medical Institute to **unleash the power of open content and data to advance biomedical research** and its application for health benefit.

The Prize provides funding to encourage and support the prototyping and development of services, tools or platforms that enable open content – including publications, datasets, codes and other research outputs – to be discovered, accessed and re-used in ways that will advance discovery and spark innovation. It also aims to forge new international collaborations that bring together open science innovators to develop services and tools of benefit to the global research community.

This first round of the Prize consists of a two-phase competition. For the first phase, international teams will compete for funding to take new ideas for products or services to the prototype stage, or to further develop an existing early-stage prototype. Up to six prizes of \$80,000 each will be awarded to successful teams to develop their innovation over an eight to nine-month period. In the second phase,

# Amsterdam Call for Action

## 8. Stimulate new publishing models for knowledge transfer

- **Research libraries:** act as publishers of open access for their institutions; create a database of open science best practices.
- Funders, publishers, Research Performing Organisations and **research libraries:** support discipline-based foundations that help flip subscription journals to FAIR open access by providing funds for APCs and transition by 2020.
- Universities, **university libraries**, publishers and funders: promote 'bulk' processing of APCs to reduce administration overload among researchers.

## 9. Stimulate evidence-based research on innovations in open science

- **Research libraries:** raise awareness, participate in EU projects, collect best practices, create a forum to share experiences.

## 11. Involve researchers and new users in open science

- Develop new types of services to researchers in support of open science and train support staff (for instance in ICT services and **libraries**) to deliver these services.



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Conference  
science 2.0  
3 to 4 May 2016, Cologne

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„European Open Science Cloud“

[www.science20-conference.eu](http://www.science20-conference.eu)  
#sci20conf

The logo for Barcamp science 2.0. The word "Barcamp" is in a small blue box above "science 2.0". The background of the entire image is a vibrant, abstract composition of glowing blue and purple lines, with a prominent wireframe head on the right side, suggesting a digital or scientific theme.

Barcamp  
science 2.0

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**REGISTER NOW!**

2 May 2016, Cologne

„Putting Science 2.0/Open Science into practice“

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