

OPEN SCIENCE DALLA A ALLA Z 2-L'ALTERNATIVA OPEN



Università di Salerno, gennaio 2020



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@egiglia



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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

Take home message by
Petra, PhD, May 2020

MESSAGGI CHIAVE

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

...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.



...cosa ci ha insegnato il COVID?

CORRIERE DELLA SERA / OPINIONI

**Il coronavirus insegna:
la scienza ha sempre
bisogno di trasparenza**



di Massimo Sideri | 30 gennaio 2020

La grande rivoluzione nata in un piccolo centro veneto specializzato nel passaggio dei virus da animali a umani, allora diretto da Ilaria Capua. E a quel tempo fu osteggiata
Jan. 30, 2020

**SOLO COLLABORANDO SI
TROVA UNA SOLUZIONE
ALL'EMERGENZA**

We find ourselves at a pivotal moment in history—we must cooperate effectively to respond to an unprecedented global health emergency. The mantra, “when we share, everyone wins” applies now more than ever.



**Now Is the Time for Open
Access Policies—Here's Why**



Victoria Heath and Brigitte Vézina
March 19, 2020

March 19, 2020

Open Science



'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 possible.

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

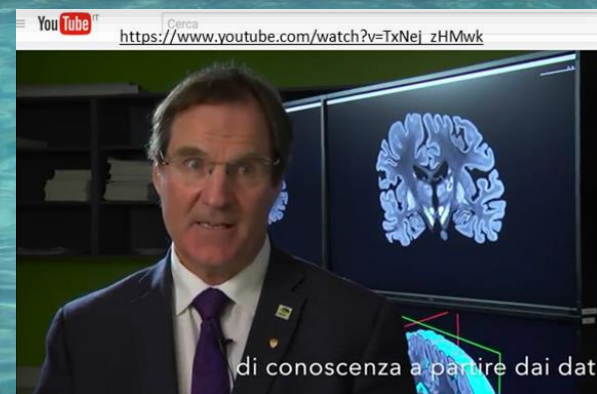
21:47 - 5 dic 2017

Open Science Depends on Open Minds



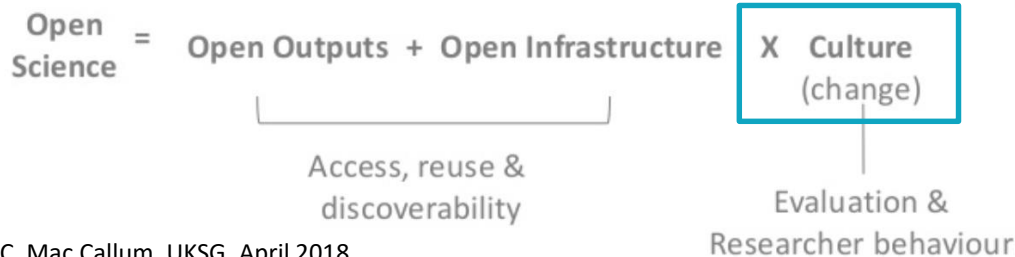
Neelie Kroes

Iscriviti 851

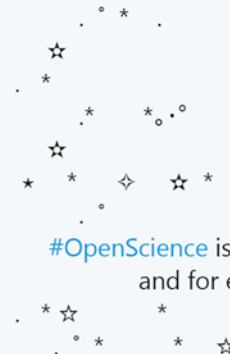


sci Open Science @openscience · 5 h

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



sci Open Science @openscience · 19/09/2019



#OpenScience is science by anyone, and for everyone.

Open S

APPELLO CONGIUNTO PER LA OPEN SCIENCE

Oct. 27, 2020

Joint Appeal for Open Science UNESCO, WHO, HCHR,
CERN

We, the Directors-General of UNESCO, WHO and CERN, and the United Nations High Commissioner for Human Rights, reaffirm the fundamental right to enjoy the benefits of scientific progress and its applications and advocate for open, inclusive and collaborative science

APERTA, INCLUSIVA, COLLABORATIVA

Considering that Open Science can reduce inequalities, help respond to the immediate challenges of Covid-19 and accelerate progress towards the implementation of the 2030 Agenda for Sustainable Development, we therefore:

- (i) Call on every Member State to ensure the fundamental right to access scientific research and its applications, with a view to creating a global knowledge commons and closing existing gaps in science, technology and innovation, especially in developing countries and with respect to women;
- (ii) Commit to supporting the international scientific community by fostering a culture of collaboration and solidarity, rather than competition, and by sharing research outcomes and knowledge wherever possible in order to make science v

CONOSCENZA COME BENE COMUNE

COLLABORAZIONE vs COMPETIZIONE

The core idea behind Open Science is to allow scientific information, data and outputs to be more widely accessible (Open Access) and more reliably harnessed (Open Data) with the active engagement of all stakeholders (Open to Society). The Open Science movement has emerged from the scientific community and has rapidly spread across nations, calling for the opening of the gates of knowledge. In a fragmented scientific and policy environment, a stronger global understanding of the opportunities and challenges of Open Science is needed.

ACCESSO, TRASPARENZA, COINVOLGIMENTO – APRIRE LE PORTE

Open Science

RACCOMANDAZIONE ERAC

EUROPEAN UNION
EUROPEAN RESEARCH AREA
AND INNOVATION COMMITTEE
– ERAC –
Secretariat

Brussels, 14 December 2020
(OR. en)

ERAC, Dec. 14, 2020

ERAC 1211/20

Executive summary

The current COVID-19 pandemic presents unique opportunities for Open Science and Open Innovation. Preprints have shown their potential for fastened discussion of research results between peers and a certain ability to auto-correct, while the benefits of opening the access to research outputs in all disciplines - including the social sciences and the humanities -, investing in FAIR data infrastructures and services as well as promoting training in data stewardship have been made obvious.

ERAC SUGGERISCE APPROCCIO A

360° - E VALUTAZIONE!

Hence the ERAC recommends that open access to publications resulting from publicly funded research activities be generalized in all disciplines. Proper data standards should be agreed early on, taking into account the disciplinary specificities, while interoperable and federated ecosystems of FAIR data have to be implemented, as well as distributed analytics and machine learning. Furthermore we recommend that research assessment and research integrity policies take more into account, and in a more systematic way, the requirements connected to Open Science and Open Innovation, in order to foster researchers' engagement in these areas, as well as the trustworthiness of scientific knowledge.

...Open Science è

Click to download taxonomy

Open Science

Research Data Management

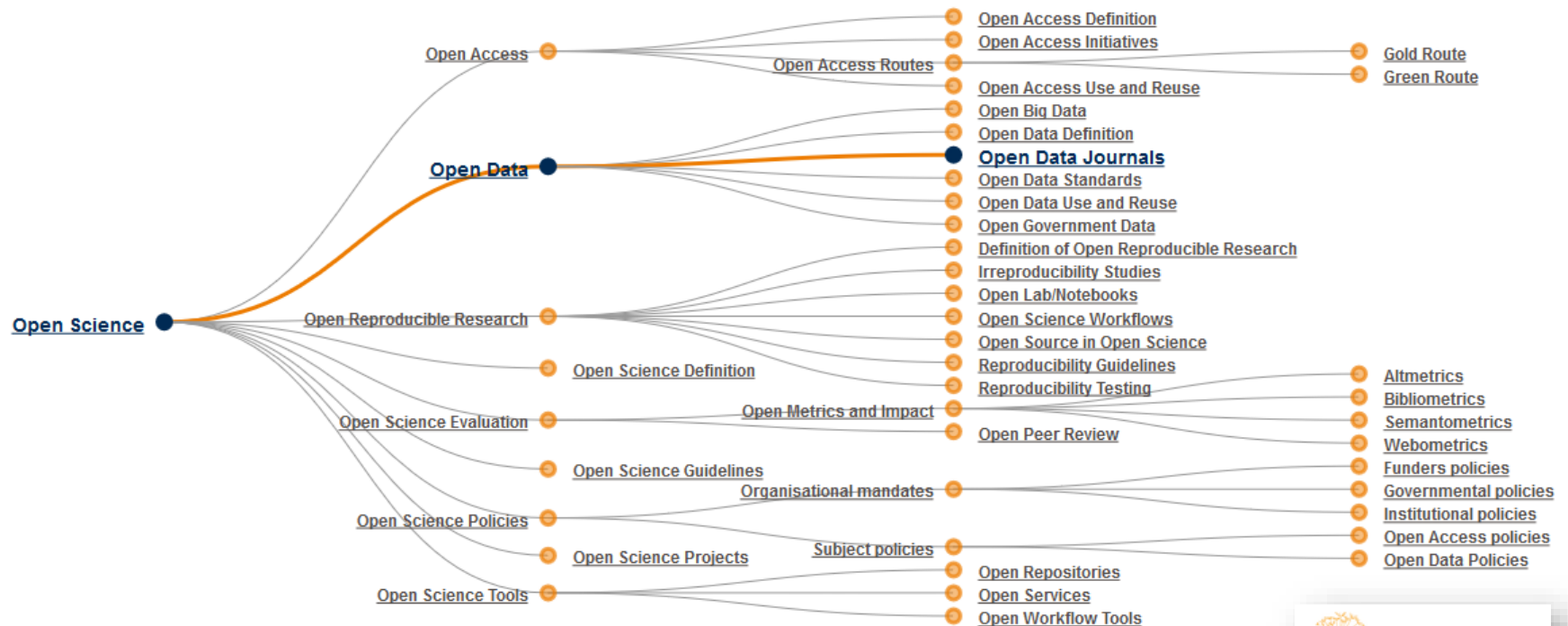
Legal Issues

Text And Data Mining

TDM Methods

Research Workflow

RRI



FOSTER taxonomy



Open Science

Jon Tennant ✓

107.241 Tweet

Following

[Open] Science is a Human Right

Article 27

- | | |
|---|---|
| 1) 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. | 1) 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. |
| 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. | 2) 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

**OPEN SCIENCE:
JUST
SCIENCE
DONE RIGHT**

Principles

Scholarship

Clip st

Transparency

Accountability

Inclusivity

Responsibility

Community &
Collaboration

Visibility

Rigour

Equality

Public good



Jon Tennant ✓
@Protohedgehog

Following

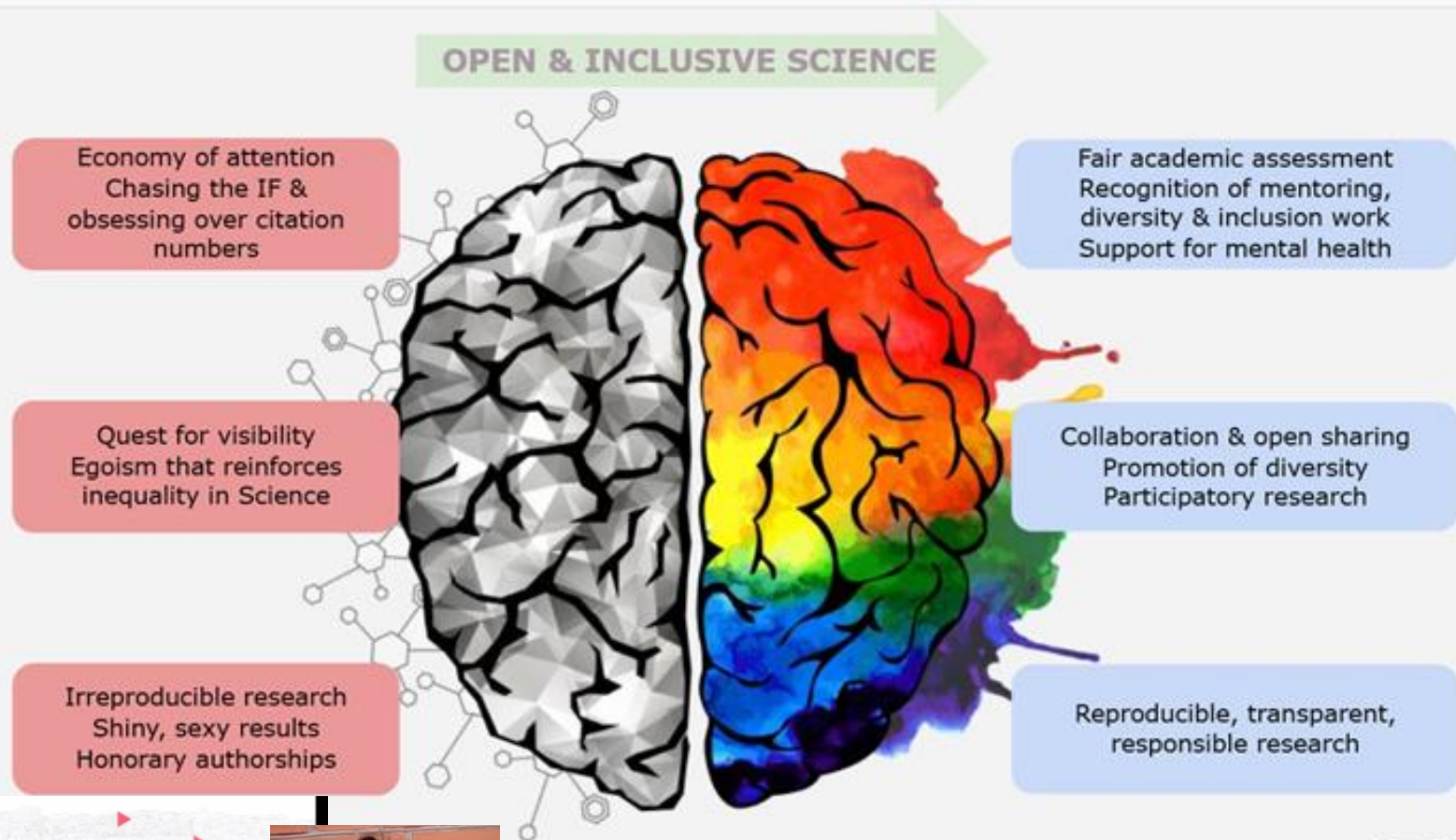


What is the difference between open science and good science? If research papers are inaccessible, with no code or data, cherry picked results, inability to even attempt to reproduce, is that really even science? Science without openness is more anecdote and faith than science.

Tennant Sept. 2018

Tony Ross-Hellauer, 2017

Open and inclusive science



OPEN
SCIENCE
FAIR

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



Madsen, 2019, Pic from [here](#)

P. Masuzzo, 20 nov. 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 funzionale



SUSTAINABLE DEVELOPMENT GOALS

17 GOALS TO TRANSFORM OUR WORLD



Open Science funzionale a



UNITED NATIONS

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

- I. Open Science is an accelerator of the Sustainable Development Goals (SDGs).
- II. Publicly funded science should be Open Science.
- III. 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.
- V. Open Science must be inclusive. Important relevant research.
- VI. Incentives for research should be aligned with open science for the benefit of humanity.
- VII. Open Science requires the opening of barriers to a science ecosystem. Libraries are natural information/data brokers in science processes, and their role is essential.

Roadmap to a Science Commons

1. 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.
 - 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).
 - 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 e 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

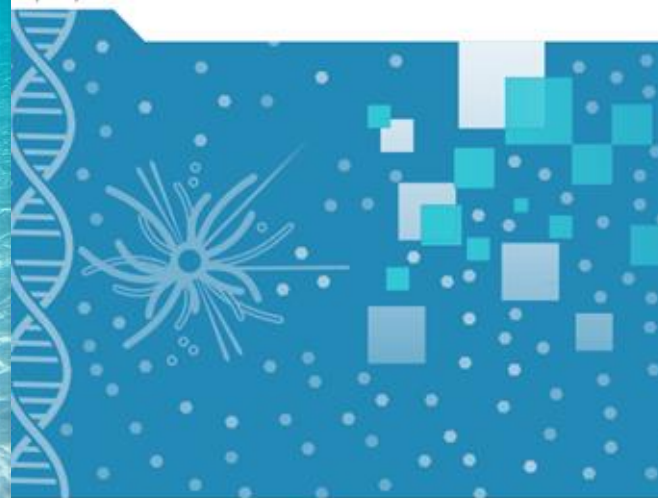


7 main challenges addressed

- 1/ Data governance for trust
- 2/ Discoverability/findability, machine readability and data standards.
- 3/ Recognition and reward system for data authors.
- 4/ Definition of responsibility and ownership.
- 5/ Business models for open data provision.
- 6/ Building human and institutional capabilities.
- 7/ Exchange of sensitive data across borders.



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



Open Science e UNESCO



UNESCO Recommendation on Open Science

At the 40th session of UNESCO's General Conference, 193 Members States tasked the Organization with the development of an international standard-setting instrument on Open Science in the form of a UNESCO Recommendation on Open Science to be adopted by Member States in 2021.

Nov. 2020

8. The term 'Open Science' refers to an umbrella concept that combines various movements and practices aiming to make scientific knowledge, methods, data and evidence freely available and accessible for everyone, increase scientific collaborations and sharing of information for the benefits of science and society, and open the process of scientific knowledge creation and circulation to societal actors beyond the institutionalized scientific community.

- INCLUSIONE
- RIDUZIONE
DELLE
DISEGUAGLIANZE
- POTENZIALE
TRASFORMATIVO

Considering that Open Science should not only foster enhanced sharing of scientific knowledge but also promote inclusion of scholarly knowledge from marginalized groups (such as women, minorities, Indigenous scholars, non-Anglophone scholars, scholars from less-advantaged countries) and contribute to reducing inequalities in access to scientific development, infrastructures and capabilities among different countries and regions;

Recognizing that Open Science respects the diversity of cultures and knowledge systems around the world as foundations for sustainable development, fostering open and robust dialogue with indigenous peoples and local communities and diverse knowledge holders for contemporary problem-solving and emergent strategies towards transformative change;

Acknowledging the transformative potential of Open Science for reducing the existing inequalities in science, technology and innovation and accelerating progress towards the implementation of the Agenda 2030 and the achievement of the Sustainable Development Goals and beyond;

Open [collaborative] essere inclusivi

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 situation for students, staff and institutions, says @Stephen_Curry

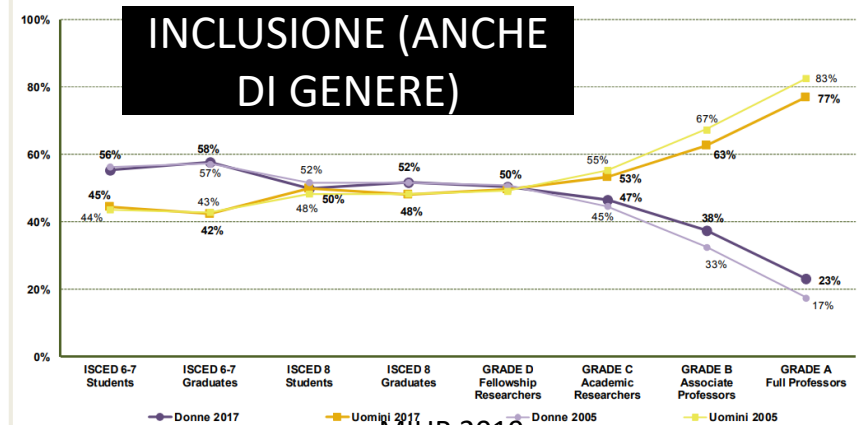
It's time to talk explicitly about inclusiveness

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** and they must be built into the foundation of what we do.



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

Grafico 1: Proporzioni di donne e uomini in una tipica carriera accademica: studenti e personale docente e ricercatore - Anni 2005 e 2017



HOME ABOUT MANIFESTO

Open Science Manifesto

Towards an Inclusive Open Science for Social and Environmental Well-being

Contextualizing Openness

Situating Open Science



Edited by Leslie Chan

Angela Okune, Rebecca Hillyer, Denise Albornoz, and Alejandro Posada
University of Ottawa Press

@JFSmith434

"If we are not careful, we will have an open science that perpetuates the inequalities in academia and science." @mendulla #osfair2017



46.24 Inclusive Open Science, 7 Sept. 2017

Manifesto

Open science è un proc

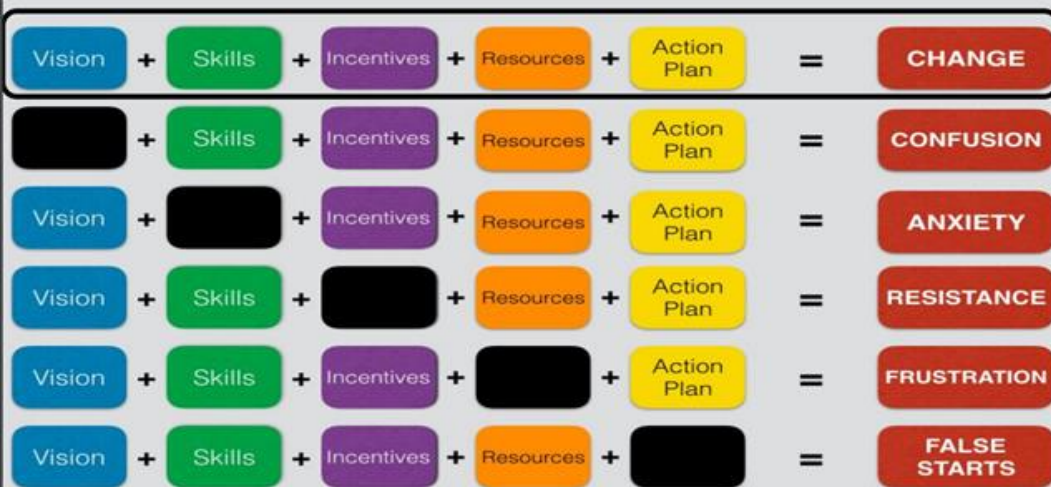
Transition to open science is a multidimensional and multistage process. There is value and risk of being a first mover, but there is higher risk of being a follower. The

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

CON UNA
VISIONE
ORGANICA E
COERENTE

CREARE ROADMAP DI ATENEO CON
OBIETTIVI MISURABILI

Managing Complex Change



Eva Mendez, Open Science Conference 2019

PERSPECTIVE ARTICLE [Open science, open data and open scholarship: European policies to make science fit for the 21st century](#) [Nov.2019]
Front. Big Data | doi: 10.3389/fdata.2019.00043

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

Jean-Claude Burgelman*, Corina Pascu*, Katarzyna Szkuta*, Rene Von Schomberg*, Athanasios Karalopoulos*, Konstantinos Repanas* and Michel Schoupe*

Open Science and 2018
its role in universities:
A roadmap for cultural change

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 interdisciplinary research needs

the importance of Open Science where "new knowledge created through global collaborations involving thousands of people from across the world and from all walks of life. The Commissioner therefore called for drawing up a roadmap for cultural change in universities."

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



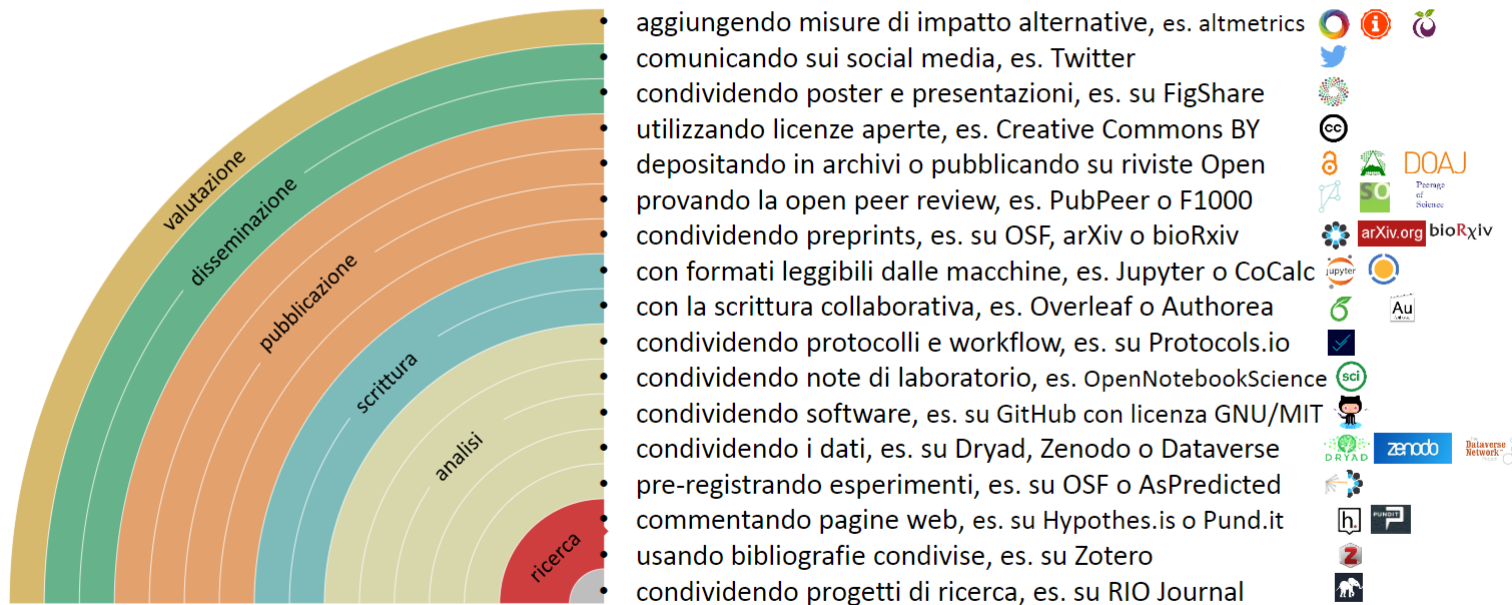
Progress on Open Science:
Towards a Shared Research
Knowledge System

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

Open science un passo per volta...

Come puoi rendere Open ogni passo della ricerca...

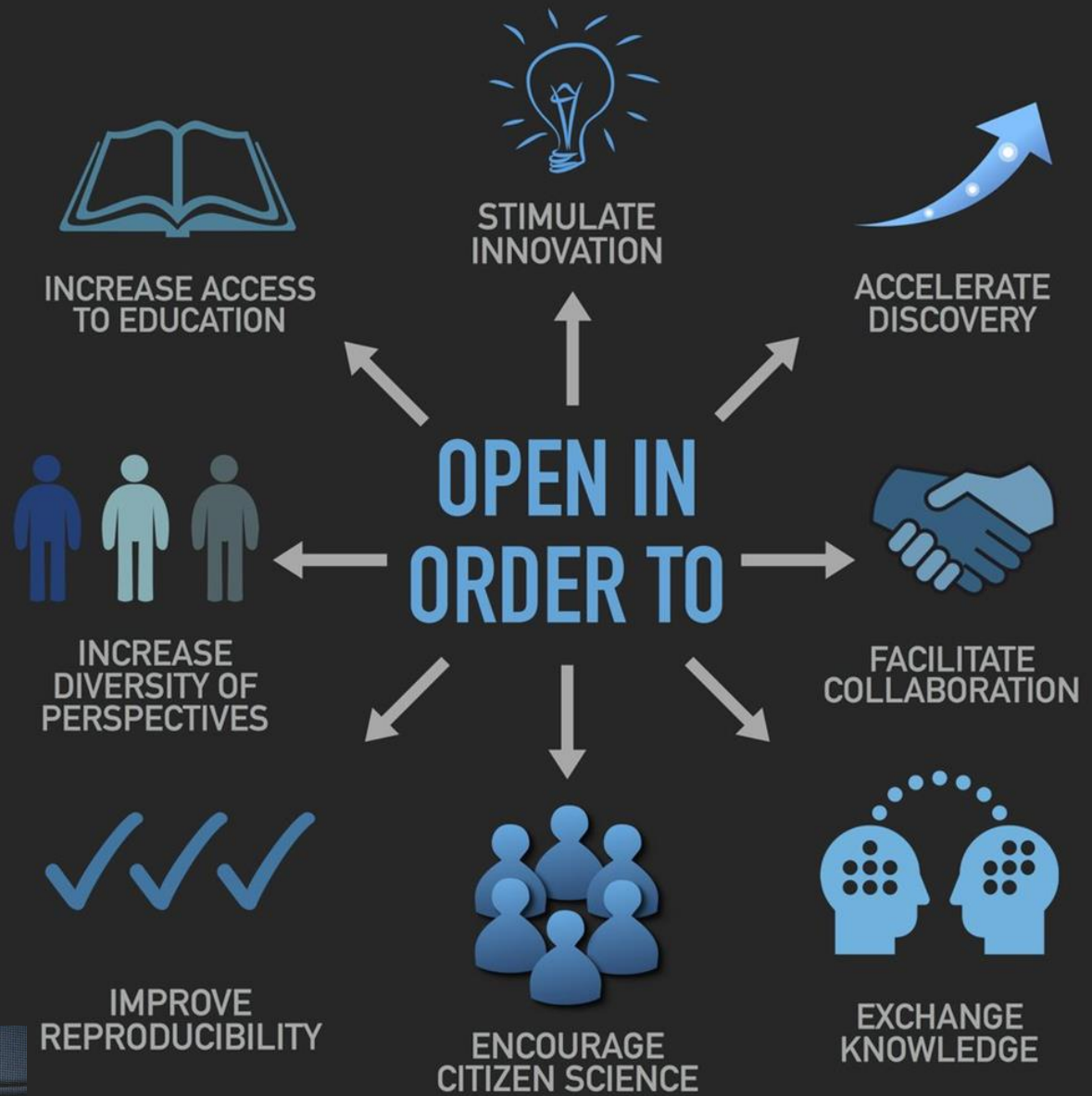


Bianca Kramer & Jeroen Bosman <https://101innovations.wordpress.com> DOI: 10.5281/zenodo.1147025

Traduzione: Elena Giglia DOI: 10.5281/zenodo.1195648



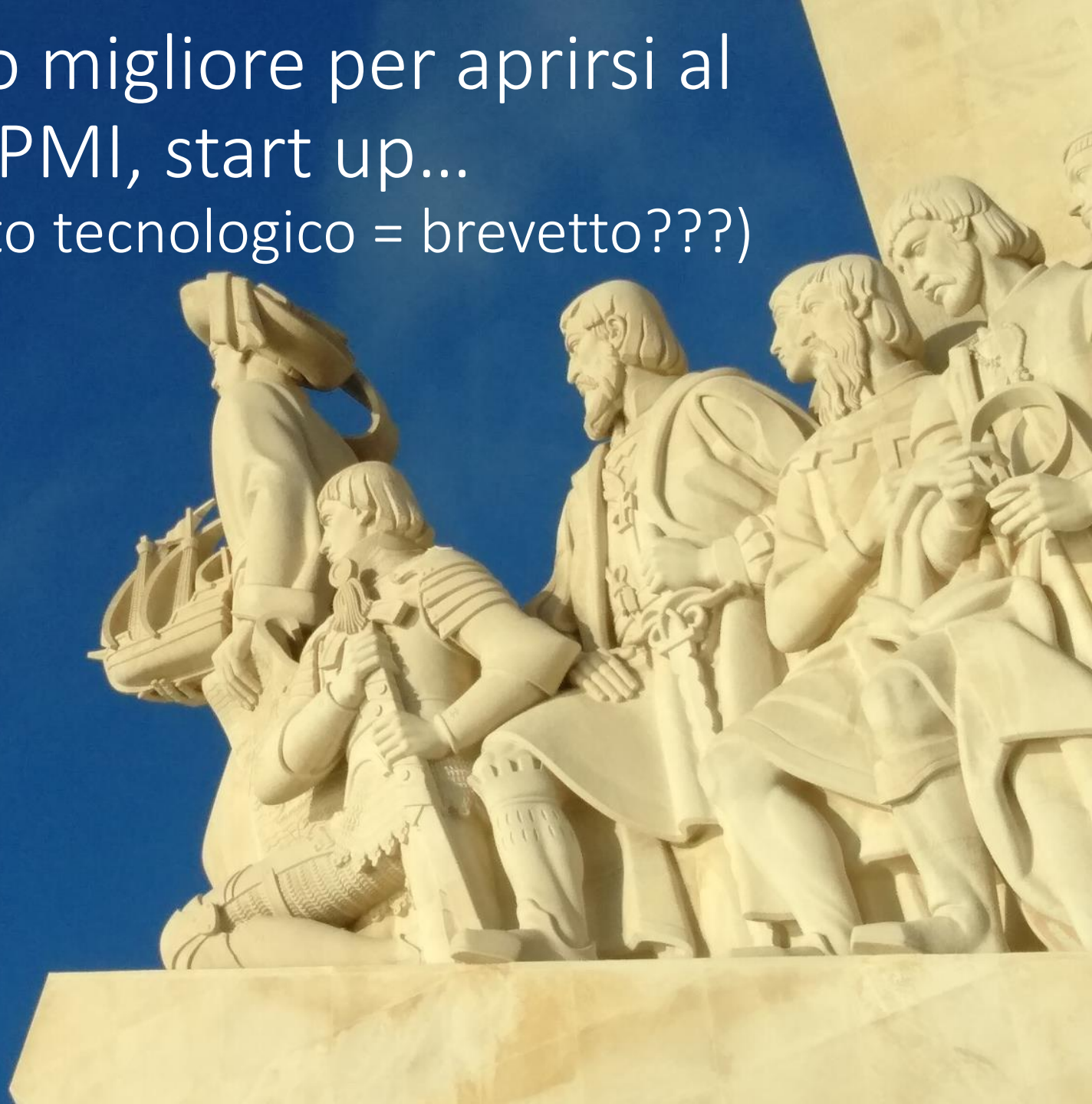
Open per...



whyopenresearch.org

#OAweek

...è il modo migliore per aprirsi al
territorio, PMI, start up...
(trasferimento tecnologico = brevetto???)



Un altro mondo è possibile?

BERNARD RENTIER

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...



<https://zenodo.org/record/34079#.W00wY2f0PIU>



VALTO

Valtioneuvoston julkaisuarkisto

Francia - National Plan, July 2018

**NATIONAL PLAN
FOR OPEN SCIENCE**

4TH JULY 2018



<https://www.youtube.com/watch?v=C9a3Ap3Ywak>

**Amsterdam Call for Action
on Open Science**

Removing barriers to open science

1. Change assessment, evaluation and reward systems in science 8
2. Facilitate text and data mining of content 10
3. Improve insight into IPR and issues such as privacy 12
4. Create transparency on the costs and conditions of academic communication 14

Developing research infrastructures

5. Introduce FAIR and secure data principles. 16
6. Set up common e-infrastructures. 18

Fostering and creating incentives for open science

7. Adopt open access principles. 22
8. Stimulate new publishing models for knowledge transfer. 23
9. Stimulate evidence-based research on innovations in open science. 26

Mainstreaming and further promoting open science policies

10. Develop, implement, monitor and refine open access plans 30

Stimulating and embedding open science in science and society

11. Involve researchers and new users in open science 32
12. Encourage stakeholders to share expertise and information on open science 34

... [nuovi giocatori: MIUR] [???



«COORDINAMENTO-STRATEGIA» - SONNO DI MESI – RIPRESA?

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

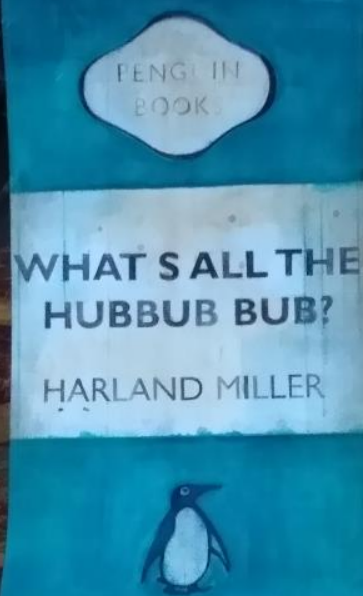
- Large-scale collaborative research
- Adoption of replication culture
- Registration (of studies, protocols, analysis codes, datasets, raw data, and results)
- Sharing (of data, protocols, materials, software, and other tools)
- Reproducibility practices
- Containment of conflicted sponsors and authors
- 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



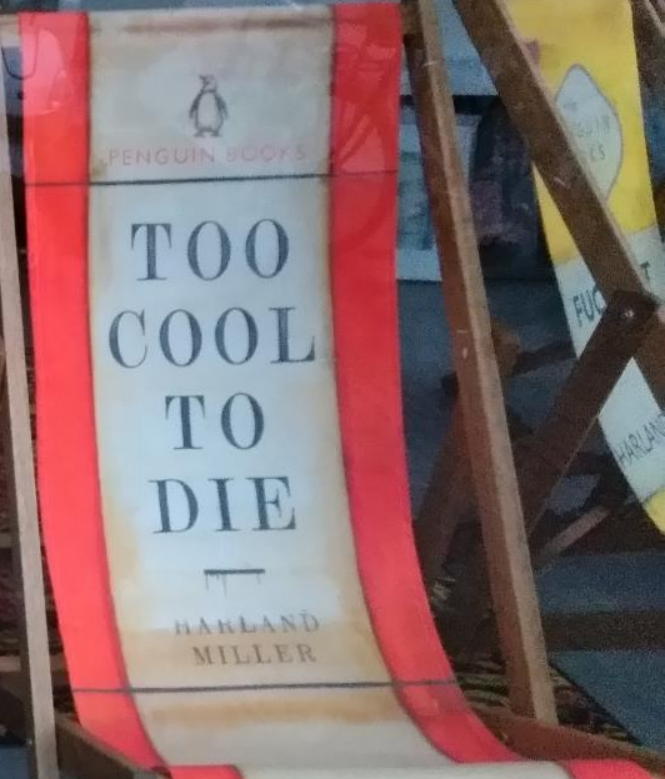
...con Open Access ai testi



DEPOSITO



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...abbattendo muri e abilitando servizi



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POSSIBILI SOLO SE IN PARTENZA GLI
AUTORI HANNO DEPOSITATO



<https://openknowledgemaps.org/>

Map a research topic

Get an overview - Find papers - Identify relevant concepts

PubMed (life sciences)
BASE (all disciplines)

Refine your search

Enter your search term

GO

Try out: sugar digital education

What is Open Knowledge Maps?

Finding KNOWLEDGE about

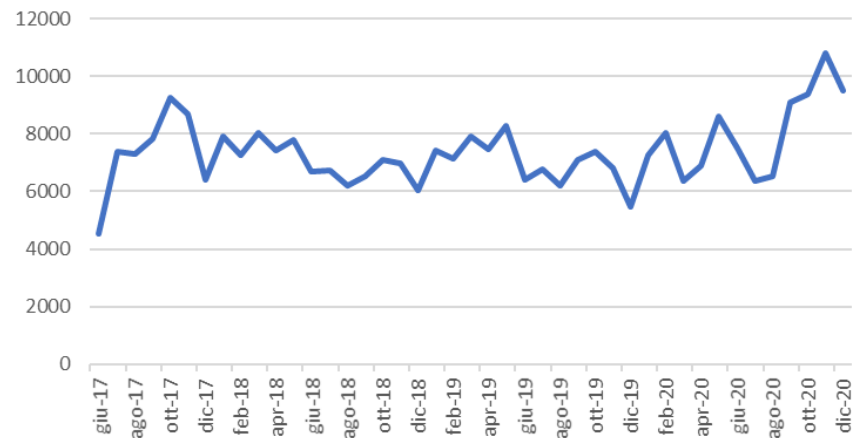


https://www.youtube.com/watch?v=5IYzOZ2Cv_I

Literature

TEXT AND
DATA MINING

PubMed LinkOut June 2017/Dec.2020



316.545 downloads da maggio 2017
[7.362 media]

NCBI Resources How To

PubMed.gov PubMed 2900032[uid]
US National Library of Medicine
National Institutes of Health

Format Abstract

Breast Cancer Res Treat. 1988 May;11(2):147-53.

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

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

Author information

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read, write,
publish, and
interact with
scientific
content.

Write.

Produce, publish and share the world's best knowledge

Welcome to the Open Science

Addiction has teamed up with Qeios ([queios.com](https://www.queios.com)) to facilitate the most effective and efficient use of preprints because this platform provides an easy way for people to review or comment on the preprint and to update preprints while maintaining an archive of previous versions. Most importantly, it offers a simple way of ensuring that terms used in the article are linked to definitions, which aligns with Addiction's drive to improving the clarity of scientific writing [1, 2]. Authors are advised not to use pre-print servers for specific journals because of the complications that arise if the journal rejects the article.

PIATTAFORMA AUTONOMA O GESTIONE PREPRINT PER ALTRE RIVISTE

<https://www.queios.com>

Pundit Web Annotation
8 iscritti

HOME PAGE

PundIT video

SCRITTURA COLLABORATIVA,
ANNOTAZIONI, PIATTAFORME DI
PUBBLICAZIONE

News: Overleaf partners with the RSC

Overleaf

FEATURES & BENEFITS - TEMPLATES PRICING COMPANY - HELP

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Publishing



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<https://hypothes.is/>

... con revisioni aperte


F1000Research
Open for Science

<https://f1000research.com/articles/6-588/v1>

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SYSTEMATIC REVIEW

What is open peer review? A systematic review [version 1; referees: 1 approved, 3 approved with reservations]

✉ Tony Ross-Hellauer 

+ Author details

+ Grant information



METRICS

4555

VIEWS

1262

DOWNLOADS

Open Peer Review

Referee Status: ✓✓✓✓

Invited Referees				
Version(s)	1	2	3	4
REVIS	✓	✓	✓	
Version 2 published 31 ago 2017	read report	read report	read report	



This article is included in the The

Abstract

Background: "Open peer review" (OPR), despite t
standardized definition nor an agreed schema of
reflects this, with a myriad of overlapping and of

F1000Research
Open for Science











<https://f1000research.com/articles/6-1151/v3>

BROWSE GATEWAYS HOW TO PUBLISH ▾ ABOUT ▾ BLOG MY RESEARCH ▾ SIG



REVIEW

REVIS A multi-disciplinary perspective on emergent and future innovations in peer review [version 3; referees: 2 approved]

✉ Jonathan P. Tennant ^{1,2}, Jonathan M. Dugan ³, Daniel Graziotin ⁴,
Damien C. Jacques ⁵, François Waldner ⁵, Daniel Mietchen ⁶, Yehia Elkhatib ⁷,
Tony Ross-Hellauer ¹⁶,
Renaut ²⁵,
ar Selvaraju ²⁹

METRICS

9143

VIEWS

2168

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Open Peer Review

Referee Status: ✓✓

Invited Referees		
Version(s)	1	2
REVIS	✓	✓
Version 3 published 29 nov 2017	read report	read report
REVIS	↑	↑
Version 2 published 01 nov 2017	?	?
Version 1 published 20 lug 2017	read report	read report

1 David Moher , Ottawa Hospital Research Institute, Canada

- REVISIONI COME «PEZZI» DI CONOSCENZA
- HANNO UN DOI
- SONO CITABILI
- DEVONO ESSERE VALUTATE COME «PRODOTTI» DELLA RICERCA

[Open PeerReview in pratica]

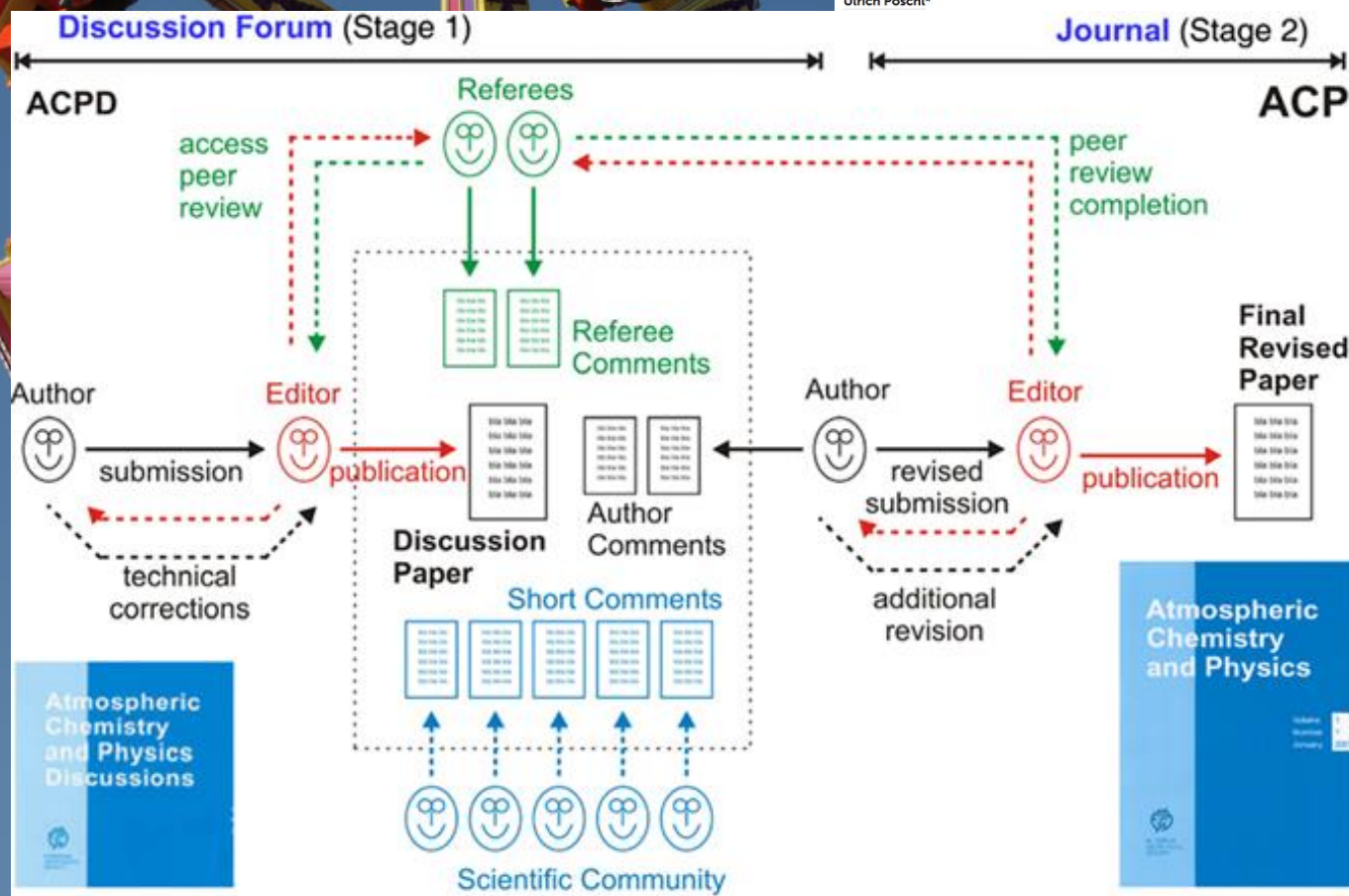
REVIEW ARTICLE

Poschl 2012

Front. Comput. Neurosci., 05 July 2012 | <https://doi.org/10.3389/fncom.2012.00033>

Multi-stage open peer review: scientific evaluation integrating the strengths of traditional peer review with the virtues of transparency and self-regulation

Ulrich Pöschl*



... in Open

**PREPRINT
e OPEN NOTEBOOK**



Il valore dei preprint:

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

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

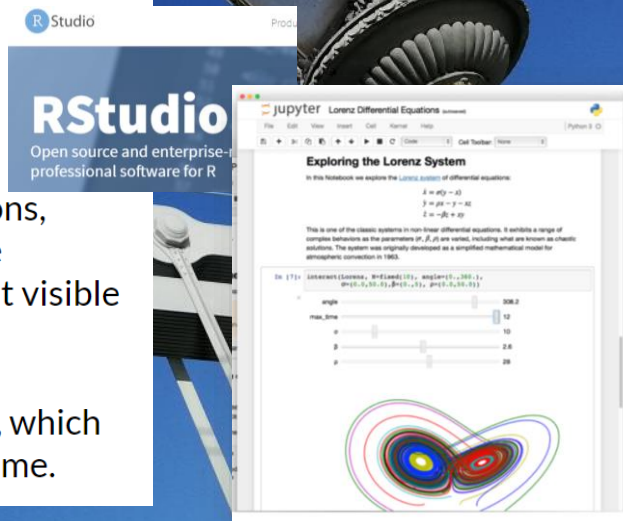


What is an Open Notebook?

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.

<http://jupyter.org/index.html>



Preprint/COVID

nature
biotechnology

May 2020

We'd like to understand how you use

Editorial | Published: 05 May 2020

All that's fit to preprint

Nature Biotechnology 38, 507(2020) | Cite this article

2752 Accesses | 134 Altmetric | Metrics

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 preprints daily. The burgeoning adoption of preprints by the medical community in recent months underscores their importance as a means for sharing and updating of research findings during an outbreak.

INDISPENSABILI,
EFFICACI...DOVREBBERO
DIVENTARE LA NORMA

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, the *The Atlantic* in the life sciences after the 2013 launch of *medRxiv* and *bioRxiv* archives host biology preprints;

How Science Beat the Virus

And what it lost in the process

Story by Ed Yong

Dec.14, 2020

endeavor into something nimbler and more transparent. Traditionally, a scientist submits her paper to a journal, which sends it to a (surprisingly small) group of peers for (several rounds of usually anonymous) comments; if the paper passes this (typically months-long) peer-review gantlet, it is published (often behind an expensive paywall). Languid and opaque, this system is ill-suited to a fast-moving outbreak. But biomedical scientists can now upload preliminary versions of their papers, or “preprints,” to freely accessible websites, allowing others to immediately dissect and build upon their results. This practice had been slowly gaining popularity before 2020, but proved so vital for sharing information about COVID-19 that it will likely become a mainstay of modern biomedical research. Preprints accelerate science, and the pandemic accelerated the use of preprints. At the start of the year, one repository, medRxiv (pronounced “med archive”), held about 1,000 preprints. By the end of October, it had more than 12,000.

[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 socio-economico”, conclude Paola Masuzzo.

CULTURA E SCIENZA / APPROFONDIMENTO

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

di Giovanna Borrelli e Francesco Sparano — 30 Settembre 2020

30 sett 2020

OPEN SCIENCE
«PARZIALE» PUÒ ESSERE
DANNOSA
[PREPRINT SENZA DATI
NON È VERIFICABILE]
VA APERTO TUTTO IL
CICLO DELLA RICERCA:
DATI, TESTI, CODICE,
PREREGISTRANDO GLI
ESPERIMENTI

...e non più riviste...



Open Science

European Commission Open Research Publishing Platform

The Commission proposes to fund a European Commission Open Research Publishing Platform. 1

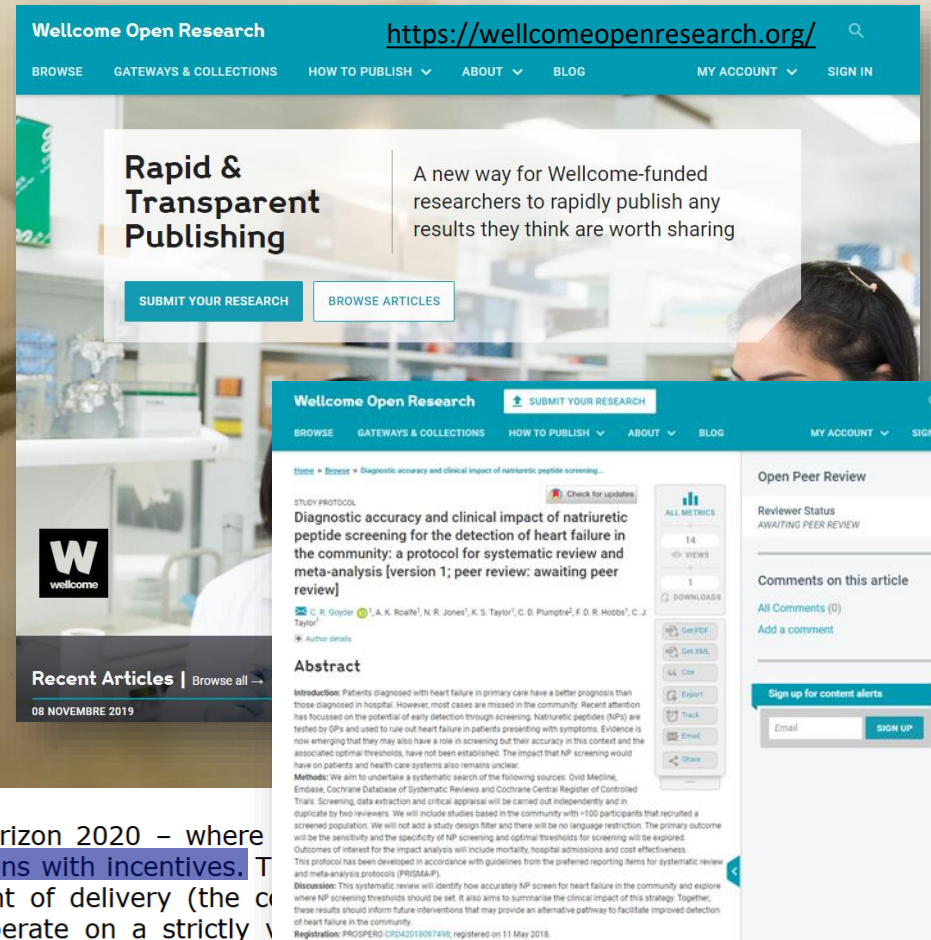
fast public
Horizon 20
which is fo

■ Inform

The platform will complement the current policy in Horizon 2020 – where publication is mandatory – in order to balance obligations with incentives. It will be free to use for Horizon 2020 grantees at the point of delivery (the cost covered by the proposed public procurement) and operate on a strictly open access basis. Furthermore, the platform will explore many features not found in traditional journals: not only open access but also open peer review, next generation metrics, and access to pre-prints; all of these are important components of Open Science (and part of the 2016 Amsterdam Call for Action).

To implement such a demand-driven platform we need a robust service, *on par* with the highest quality standards of scientific publishing; this can only be provided by outsourcing the implementation of the platform through a fully transparent public procurement process, allowing any entity to apply. Such an action has therefore been included in the Work Programme 2018.¹ Over a duration of 4 years a maximum of 6.4 million € are foreseen for this action.

Through this action the Commission builds on and further develops the best practice example of other funders, such as the Wellcome Trust and the Bill & Melinda Gates Foundation.





PIATTAFORMA PER CONDIVIDERE LA RICERCA IN OGNI SUO PASSO

Introducing Hypergraph (Beta)

by **Liberate Science** 8 days ago · 2 MIN READ

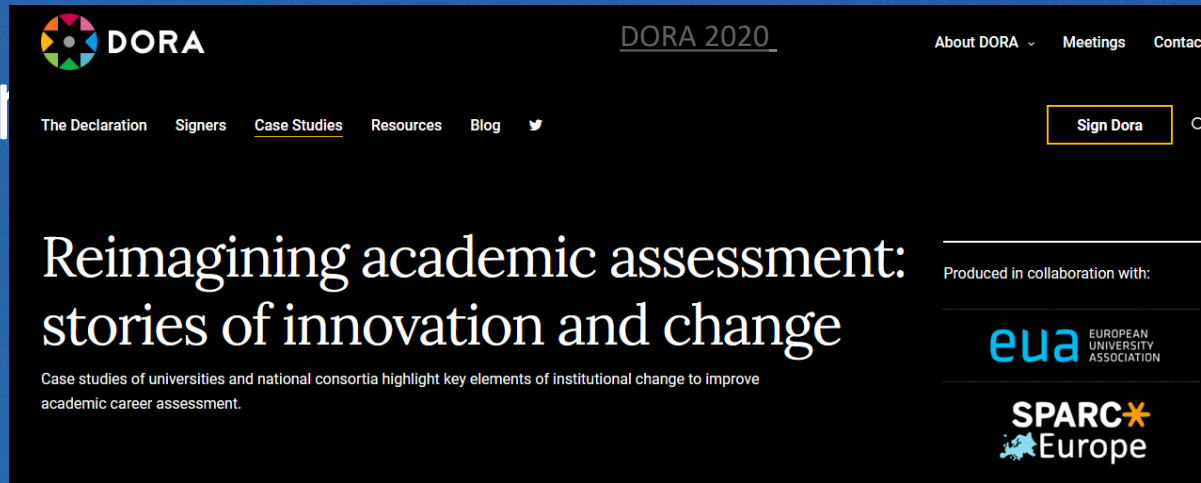
The beta release of Hypergraph is here 🎉 If you want to dive in immediately, download Hypergraph (Beta) for Windows, macOS, or Linux.

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



The screenshot shows the DORA 2020 website. At the top, there is a navigation bar with links: 'The Declaration', 'Signers', 'Case Studies', 'Resources', 'Blog', and a Twitter icon. A 'Sign Dora' button is on the right. The main heading is 'Reimagining academic assessment: stories of innovation and change'. Below it, a subtext reads: 'Case studies of universities and national consortia highlight key elements of institutional change to improve academic career assessment.' On the right, it says 'Produced in collaboration with:' followed by logos for 'eua EUROPEAN UNIVERSITY ASSOCIATION' and 'SPARC Europe'.

DORA DORA 2020

About DORA Meetings Contact

The Declaration Signers Case Studies Resources Blog

[Sign Dora](#)

Reimagining academic assessment: stories of innovation and change

Case studies of universities and national consortia highlight key elements of institutional change to improve academic career assessment.

Produced in collaboration with:

eua EUROPEAN UNIVERSITY ASSOCIATION

SPARC Europe



« MATRIX, NOT METRICS »

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

Bernard Rentier

OAH11 - CERN-UNIGE Workshop on Innovations in Scholarly Communication
Geneva, June 20, 2019

OS-CAM, the Career Assessment Matrix

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

...non solo testi

zenodo
<https://zenodo.org/>

Search Communities Browse Upload Get started

15 September 2015

Data set 1 for CARBON AND GENE FLOW MEDIATED BY VIRUS LIFE

Wilson, Willie; Martínez Martínez, Joaquin; Archer, Steve; Fields, David; Gilg, Ilana; Floge, Sheri
(show affiliations)

Experimental data sets used for manuscripts associated with coccolithovirus infection of *Emiliania huxleyi*. Flow cytometry data; expression data of genes associated with photophysiology, fatty acid metabolism and sulphur cycling. Please contact Willie Wilson (wilwil@sahfos.ac.uk) for further information.

Name	Date	Size	Download
Dddd_Diff_Expression_Rep_1.xlsx	15 Sep 2015	99.8 kB	Download
Ehux_Probe_and_Primer_list.xlsx	15 Sep 2015	20.1 kB	Download
Multiplex_3_photophys_and_Dddd443_Expression_Rep_1.xlsx	15 Sep 2015	141.2 kB	Download

Publication date: 15 September 2015
DOI: [10.5281/zenodo.31006](https://doi.org/10.5281/zenodo.31006)
Keyword(s): Virus, *Emiliania huxleyi*, photophysiology, sulphur cycling, fatty acid metabolism
Collections: Communities, Datasets, Open Access
License (for files): Creative Commons CCZero
Uploaded by: Willie (on 15 September 2015)

New to Zenodo?
Read more about features and benefits.

[Sign Up](#)

GitHub This repository Search Explore Features Enterprise Pricing [Sign up](#) [Sign in](#)

<https://github.com/zimeon/signposting>

Signposting for the scholarly web

18 commits 2 branches 0 releases 1 contributor

Branch: master signposting / +

zimeon Adjust layout Latest commit 4cb45b6 on 8 Mar

File	Description	Time
css	Basic simulator with HTML, turtle, PDF, PNG and SVGs	9 months ago
examples	Basic simulator with HTML, turtle, PDF, PNG and SVGs	9 months ago
graphserver	Add svg in a page per graph/scenario	9 months ago
notes	Notes from meeting	9 months ago
gignore	Editor and pyc files	9 months ago
Makefile	Add PNG images for use on github pages because github doesn't support...	9 months ago
README.md	Links	9 months ago
TO_DO.md	Add svg in a page per graph/scenario	9 months ago
arxiv_no_item.dot	Models	9 months ago
arxiv_no_item.png	Add PNG images for use on github pages because github doesn't support...	9 months ago
arxiv_no_item.svg	Models	9 months ago

Code Issues Pull requests Pulse

HTTPS clone URL <https://github.cc>

You can clone with HTTPS or Subversion

[Clone in Desktop](#) [Download ZIP](#)

protocols.io
<https://www.protocols.io/>

Editing: Fixation of yeast cells

DESCRIPTION GUIDELINES & WARNINGS MATERIALS STEPS

new step paste from text paste from buffer

5 NEW SECTION (optional)

Fixation

Add 5ml of Formaldehyde, invert a few times, set at benchtop for 45min.

TIMER

hr 45 sec timer label

NOTES

Optional: Transfer to gentle rocking overnight at 4C for 18-24 hours. (This is NOT recommended per Anne Dodson, Marc Sherman, Lenny Teytelman.)

[Reply](#) [Delete](#)

[INSERT BLANK](#) [DELETE](#) [PASTE FROM TEXT](#)

EDITING STEP 5

Search components

- AMOUNT
- COMMAND
- CONCENTRATION
- DATASET
- DURATION / TIMER
- EXPECTED RESULT
- EXTERNAL LINK
- GO TO
- NOTE
- PROTOCOL
- REAGENTS
- SAFETY INFORMATION
- SOFTWARE PACKAGE
- STEPS CASE
- TEMPERATURE

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

...con dati FAIR

A [NON = OPEN]
REPOSITORIES,
FORMATI

R LICENZE E
DOCUMENTAZIONE

F METADATI,
IDENTIFICATIVI
PERSISTENTI...

I 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

Module 1: Introduction



Reference: Viachos, E., Larsen, A.V., Zuercher, S., Hansen, A.F. (2019). 'Introduction'. In: Holmstrand, K.F., den Boer, S.P.A., Viachos, E., Martínez-Lavanchy, P.M., Hansen, K.K. (Eds.), Research Data Management (eLearning course). doi: 10.11581/du.00000048

[Video](#)

Module 2: FAIR principles

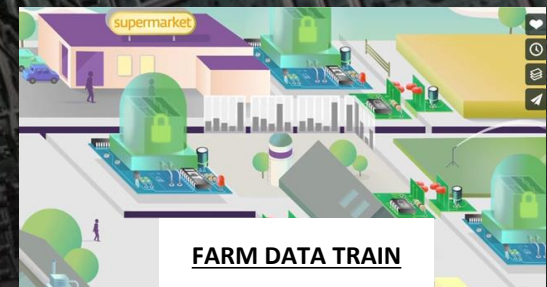


Reference: Martínez-Lavanchy, P.M., Huser, F.J., Buss, M.C.H., Andersen, J.J., Begtrup, J.W. (2019). 'FAIR Principles'. In: Holmstrand, K.F., den Boer, S.P.A., Viachos, E., Martínez-Lavanchy, P.M., Hansen, K.K. (Eds.), Research Data Management (eLearning course). doi: 10.11581/du.00000049

Module 3: Data Management Plans



Reference: den Boer, S.P.A., Buss, M.C.H., Huser, F.J., Smet, U. (2019). 'Data Management Plans'. In: Holmstrand, K.F., den Boer, S.P.A., Viachos, E., Martínez-Lavanchy, P.M., Hansen, K.K. (Eds.), Research Data Management (eLearning course). doi: 10.11581/du.00000050



FARM DATA TRAIN

[perché c'è EOSC!]

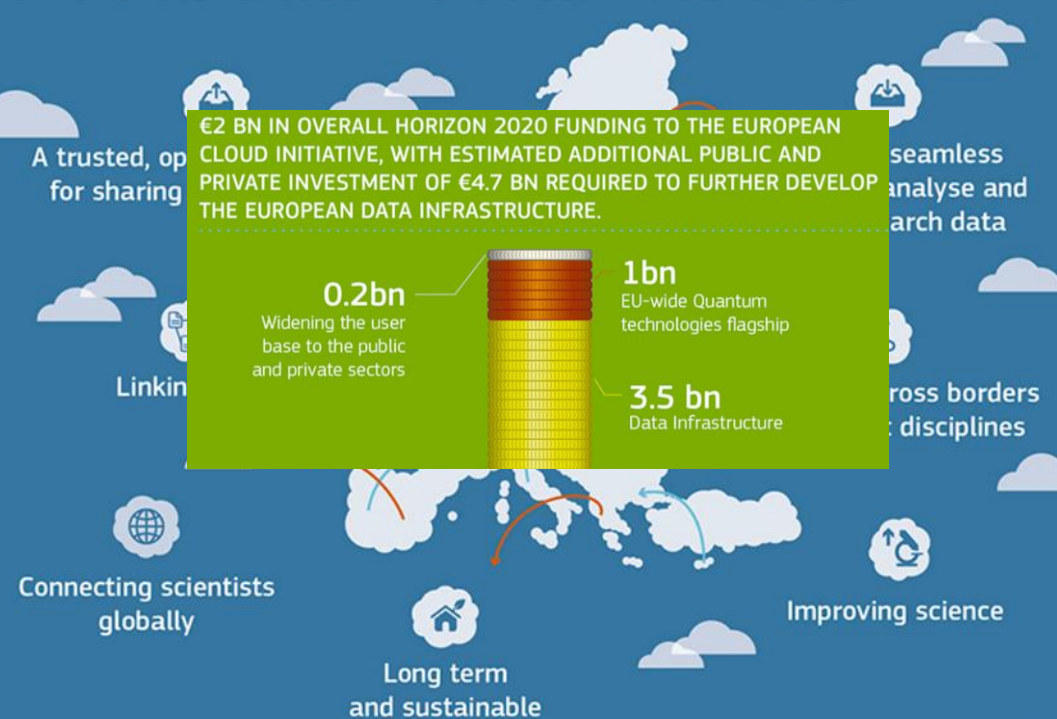
The Vienna

Vienna, 23 Novem

We, Ministers European Op

1. **Recall** the challenge of the European Open Science Cloud, as declared in the Declaration signed in Brussels on 10 July 2016.
2. **Reaffirm** the political commitment of the European Union and its Member States, sustainable and open to all.
3. **Recognise** that the European Open Science Cloud is an iterative and based on consensus among researchers and stakeholders.
4. **Highlight** that the European Open Science Cloud is a service for Science, reaching out over the world.
5. **Recall** that the

BRINGING TOGETHER CURRENT AND FUTURE DATA INFRASTRUCTURES



**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.

10. **Note** that the 2016 EOSC Summit (held on 17 June 2016) called for acceleration towards making the European Open Science Cloud a reality, hinting at the need to further strengthen the ongoing dialogue across institutions and with stakeholders, for a new governance framework to be launched in Vienna, on 23 November 2018.

... con un Data Management Plan

DMP È

- UN MODO STRUTTURATO DI PENSARE AI PROPRI DATI:
raccolta, conservazione, descrizione, condivisione
- DICHIARAZIONE DI COME SI TRATTERANNO I DATI
 - living document: va aggiornato
 - ...E SOPRATTUTTO VA MESSO IN PRATICA...

The screenshot shows the DMPonline website. At the top, there's a navigation bar with 'DMP ONLINE' and links for 'Home', 'About', 'Future plans', 'Help', and 'Change language'. Below the navigation bar, a 'Welcome' message states that DMPonline helps create, review, and share data management plans. A 'Sign in' section includes fields for 'Email address' and 'Password', with a 'Forgot your password?' link and a 'Remember me' checkbox. A 'Create account' section encourages new users to create an account. A video player is embedded, showing a 'Screencast on how to use DMPonline'. The video player has a play button and a progress bar at the bottom.

DMPonline



<https://ds-wizard.org/>

About Features Re

Data Stewardship Wizard

Create Smart Data Management Plans
for FAIR Open Science

Get started

VI GUIDANO NELLA
REDAZIONE DI UN DMP

...aprendo l'intero ciclo



<https://aspredicted.org/>

Create a new AsPredicted pre-registration

CREATE

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

Your email address

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.

[About](#) [Terms of use](#)

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, users, 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)

...mantenendo i «diritti»


**KEEP
CALM
AND**

**NON CEDETE
I VOSTRI DIRITTI**



ALCUNI DIRITTI RISERVATI



1. **Attribution** – allows any use and re-use of the work, so long as the copyright owner is identified.¹ Attribution is the staple requirement of all of CC licenses.



2. **Attribution, sharealike** – allows any use and re-use of the work, so long as the copyright owner is identified and any derivative works adopt the same CC licence.



3. **Attribution, non-commercial** – allows use and re-use of the work, so long as the copyright owner is identified and any use or derivative works are not intended for commercial gain.



4. **Attribution, no derivatives** – allows the work to be freely shared, so long as the copyright owner is identified and the work remains unchanged as a whole.



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Elementi della licenza

La tua scelta in questo pannello aggiornerà gli altri pannelli su questa pagina.

Consenti che vengano condivisi adattamenti della tua opera?

☒ Sì ☐ No ☐ Sì, fintanto che gli altri condividono allo stesso modo

che la tua opera venga utilizzata a scopi commerciali?

☒ Sì ☐ No

Licenza selezionata

Attribuzione 4.0 Internazionale



Questa è una licenza Free Culture!



TUTTI I DIRITTI RISERVATI

...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?

PLOS COMPUTATIONAL BIOLOGY

Apr. 2020

OPEN ACCESS
EDITORIAL

Ten simple rules for innovative dissemination of research

Tony Ross-Hellauer, Jonathan P. Tennant, Vité Banelyte, Edit Gorogh, Daniela Luzzi, Peter Kraker, Lucio Pisacane, Roberta Ruggieri, Electra Sifacaki, Michela Vignoli

Published: April 16, 2020 • <https://doi.org/10.1371/journal.pcbi.1007704>

Article

Authors

Metrics

Comments

Media Coverage

...con una diversa idea di «impatto sociale»

CREARE VOCI DI
WIKIPEDIA SUI VOSTRI
ARGOMENTI DI STUDIO



WIKIPEDIA
The Free Encyclopedia

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Article [Talk](#)

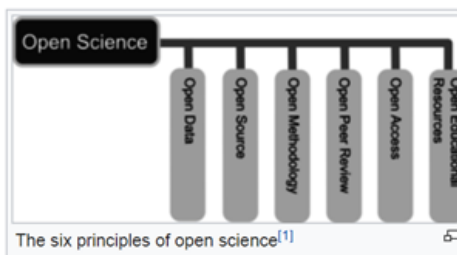
[Read](#) [Edit](#) [View history](#)

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



Open Science???

<https://www.fosteropenscience.eu/toolkit>

FOSTER About Resources Events Courses News

Open Science Training Courses

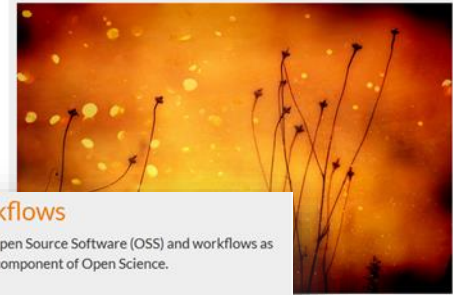
What is Open Science?

This introductory course will help you to understand what open science is and why it is something you should care about.



Best Practices

This course introduces funding body policies and other environmental factors that influence good practice in opening up research practice.



Managing and Sharing Research Data

In this course, you'll focus on which data you can share and how you can go about doing this most effectively.



OSS and Workflows

This course introduces Open Source Software (OSS) and workflows as an emerging but critical component of Open Science.



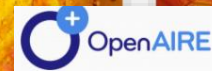
Data Protection and Ethics

This course helps you to get to grips with responsible data sharing.



Licensing

This course helps you to find the best license for your outputs.



SERVICES SUPPORT OPEN SCIENCE IN EUROPE

Open Science Primers: getting you started on good practices



Open Access Basics

An Open Access primer to get you started



An RDM Handbook

A primer on managing your research data

OpenAIRE

...e voi da che parte state?...

DOVEVANO Le NUVOLE

REGIA MASSIMO FERRARI

Quando soffia il VENTO del CAMBIAMENTO
c'è chi costruisce MURI
e chi MULINI A VENTO



...grazie!