



101 innovations in scholarly communication

Open Science: How You Can Make It Work

Bianca Kramer & Jeroen Bosman, Utrecht University Library
Copenhagen Business School, October 25, 2018

available online at:
<https://tinyurl.com/OS-CBS>



(except logos)



@MsPhelps
@jeroenbosman



101 innovations in scholarly communication: project overview & examples

Fields:

- Scholarly communication
- Tools for research
- Research practices
- Open Science
- Workflows

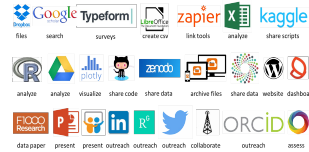
Activities:

- Exploration
- Research
- Supporting information
- Advocacy
- Workshops

CC-BY

Bianca Kramer & Jeroen Bosman

101innovations.wordpress.com



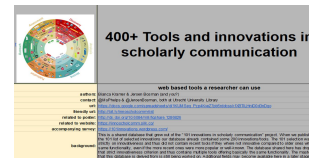
exploration



research



research practices



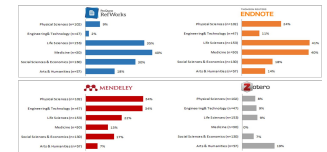
tools database



workflows



advocacy



global survey



open science



workshops

Open Science: how you can make it work morning programme

- 9:00-9:15 - Welcome
- 9:15-11:00 - Session 1: Intro to Open Science
- 11:00-11:15 - Coffee break
- 11:15-11:45 - Talk: Open Science from a European policy perspective
- 11:45-12:00 - Discussion
- 12:00-13:00 - Lunch and networking at the Faculty Club

Open science: how to make it work afternoon programme

- 13:00-14:00 - Session 2: Open Science in the full research workflow (in the Library Forum, with two guest flash presentations)
- 14:00-14:15 - Coffee Break
- 14:15-15:45 - Session 3: Open Science tools & practices
- 15:45-16:00 - Wrapping up
- 16:00-17:00 - Mingling and after work drinks @Café Nexus

Session 1: Intro to open science

Hvad kan du mest lide om forskning ?

Open definition

The Open Definition

The **Open Definition** sets out principles that define “openness” in relation to **data and content**.

It makes **precise** the meaning of “open” in the terms “**open data**” and “**open content**” and thereby ensures **quality** and encourages **compatibility** between different pools of open material.

It can be summed up in the statement that:

*“Open means **anyone** can **freely access, use, modify, and share** for **any purpose** (subject, at most, to requirements that preserve provenance and openness).”*

Put most succinctly:

*“Open data and content can be **freely used, modified, and shared** by **anyone** for **any purpose**”*

THE OPEN DEFINITION IN YOUR LANGUAGE

العربية | Беларуская | Български | Català
| Czech | Dansk | Deutsch | Eesti |
Ελληνικά | English | Español | Euskara |
Suomi | Français | Galego | עברית | हिन्दी |
Croatian | Magyar | Indonesian | Íslenska
| Italiano | 日本語 | ಕನ್ನಡ | 한국어 |
македонски јазик | नेपाली | Norsk
(bokmål) | Polski | Português
Brasileiro | Português | Русский | Shqip |
Српски | Svenska | తెలుగు | Türkçe |
Українська | 简体中文 | 繁體中文

How can open science improve research ?

Why Open Science?

- Transparency, accountability
- Efficiency
- Reproducibility & verifiability
- Relevance & stakeholder involvement

Open Science is

Open to participation

- No barriers based on race, gender, income, status, language
- Involvement of societal partners in research priority setting
- Evaluations that include societal relevance
- Citizen science

Open to (re)use

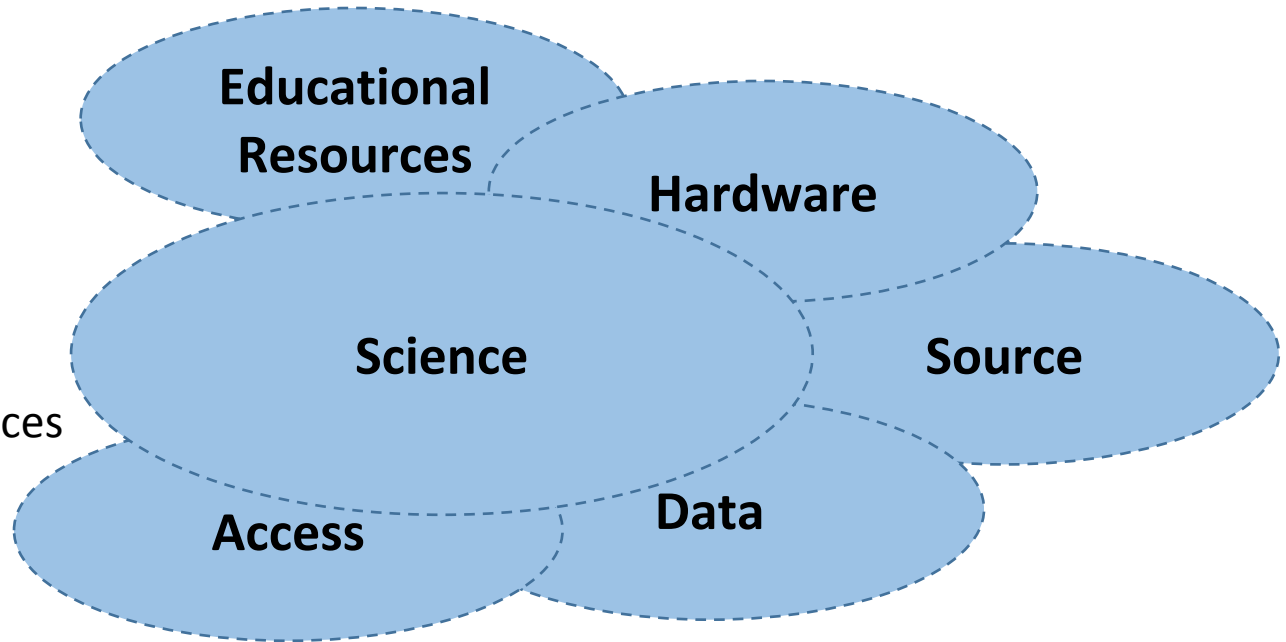
- Open Access, for people and machines, to:
 - Proposals and applications
 - Data
 - Code
 - Preprints, working papers
 - Papers and books
 - Reviews and comments
 - Posters and presentations
- Open, non-proprietary standards
- Open licences
- Full documentation of process

Open to the world

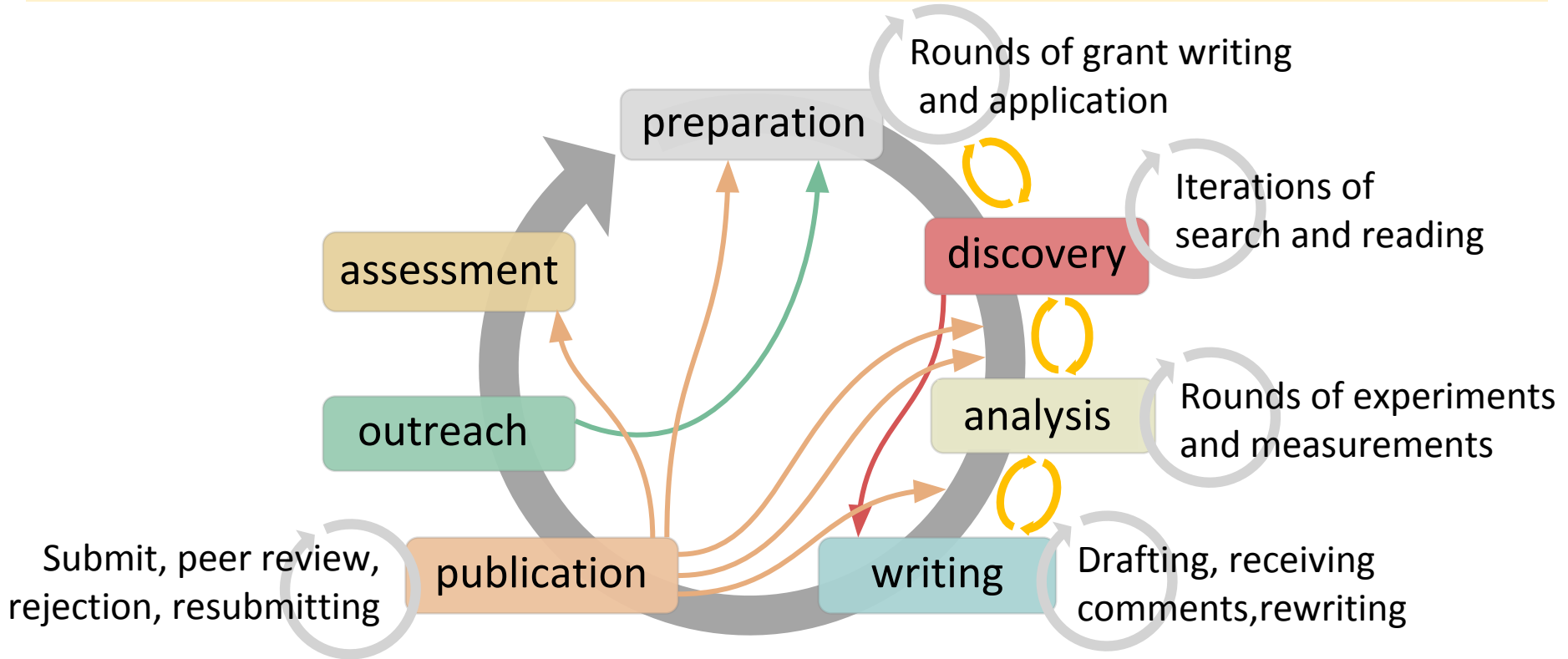
- Translations
- Plain language explanations
- Outreach beyond academia
- Open to questions from outside academia
- Curation and annotation of non-scholarly information
- Participation in public debate

Open Science – 6 shades of open

- Open **S**ource
- Open **H**ardware
- Open **A**ccess
- Open **D**ata
- Open **E**ducational Resources
- Open **S**cience



A model of the research workflow



A model of the research workflow

Preparation:

- Define & crowdsource research priorities
- Organize project, team, collaborations
- Contract

Assessment:

- Comment / peer review
- Determine impact of research output
- Determine impact of researchers

Discovery:

- Search literature / data / code / ...
- Get access
- Get alerts / recommendations
- Read / view
- Ar

Analysis:

- Collect / mine / extract data / experiment
- Share protocols / notebooks / workflows

Outreach:

- Archive/share posters
- Archive/share presentations
- Tell about research outside academia
- Researcher networks

Publication:

- Archive / share publications
- Archive / share data & code
- Select journal to submit to
- Publish

Writing:

- Write / code
- Visualize
- Cite
- Translate

Assessment:

- Comment / peer review
- Determine impact of research output
- Determine impact of researchers

Preparation:

- Define & crowdsource research priorities
- Organize project, team, collaborations
- Get funding / contract

Discovery:

- Search literature / data / code / ...
- Get access
- Get alerts / recommendations
- Read / view
- Annotate

Outreach:

- Archive/share posters
- Archive/share presentations
- Tell about research outside academia
- Researcher profiles/networks

Analysis:

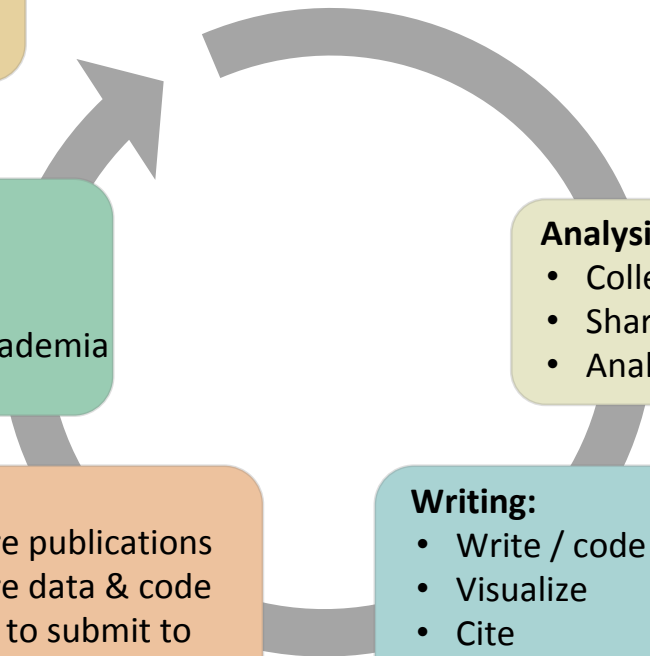
- Collect, mine, extract data / experiment
- Share protocols / notebooks / workflows
- Analyze

Publication:

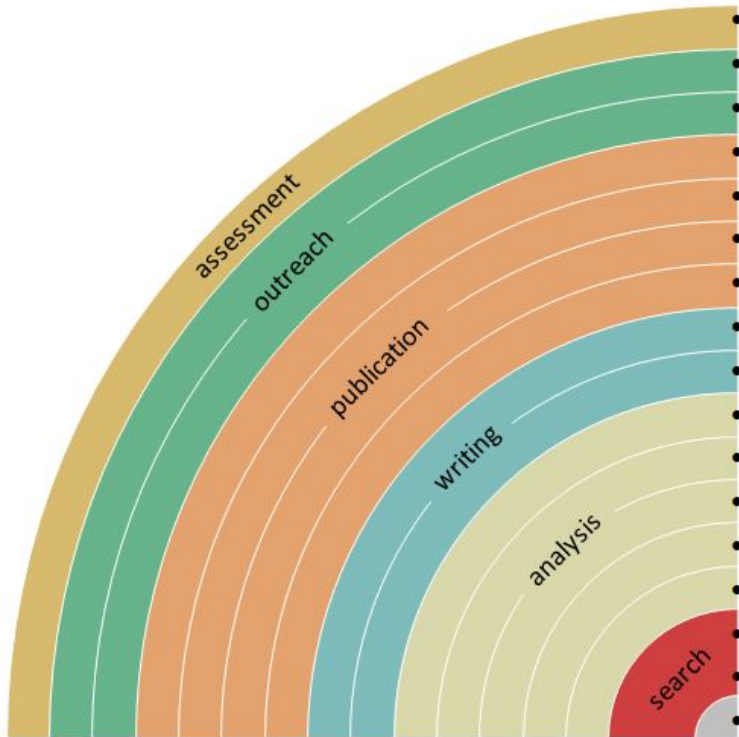
- Archive / share publications
- Archive / share data & code
- Select journal to submit to
- Publish

Writing:

- Write / code
- Visualize
- Cite
- Translate



You can make your workflow more open by ...



- adding alternative evaluation, e.g. with altmetrics
- communicating through social media, e.g. Twitter
- sharing posters & presentations, e.g. at FigShare
- using open licenses, e.g. CC0 or CC-BY
- publishing open access, 'green' or 'gold'
- using open peer review, e.g. at journals or PubPeer
- sharing preprints, e.g. at OSF, arXiv or bioRxiv
- using actionable formats, e.g. with Jupyter or CoCalc
- open XML-drafting, e.g. at Overleaf or Authorea
- sharing protocols & workfl., e.g. at Protocols.io
- sharing notebooks, e.g. at OpenNotebookScience
- sharing code, e.g. at GitHub with GNU/MIT license
- sharing data, e.g. at Dryad, Zenodo or Dataverse
- pre-registering, e.g. at OSF or AsPredicted
- commenting openly, e.g. with Hypothes.is
- using shared reference libraries, e.g. with Zotero
- sharing (grant) proposals, e.g. at RIO





thorea

Google Sheets

WIKIS (e.g. Wikidata)

NO

READ AS HTML

GitHub

linkable

SJS The Self-Journal of Science

Protocols

books

OPEN SCIENCE FRAMEWORK

HTML

SfO Journal Systems

ORCID

KUDOS

You Tube

Jupyter IPYNB PYTHON / JUPYTER NOTEBOOKS

MENDELEY

loop

Linked in

zotero

Resource Identification Initiative

WIKIMEDIA COMMONS

Journal of Brief Ideas

JOURNAL IMPACT FACTOR

WIKIDATA

matters Stories can wait. Science.

RESEARCHERID

Wellcome Open Research

INSTITUTIONAL PROFILE PAGE

WIKIDATA

Sci

nvivo

publons

party

Publons

Publons

Publons

Hypothetical research workflows



Hypothetical research workflows 'company suites'



Open science tools & platforms - criteria ?



open source ?



non-profit ?



open-licensed data ?

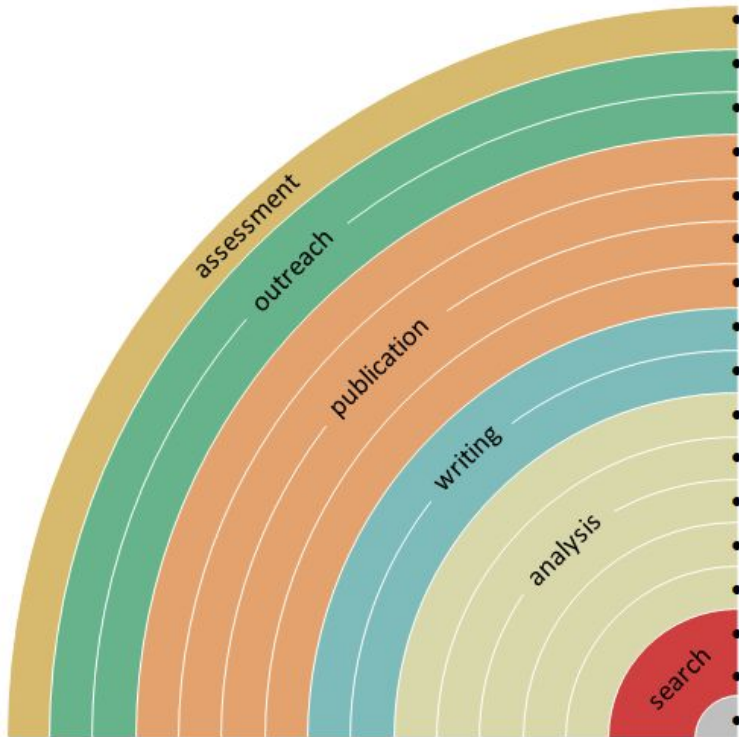


free (no cost) to use ?



stakeholder-governed ?

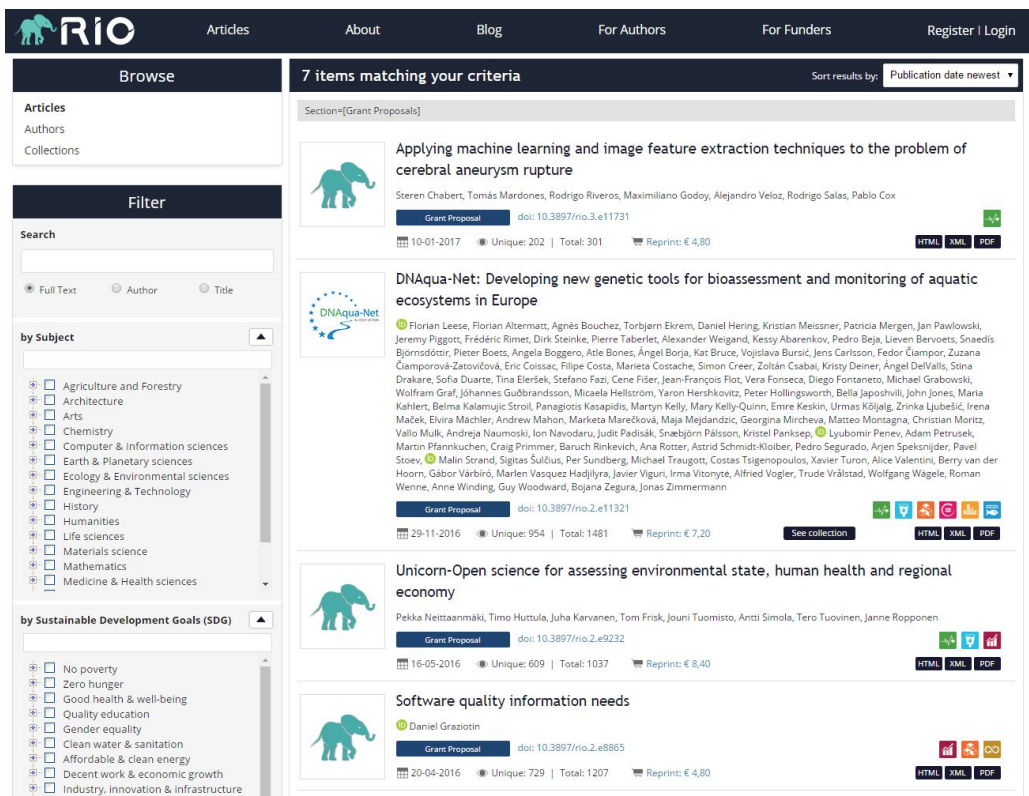
You can make your workflow more open by ...



- adding alternative evaluation, e.g. with altmetrics
- communicating through social media, e.g. Twitter
- sharing posters & presentations, e.g. at FigShare
- using open licenses, e.g. CC0 or CC-BY
- publishing open access, 'green' or 'gold'
- using open peer review, e.g. at journals or PubPeer
- sharing preprints, e.g. at OSF, arXiv or bioRxiv
- using actionable formats, e.g. with Jupyter or CoCalc
- open XML-drafting, e.g. at Overleaf or Authorea
- sharing protocols & workfl., e.g. at Protocols.io
- sharing notebooks, e.g. at OpenNotebookScience
- sharing code, e.g. at GitHub with GNU/MIT license
- sharing data, e.g. at Dryad, Zenodo or Dataverse
- pre-registering, e.g. at OSF or AsPredicted
- commenting openly, e.g. with Hypothes.is
- using shared reference libraries, e.g. with Zotero
- sharing (grant) proposals, e.g. at RIO



sharing (grant) proposals, e.g. at RIO



The screenshot shows the RIO website interface. At the top, there is a navigation bar with the RIO logo and links for Articles, About, Blog, For Authors, For Funders, Register, and Login. Below this is a search bar with the text "7 items matching your criteria" and a dropdown menu for "Sort results by: Publication date newest". The main content area displays three grant proposal entries, each with a small elephant icon, a title, a list of authors, a "Grant Proposal" button, a DOI, and a "Reprint" price. The first entry is "Applying machine learning and image feature extraction techniques to the problem of cerebral aneurysm rupture" by Steren Chabert, Tomáš Mardones, Rodrigo Riveros, Maximiliano Godoy, Alejandro Veloz, and Rodrigo Salas, Pablo Cox. The second entry is "DNAqua-Net: Developing new genetic tools for bioassessment and monitoring of aquatic ecosystems in Europe" by Florian Leese, Florian Akerematt, Agnès Bouchez, Torbjørn Ekrem, Daniel Hering, Kristian Meissner, Patricia Mergen, Jan Pawlowski, Jeremy Piggott, Frédéric Rimet, Dirk Steinke, Pierre Taberlet, Alexander Weigand, Kessy Abarenkov, Pedro Beja, Lieven Bervoets, Snaedits Björnsdóttir, Pieter Boets, Angela Boggero, Atle Bones, Ángel Borja, Kat Bruce, Vojislava Bursić, Jens Carlsson, Fedor Čiampor, Zuzana Čiamporová-Zatovičová, Eric Coissac, Filipe Costa, Marieta Costache, Simon Creer, Zoltán Csabai, Kristy Deiner, Ángel DelValis, Stina Drakare, Sofia Duarte, Tina Eleršek, Stefano Fazi, Cene Fiser, Jean-François Flot, Vera Fonseca, Diego Fontaneto, Michael Grabowski, Wolfram Graf, Johannes Guðbransson, Micaela Hellström, Yaron Hershkovitz, Peter Hollingsworth, Betta Japoshvili, John Jones, Maria Kahler, Belma Kalamujic Stroll, Panagiotis Kasapidis, Maryn Kelly, Mary Kelly-Quinn, Emre Keskin, Urmaz Köllög, Zrinka Ljubušić, Irena Maček, Elvira Mächler, Andrew Mahon, Marketa Marešková, Maja Mejdandžić, Georgina Mircheva, Matteo Montagna, Christian Moritz, Vallo Mulk, Andreja Naumović, Ion Navodaru, Judit Padisák, Snaebjörn Pálsson, Kristel Pankepp, Lyubomir Penev, Adam Petrussek, Martin Pfannkuchen, Craig Primmer, Baruch Rinkevich, Ana Rotzer, Astrid Schmidt-Kloiber, Pedro Segurado, Arjen Špekšinski, Pavel Stoev, Malin Strand, Sigtas Suličius, Per Sundberg, Michael Traugott, Costas Tsigonopoulos, Xavier Turon, Alice Valentini, Berry van der Hooft, Gábor Várkonyi, Marlen Velazquez Hadjiyeva, Javier Viguera, Irma Vitomyse, Alfred Vogler, Trude Wälstedt, Wolfgang Wagele, Roman Wenne, Anne Winding, Guy Woodward, Bojana Zegura, Jonas Zimmermann.



The screenshot shows the NWO website navigation bar. It features the NWO logo on the left and a series of navigation links: Home, News & events, Funding, and Research & results. Above the main navigation bar, there are smaller links for contact, calendar, press, vacancies, and Nede.

A good proposal, yet no funding

- ◀ Funding process explained
- ▶ Grant application system ISAAC
- ▶ Peer review by referees
- ▶ Rebuttal to peer review
- ▶ The selection committee
- ▶ Assessment
- ▶ Interview or site visit
- ▶ After granting
- ▶ A good proposal, yet no funding
- ▶ Lodging an objection
- ▶ Confidential and public information

Submitting a research proposal to NWO costs the applicant a lot of time. This investment, however, does not guarantee the proposal being funded. A proposal has a far higher chance of being rejected than funded. For several important NWO funding instruments, proposals have only a 15 percent chance of being funded. For some instruments, the figure is lower.

One reason for this low funding rate is that NWO sets high standards for the quality of research it funds. Another important reason is that the budget available is often not enough to fund all proposals that satisfy NWO's quality requirements.

Grants NWO 2013

Total number of research proposals (including preliminary proposals): **5.268**

Total number of projects granted: **1.138**

Percentage of proposals funded (including preliminary proposals): **25%**

We're going to publish all applications and decisions for this scheme

We think it's important to be transparent about the decisions we make.

Once the application period closes, we'll make all applications, both successful and unsuccessful, available on our website.

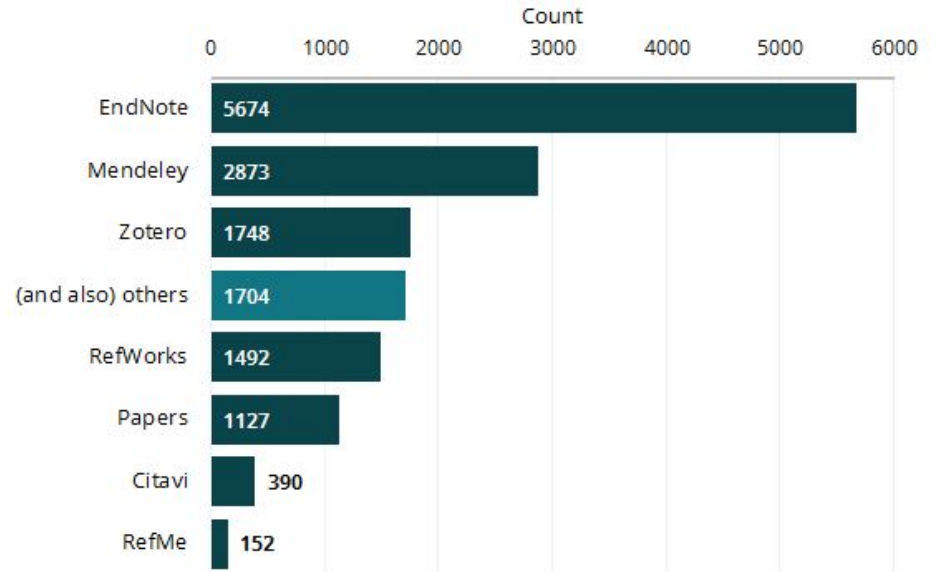
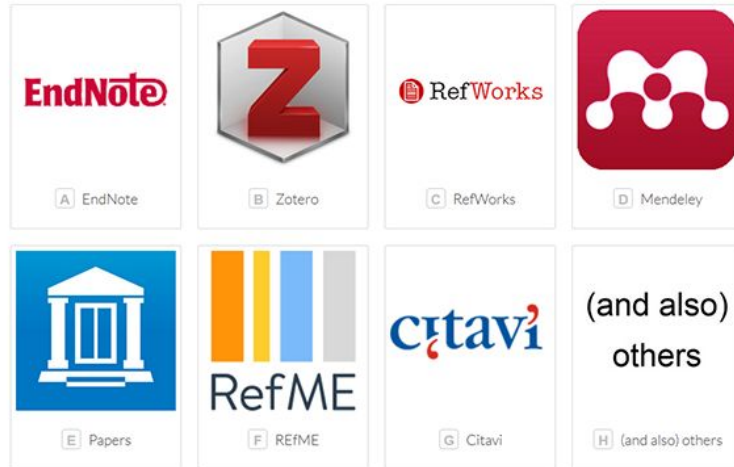
After the awards have been made, we'll also publish a summary of our decision-making process for each application.



Reference management

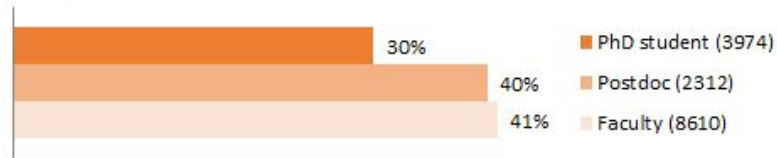
What tools/sites do you use for reference management?

Choose as many as you like

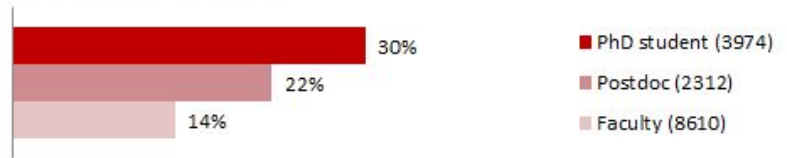


Which reference management tool(s) should the library support?

THOMSON REUTERS ENDNOTE



MENDELEY



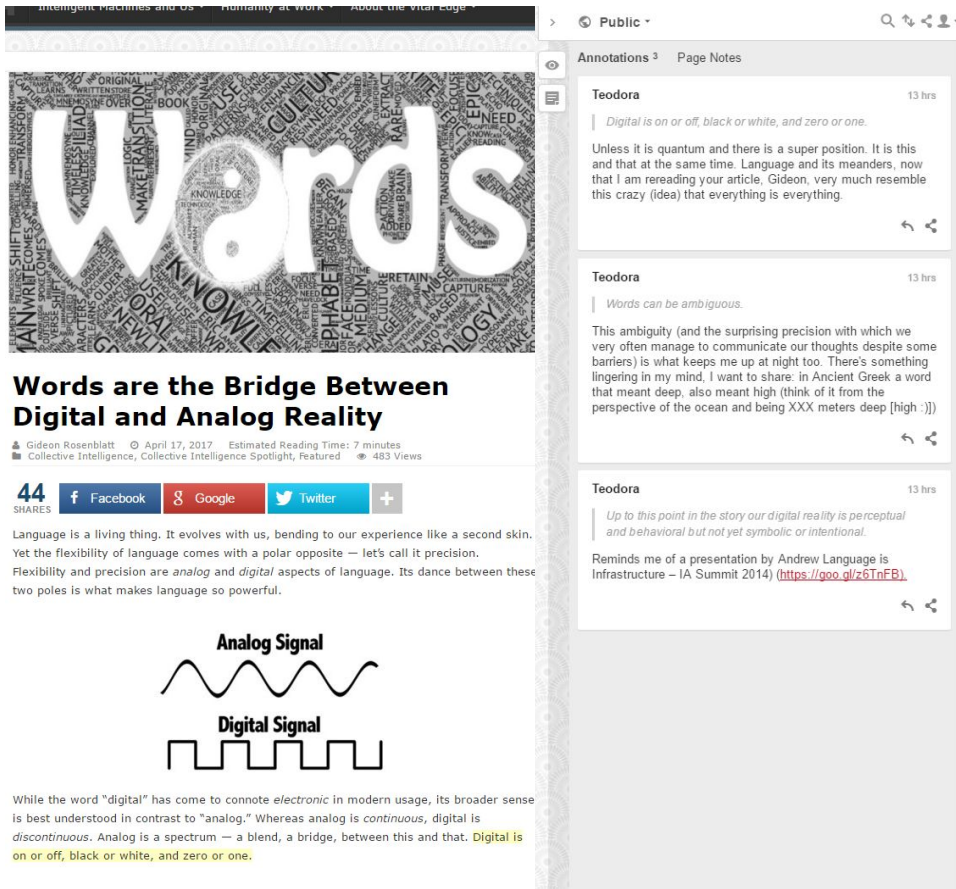
ProQuest RefWorks



Zotero



commenting openly, e.g. with Hypothes.is



Annotations 3 Page Notes

Teodora 13 hrs
| *Digital is on or off, black or white, and zero or one.*

Unless it is quantum and there is a super position. It is this and that at the same time. Language and its meanders, now that I am rereading your article, Gideon, very much resemble this crazy (idea) that everything is everything.

Teodora 13 hrs
| *Words can be ambiguous.*

This ambiguity (and the surprising precision with which we very often manage to communicate our thoughts despite some barriers) is what keeps me up at night too. There's something lingering in my mind, I want to share: in Ancient Greek a word that meant deep, also meant high (think of it from the perspective of the ocean and being XXX meters deep [high :)])

Teodora 13 hrs
| *Up to this point in the story our digital reality is perceptual and behavioral but not yet symbolic or intentional.*


Reminds me of a presentation by Andrew Language is Infrastructure – IA Summit 2014 (<https://goo.gl/z6TnFB>).


Words are the Bridge Between Digital and Analog Reality

Gideon Rosenblatt · April 17, 2017 · Estimated Reading Time: 7 minutes
Collective Intelligence, Collective Intelligence Spotlight, Featured · 483 Views

44 SHARES Facebook Google+ Twitter +

Language is a living thing. It evolves with us, bending to our experience like a second skin. Yet the flexibility of language comes with a polar opposite — let's call it precision. Flexibility and precision are *analog* and *digital* aspects of language. Its dance between these two poles is what makes language so powerful.

Analog Signal


Digital Signal


While the word "digital" has come to connote *electronic* in modern usage, its broader sense is best understood in contrast to "analog." Whereas analog is *continuous*, digital is *discontinuous*. Analog is a spectrum — a blend, a bridge, between this and that. **Digital is on or off, black or white, and zero or one.**



Annotate with anyone, anywhere

Our mission is to bring a new layer to the web. Use Hypothesis to discuss, collaborate, organize your research, or take personal notes.



There's also a bookmarklet or you can add it to your website.

pre-registering, e.g. at OSF or AsPredicted

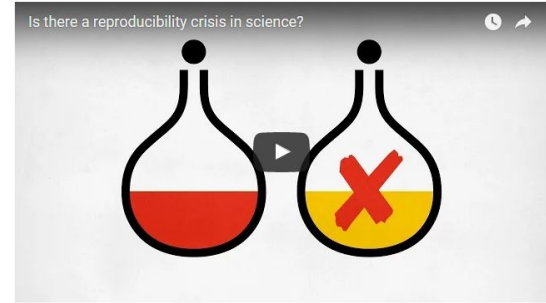


OSFREGISTRIES
The open registries network

Search registrations... Search

147,382 searchable registrations as of April 20, 2017

[See an example](#)



Is there a reproducibility crisis in science?

Nature asked 1,576 scientists this question as part of an online survey. Most agree that there is a crisis and over 70% said they'd tried and failed to reproduce another group's experiments.

Read more and delve into the survey data: [1,500 scientists lift the lid on reproducibility](#)

25 May 2016

Nature asked 1,576 scientists this question as part of an online survey. Most agree that there is a crisis and over 70% said they'd tried and failed to reproduce another group's experiments.

Browse Recent Registrations [See more](#)

Local conditions explain variation in plant phenology within species

Margaret Kosmala

The Role of Framing Effects, the Dark Triad and Empathy in Predicting Behavior in a One-shot Prisoner's Dilemma

Paul Michael Deutchman, Jess Sullivan

Promoting School Belongingness and Academic Performance: A Multisite Effectiveness Trial of a Scalable Student Mindset Intervention

Geoffrey Borman, Jon Baron

pre-registering, e.g. at OSF or AsPredicted

Open Science Framework Browse Support Sign Up Sign In

Promoting School Belongingness and A... Files Wiki Analytics Forks

Study Information

Title

Provide the working title of your study. It is helpful if this is the same title that you submit for publication of your final manuscript, but it is not a requirement.

Promoting School Belongingness and Academic Performance: A Multisite Effectiveness Trial of a Scalable Student Mindset Intervention

Authors

The author who submits the preregistration is the recipient of the award money and must also be an author of the published manuscript. Additional authors may be added or removed at any time.

Geoffrey Borman, Jon Baron

Research Questions

Please list each research question included in this study.

Though undergoing any transition from the familiar to the unknown may cause the experience of belonging uncertainty, a psychological state whereby people perceive the surrounding environment as potentially threatening, the middle-school transition, more so than other school displacements, is fraught with risks for students. In the context of such changes, a variety of indicators of academic performance, including grade point average, tend to decline during middle school for all students. To mitigate belonging uncertainty and improve students' academic outcomes, we will administer a social-belonging intervention consisting of two 15-minute in-class reading and writing exercises that ask beginning middle-school students to consider and respond to a specific school experience in which they might feel belonging uncertainty. The control exercise includes the same amount of reading and writing but asks students to write about neutral middle-school experiences that are not related to belonging uncertainty, including dealing with a loud lunchroom and learning about politics. After participation, treatment students may benefit socially and psychologically and may realize improved academic outcomes.

Hypotheses

For each of the research questions listed in the previous section, provide one or multiple specific and testable hypotheses. Please state if the hypotheses are directional or non-directional. If directional,

Study Information

Title

Authors

Research Questions

Hypotheses

Sampling Plan

Existing Data

Explanation

Data collection procedures

Sample size

Sample size rationale

Stopping rule

Variables

Manipulated

Measured

Indices

Design Plan

Study type

Blinding

Study design

Variables

Manipulated

Measured

Indices

Design Plan

Study type

Blinding

Study design

Randomization

Analysis Plan

Statistical models

Transformations

Follow-up analyses

Inference criteria

Data exclusion

Missing data

Exploratory analysis

sharing data, e.g. at Zenodo, Dryad, Dataverse

The screenshot shows the Dataverse website interface. At the top, there is a navigation bar with the Dataverse logo, a search icon, and links for 'About', 'Guides', 'Support', 'Sign Up', and 'Log In'. Below the navigation bar, a breadcrumb trail reads 'DataverseNL Dataverse > Utrecht University Dataverse > UU Geosciences Dataverse'. The main content area features four large cards, each with the Dataverse logo and a title: 'Biogeochemistry Dataverse', 'PhD thesis Desiree Roerdink Dataverse', 'SupMat_vanBenthem Dataverse', and 'Geosciences Dataverse'. Below these cards is a search bar with the placeholder text 'Search this dataverse...' and buttons for 'Find' and 'Advanced Search'. On the left side, there is a sidebar with filters: 'Dataverses (5)', 'Datasets (5)', and 'Files (12)'. Under 'Dataverse Category', 'Research Group (1)' is selected. Under 'Publication Date', '2016 (7)', '2013 (2)', and '2011 (1)' are listed. Under 'Author Name', 'Desiree Roerdink (4)' and 'Zhang Qiulan (1)' are listed. The main search results area shows '1 to 10 of 10 Results' and a 'Sort' dropdown. The first result is 'Geosciences Dataverse' (Nov 29, 2016). The second result is 'SupMat_vanBenthem Dataverse (UU)' (Nov 29, 2016). The third result is a document titled 'Colloid transport, retention, and remobilization during two-phase flow; Micro-model investigation and modeling' (Dec 4, 2013 - Geosciences Dataverse) by Zhang Qiulan, 2016, with a citation: 'Zhang Qiulan, 2016, "Colloid transport, retention, and remobilization during two-phase flow; Micro-model investigation and modeling".'

Have your data available, sustainably preserved, openly licensed, authenticated, FAIR.

sharing data, e.g. at Zenodo, Dryad, Dataverse

The screenshot shows the Dryad website interface. At the top, there is a navigation bar with the Dryad logo and links for 'About', 'For researchers', 'For organizations', 'Contact us', 'Log in', and 'Sign up'. Below the navigation bar, there is a main content area. On the left, there is a section titled 'Data from: Locking of correlated neural activity to ongoing oscillations' by Kühn T, Hellas M, published on June 13, 2017. To the right of this section is a 'Submit data now' button and a link for 'How and why?'. Below this is a search bar with the text 'Enter keyword, DOI, etc.' and a 'Go' button, along with a link for 'Advanced search'. Further down, there is a section titled 'Files in this package' which lists two files: 'data_manuscript.tar' (downloaded 3 times) and 'py_manuscript_dryad_version.tar' (downloaded 4 times). The 'py_manuscript_dryad_version.tar' file has a description: 'Contains the python files that produce all figures in the manuscript and the python files on which these files depend.' At the bottom of the page, there is a blue footer with the Zenodo logo, a search bar, and links for 'Upload' and 'Communities'.

Data from: Locking of correlated neural activity to ongoing oscillations
Kühn T, Hellas M
Date Published: June 13, 2017
DOI: <http://dx.doi.org/10.5061/dryad.45sg0>

Files in this package
Content in the Dryad Digital Repository is offered "as is." By downloading files, you agree to the [Dryad Terms of Service](#). To the extent possible under law, the authors have waived all copyright and related or neighboring rights to this data.

Title	data_manuscript.tar
Downloaded	3 times
Download	data_manuscript.tar.gz (71.46 Mb)
Details	View File Details
Title	py_manuscript_dryad_version.tar
Downloaded	4 times
Description	Contains the python files that produce all figures in the manuscript and the python files on which these files depend.
Download	py_manuscript_dryad_version.tar.gz (128.3 Kb)
Download	README.txt (1.065 Kb)
Details	View File Details

Have your data available, sustainably preserved, openly licensed, citable, authenticated, FAIR.

zenodo

Search



Upload

Communities

sharing data, e.g. at Zenodo, Dryad, Dataverse

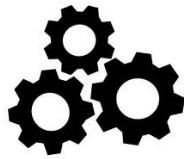
F_{indable}



A_{ccessible}



I_{nteroperable}



R_{eusable}





Have your data
available,
sustainably
preserved,
openly licensed,
citable
authenticated,
FAIR.

Searching for data to (re)use

- General search engine 

- Numerical search engine 
Search the web for data & statistics

- Research data sets search engine  
DataCite

- Find a specialised archive first 
REGISTRY OF RESEARCH DATA REPOSITORIES

- Use specific neuroscience sites 

- Search via papers 

save time
generating own
data, reduce use
of human &
animal subjects,
add to robustness
of findings, boost
efficiency at
system level

sharing code e.g. at GitHub with MIT or GNU license

The screenshot shows the GitHub interface for the repository 'UU-Hydro / PCR-GLOBWB_model'. At the top, there are navigation tabs for 'Pull requests', 'Issues', and 'Gist'. The repository name is 'UU-Hydro / PCR-GLOBWB_model', with 3 watches, 9 stars, and 9 forks. Below the repository name, there are tabs for 'Code', 'Issues 0', 'Pull requests 0', 'Projects 0', 'Wiki', 'Pulse', and 'Graphs'. A description of the repository is provided: 'PCR-GLOBWB (PCRaster Global Water Balance) is a large-scale hydrological model intended for global to regional studies and developed at the Department of Physical Geography, Utrecht University (Netherlands). Contact: Edwin Sutanudjaja (E.H.Sutanudjaja@uu.nl)'. Below the description, there are statistics: 3,987 commits, 1 branch, 2 releases, 3 contributors, and GPL-3.0 license. There are buttons for 'Branch: develop', 'New pull request', 'Create new file', 'Upload files', 'Find file', and 'Clone or download'. A commit history table is shown below, with columns for the commit message, the files changed, and the time since the commit.

PCR-GLOBWB (PCRaster Global Water Balance) is a large-scale hydrological model intended for global to regional studies and developed at the Department of Physical Geography, Utrecht University (Netherlands). Contact: Edwin Sutanudjaja (E.H.Sutanudjaja@uu.nl).

Commit Message	Files Changed	Time Ago
edwinkost committed on GitHub Merge pull request #3 from UU-Hydro/for_public_release_16_jan_2017 ...		Latest commit ffd2b53 on Jan 16
Updating files.	config	3 months ago
Updating files.	model	3 months ago
Ignore cartesius output job files.	.gitignore	2 years ago
replaced user agreement with GPL-3 License	LICENSE	10 months ago

Get people
to check,
contribute
to, fork
and use
and build
on your
code

Free & Open Source Software (FOSS) licenses

MIT license



somewhat like CC-BY

GNU Public license 3.0



somewhat like CC-BY-SA

Beyond archiving: discover, reuse, run

Discover & Run Scientific Code

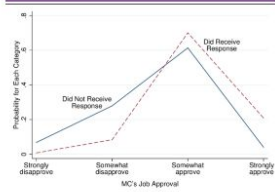
Code Ocean is a cloud-based **computational reproducibility** platform

+ UPLOAD YOUR CODE

Search keyword, research field, title, author, DOI, etc.



SOCIAL SCIENCES Nov 2017



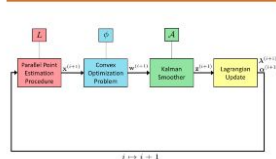
Daniel M. Butler, Christopher P. Karpowitz, Jeremy C. P...

Who Gets the Credit? Legislative Responsiveness and Evaluations of...

This article considers the hypothesis that the positive actions taken by members of Congress (MC) influence...

Political Science Research and Methods, 2016

ENGINEERING Jan 2018



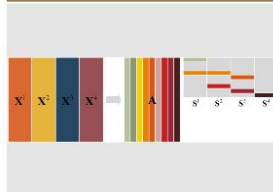
Gabriel Schamberg, Demba Ba, Todd P. Coleman

A Modularized Efficient Framework for Non-Markov Time Series Estimation

This capsule provides a Python implementation of the ADMM framework for obtaining a maximum...

IEEE Transactions on Signal Processing, 2018

EARTH SCIENCES Mar 2018



Xinyu Wang, Yanfei Zhong

Spatial Group Sparsity Regularized Nonnegative Matrix Factorization for...

In recent years, blind source separation (BSS) has received much attention in the hyperspectral unmixing...

IEEE Transactions on Geoscience and Remot..., 2017

SOCIAL SCIENCES Mar 2018



Tom Hardwicke, Maye Methur, Kyle MacDonald, Gusta...

Data availability, reusability, and analytic reproducibility: Evaluating the impact of a...

Access to research data is a critical feature of an efficient, progressive, and ultimately self-correcting scientific ecosystem. But the extent to which in-principle benefits of data sharing are realized in practice is...

sharing notebooks e.g. at ONSNetwork or OSF

Computing – Oly BGI GBS Reproducibility; fail?

OK, so things have improved since [the last attempt at getting this BGI script to run](#) and demultiplex the raw data.

I played around with the index.lst file format (based on the error I received last time, it seemed like a good possibility that the file formatting was incorrect) and actually got the script to run to completion! Granted, it took over 16hrs (!!), but it completed!

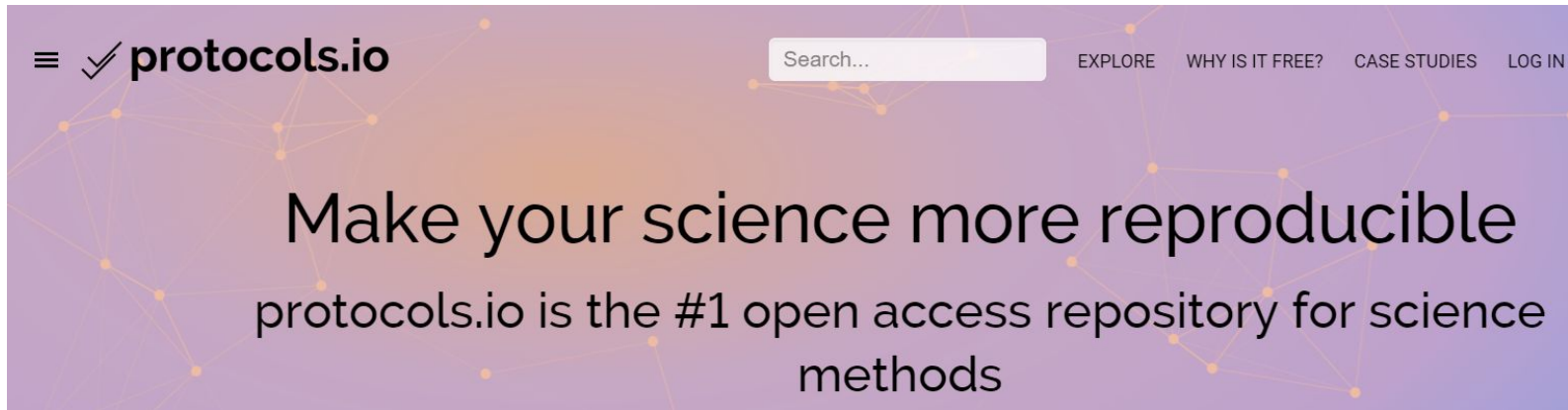
See the Jupyter notebook link below.

Results:

Well, although the script finished and kicked out all the demultiplexed FASTQ files, the contents of the FASTQ files don't match (the read counts differ between these results and the BGI files) the original set of demultiplexed files. I'm not entirely sure if this is to be expected or not, since the script allows for a single nucleotide mismatch when demultiplexing. Is it possible that the mismatch could be interpreted slightly differently each time this is run? I'm not certain.

Get feedback from peers, help form your thoughts, feel less alone while doing the analyses. Spot mistakes early on.

sharing protocols e.g. at protocols.io



The image shows the top section of the protocols.io website. It features a purple background with a network diagram of orange nodes and lines. In the top left, there is a hamburger menu icon followed by the text 'protocols.io'. To the right is a search bar with the placeholder text 'Search...'. Further right are navigation links: 'EXPLORE', 'WHY IS IT FREE?', 'CASE STUDIES', and 'LOG IN'. The main text in the center reads: 'Make your science more reproducible' in a large font, followed by 'protocols.io is the #1 open access repository for science methods' in a smaller font.

Increasing efficiency and reproducibility by sharing methodology in detail.

collaborative writing, e.g. at Authorea or Overleaf

Authorea

ABOUT

☆ f t p

10 Simple Rules for the Care and Feeding of Scientific Data

Published in *PLOS Computational Biology* 04/24/2014

Alyssa Goodman, A
Christine L. Borgm
Rosanne Di Stefan
Margaret Hedstrom
Ashish Mahabal, A

Overleaf

FEATURES & BENEFITS ▾ TEMPLATES PRICING COMPANY ▾ HELP

Collaborative Writing and Publishing

Join 750,000+ authors enjoying the easiest way to create, collaborate and publish online

Start writing now!

CREATE A NEW PAPER



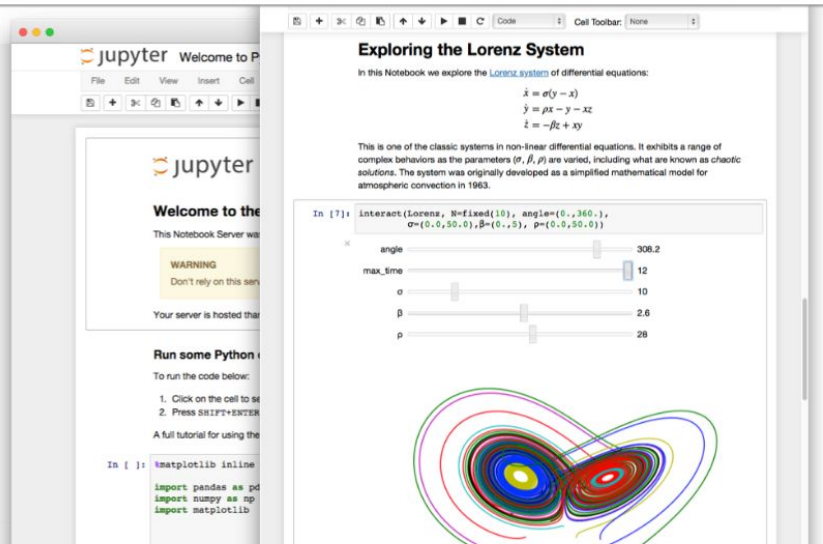
Share drafts,
get comments

use publisher
templates,
submit directly

using actionable formats, e.g. with Jupyter



[Install](#) [About](#) [Resources](#) [Documentation](#) [NBViewer](#) [Widgets](#) [Blog](#) [Donate](#)



The Jupyter Notebook

The Jupyter Notebook is an open-source web application that allows you to create and share documents that contain live code, equations, visualizations and explanatory text. Uses include: data cleaning and transformation, numerical simulation, statistical modeling, machine learning and much more.



Language of choice



Share notebooks



Interactive widgets



Big data integration

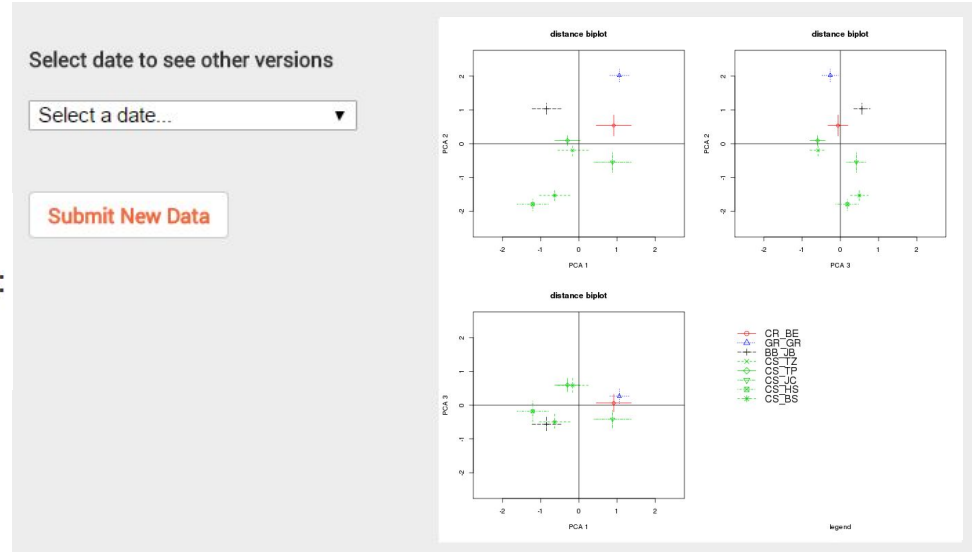
using actionable formats, e.g. with Jupyter

F1000Research Open for Science

RESEARCH ARTICLE

REVISED Sub-strains of *Drosophila* Canton-S differ markedly in their locomotor behavior [version 2; referees: 3 approved]

Julien Colomb¹, Björn Brembs²



DOI [10.12688/f1000research.4263.2](https://doi.org/10.12688/f1000research.4263.2)

sharing preprints: 36 archives at your disposal

AgriXiv

الأرشيف
العلمي
العربي
arabxiv.org
الأرشيف العربي للنشر العلمي على الإنترنت

arXiv.org

bioRxiv



ChemRxiv™

开放获取
ChinaXiv.org



Earth



ArXiv



EasyChair π reprints

ECS
arXiv

e-LIS



ESSOArBeta



Frenxiv
Preprints in French

HAL
archives-ouvertes.fr

HUMANITIES
COMMONS

INA-Rxiv
The Preprint server of Indonesia

LawArXiv

LIS
Scholarship
Archive

MedArXiv

MindRxiv

NutriXiv

paleo
rxiv

PeerJ
PrePrints



preprints

Ψ
A X
PsyArXiv

RePEc

R^G

RIO

SciELO Preprints

SOCARXIV
open archive of the social sciences

SportRxiv

SSRN

sharing preprints,
e.g. at arXiv, SSRN or OSF or ..



Claim
priority, get
feedback,
make results
available,
even find
co-authors.
Citable, DOI

Metasearch for preprint archives at OSF

sharing preprints, e.g. at arXiv, SSRN or OSF or ..

The screenshot shows the SSRN eLibrary search results page. At the top, there is a navigation bar with links for BROWSE, SUBSCRIPTIONS, RANKINGS, SUBMIT A PAPER, and BLOG. Below this is a search bar with the text "Search eLibrary". The main content area is titled "SSRN eLibrary Search Results" and shows "Showing Papers 1 - 50 of 961". The results are sorted by "Downloads, Descending". There are three results listed, each with a document icon, a title, author information, affiliation, keywords, and download statistics.

SSRN eLibrary Search Results

Showing Papers 1 - 50 of 961 Sort By 1 2 3

- [Why and How Investors Use ESG Information: Evidence from a Global Survey](#)
Harvard Business School Accounting & Management Unit Working Paper
Amir Amel-Zadeh and George Serafeim
University of Oxford - Said Business School and Harvard University - Harvard Business School
Keywords: ESG, Sustainability, Investment Performance, Nonfinancial, Disclosure
543 Downloads | Date posted: 02 Mar 2017 | Number of Pages in PDF File: 48
- [The Dakota Access Pipeline, Environmental Injustice, and U.S. Colonialism](#)
Forthcoming in Red Ink: An International Journal of Indigenous Literature, Arts, & Humanities in January/February
Kyle Whyte
Michigan State University - Department of Philosophy
386 Downloads | Date posted: 02 Mar 2017 | Number of Pages in PDF File: 11
- [Just Transitions Law: Putting Labour Law to Work on Climate Change](#)
(2017) 30(2) Canadian Journal of Environmental Law and Policy (Forthcoming)
David J. Doorey

Search Within Results ⓘ

You've searched for:

- environmental

Access eLibrary by

- Abstract & Author
- Journal or topic
- JEL topic list

▶

SSRN eLibrary Statistics:

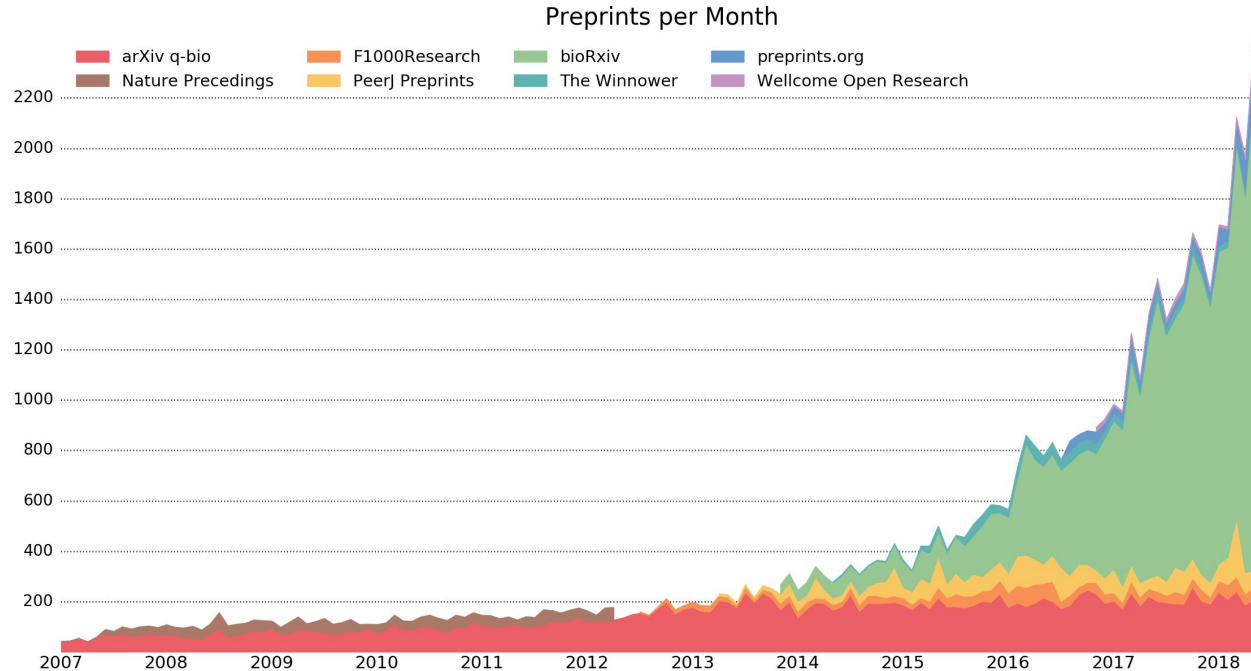
Papers & Authors: 728,559

Abstracts: 613,464

Full Text Papers: 613,464

But also:
watch the
research
frontier.

sharing preprints, e.g. at bioRxiv or OSF or ..



But also:
watch the
research
frontier.

publishing in open access



Research Policy
Volume 45, Issue 8, October 2016, Pages 1558–1569



Institutional power play in innovation systems: The case of Herceptin®

Piret Kukk^a, Ellen H.M. Moors^b, Marko P. Heekert^b

[Show more](#)

<http://doi.org/10.1016/j.respol.2016.01.016> [Get rights and content](#)

Under a Creative Commons license [Open Access](#)



✓ PEER-REVIEWED

A game theoretic analysis of research data sharing

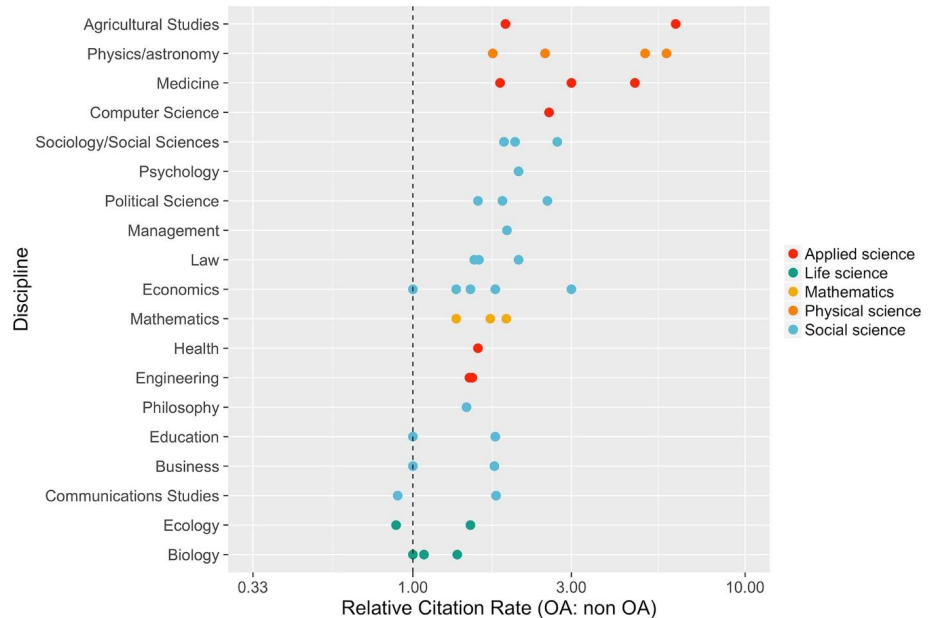
Computational Biology Science Policy

Tessa E. Pronk¹, Paulien H. Wiersma¹, Anne van Weerden¹, Feike Schieving²

Published September 8, 2015

May 23, 2016 **Minor Correction:** Formula (6) is not written correctly and should be ignored altogether. This does not affect results. In the R scripts used to generate the fitted line in Figure 1 and for generating a publication rate per researcher for Figure 3, a correct notation was used in the description of the distribution of publications per researcher.

PubMed 26401453



From: McKiernan et al 2016

<http://dx.doi.org/10.7554/eLife.16800>

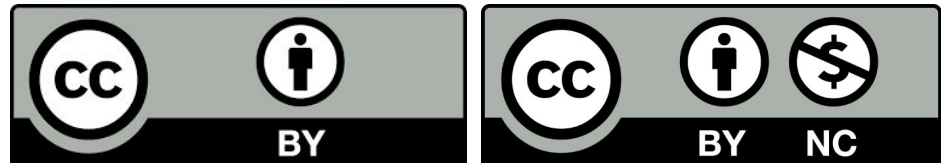
publishing open access



Choose the right journal for your research



Publisher copyright policies & self-archiving



publishing open access, with funder mandates



Choose the right journal for your research



Publisher copyright policies & self-archiving




1. **Publications Are Discoverable and Accessible Online.** repository(s) with proper tagging of metadata.
2. **Publication Will Be On “Open Access” Terms.** All publi [Creative Commons Attribution 4.0 Generic License \(CC BY 4.0\)](#) all users of the publication to copy and redistribute the materi and build upon the material, including for any purpose (includ or fees being required.
3. **Foundation Will Pay Necessary Fees.** The foundation wc publisher to effect publication on these terms.

Example mandate Gates Foundation




publishing open access, in repositories



PMC

PubMed Central® (PMC) is a free full-text archive of biomedical and life sciences journal literature at the U.S. National Institutes of Health's National Library of Medicine (NIH/NLM).



Europe PMC

[About](#) [Tools](#) [Developers](#) [Help](#) [Europe PMC plus](#)

Search worldwide, life-sciences literature

[Search](#) [Advanced Search](#)

E.g. "breast cancer" HER2 Smith J

publishing open access, on funder platforms

Wellcome Open Research
A new way for Wellcome-funded researchers to rapidly publish any results they think are worth sharing.

[SUBMIT YOUR RESEARCH](#)

Browse Articles →

- 06 JUNE 2018: Amodiaquine resistance in Plasmodium berghei is associated with PfcRT His95...
- 03 JUNE 2018: ANIMA: Association network integration for multiscale analysis
- 04 JUNE 2018: Know Your Heart: Rationale, design and conduct of a cross-sectional study of car...

What is Wellcome Open Research?

- >> A platform for Wellcome-funded researchers to rapidly publish any research outputs they wish to share.
- >> Supports reproducibility and transparency.
- >> Uses an open research publishing model: immediate publication followed by open invited peer review.
- >> Includes all supporting data, enabling reanalysis, replication and reuse.

[Learn More](#) →

Wellcome

Gates Open Research

Immediate & Transparent Publishing
Gates Open Research is a platform for rapid author-led publication and open peer review of research funded by the Bill & Melinda Gates Foundation

[SUBMIT YOUR RESEARCH](#) OR [BROWSE ARTICLES](#)

Recent Articles | [Browse all](#) →

- 30 MAY 2018: Metabolic profiles derived from residual blood spot samples: A longi...
- 29 MAY 2018: Evidence gap map of performance measurement and management in pr...
- 29 MAY 2018: Evaluating the impact of integrated development: are we asking the right...

Bill & Melinda Gates Foundation

HRB Open Research

Immediate & Transparent Publishing
HRB Open Research is a platform for HRB-funded researchers to rapidly publish their research outputs in an open and accessible way

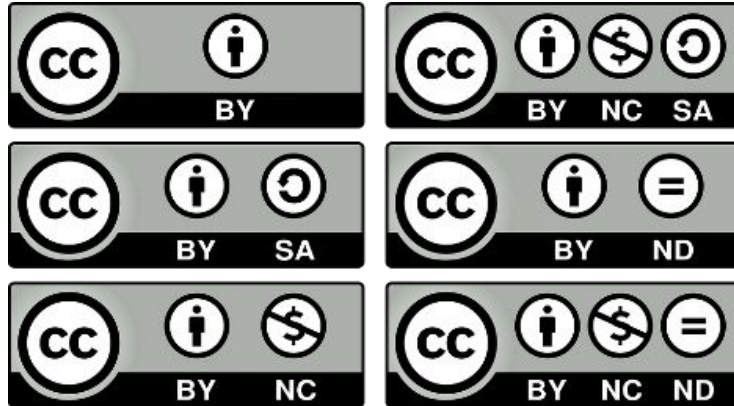
[SUBMIT YOUR RESEARCH](#) [BROWSE ARTICLES](#)

Recent Articles | [Browse all](#) →

- 05 JUNE 2018: Breakfast skipping and overweight/obesity among European adolescents, a cross-secto...
- 05 JUNE 2018: The experiences and perceptions of personhood for people living with dementia...
- 30 MAY 2018: Chemical crosslinking analysis of β -dystroglycan in dystroglycan-deficient skeletal ...

Health Research Board (Ireland)

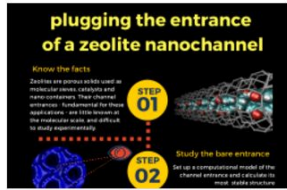
Open science and intellectual property – copyright, patents and licenses



General advice:

- Use **CC0** for data
- Use **CC-BY** for papers, presentations etc.

sharing posters & presentations, e.g. at FigShare



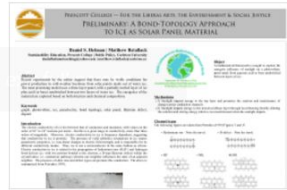
Structure and functionalization of zeolite nanochannel entrances

gloria tabacchi v 02/07/2016



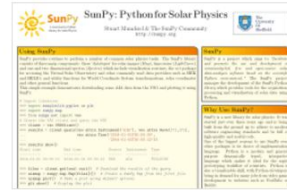
Wind Energy Research & Commercialization (WERC) Center

David Matthiesen 01/02/2016



A Bond-Topology Approach to Ice as Solar Panel Material

Daniel Helman v 02/10/2016



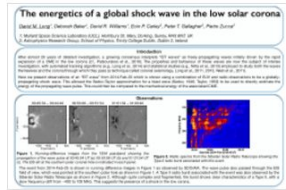
SunPy: Python for Solar Physics

Stuart Mumford 23/06/2014



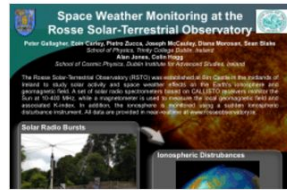
www.SolarMonitor.org

Peter Gallagher v 14/08/2014



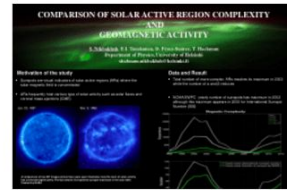
The energetics of a global shock wave in the low solar corona

David Long v 10/09/2014



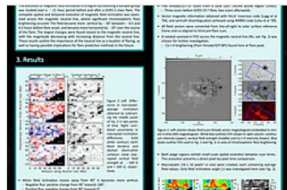
Space Weather Monitoring at the Rosse Solar-Terrestrial Observatory

Peter Gallagher v 10/09/2014



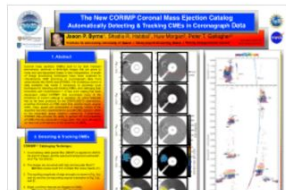
COMPARISON OF SOLAR ACTIVE REGION COMPLEXITY AND GEOM...

Shabnam Nikbakhtsh v 26/08/2015



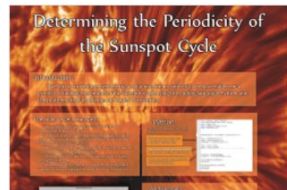
An inclination to flaring: active region magnetic field changes duri...

Sophie Murray v 26/08/2014



The New CORIMP Coronal Mass Ejection Catalog

Jason Byrne v 01/08/2014



Determining the periodicity of the sunspot cycle

Thomas Wyse Jackson 14/11/2014

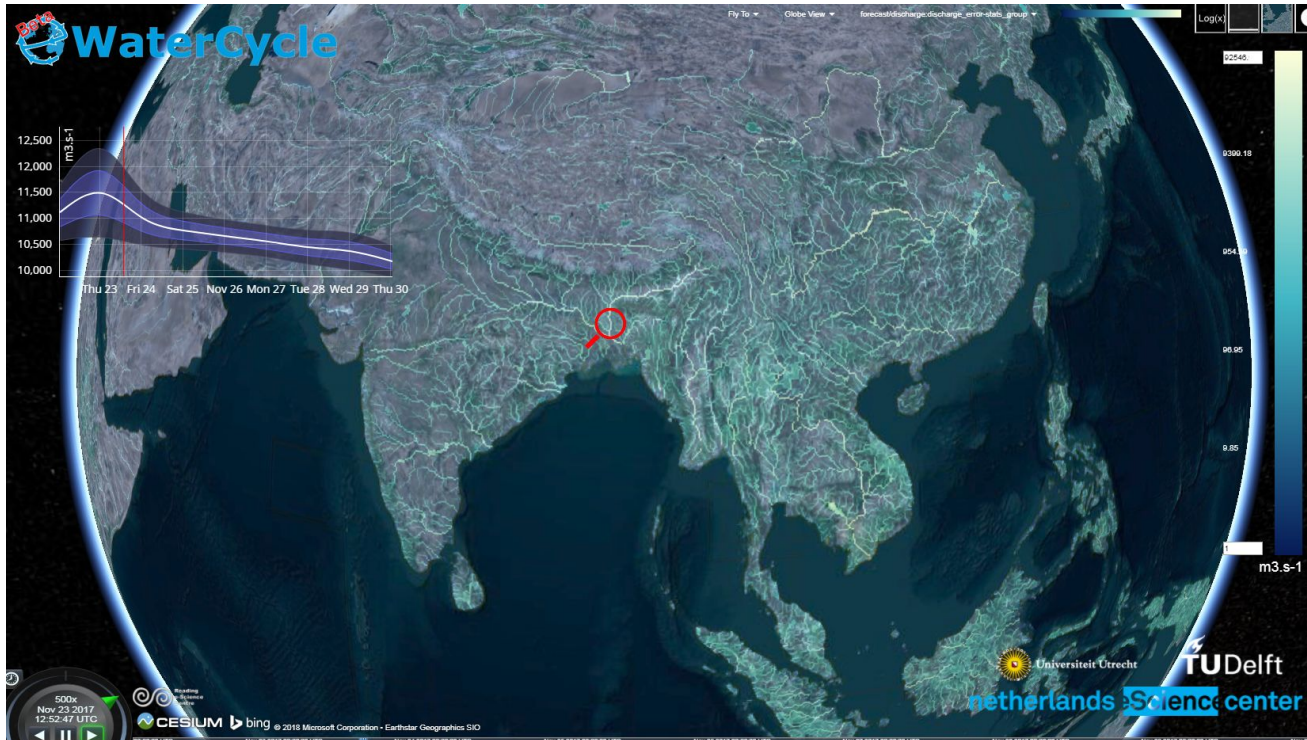


First Results from the HELCATS Project

Eu Helcats 21/11/2014

Get 10x more eyeballs for your poster than by just sharing at conferences. Reap benefits of time spent on it.

openly share research applications



Create direct value and foster support for research

create and maintain a researcher profile
(start with ORCID)



ORCID INTEGRATIONS

based on: <https://orcid.org/organizations/integrators/integration-chart>



using open and/or post-pub peer review
e.g. at PubPeer, Peerage of Science, ResearchGate,
PubMed Commons, ...

A free service for scientific
peer review and publishing
your science, your call

Publications peer reviewed in Peerage of Science

[The common redstart as a suitable model to study cuckoo-host coevolution in a unique ecological context](#)

Samaš P., Rutila J. & Grim T.

- *BMC Evolutionary Biology*

Reviews 1	PEQ* 4.5	PAQ** 3.9	Published
-----------	----------	-----------	-----------

[Post-fledging movements of white-tailed eagles: Conservation implications for wind-energy development](#)

Balotari Chiebao F., Villers A., Ijäs A., Ovaskainen O., Repka S. & Laaksonen T.

- *Ambio*

Reviews 4	PEQ* 3.6	PAQ** 3.8	Published
-----------	----------	-----------	-----------

Having the reports
available, aiding
reproducibility, helping
improve review writing,
improve trust, help
solving review crisis



claiming credit for peer review

e.g. at Publons, ReviewerCredits, and ORCID

publons

Search, or import by DOI/arXiv/PMID

ACTIONS BROWSE COMMUNITY FAQ SIGN IN REGISTER

Harness the power of
peer review

JOIN THE GLOBAL COMMUNITY OF PEER REVIEWERS

Make reviewer activities visible, make them count in funding, tenure & promotion

REVIEWERS

400,000+
Researchers

EDITORS

2 million+
Reviews

PUBLISHERS

25,000+
Journals

INSTITUTIONS



adding alternative evaluation, e.g. with altmetrics

United States Commutes and Megaregions data for GIS

Overview of attention for research output published on figshare, November 2016



About this Attention Score

In the top 5% of all research outputs scored by Altmetric

MORE...

Mentioned by

- 1 news outlet
- 3 blogs
- 90 tweeters
- 1 Facebook page
- 1 Google+ user
- 2 Redditors

SUMMARY	News	Blogs	Twitter	Facebook	Google+	Reddit
---------	------	-------	---------	----------	---------	--------

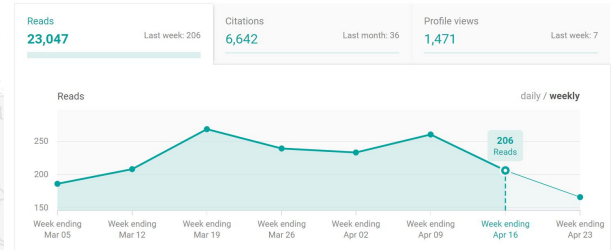
Title United States Commutes and Megaregions data for GIS
Published on figshare, November 2016
DOI 10.15131/shef.data.4110156 [↗](#)
Authors Alasdair, Rae, Garrett.G.D.Nelson@dartmouth.edu., Alasdair Rae, Garrett.G.D.Nelson@dartmouth.edu... [\[show\]](#)

TWITTER DEMOGRAPHICS

The data shown below were collected from the profiles of 90 tweeters who shared this research output. [Click here to](#)



Assess societal impact (newspapers, reports, blogs etc.) and connect with your 'users', evaluate your outreach



Altmetrics – tools / applications



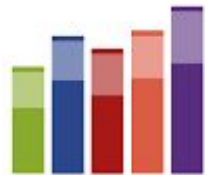
Altmetric



Impactstory

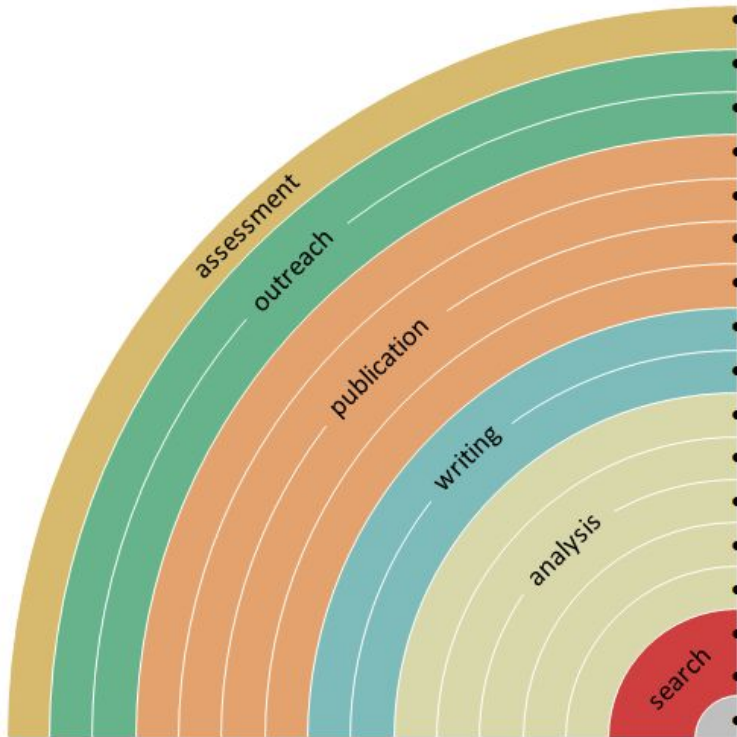


PLUM Analytics



Bookmetrix

You can make your workflow more open by ...



- adding alternative evaluation, e.g. with altmetrics
- communicating through social media, e.g. Twitter
- sharing posters & presentations, e.g. at FigShare
- using open licenses, e.g. CC0 or CC-BY
- publishing open access, 'green' or 'gold'
- using open peer review, e.g. at journals or PubPeer
- sharing preprints, e.g. at OSF, arXiv or bioRxiv
- using actionable formats, e.g. with Jupyter or CoCalc
- open XML-drafting, e.g. at Overleaf or Authorea
- sharing protocols & workfl., e.g. at Protocols.io
- sharing notebooks, e.g. at OpenNotebookScience
- sharing code, e.g. at GitHub with GNU/MIT license
- sharing data, e.g. at Dryad, Zenodo or Dataverse
- pre-registering, e.g. at OSF or AsPredicted
- commenting openly, e.g. with Hypothes.is
- using shared reference libraries, e.g. with Zotero
- sharing (grant) proposals, e.g. at RIO



Why Open Science?

- Transparency, accountability
- Efficiency
- Reproducibility & verifiability
- Relevance & stakeholder involvement

Open science policy – at multiple levels



- Open Access (& business models)
- Open data
- European Open Science Cloud
- Altmetrics
- Rewards
- Research integrity
- Education and skills
- Citizen science







- Full open access to publications
- Research data suitable for reuse
- Recognition and rewards
- Promotion and support
- Citizen science







- Open access to publications
- Open and FAIR research data
- Sharing code and software
- Outreach and public engagement
- Rewards and incentives

Open Science is

Open to participation

- No barriers based on race, gender, income, status, language
- Involvement of societal partners in research priority setting
- Evaluations   that include societal relevance
- Citizen science  

Open to (re)use







- Open Access, for people and machines, to:
 - Proposals and applications
 - Data  
 - Code
 - Preprints, working papers
 - Papers and books  
 - Reviews and comments
 - Posters and presentations
- Open, non-proprietary standards
- Open licences
- Full documentation of process

Open to the world










- Translations
- Plain language explanations
- Outreach beyond academia
- Open to questions from outside academia
- Curation and annotation of non-scholarly information
- Participation in public debate

Open Science is



Open to participation




- No barriers based on race, gender, income, status, language
- Involvement of societal partners in research priority setting
- Evaluations    that include societal relevance
- Citizen science   

Open to (re)use

- Open Access, for people and machines, to:
 - Proposals and applications
 - Data   
 - Code
 - Preprints, working papers 
 - Papers and books   
 - Reviews and comments
 - Posters and presentation 
- Open, non-proprietary standards
- Open licences 
- Full documentation of process

Open to the world

- Translations
- Plain language explanations 
- Outreach beyond academia 
- Open to questions from outside academia
- Curation and annotation of non-scholarly information
- Participation in public debate

And: Open educational resources  / Open source software  / Open hardware / Patents 

[From: Bosman & Kramer \(2017\) Defining open science definitions](#)

Open science policy – open access



cOAlition S
Making
Open Access
a reality
by 2020

A DECLARATION OF COMMITMENT
BY PUBLIC RESEARCH FUNDERS

<http://scieur.org/coalition-s>

Plan S

Open science policy – open access

Dansk Open Access-strategi får høvl af eksperter

»Den danske strategi har rygrad som en medisterpølse,« mener direktør for Open Access-vejviser. Forsker i videnskabshistorie er uenig.



Open science policy – monitoring



[Home](#) > [Research and innovation](#) > [Strategy](#) > [Goals of research and innovation policy](#) > [Open Science](#) > [Open science monitor](#)

Open science monitor

Tracking trends for open access, collaborative and transparent research across countries and disciplines.

Trends for open access to publications

Data and case studies covering access to scientific publications. Bibliometric data as well as data on the policies of journals and funders are available.

Facts and Figures for open research data

Figures and case studies related to accessing and reusing the data produced in the course of scientific production.

Data on open collaboration

Figures on availability of scientific APIs, open code policies, citizen science projects as well as case studies.

Open Science: how you can make it work morning programme

- 9:00-9:15 - Welcome
- 9:15-11:00 - Session 1: Intro to Open Science
- 11:00-11:15 - Coffee break
- 11:15-11:45 - Talk: Open Science from a European policy perspective
- 11:45-12:00 - Discussion
- 12:00-13:00 - Lunch and networking at the Faculty Club

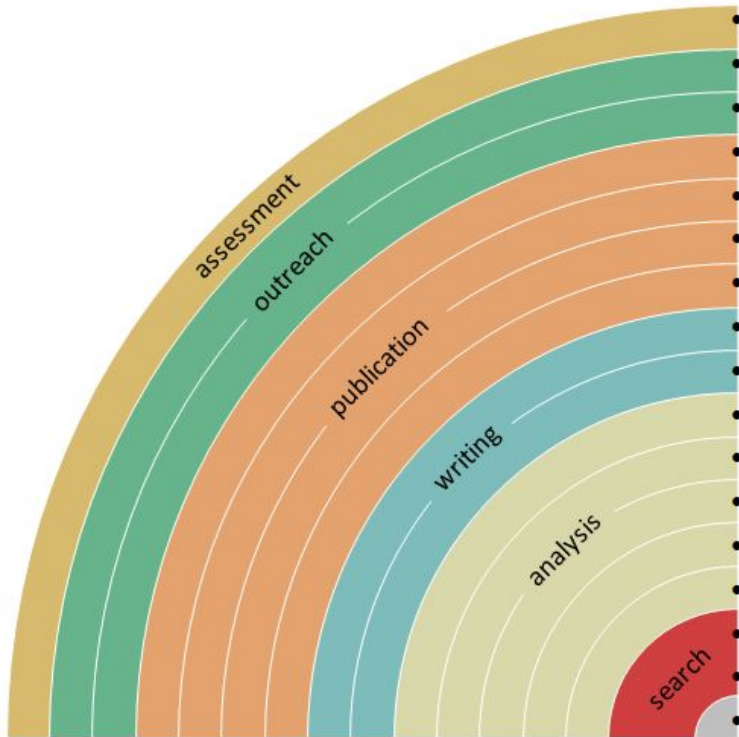
Open science: how to make it work

Afternoon programme

- 13:00-14:00 Session 2: Open Science in the full research workflow
(in the Library Forum, with two guest flash presentations)
- 14:00-14:15 Coffee Break
- 14:15-15:45 Session 3: Open Science tools & practices
- 15:45-16:00 Wrapping up
- 16:00-17:00 Mingling and after work drinks @Café Nexus

Session 2: Open science in the full research workflow

You can make your workflow more open by ...



- adding alternative evaluation, e.g. with altmetrics
- communicating through social media, e.g. Twitter
- sharing posters & presentations, e.g. at FigShare
- using open licenses, e.g. CC0 or CC-BY
- publishing open access, 'green' or 'gold'
- using open peer review, e.g. at journals or PubPeer
- sharing preprints, e.g. at OSF, arXiv or bioRxiv
- using actionable formats, e.g. with Jupyter or CoCalc
- open XML-drafting, e.g. at Overleaf or Authorea
- sharing protocols & workfl., e.g. at Protocols.io
- sharing notebooks, e.g. at OpenNotebookScience
- sharing code, e.g. at GitHub with GNU/MIT license
- sharing data, e.g. at Dryad, Zenodo or Dataverse
- pre-registering, e.g. at OSF or AsPredicted
- commenting openly, e.g. with Hypothes.is
- using shared reference libraries, e.g. with Zotero
- sharing (grant) proposals, e.g. at RIO



Open Science practices

sharing protocols
openly, online

store data in the most
that possible

cite OA versions of
literature & provide
data and annotations

use easily attain
software to a
everyone to repri

acknowledge
contributor roles
in a publication

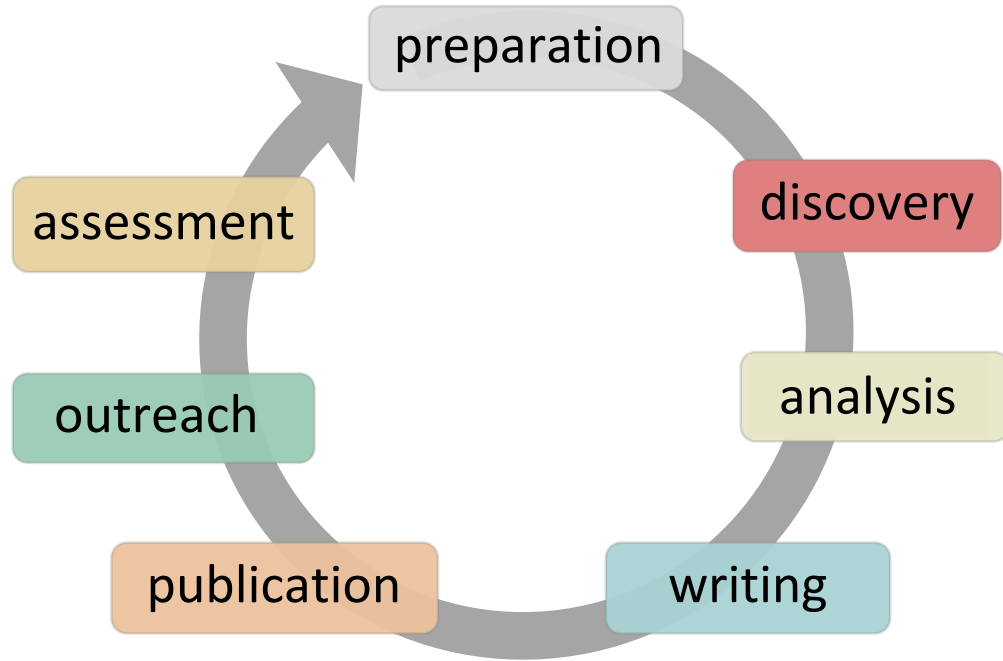
refuse to be part of
all male or all white
panels

live public / pa
drafting
proposals

translate research objects
in world languages

publish preprints,
solicit feedback /
peer review

upload before
generating your own



Exploration: going in depth

1. **What?** Select a practice
2. **Why?** What would be its benefit: for yourself and others?
3. **Using what?** Select one or more tools/platforms
4. **How?** Explore the tools/platforms, see how it works
5. **Who with?** Who/what would you need to be able to do/advise this?
6. **Yes /no?** What would make you decide to do/advise this?

Bonus:


7. **Who else?** Is this already being done at your institution? By whom?

Record your choices/actions/considerations on a white sheet

Exploration: getting ideas

- Practices on the wall and the table
- Presentation slides (tinyurl.com/OS-CBS)
- Rainbow image in your handout
- Tools database (if you already know what you're looking for):
bit.ly/innoscholcomm-list

Tools database

	<h2>400+ Tools and innovations in scholarly communication</h2>
	web based tools a researcher can use
authors	Bianca Kramer & Jeroen Bosman (and you?)
contact	@MsPhelps & @JeroenBosman, both at Utrecht University Library
url:	https://docs.google.com/spreadsheets/d/1KUMSeq_Pzp4KveZ7pb5rddcssk1xBTILHniD0d3nDqo
friendly url:	http://bit.ly/innoscholcomm-list
related to poster:	http://dx.doi.org/10.6084/m9.figshare.1286826
related to website:	https://innoscholcomm.silk.co/
accompanying survey:	https://101innovations.wordpress.com/
background:	This is a shared database that grew out of the "101 innovations in scholarly communication" project. When we published the 101 list of selected innovations our database already contained some 200 innovations/tools. The 101 selection was strictly on innovativeness and thus did not contain recent tools if they were not innovative compared to older ones with the same functionality, even if the more recent ones were more popular or well-known. The database shared here has dropped that strict innovativeness criterion and thus contains multiple tools offering basically the same functionality. The masterfile that this database is derived from is still being worked on. Additional fields may become available here in a later stage.

<http://bit.ly/innoscholcomm-list>

400+ Tools and innovations in scholarly communication

Cite This For Me	https://www.citethisforme.com/	2012	reference management	6	Reference management tool, shared bibliographies	reference management, with cite/bibliography options
Colwiz	https://www.colwiz.com/	2012	reference management	6	reference management	reference management, with cite/bibliography options
Docear	http://www.docear.org/	2011	reference management	6	reference manager, writing platform, w/ mindmapping feature, literature suggestions based on mindmaps	reference management, with cite/bibliography options
EndNote	http://endnote.com/	1988	reference management	6	reference management	reference management, with cite/bibliography options
F1000 Workspace (formerly beta)	http://f1000.com/beta/	2014	reference management	6	reference management, making/sharing annotations in papers, commenting on references	reference management, with cite/bibliography options
Mendeley	http://www.mendeley.com/	2008	reference management	6	reference management	reference management, with cite/bibliography options
PaperBox	http://www.paper-box.co/	2012	reference management	6	cloud-based reference + pdf management system	reference management, with cite/bibliography options
PapersApp (Mekentosj -)	http://www.papersapp.com/	2007	reference management	6	reference management	reference management, with cite/bibliography options
Proquest Flow	https://flow.proquest.com/	2013	reference management	6	reference management	reference management, with cite/bibliography options
Reference Manager	http://www.refman.com/	1984	reference management	6	reference management	reference management, with cite/bibliography options
RefWorks	http://www.refworks.com/	2001	reference management	6	reference management	reference management, with cite/bibliography options
Zotero	https://www.zotero.org/	2006	reference management	6	reference management	reference management, with cite/bibliography options
Qiqqa	http://www.qiqqa.com/	2010	reference management	6	free reference manager	reference management, with citing/bibliography options

For checking functionalities and finding alternatives for tools that you are not content with <http://bit.ly/innoscholcomm-list>

Breakout rooms (14:15 - 15:00)

Preparation

Discovery

- room 206

Analysis

- room 209

Publication

- room 104

Outreach

- room 109

Assessment

- room 115

Session 3: Open science practices and tools

Open Science practices

sharing protocols
openly, online

store data in the most
that possible

cite OA versions of
literature & provide
data and annotations

use easily attain
software to a
everyone to repri

acknowledge
contributor roles
in a publication

refuse to be part of
all male or all white
panels

live public / pa
drafting
proposals

translate research objects
in world languages

publish preprints,
solicit feedback /
peer review

upload before
generating your own

Exploration: going in depth

1. **What?** Select a practice
2. **Why?** What would be its benefit: for yourself and others?
3. **Using what?** Select one or more tools/platforms
4. **How?** Explore the tools/platforms, see how it works
5. **Who with?** Who/what would you need to be able to do/advise this?
6. **Yes /no?** What would make you decide to do/advise this?


Bonus:

7. **Who else?** Is this already being done at your institution? By whom?


Record your choices/actions/considerations on a white sheet

Principles of Open Scholarly Infrastructure

Trust in how it's run

- 
- Broad coverage
 - Stakeholder governed
 - Non-discriminatory
 - Transparent operations
 - Cannot lobby
 - Living will
 - Incentives to wind down

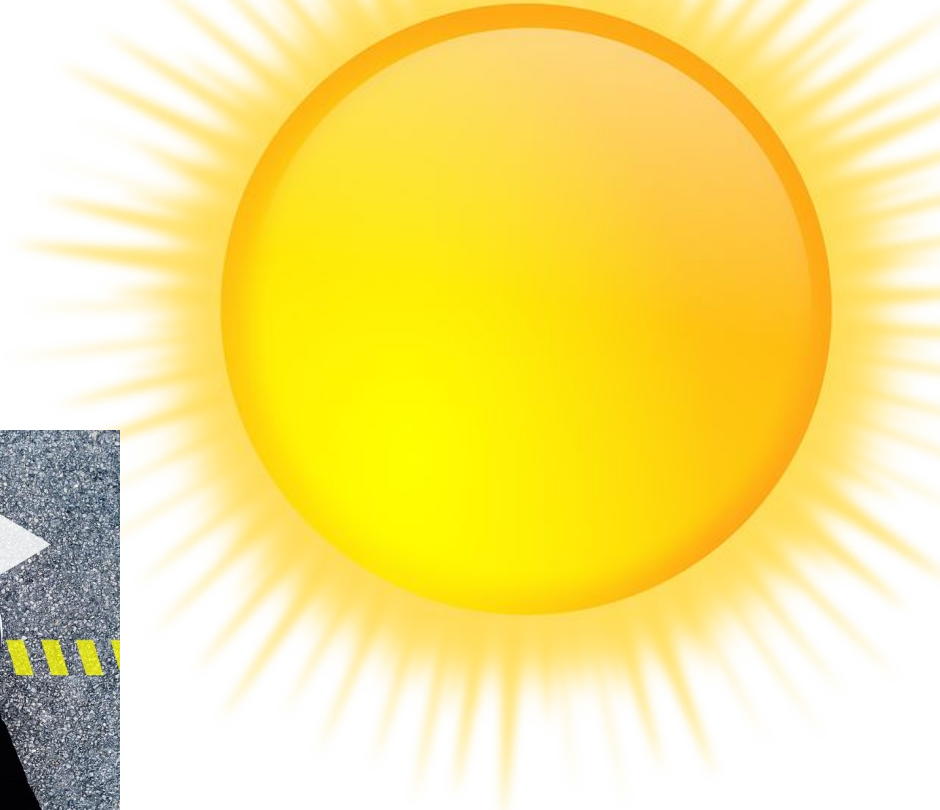
Trust it will still be there

- 
- Time-limited funds only for time-limited uses
 - Generate a surplus
 - Contingency fund
 - Revenue from services
 - Mission consistent

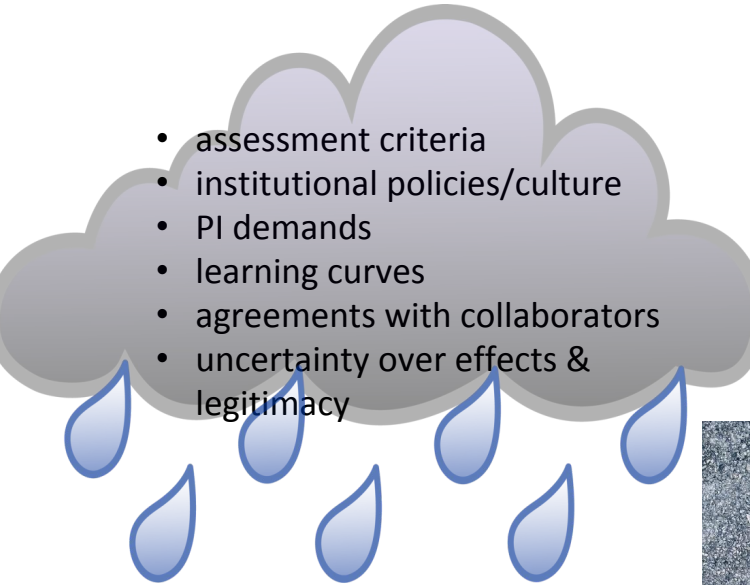
Trust there is a backup plan


- 
- Can be “forked”
 - Open Source
 - Open Data
 - Available Data
 - Patent non-assertion

Barriers and motivations



Barriers and motivations

- 
- assessment criteria
 - institutional policies/culture
 - PI demands
 - learning curves
 - agreements with collaborators
 - uncertainty over effects & legitimacy

- 
- political support at (inter)national level
 - pressure from funders
 - public stance on Open Science by institution
 - user-friendly and powerful tools
 - interoperability
 - role models
 - attention for positive effects



Why should you do this?






Because you have to, sometimes

- Funder mandates & requirements for open access
- Funder and journal mandates for open data
- institutional and national open science policies

Because it delivers and feels good

- Getting more feedback and improve based on that
- Finding co-authors
- Receiving more citations with OA and tweeted pubs
- Increase societal impact, help solve problems

But what about.....?

- “High impact journals” role in evaluation 
 - Impact factors? 
 - APC Open Access costs? 
 - The “version of record”? 
 - Scooping 
- Many universities / funders [signed DORA](#)
 - Impact factors [very flawed](#)
 - APCs redressed by funders, sometimes nationally; green Open Access
 - Too limited, we need smart/stable linking
 - Is that happening? Should we foster it?

Developments towards good, open and efficient research

Slow, difficult

Debunking impact factor thinking

Debunking data scooping myth

Changing version of record thinking

Fast, smooth, easy

Preprint adoption by publishers & researchers

Data management policies at funders

ORCID adoption



INNOVATIONS IN SCHOLARLY COMMUNICATION

Changing Research Workflows

<http://101innovations.wordpress.com>