OPEN SCIENCE E OPEN ACCESS 2-L'ALTERNATIVA OPEN



Elena Giglia Università di Torino

elena.giglia@unito.it



@egiglia

In questo modulo impareremo:

- 1. Open Science è solo la scienza, fatta bene
- 2. come potete aprire tutti i passi del ciclo della ricerca

Question: I agree with Alessandra:) and it was really helpful to have in mind there is an alternative way that give us the chance of

being treated with dignity and truly focus on the essence of our work

MESSAGGI CHIAVE

Take home message by Petra, PhD, May 2020

- C'è una comunità lì fuori che vi sostiene (soprattutto giovani ricercatori)
- · potete fare un passo alla volta...
- ...ma fatelo, provatecí!...

...un po' di ispirazione...

The best thing about **Internet** is that it's **open**. In every field **it let us** share and innovate.

In science, **OPENNESS IS ESSENTIAL.**

Open science doesn't mean ignoring economic reality.

Of course we need business models to be sustainable. But that doesn't mean we have to carry on doing things the way they have always been done.

So, wherever you sit in the value chain, whether you're a researcher or an investor or a policy maker, my message is clear:

let's invest in collaborative tools that let us progress...

Let's tear down the walls that keep learning sealed off.

And let's make science open.



Jeff Rouder

@JeffRouder





BY JONATHAN TENNANT 2020

'Open Science' stands for the transition to a new, more open and participatory way of

conducting, publishing and evaluating scholarly research. Central to this concept is the goal

of increasing cooperation and transparency in all research stages. This is achieved, among

other ways, by sharing research data, publications, tools and results as early and open as

Qeios

Open Access Lic. Info Cite

https://doi.org/10.32388/838962

Open Science

Open Science leads to more robust scientific results, to more efficient research and (faster) access to scientific results for everyone. This results in turn in greater societal and economic impact.

https://www.accelerateopenscience.nl/what-is-open-science/

What is Open Science? It is endeavoring to preserve the rights of others to reach independent conclusions about your data and work.

Traduci il Tweet 21:47 - 5 dic 2017

Open Science Depends on Open Minds

possible.



Neelie Kroes 🖾

Iscriviti 851



(sci) Open Science @openscience - 5

"Being open and transparent is an ongoing practice and not a check box at the end." - @biocrusoe #openscience

Open Science

Open Outputs + Open Infrastructure

Access, reuse & discoverability

Evaluation & Researcher behaviour

Culture (change)





#OpenScience is science by anyone, and for everyone.

C. Mac Callum, UKSG, April 2018

Open Science Jon Tennant

107.241 Tweet

Following

[Open] Science is a Human Right

Article 27

- Everyone has the right freely to participate in the cultural life of the community, to enjoy the arts and to share in scientific advancement and its benefits.
- 2) Everyone has the right to the protection of the moral and material interests resulting from any scientific, literary or artistic production of which he is the author.
- Toda persona tiene derecho a participar libremente en la vida cultural de la comunidad, a gozar de las artes y a participar en el progreso científico y en los beneficios que de él resulten.
- Toda persona tiene derecho a la protección de los intereses morales y materiales que le correspondan por razón de las producciones científicas, literarias o artísticas de que sea autora.

https://www.un.org/en/universal-declaration-human-rights/

Sept. 21, 2019

@protohedgehog





Open Science



The future of science is Open

START YOUR RESEARCH TRAINING NOW

USE FOSTER TO:

7 T









FOSTER taxonomy



Open Science

Research Data Management

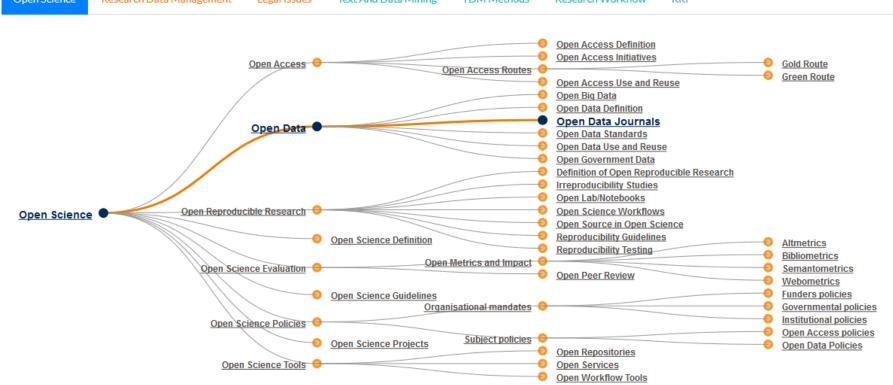
Legal Issues

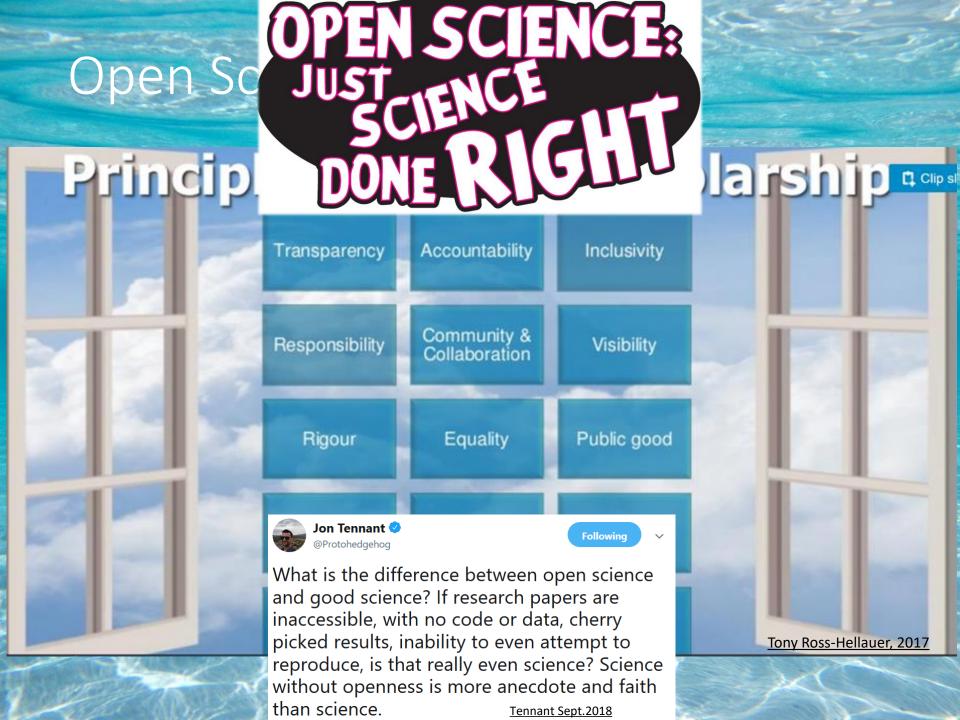
Text And Data Mining

TDM Methods

Research Workflow

RRI





Open and inclusive science



Economy of attention Chasing the IF & obsessing over citation numbers

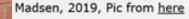
Quest for visibility Egoism that reinforces inequality in Science

Irreproducible research Shiny, sexy results Honorary authorships

Fair academic assessment Recognition of mentoring, diversity & inclusion work Support for mental health

Collaboration & open sharing Promotion of diversity Participatory research

Reproducible, transparent, responsible research



P. Masuzzo, 20 nov. 2019



OPEN SCIENCE. FAIR.

Synergies for Sustainable, Open & Responsible Research P. Masuzzo, Keynote, Sept. 2019

Open Science

WEBINAR 19 OTTOBRE 2020



NON SOLO ARTICOLI MA DATI, SOFTWARE...

recognize that formal papers and manuscripts are not the only units of scientific knowledge











VALORI: DIVERSITÀ, INCLUSIONE...

redefine research excellence towards values: leadership, diversity work, mental health support









RIPORTARE LA SCIENZA AL CENTRO DELLA SOCIETÀ

invest in tools, services, and community-driven initiatives to help make science better by engaging more people to participate in the process









tell it like it is: redefine failure, nurture slower, responsible science, shift the focus from the outputs to the practice









INVESTIRE IN STRUMENTI
PARTECIPATIVI



@pcmasuzzo Oct.5, 2020 RISULTATI NEGATIVI, «FAR CRESCERE», «RESPONSABILE»

BY-SA

Open Science è funzion





17 GOALS TO TRANSFORM OUR WORLD















































Open Science funzionale



Roundtable Discussion on a Global Science Commons **Outcome Document**

United Nations Headquarters, Monday, 18 November 2019 Nov. 18, 2019

The participants reached a consensus on the following views

- Open Science is an accelerator of the Sustainable Development Goals (SDGs).
- Publicly funded science should be Open Science.
- We are not on track to achieve the SDGs. We must work collaboratively toward the goals of humanity laid out in the SDGs.
- IV. The importance of Open Access (OA) is key takeaway from the 2019 Global Sustainable Development Report.
- Open Science must be inclusive. Important relevan cited research.
- VI. Incentives for research should be aligned with open humanity.
- VII. Open Science requires the opening of barriers to a s processes. Libraries are natural information/data br processes, and their role is essential.

Roadmap to a Science Commons

- There cannot be a Science Commons without Open Science. A Science Commons can be viewed as the framework organized around principles, universal values and the architecture of open research.
 - o The principles should apply to all scientists who receive public research funding wherever they are located. Outputs of the global, publicly funded research should be:
 - universally available (no lock-in and not sold as a premium service)
 - as open as possible, as closed as needed
 - as distributed as possible, as centralized as needed
 - FAIR (findable, accessible, interoperable and reusable).
 - o Open Science must be guided by universal values:
 - inclusiveness and respect for diversity
 - equitable practice reciprocity and complementarity
 - universally shared benefits, and
 - opportunities for scientific education and social participation.

Open Science and OCDE



Access to publicly funded data has become more important than ever during the COVID-19 crisis.

We look at what countries can do to encourage #DataAccess in our report oe.cd/2ZO

#researchdata #opendata

Traduci il Tweet





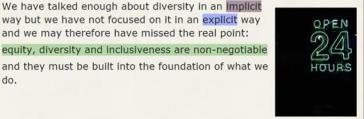
Enhanced Access to Publicly Funded Data for Science, Technology and Innovation





It's time to talk explicitly about inclusiveness

We have talked enough about diversity in an implicit way but we have not focused on it in an explicit way and we may therefore have missed the real point: equity, diversity and inclusiveness are non-negotiable



Cameron Neylon, Twitter thread; Image by Cyle De Guzman on Unsplash Photos

do.



Contextualizing **Openness**

Situating Open Science



Stephen Curry 🔮

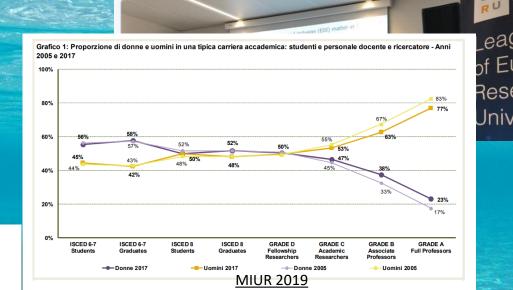
64.823 Tweet

Sept. 19, 2019

Following

LERU @LERUnews · 19 set

Important message to bring to university leadership is that we miss out on talent by not making equality and diversity a priority. Mixed teams work better. Addressing diversity issues is a win-win-win situation for students, staff and institutions, says @Stephen_Curry



"If we are not careful, we will have an open science that perpetuates the inequalities in academia and science." @mendulla



Open science è un proc

Transition to open science is a multidimensional and multistage process. There is value and risk of being a first mover, but there is

higher risk of being a follower. The

CON UNA

VISIONE

ORGANICA E

COERENTE

RISCHIO A ESSERE I PRIMI, RISCHI MAGGIORI A ESSERE GLI ULTIMI

CREARE ROADMAP DI ATENEO CON

OBIETTIVI MISURABILI

Front. Big Data | doi: 10.3389/fdata.2019.00043

[Nov.2019]

Open science, open data and open scholarship: European policies to make science fit for the 21st century

Jean-Claude Burgelman¹', 💹 Corina Pascu¹', Katarzyna Szkuta¹, Rene Von Schomberg¹, Athanasios Karalopoulos¹, Konstantinos Repanas¹ and Michel Schouppe¹

> Open Science and 2018 its role in universities:

Open Science: Opportunities, challenges and cultural change in universities

Open Science is not about dogma; it is about greater efficiency and productivity, more transparency and a better response to interdisciplithe importance of Open Science where "new kni created through global collaborations involving of people from across the world and from all wall-The Commissioner therefore called for drawing

June 4,

FALSE STARTS

Action CHANGE Vision Incentives Plan Action Skills Incentives CONFUSION Resources Plan Action Vision Incentives ANXIETY Resources Plan Action RESISTANCE Vision Plan Action FRUSTRATION Vision =

Managing Complex Change

DA «RACCOMANDAZIONI» A «IMPEGNI PER L'IMPLEMENTAZIONE»

Progress on Open Science: Towards a Shared Research **Knowledge System**

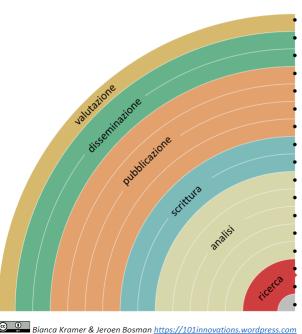
Final Report of the Open Science Policy Platform

This specific mandate implied a shift from 'Recommendation Mode' to 'Implementation Mode', through PCIs: Practical Commitments for Implementation at stakeholder level. A PCI is a

Eva Mendez, Open Science Conference 2019

Open science un passo per volta...

Come puoi rendere Open ogni passo della ricerca...



aggiungendo misure di impatto alternative, es. altmetrics 🐧 comunicando sui social media, es. Twitter condividendo poster e presentazioni, es. su FigShare utilizzando licenze aperte, es. Creative Commons BY depositando in archivi o pubblicando su riviste Open provando la open peer review, es. PubPeer o F1000 condividendo preprints, es. su OSF, arXiv o bioRxiv con formati leggibili dalle macchine, es. Jupyter o CoCalc 🍜 con la scrittura collaborativa, es. Overleaf o Authorea condividendo protocolli e workflow, es. su Protocols.io condividendo note di laboratorio, es. OpenNotebookScience 🖾 condividendo software, es. su GitHub con licenza GNU/MIT 🦃 condividendo i dati, es. su Dryad, Zenodo o Dataverse pre-registrando esperimenti, es. su OSF o AsPredicted commentando pagine web, es. su Hypothes.is o Pund.it usando bibliografie condivise, es. su Zotero

Book arXiv.org bioRxiv
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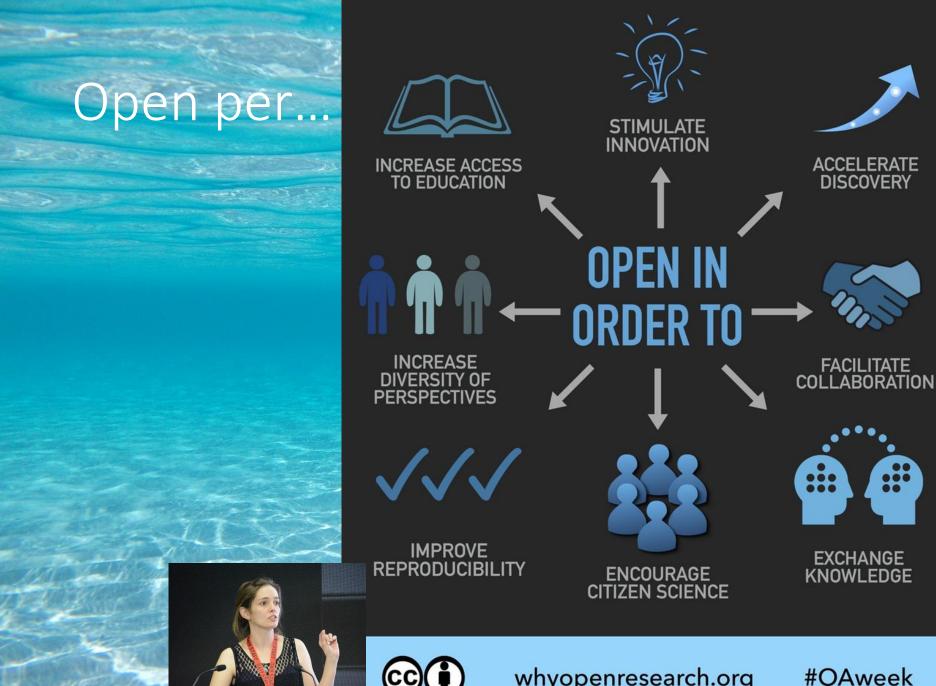
DOI: 10.5281/zenodo.1147025

Traduzione: Elena Giglia @ ①

condividendo progetti di ricerca, es. su RIO Journal

DOI: 10 5281/zenodo 1195648

n.







Un altro mondo è possibile?



OPEN SCIENCE,
THE CHALLENGE
OF TRANSPARENCY

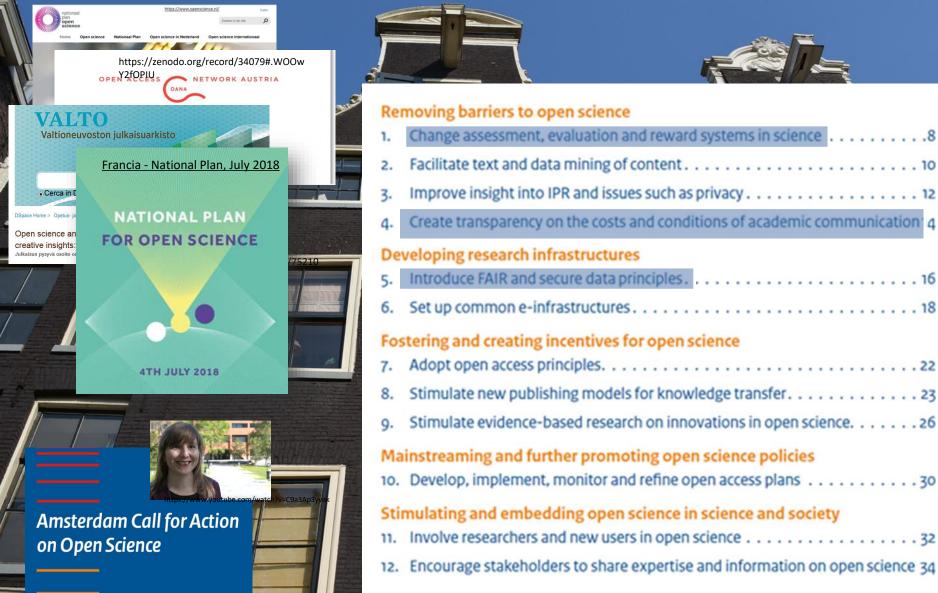
Preface by Philippe Busquin



ACADÉMIE ROYALE DE BELGIQUE
Collection L'ACADÉMIE EN POCHE

B. Rentier, 2019

... un altro mondo è possibile SE...



2016.nl/documents/reports/2016/04/04/amsterdam-call-for-action-on-open-science



NATIONAL PLAN OPEN SCIENCE
COMMISSIONE OPEN SCIENCE (CRUI, ANVUR, CUN, AIB, AIE, AISA, IOSSG, ICDI)

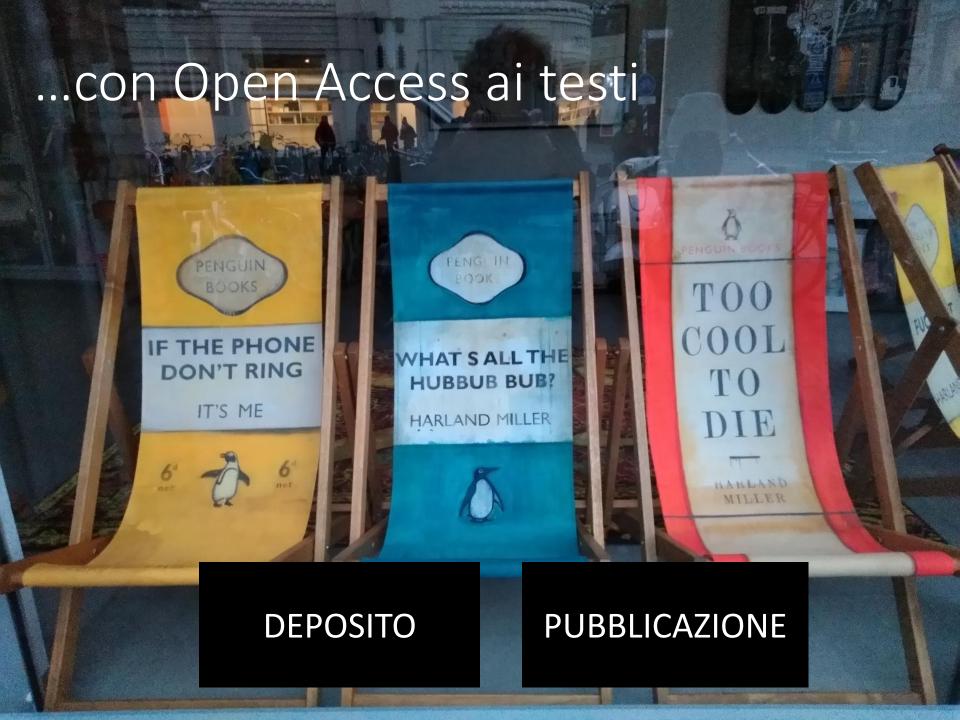
... un nuovo modo di fare ricerca...

Box 1. Some Research Practices that May Help Increase the Proportion of True Research Findings

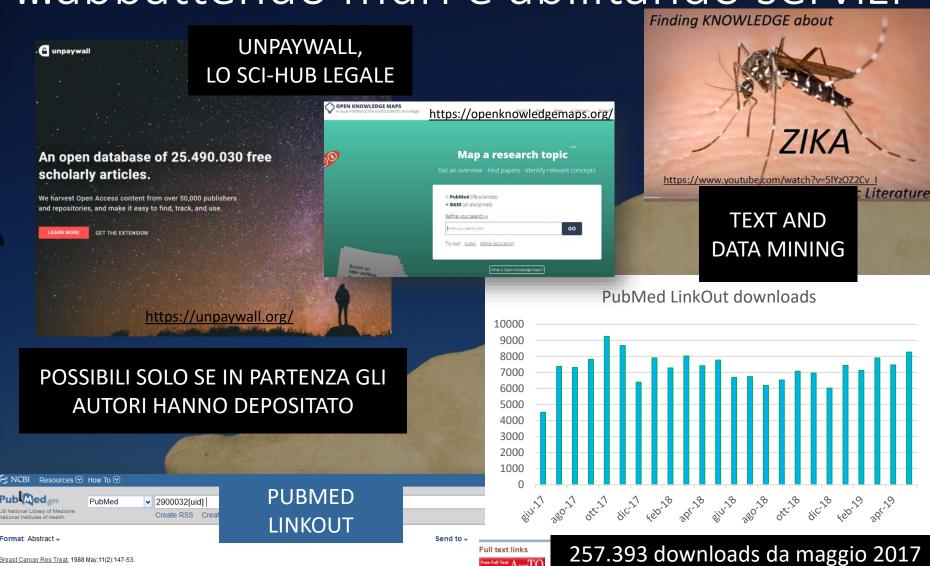
- Large-scale collaborative research
- Adoption of replication culture
- Registration (of studies, protocols, analysis codes, datasets, raw data, results)
- > Sharing (of data, protocols, materials, software, and other tools)
- Reproducibility practices
- Containment of conflicted sponsors and authors
- More appropriate statistical methods
- Standardization of definitions and analyses
- More stringent thresholds for claiming discoveries or "successes"
- Improvement of study design standards
- > Improvements in peer review, reporting, and dissemination of research
- Better training of scientific workforce in methods and statistical literacy







...abbattendo muri e abilitando servizi



Add to Favorites

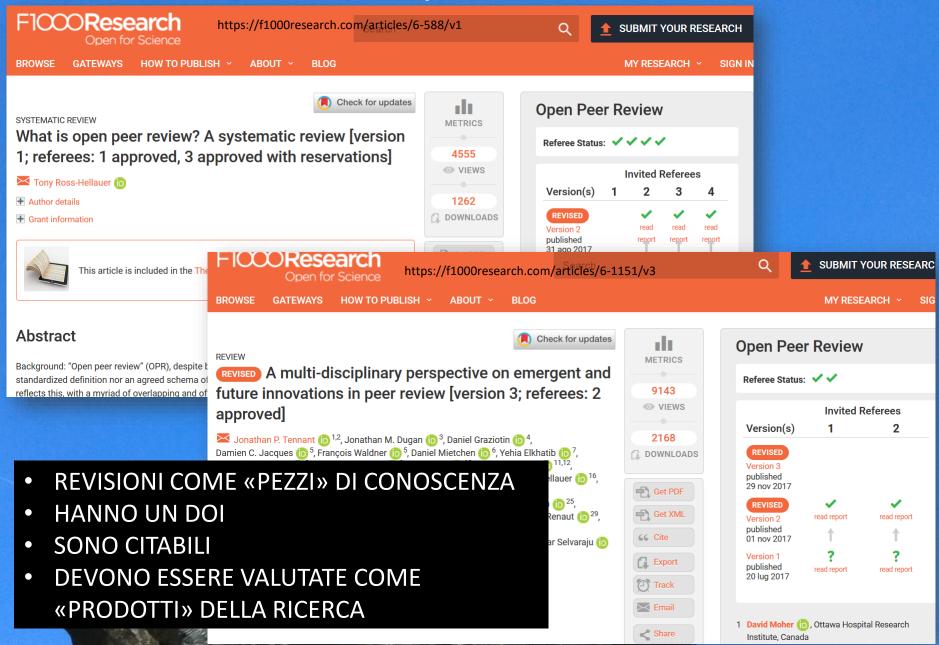
[7.150 media]

Saglio G¹, Camaschella C, Giai M, Serra A, Guerrasio A, Peirone B, Gasparini P, Mazza U, Ceppellini R, Biglia N, et al Author information

Distribution of Ha-RAS-1 proto-oncogene alleles in breast cancer patients and in a control



... con revisioni aperte





PREPRINT e OPEN NOTEBOOK



R Studio

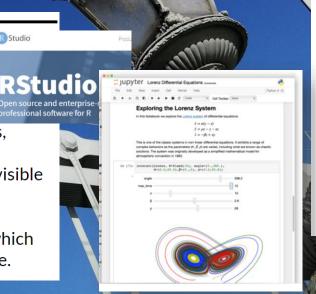
dei risultati

- priorità scientifica
- elimina il «limbo» di attesa post submission
 - FOCUS SUL CONTENUTO E **NON SUL CONTENITORE**

What is an Open Notebook?

Open Notebooks are documents that contain equations. visualisations, narrative text and live code that can be executed independently and interactively, with output visible immediately beneath the input.

They bring together analysis descriptions and results, which can be executed to perform the data analysis in real time.



Rule 1: Preprints speed up dissemination

Rule 2: Preprints should be licensed and formatted to facilitate reuse

Rule 3: Preprints provide a record of priority

Rule 4: Preprints do not lead to being scooped

Rule 5: Preprints provide access to scholarly content that would otherwise be lost

Rule 6: Preprints do not imply low quality

Rule 7: Preprints support the rapid evaluation of controversial results

Rule 8: Preprints do not typically preclude publication

Rule 9: Preprints can further inform grant review and academic advancement

Rule 10: Preprints-one shoe does not fit all

http://jupyter.org/index.html

[preprint/CO

nature biotechnology

May 2020

We'd like to understand how you

Editorial | Published: 05 May 2020

All that's fit to preprint

Nature Biotechnology 38, 507(2020) | Cite this article 2752 Accesses | 134 Altmetric | Metrics

Preprints — unvetted versions of research papers — offer open publication, establish precedence of research, enable rapid dissemination of results, provide early recognition and visibility for work (especially for early-career researchers) and avoid the selection bias against negative findings commonly associated with traditional peer review. Although they are not a new idea, they only took off in the life sciences after the 2013 launch of bioRxiv; today, at least 44 different archives host biology preprints; most are non-profit, community-based

COVID-19 has reinforced the importance of preprints as an indispensable means for rapid research dissemination.

The uptake of preprints during the COVID-19 pandemic has been nothing short of remarkable. In April, the clinical preprint repository medRxiv published between 50 and 100 SARS-CoV-2-related posts daily. The burgeoning adoption of preprints by the medical community in recent months underscores their importance as a means for rapid sharing and updating of research findings during an outbreak. In the



[non è tutto rose e fiori]

ancora delle modifiche se necessarie. "Pubblicare un *preprint* senza il database completo dei dati e i dettagli dei metodi di analisi utilizzati non aiuta la ricerca né la comunicazione della scienza, dentro e fuori dalla comunità di ricercatori. Si impedisce a chiunque altro di verificare e riprodurre l'esperimento riportato. E la stampa prende per buono quello che trova nel pdf", spiega Masuzzo.

Per gli autori dello studio, comunque, queste dinamiche non dimostrano che l'open science non funziona. Sono invece la prova che mettere in atto solo alcune delle pratiche di "scienza aperta" può essere dannoso. "La pandemia ha reso evidente che ogni passaggio della ricerca scientifica deve essere trasparente. Dall'idea dello studio ai dati raccolti in ogni fase". Per evitare problemi come quelli emersi, Paola Masuzzo e i suoi colleghi propongono diverse soluzioni. Il processo di revisione degli articoli, le correzioni e i commenti della peer review, devono essere resi pubblici e consultabili da tutti. Secondo gli attivisti una maggiore trasparenza potrebbe migliorare anche la qualità delle revisioni, stimolando i ricercatori a fare un lavoro più accurato. Per la verifica dei risultati ottenuti dalle ricerche, chiedono la condivisione completa dei dati raccolti durante la ricerca e la pubblicazione dei codici di programmazione usati dagli statistici per le analisi. Un'altra proposta prevede la registrazione su piattaforme dedicate di tutti gli studi in corso, con una descrizione approfondita del progetto oltre a tutte le informazioni sull'approvazione da parte del comitato etico e sui metodi per la raccolta e l'analisi dei dati. La registrazione è uno strumento utile a verificare che gli studi siano condotti in linea con le normative nazionali e internazionali, ma ha anche vantaggi per i ricercatori. Può evitare duplicazioni di una stessa ricerca da parte di altri gruppi e permettere agli scienziati di ideare progetti complementari a quelli già esistenti. "Siamo convinti che la piena adozione dei principi dell'open science avrebbe potuto accelerare la scoperta di soluzioni alla pandemia sia in campo medico sia socioeconomico", conclude Paola Masuzzo.

CULTURA E SCIENZA / APPROFONDIMENTO

Scienza aperta e Covid-19: che cosa non ha funzionato. Ma la condivisione è la strada giusta

Giovanna Borrelli e Francesco Sparano — 30 Settembre 2020

30 sett 2020

OPEN SCIENCE

((PARZIALE)) PUÒ ESSERE

DANNOSA

[PREPRINT SENZA DATI

NON È VERIFICABILE]

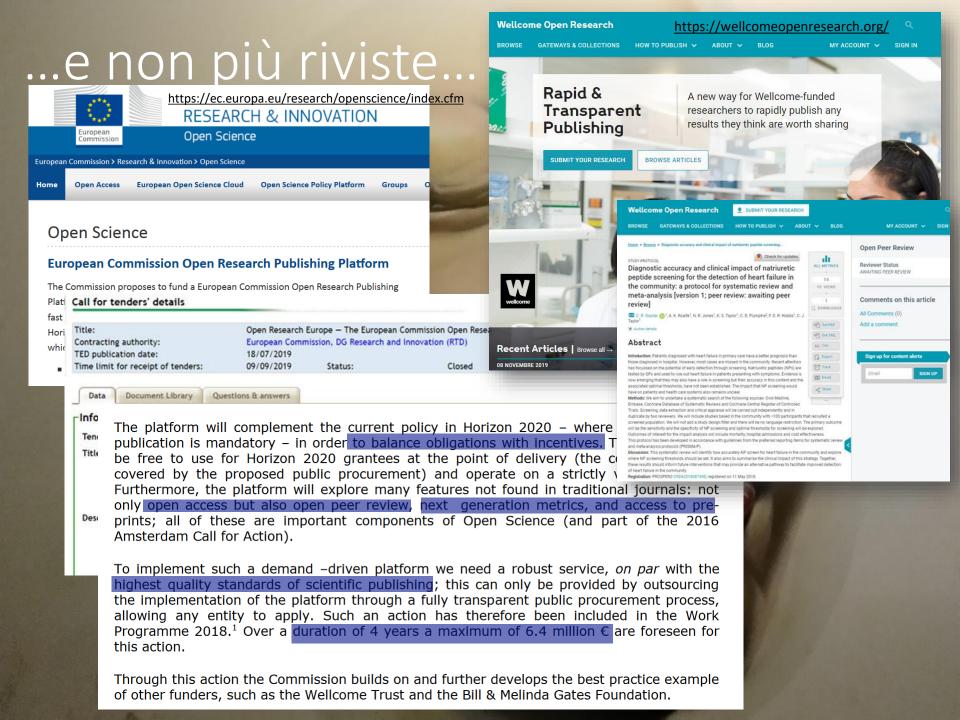
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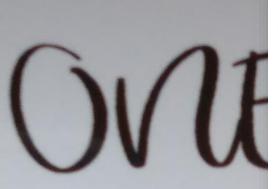
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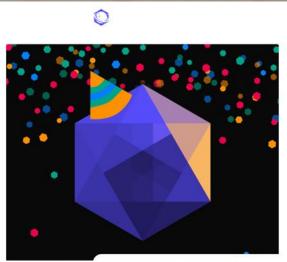
PREREGISTRANDO GLI

ESPERIMENTI



...scrivendo in ambienti aperti





Introducing Hypergraph (Beta) 🕰

Authors Sign in Sign up a Hypergraph

Hypergraph helps researchers reset research publishing, by publicly documenting research step by step, before the issues of after-the-fact articles even begin. Traditionally, articles are often written in hindsight, causing selective publication, p-hacking, and many other issues.

In Hypergraph, you only have to indicate what step you're taking, link it to the step(s) it follows from, add relevant files, and indicate what file you want people to see first. This means that you can share all kinds of steps in your research—the theory, predictions, transcripts, materials, code, data, results (and more). Plus, you can share files such as Jupyter notebooks, scripts, data files, videos, audio files, text, and any other open file format.

When you share your latest research step, your peers can immediately see it, link next steps to it, and help you improve it. You share when you're ready.



...valutando in modo diverso...

RETHINKING RESEARCH ASSESSMENT

IDEAS FOR ACTION

5 COMMON MYTHS ABOUT EVALUATION

Assessing research and researchers, especially in research-intensive institutions, frequently relies on indicators like Journal Impact Factor (JIF) and similar measures as proxies for quality in research, promotion, and tenure (RPT) decisions. But a closer examination indicates that the perceived value of JIF is often grounded in five common myths:



nalogous examples of these myths ex

DESIGNPRINCIPLES

to help institutions experiment with and develop better research assessment practices

eferences . https://www.s

 Intps://www.spglebal.com/markethoriligence/wh/news-insight research/changepags there were more male coss named john than female coss
 https://www.spchonac.com/srem/8859/amirles/117776/. changes.

- article
 3. Stephan, et al., 2017, https://www.nature.com/news/reviewers-
- Intp://www.nature.com/articles/641586-018-05581-4
 DORN 2012 http://doi.org/10.1016/j.j.com/articles/641586-018-05581-4
- McKiernan, et al. 2019. https://edifesciences.org/article
 Niles, et al. 2019. https://www.bicesiv.org/ articles/10.1101/2016/2015
- https://www.ipsos.com/en-us/electability-has-a-gender-pro
 Schimanski and Alperin, 2018. https://i1000research.com/
- 10. Jimener et al. 2019. http://dx.doi.org/10.1038/s41559-010 0911-5 11. Gibbs, et al. 2017. https://elifesciences.pss/amicles/21393
- 12. Valantine et al., 2017. https://www.lifet.ded.org/doi/ full/10.1187/cbe.16-03-0138 13. https://www.mobiefcell.org/doi/10.1091/mbc.E19-08-0476
- 15. https://www.uor.edu/partal/_resources/CA/docur coneixement-obert/dossier-dors_en.pdf
- science-1 20858
 https://sfdora.org/2019/08/30/pairing-research-assessme reforms-to-faculty-search-procedures/

Instill standards and structure into research assessment processes

This might look like...

Tools like narrative CVs and assessment matrices¹³ provide standards to increase consistency in decision-making.

Discussion amongst evaluators can be used to define expectations and identify desirable qualities before any assessment takes place.

Prioritize equity and transparency of research

This might look like...

Needhi Bhalla compiled a checklist of proven strategies to increase equity in hiring ¹⁴.

The Molecular, Cell and Developmental Biology Department at UC Santa Cruz includes untenuer defaulty in departmental tenure decisions to demystiff the promotion and tenure process. Other institutions invite postdocs to "chalk talks" of faculty candidates discussing their future plans to provide insight into the faculty interview process.

Foster a sense of personal accountabil in faculty and staff

This might look like...

The Universitat Oberta de Catalyuna established a working group⁵⁶ to develop and implement an action plan for responsible research assessment. The University of Utrecht hosted a series of town halls⁵⁶ to collect feedback hafter revision their politics.

Make it explicit that it's everyone's responsibility to "stop the line" in the face of suspected bias at the beginning of every decision-making situation.

Take a big picture or portfolio view toward

This might look like...

The Biology Department at the University of Richmond evaluates the applicant pool to better identif the subset of faculty candidates that match their needs, rather than

focusing on individuals¹⁷.

Cluster hires can help institutions think about hiring in terms of their larger academic portfolio¹⁸. They are also a proven strategy to increase

Refine research assessment processes through iterative feedba

Make short and long-term goals for new policies and practices to measure success. No process is perfect; there needs to be flexibility to revisit and refine policies and

2020

practices as needed.

Open Science will never prevail without a thorough revisiting of the way evaluations of researchers are conducted

Bernard Rentier

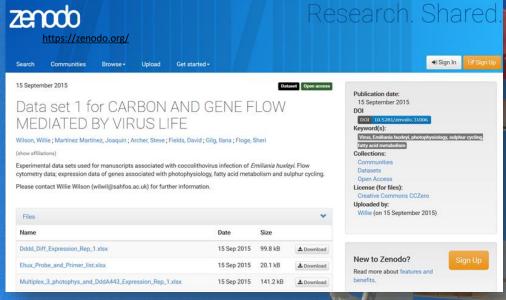
« MATRIX, NOT METRICS »

OS-CAM, the Career Assessment Matrix

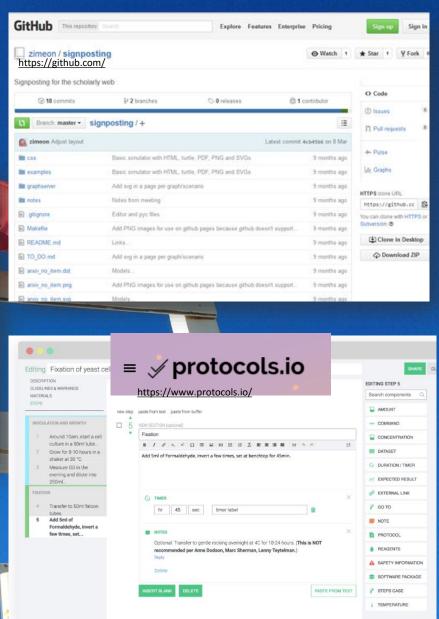
	R1	R2	R3	R4
Research output	+	++	+++	++++
Research Process	+	+++	++++	++++
Service & Leadership		+	+++	++++
Research Impact	+	++	+++	++++
Teaching and supervision	(++)	+	++	++++
Professional Experience		+	+++	++++

OAI11 - CERN-UNIGE Workshop on Innovations in Scholarly Communication Geneva. June 20, 2019

...non solo testi



SI POSSONO DEPOSITARE DATI, SOFTWARE, IMMAGINI, POSTER, INTERI PROTOCOLLI



...con dati FAIR

A [NON = OPEN]
REPOSITORIES,
FORMATI

LICENZE E
DOCUMENTAZIONE

METADATI, IDENTIFICATIVI PERSISTENTI...

ONTOLOGIE, STANDARDS

PRINCIPI FAIR

Comment | OPEN

The FAIR Guiding Principles for scientific data management and stewardship

Mark D. Wilkinson, Michel Dumontier [...] FAIR guide, Nature, March 2016

IN BREVE



Reference: Vischos, E., Larsen, A.V., Zurch S., Hansen, A.F., (2019). Infroduction: in Holmstrand, K.F., den Boer, S.P.A., Vlachos, E. Martinez-Lavanchy, P.M., Hansen, K.K. (Eds.). Research Data Management (et.learning.



F. Reference: Martinez-Lavanchy, P.M. Hose F.J., Buss, M.C.H., Andersen, J.J., Begtrup, J.W. (2019). "FAIR Principles". In: Holmistrand K.F., den Boer, S.P.A., Vaichos, E., Martinez Lavanchy, P.M., Hansen, K.K. (Eds.), Resea Data Management (eLearning course). doi:



Reference: den Borc S.P.A., Buss, M.C.F.
Hüser, F.J., Smed, U. (2019). 'Data
Management Plans'. In: Holmstrand, K.F., c.
Borc: S.P.A., Vlachos, E., Marlinez-Lavanc.
P.M., Hansen, K.K. (Eds.), Research Data
Management (et



DISCLOSUKE it must be



- Findeble
- Accessible
- eldereggossal •
- Beosable

[perché c'è EOSC!]



Vienna, 23 Novem

We, Ministers European Op

- 1. Recall the challe Brussels on 10 Jul
- 2. Reaffirm the po the vision of the Eu States, sustainable
- 3. Recognise that iterative and based consensus among
- Highlight that E services for Scient reaching out over
- 5. Recall that the

BRINGING TOGETHER CURRENT AND FUTURE DATA INFRASTRUCTURES

€2 BN IN OVERALL HORIZON 2020 FUNDING TO THE EUROPEAN
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for sharing

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Connecting scientists

globally

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base to the public and private sectors 1bn EU-wide Quantum

3.5 bn
Data Infrastructure

ross borders : disciplines

seamless

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Long term

Improving science

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nna, Nov.23, 2018

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Declaration" signed in

Europe. Confirm that ciplines and Member

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ACCESSO TRASPARENTE A DATI FAIR «AS OPEN AS POSSIBLE, AS CLOSED AS NECESSARY»

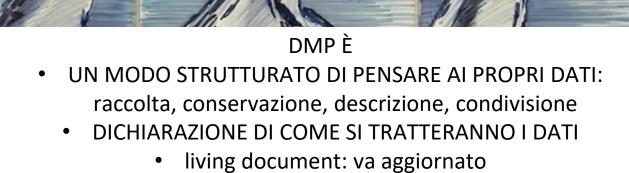
9. Call for the European Open Science Cloud to provide all researchers in Europe with seamless access to an open-by-default, efficient and cross-disciplinary environment for storing, accessing, reusing and processing research data supported by FAIR data principles.



Science Cloud a reality, hinting at the need to further strengthen the ongoing dialogue across institutions and with stake-holders, for a new governance framework to be launched in Vienna, on 23 November 2018.

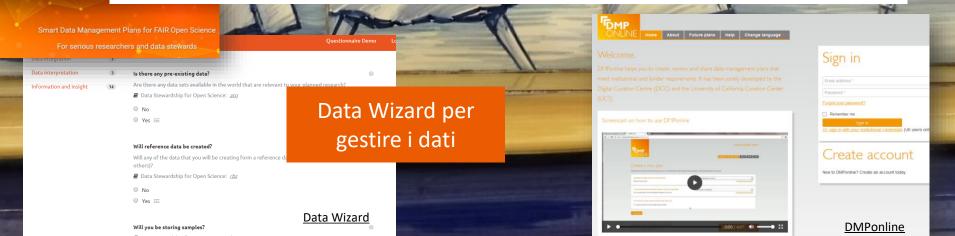
THOLE that the 2010 ECOO Outrithit (held off 11 outle 2010) called for accordance towards making the European Open





www.dcc.ac.uk/resou

...E SOPRATTUTTO VA MESSO IN PRATICA...



...aprendo l'intero ciclo







https://osf.io/registries/



https://aspredicted.org/

Create a new AsPredicted pre-registration

See your existing AsPredicteds (e.g. approve, make public)



PREREGISTRAZIONE OSF Registries o **AsPredicted**

- PRIORITÀ
- DIFFICILE FALSIFICARE
 - RISULTATI NEGATIVI

What's an AsPredicted?

It is a standardized pre-registration that requires only what's necessary to separate exploratory from confirmatory analyses. You will easily generate a pre-registration document that takes less effort to evaluate than it takes to evaluate the published study itself.





How does it work?

- · One author briefly answers 9 questions.
- · All participating authors receive an email asking for approval.
- · If everyone approves, it is saved and stays private until an author acts to make it public, or it remains private forever. (Why?)
- · Authors may share anonymous .pdf with reviewers.
- · If made public, a single-page .pdf is generated. That document can be used as a supplement. (See sample)
- The .pdf contains a unique URL that allows for one-click verification. That URL can be included in the paper.
- . The .pdf is automatically stored in the web-archive. (See sample)
- · There are no accounts, userids, or passwords.

What if things don't go "as predicted"

You can just say so in the paper:

- · "Contrary to expectations, we found that..."
- "Unexpectedly, we also found that..."
- "In addition to the analyses we pre-registered we also ran..."
- "We encountered an unexpected situation, and followed our Standard Operating Procedure" (.pdf)



...disseminando in modo diverso

Ten steps to innovative dissemination

1. Get the basics right

Define your objectives, map your audience(s), target and frame your messages and bring this together into a dissemination plan of what you'll release and when.

2. Keep the right profile

Use personal websites, social media accounts, researcher identifiers and academic social networks to make you and your research visible.

3. Encourage participation

In the age of Open Science, don't just broadcast, go for multi-directional dissemination. Invite & engage with others to participate & collaborate.

4. Open science for impact

Open Access publications and preprints mean more citations. In addition, publishing datasets, software and peer reviews increase your number of citable research outputs.

5. Remix traditional outputs

Give traditional outputs like research articles and books an impact-boost with accompanying lay-summaries, press-releases, blogs, and visual/video abstracts.

6. Go live

In person dissemination doesn't just have to be at stuffy conferences - hit the road and take part in science festivals, science slams, TEDx talks, science festivals, or roadshows.

7. Think visual

Disseminate findings through art or multimedia interpretations. Let your artistic side loose or use new visualisation techniques to produce intuitive, attractive data displays.

8. Respect diversity

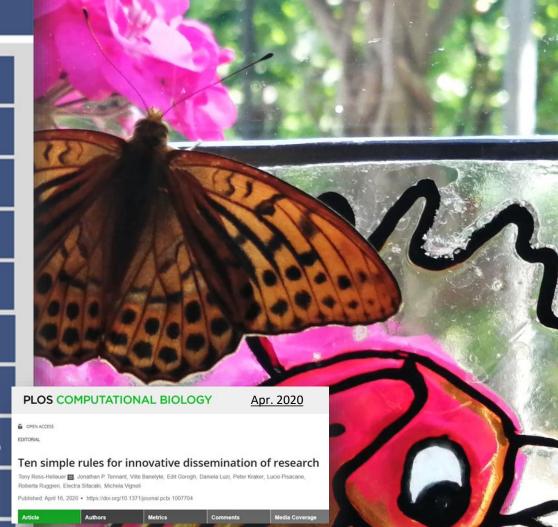
Research should reach all who might benefit. Respect inclusion in scientific dissemination by creating messages which reflect gender, demography and ability diversity.

9. Find the right tools

Choose media, format and dissemination strategy based on your communication objectives. Find tools via, e.g., the OpenUP Hub; openuphub.eu/disseminate/services

10. Evaluate, evaluate, evaluate

Assess your dissemination activities. Are they having the right impact? If not, why not?





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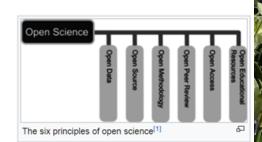
Article Talk

Open science

From Wikipedia, the free encyclopedia

Open science is the movement to make scientific research (including publications, data, physical samples, and software) and its dissemination accessible to all levels of an inquiring society, amateur or professional.[2] Open science is transparent and accessible knowledge that is shared and developed through collaborative networks.[3] It encompasses practices such as publishing open research, campaigning for open access, encouraging scientists to practice open notebook science, and generally making it easier to publish and communicate scientific knowledge.

Open Science can be seen as a continuation of, rather than a revolution in, practices begun in the 17th century with the advent of the academic journal, when the societal demand for access to scientific knowledge reached a point at which it became necessary for groups of scientists to share resources[4] with each other so that they could collectively do their work. [5] In modern times there is debate about the extent to which scientific information should be shared. [6] The conflict that led to the Open Science movement is between the desire of scientists to have access to shared resources versus the desire of individual entities to profit when other entities partake of their resources. [7] Additionally, the status of open access and resources that are available



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for its promotion are likely to differ from one field of academic inquiry to another [8]

