elena.giglia@unito.it
@egiglia

SISSA, Trieste, May 3rd 2022

Open Science why and how

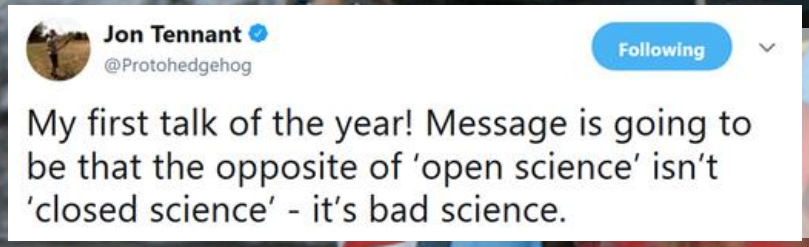
Elena Giglia

The road ahead today

Setting the scene: Why do we need Open Science?
[or: does scholarly communication work?]

…COVID19 made it clear: sharing is the only way to go

…from «publishing» to «knowledge sharing»…



…the opposite of Open Science is «Bad Science», not «Closed Science»

Horizon Europe: what's new on Open Science

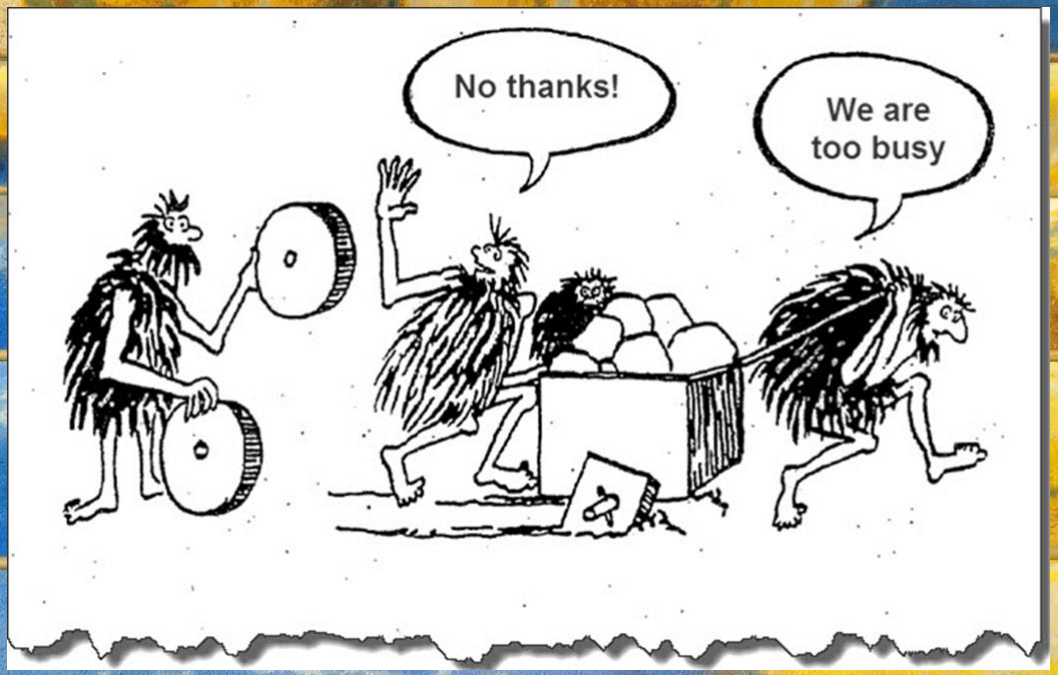
Open Science, Open Innovation, EOSC, FAIR: be ready!

Open Science, Open Data, and Open Scholarship: European Policies to Make Science Fit for the Twenty-First Century

There is value and risk of being a first mover, but there is higher risk of being a follower.

Open Science?

OPEN SCIENCE IS NOT THE FINAL GOAL. OPEN SCIENCE IS JUST FUNCTIONAL TO A BETTER AND SOUNDER SCIENCE, MORE RESPONSIVE TO SOCIETAL NEEDS



…OPEN SCIENCE HOLDS A HUGE TRANSFORMATIVE POTENTIAL… IF YOU DON'T FOCUS ON ITS REAL VALUE, IT WILL BE SEEN AS THE UNPTEENTH ADMINISTRATIVE BURDEN

… calling [or: why should we care?]

Webinar Apr. 21, 2021

Excellence – aspects to be taken into account.

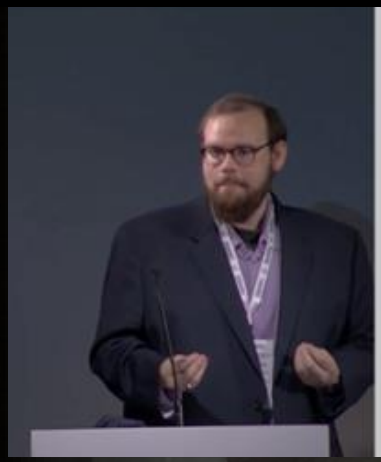
- Clarity and pertinence of the project's objectives, and the extent to which the proposed work is ambitious, and goes beyond the state of the art.
- Soundness of the proposed methodology, including the underlying concepts, models, assumptions, interdisciplinary approaches, appropriate consideration of the gender dimension in research and innovation content, and the quality of open science practices, including sharing and management of research outputs and engagement of citizens, civil society and end users where appropriate.

Application template

OPEN SCIENCE IS A METHODOLOGY.
THAT'S WHY IN HORIZON EUROPE IT HAS BEEN MOVED TO THE **«EXCELLENCE»** SECTION OF THE PROPOSAL TEMPLATE…
AND YOU WILL BE EVALUATED
ON HOW YOUR PROPOSAL ADOPTS/ADAPTS OS PRACTICES

...towar

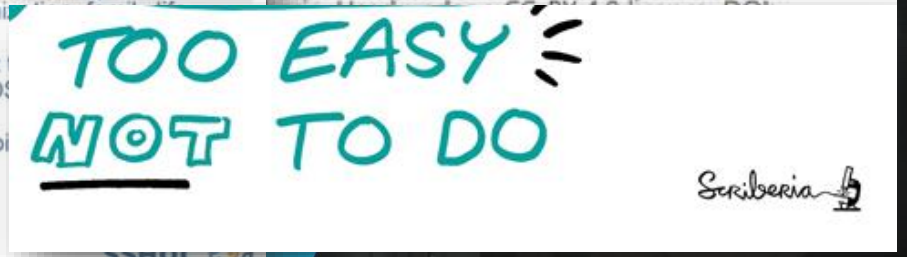
YOU, AS RESEARCHERS, WANT TO GET FROM POINT a TO b…YOU DON'T CARE ABOUT OUR ACRONYMS
WE MUST MAKE IT SEAMLESS AND «TOO EASY NOT TO DO»



When you think of a researcher, what do you think of?

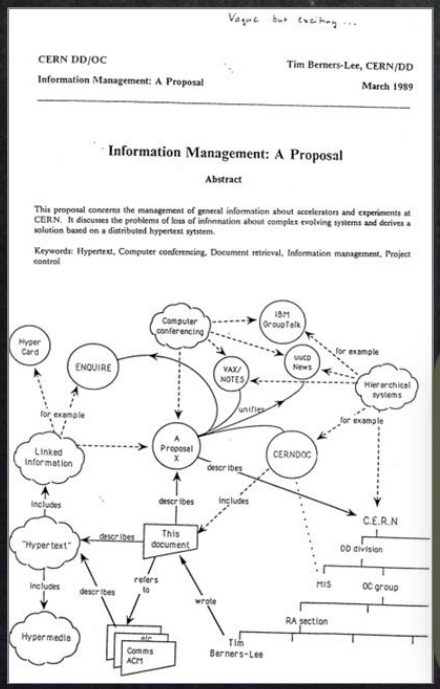
- Most of us here are infrastructure people.
- The researcher, our "end user," is torn between teaching obligations, committee work, conference organi… social life, in addition to research.
- They appreciate what we (infra people) do, but … (SSHOC, DARIAH, COST Action, CLARIN, EOS… their heads
- They have limited time and want to get from poi…
  - That is where we come in !

Apr. 6 2022



Scriberia, The Turing way

Open Science in practice?



Vague but exciting ...

CERN DD/OC

Tim Berners-Lee, CERN/DD

Information Management: A Proposal

March 1989

Information Management: A Proposal

Abstract

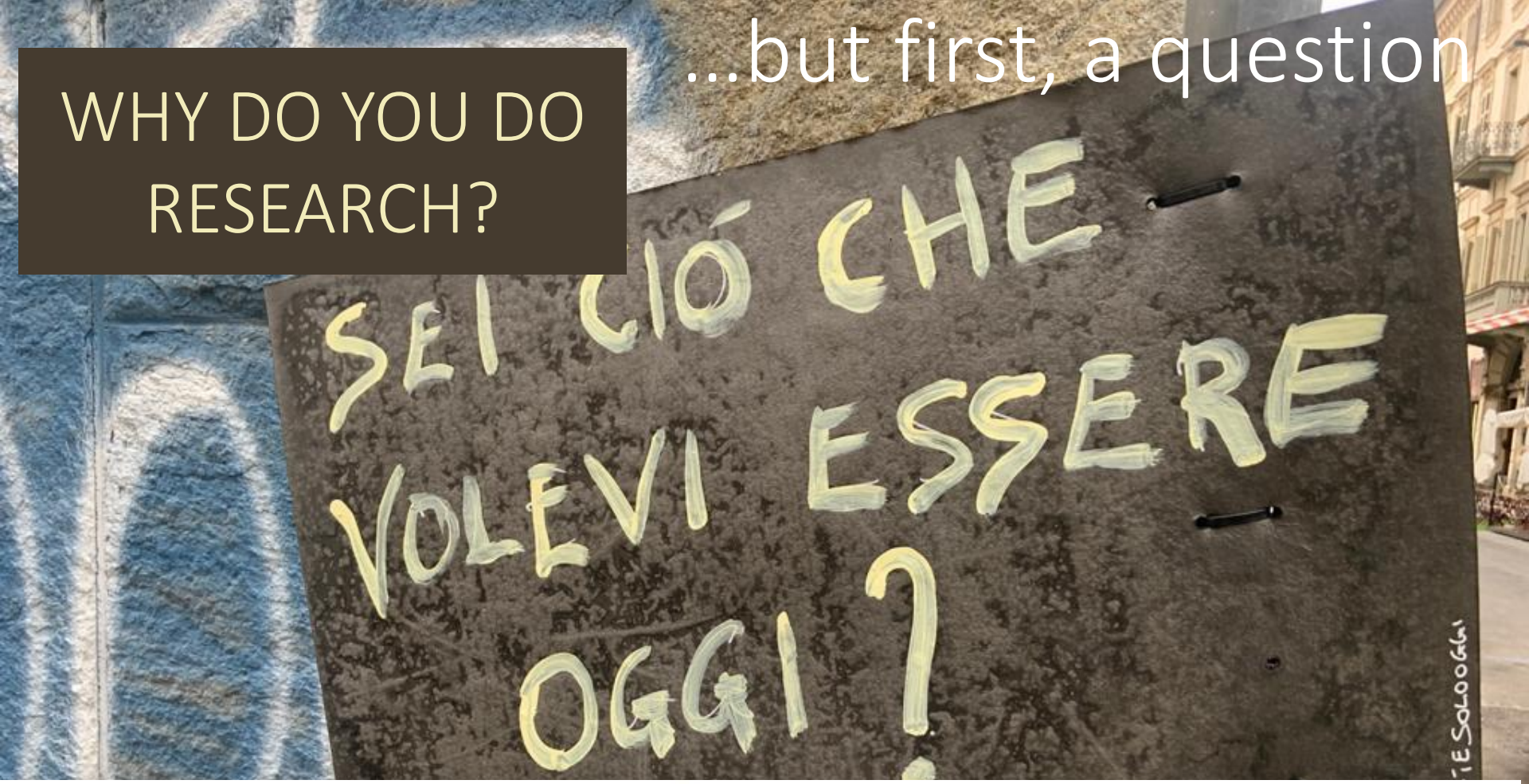
This proposal concerns the management of general information about accelerators and experiments at CERN. It discusses the problems of loss of information about complex evolving systems and derives a solution based on a distributed hypertext system.

Keywords: Hypertext, Computer conferencing, Document retrieval, Information management, Project control

…THE HTTP PROTOCOL, WHICH CHANGED OUR LIVES – IT USED TO BE AN INTERNAL TOOL, CERN DECIDED TO OPEN IT UP

WHY DO YOU DO RESEARCH?

…but first, a question



"I chose to study science because I wanted to publish in Nature," said no undergraduate student ever.

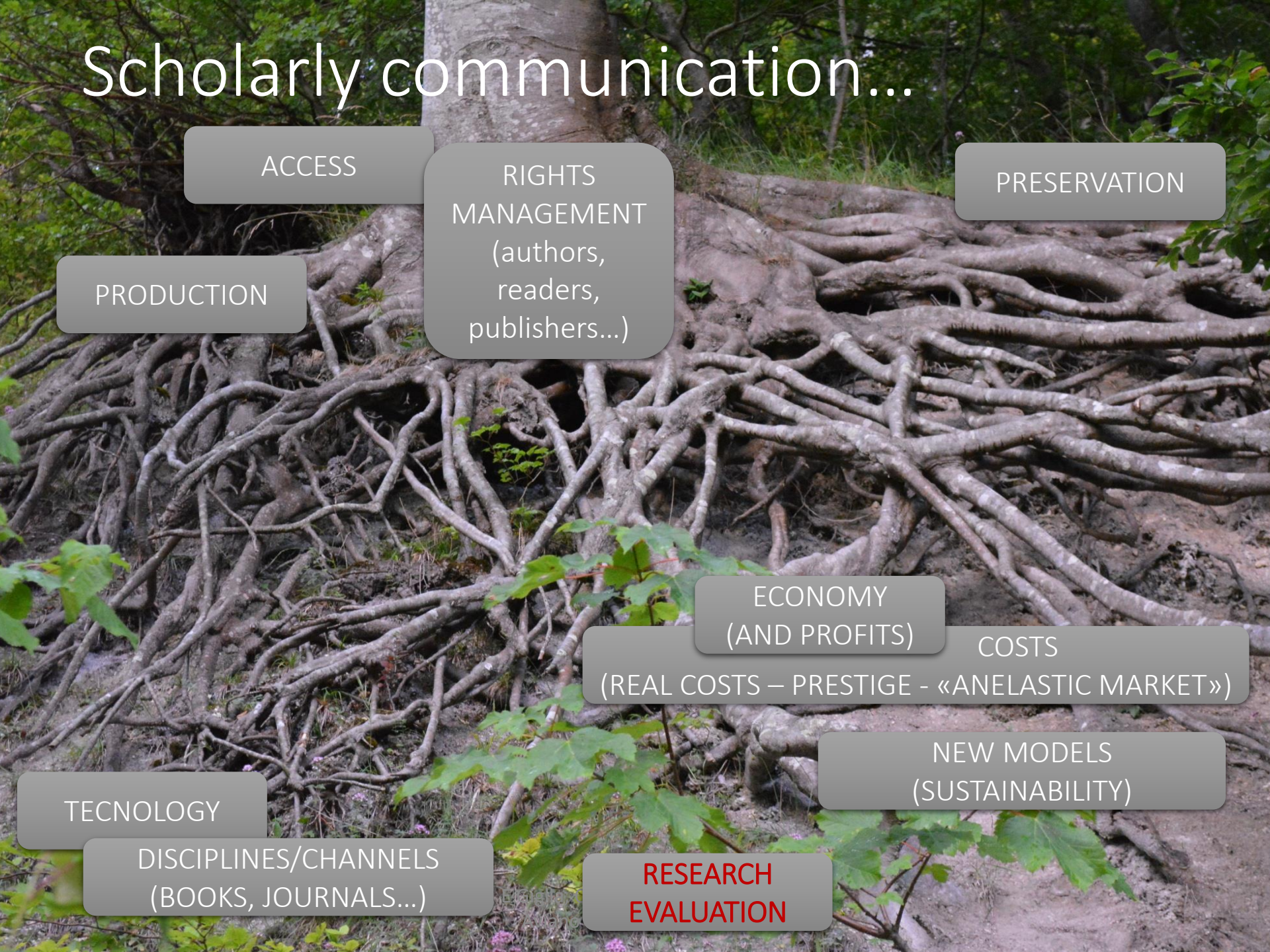
Yet it only takes a few years of working in science before most researchers will be preoccupied with scholarly journal brands—some to the point of obsession. The quest for a coveted spot in a highly selective journal, still the hardest currency of career progress, forces researchers to make compromises with their ideals of scientific practice.

OPINION 11 JAN 2022

How to reclaim ownership of scholarly publishing Jan 11, 2022

By Björn Brembs, Gustav Nilsonne and Toma Susi Share

Scholarly communication…

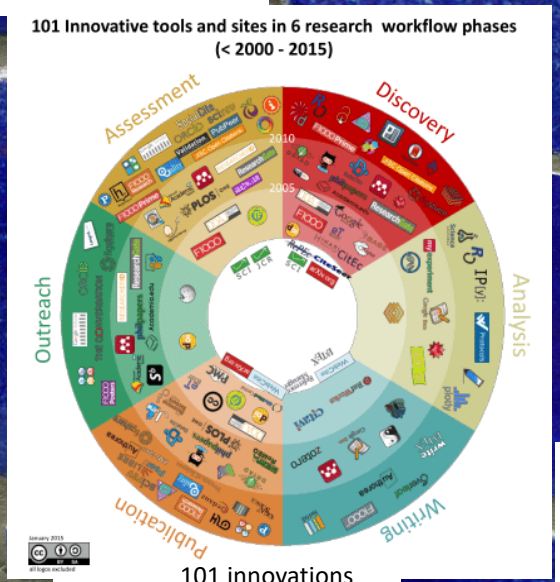


Scholarly communication: functions

REGISTRATION

[Impact Factor]

REWARD



101 innovations

CERTIFICATION

AWARENESS

ARCHIVING

PUBLICATION IS GETTING IN THE WAY OF COMMUNICATION

Guest Post by Jean-Claude Guédon: Scholarly Communication and Scholarly Publishing

OASPA Open Access Scholarly Publishing Association

Rosendaal H. –Geurts P. Forces and functions in scientific communication:an analysis of their interplay, CRISP 1997

Lessons learned from COVID / 1

In only a matter of months, the coronavirus disease of 2019 (COVID-19) has spread around the world. The global impact of the disease has caused significant and repeated calls for quick action towards new medicines and vaccines. In response, researchers have adopted open science methods to begin to combat this disease *via* global collaborative efforts. We summarise here some of those initiatives, and have created an updateable list to which others may be added. Though open science has previously been shown as an accelerator of biomedical research, the COVID-19 crisis has made openness seem the logical choice. Will openness persist in the discovery of new medicines, after the crisis has receded?

OPENNESS=THE LOGICAL CHOICE

Version 1. F1000Res. 2020; 9: 1043. PMCID: PMC7590891
Published online 2020 Aug 25. 2020 PMID: 33145011
doi: 10.12688/f1000research.26084.1

Open science approaches to COVID-19

Edwin G. Tse, Conceptualization, Resources, Writing – Original Draft Preparation, Writing – Review & Editing,[1] Dana M. Klug, Conceptualization

tech economy 2030
Digital transformation for sustainability

2020

Home › #SDG3 › Open Science è una necessità, non una noia burocratica

#SDG3 In Evidenza Sostenibilità Culturale

Open Science è una necessità, non una noia burocratica

By Elena Giglia · 23/03/2020

OPEN SCIENCE IS A MUST

Publishing research openly is not just a 'nice to have' JISC, 2021

by Anne Mills on 18 May 2021

The response to the global pandemic has demonstrated the huge value of open science, and a united front is needed to accelerate the transition toward this new way of working.

Raphaël Lévy
@raphavisses

#OSEC2022 @BoukacemZeg (applauded by @stephen_curry) concludes her talk with a quote from a young research who left science saying "GAME OVER: The pandemic is a life-size experiment that reminded us that the ultimate goal is to advance knowledge, not egos, not numbers"

Traduci il Tweet

5:10 PM · 4 feb 2022 · Twitter Web App

Feb. 4 2022

THE PANDEMIC IS A LIFE-SIZE EXPERIMENT THAT REMINDED US THAT THE ULTIMATE GOAL IS TO ADVANCE KNOWLEDGE, NOT EGOS, NOT NUMBERS

Lessons learned from COVID / 2

Digital Science Report

The State of Open Data 2021

The longest-running longitudinal survey and analysis on open data

Foreword by Natasha Simons, Australian Research Data Commons (ARDC)

Nov. 29 2021

November 2021

Open data saves lives. The global pandemic has highlighted beyond anything that came before it the importance of data sharing in solving the big challenges of our time. COVID-19 data may be the

WE NEED DATA
[FAIR BY DESIGN]
(AND NOT ONLY THE FINAL SYNTHESIS OF THE RESEARCH, I.E. THE ARTICLE)

The Value of RDA for COVID-19

RDA

Home » Get involved » The Value of RDA for... » The Value of RDA for COVID-19

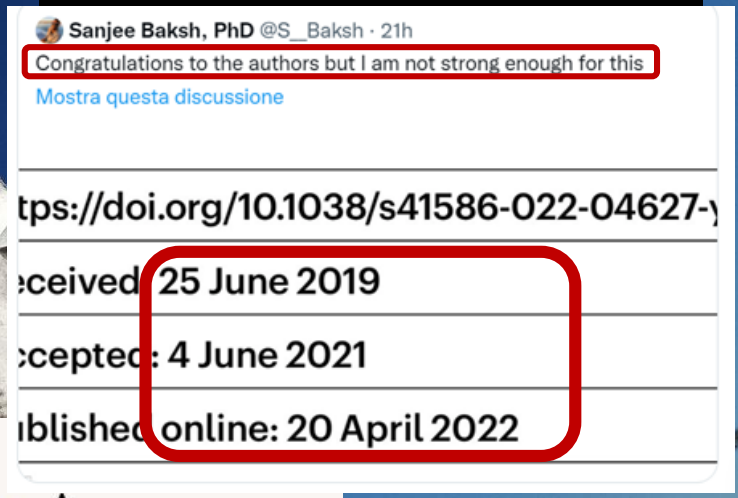
13 July 2020 | 16426 reads | Facebook | Twitter

Under public health emergencies, and particularly the COVID19 pandemic, it is fundamental that data is shared in both a timely and an accurate manner. This coupled with the harmonisation of the many diverse data infrastructures is, now more than ever, imperative to share preliminary data and results early and often. It is clear that open research data is a key component to pandemic preparedness and response.

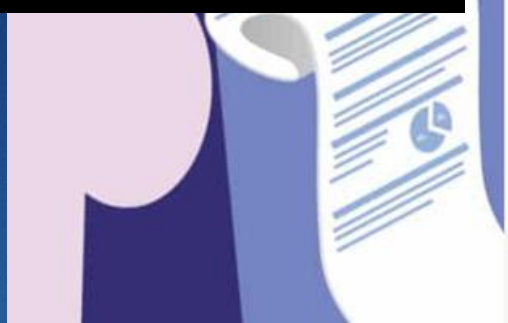
RDA
RESEARCH DATA ALLIANCE

Lessons learned from COV

TRADITIONAL SUBSCRITPION BASED JOURNALS: FIRST ARTICLES (WITH NO DATA) AT THE EARLIEST IN DEC. 2020
(9-18 MONTHS AVERAGE PUBLICATION TIME)



…AND WE NEED RESULTS IMMEDIATELY…
STUDIES SHOULD BE AVAILABLE IMMEDIATELY…NOT SEGREGATED FOR MONTHS WAITING FOR A «PEER REVIEW» WHICH CAN BE DONE IN A FASTER AND MORE EFFECTIVE WAY, OPENLY



VIEWPOINTS

Opinion: A Lesson of the Pandemic: All Prints Should Be Preprints

A flourishing of Covid-19 literature dispels the idea that pre-publication peer review is essential for academic rigor.

Visual: Wenjin Chen / Getty Images

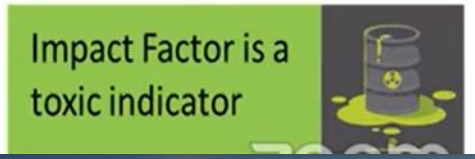
2020

Lessons lear

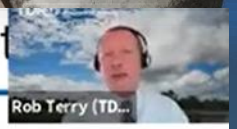
NEED TO RETHINK THE ORDER
1) PUBLISH
2) OPEN PEER REVIEW
3) EARN IMPACT
FOR REAL, NOT USING THE TOXIC IMPACT FACTOR
(AWARDING MEDALS BEFORE THE RACE HAS RUN)

Implications of pandemic for publications

- Need to rethink publishing
  - 1st Publish
  - 2nd Open (meta) peer review
  - 3rd Earn impact
- Why have impact factors?! - Like awarding the medals BEFORE the race has run
- Traditional publishing model is no longer fit for purpose too slow and no guarantee of quality
- It feels like we're running electric cars on steam train tracks



Use of pre-prints – calling time on subscript



- WHO repository IRIS 150 publications relating to Covid-19 - 25% referencing pre-prints
- NEW development WHO Living Guidelines available online via the MAGICapp
- 3 WHO Living guidelines for Covid-19.
  Therapeutics 6 versions since November 2020.

  Analysis of version 5 March 2021
  - 44% of its references as pre-print
  - 33% unpublished results shared with WHO
  - Therefore < 25% from traditional published literature.....

<25% FROM TRADITIONAL LITERATURE INCLUDED IN WHO GUIDELINES
THEY FAILED US RIGHT WHEN WE NEEDED THEM MORE

Robert Terry OSfair 2021 [min. 16.48-46]

Lessons learned from COVID / 5

Health · **Second Opinion**

'We're opening everything': Scientists share coronavirus data in unprecedented way to contain, treat disease

Feb.1, 2020

raise questions about the way science-as-usual is practised.

Vincent Larivière is an information scientist and professor at the University of Montreal, who studies the way science is disseminated. He said the move to speed up publication and share research is a tacit admission that business-as-usual in research slows down science.

"[They say] we're opening everything because it's important that we advance things fast. Well, the flip side of this argument is that your normal behaviour is to put barriers to science."

"This virus is dangerous and deadly, but there's lots of other diseases that are dangerous and deadly, and for which opening could save lives. So if you really want to go in that direction, just open everything."

University of Montreal researcher Vincent Larivière said the c climate of open science suggests that science-as-usual create barriers. (Amélie Philibert)

…SCIENTIST ARE NOW OPENING AND SHARING DUE TO COVID-19…
THE FLIP SIDE IS THAT OUR NORMAL BEHAVIOUR IS TO PUT BARRIERS TO SCIENCE

nature

Feb 4, 2020

Subscribe

EDITORIAL · 04 FEBRUARY 2020

Calling all coronavirus researchers: keep sharing, stay open

As the new coronavirus continues its deadly spread, researchers must ensure that their work on this outbreak is shared rapidly and openly.

...publishers and COV

UNREAL. THEY KNOW THEY SAVE LIVES BUT THEY OPEN
- ONLY FOR 1 DISEASE
- ONLY FOR LIMITED TIME

Heather Joseph @hjoseph

Unreal. Acknowledging that making these papers #openaccess will help speed speed progress and save lives but at the same time only doing it for limited time - and for a single disease.

Roorick, June 2020

ONLY CORONAVIRUS? ALZHEIMER, CANCER, CLIMATE CHANGE, VIOLENCE AGAINST WOMEN ARE LESS IMPORTANT?...

WE DON'T KNOW WHICH RESEARCH PAPERS THAT TODAY REMAIN LARGELY INACCESSIBLE COULD INSPIRE SOLUTIONS AND BRIGHT IDEAS FOR TOMORROW'S CHALLENGES

THEY KNOW THEY SAVE LIVES BUT OPEN ARTICLE ONLY FOR THE DURATION OF THE OUTBREAK...

March 13, 2020 **NEWS RELEASE**

or Immediate Release

STM
The global voice of scholarly publishing

the significant threat that COVID-19 represents to public health. In order to aid the efforts to slow the spread of the virus and, fundamentally, to save lives, STM publishers are committed to

- Provide immediate free access to all relevant peer-reviewed publications to ensure that for the duration of the outbreak, research and data quickly reaches the widest possible

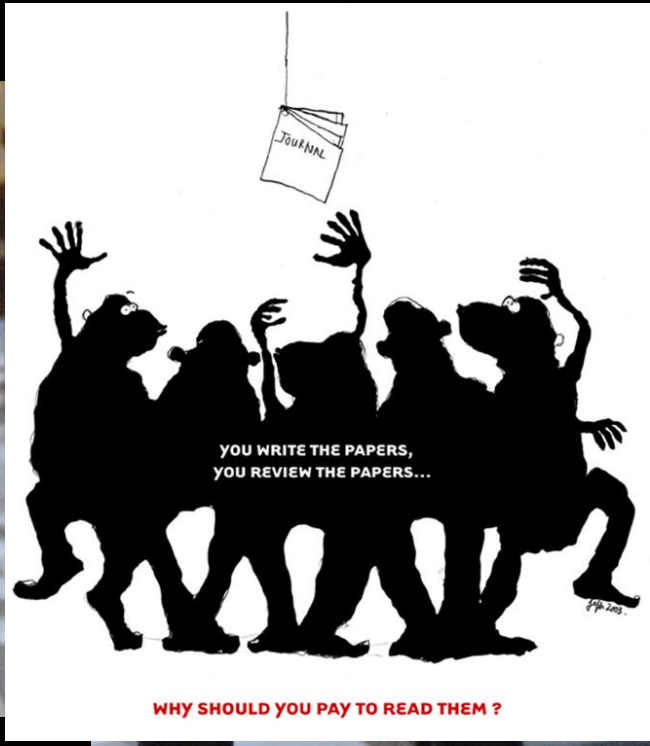
Scholarly communication today…

… WE ARE PAYING COMMERCIAL PUBLISHERS TO LOCK UP A CONTENT PRODUCED BY PUBLIC MONEY YOU AUTHORED FOR FREE, YOU REVIEWED FOR FREE

"Learning on knowledge graph dynamics provides an early warning of impactful research"

You are viewing an article preview. The following formats are available to purchase through ReadCube:

$8.99	Rent for 48 hours	Printing and saving restrictions apply
$22	Buy Cloud Access	Printing and saving restrictions apply
$32	Buy PDF	



The purpose of publications in a pandemic and beyond

distinction than dissemination. And when it comes to a global emergency, we're still having to beg publishers for access to our own research so that we might save large swathes of the human

Apr. 22, 2020

AND THEN WE HAVE TO BEG THEM FOR ACCESS DURING A CRISIS

[reminder #1]

Open science needs no martyrs, but we must recognize the need for reform

Oct. 28 2021 28 October 2021

"...the result is also that good, solid science stays behind paywalls, while lots of misinformation is openly accessible."

Scholarly communication: some numbers

Scholarly communica
talk money

Aczel et al. Research Integrity and Peer Review (2021) 6:14
https://doi.org/10.1186/s41073-021-00118-2

Research Integrity and Peer Review

RESEARCH Open Access

A billion-dollar donation: estimating the cost of researchers' time spent on peer review

Balazs Aczel[1*], Barnabas Szaszi[1*] and Alex O.

1 billion $

TIMES ANY INSTITUTION PAYS FOR RESEARCH

For researchers, it's like going to a restaurant, bringing all of your own ingredients, cooking the meal yourself, and then being charged $40 for a waiter to bring it out on a plate for you.

You are the provider, the product, and the consumer.
J. Tennant, 2018

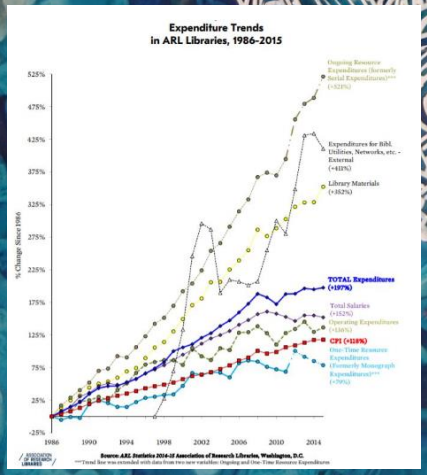
4

WAGES

RES. FUNDING

RES. OUTPUTS PUBLISHED

SUBSCRITPIONS



4,4 million €

REUSE RIGHTS

521%

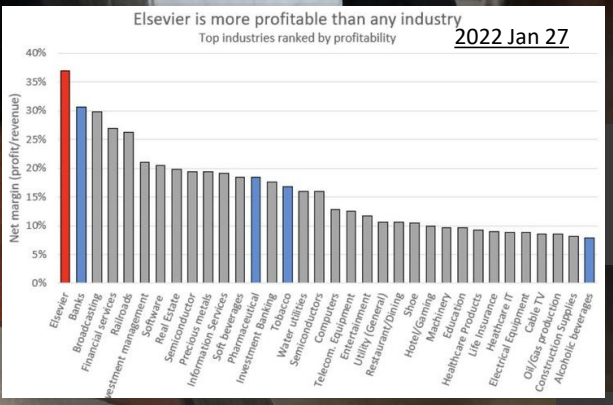
INCREASE IN SERIALS EXPENDITURES 1986-2015

GUESS: LIBRARY BUDGET INCREASED BY 521%?

CUTS, CUTS, CUTS

… scholar … on today…

READING IS NOT FOR FREE



2022 Jan 27

7.6 billion $

[UNDERESTIMATED] AMOUNT OF MONEY SPENT IN SUBSCRIPTION IN 2016

TODAY, WE PAY 3800/5000 $ PER ARTICLE IN THE **SUBSCRIPTION** SYSTEM

36%

WE PAY TO CLOSE

Profit	Company	Industry
10%	BMW	automobiles
23%	Rio Tinto	mining
25%	Google	search
29%	Apple	premium computing
35%	**Springer**	**scholarly pub**
37%	**Elsevier**	**scholarly pub**

2018

ELSEVIER NET GAIN

Darragh Duffy
@darragh_duffy

Elsevier's scientific publishing arm reported profits of £724 million on £2 billion in revenue - a 36% profit margin—higher than Apple, Google, or Am… authors generate the "product", pay open-a… reviewers peer review for free & institutions… access 🤯

Science

A new mandate highlights costs, benefits of making all scientific articles free to read

By Jeffrey Brainard | Jan. 1, 2021 , 12:01 AM

Jan 1, 2021

…PUBLISHER WOULD WANT MORE…

Eloy Rodrigues
20 h ·

This is the publishers perspective (from the concluding paragraphs):
"The journal publishing industry's annual revenues of about $10 billion represent less than 1% of total global spending on R&D—and, in this view, it's reasonable to divert more of the total to scholarly communications that are essential to making the entire enterprise run."

So it doesn't matter if there is growing evidence that we could have a much better scholarly communication system (more efficient, more innovative, more inclusive, more transparent and self-correcting) for a fraction of this $10 billion. Let's focus on maintaining the current system, and especially the current big comercial companies that benefit from it, even if we (research institutions, governments and their taxpayers) need to use more resources to feed it. Right?
Wrong!

Scholarly communication: let's talk money

TAKE THE QUIZ…AND ASK YOUR PROFESSORS TO TAKE IT TOO

UNIVERSITY of VIRGINIA | LIBRARY

What costs more Univ. of Virginia

What costs more?

Which is more expensive? (required)

- Estimated cost of access to Wiley Online Library in 2025, if the Library stayed with the traditional model
- Two months at sea off the south of France, with 12 of your closest friends and a crew of 12 on a 211' yacht.

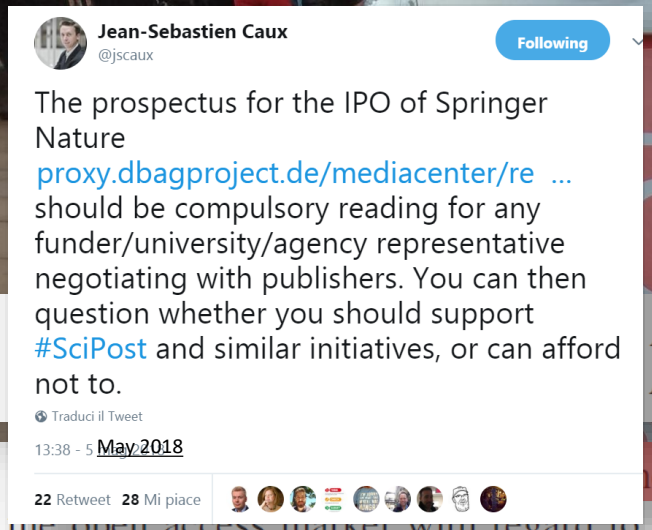
Next Slide

Nope!

A summer-long trip on a private yacht in the French Riviera doesn't run cheap, but you can get it for less than 7 figures. Access to Wiley Online Library under traditional models is estimated to cost more than a million dollars in 2025.

In the course of 9 years, the collections budget consumed by the four Big Deal vendors went from 21% (2009) to 43% (2018), a clearly unsustainable pace of increase.

Next Slide



Prospectus dated April 25, 2018

SPRINGER NATURE

Prospectus

for the public offering

Focus on Research, with a High-Quality Brand Portfolio, Global Scale Benefit from Strong Growth in the Open Access Publishing Market.

ncreasingly important, as market participants increasingly differentiate in the open access market with regard to APCs according to a journal's impact factor. Our open access portfolio includes a large number of leading brands, such as such as Nature Communications, Scientific Reports and Springer Open, and high impact factor publications, positioning us well to command premium APCs from authors.

Springer Prospectus Apr. 25

[it's your

accept this

THE WORLD UNIVERSITY RANKINGS

PROFESSIONAL JOBS SUMMITS RANKINGS

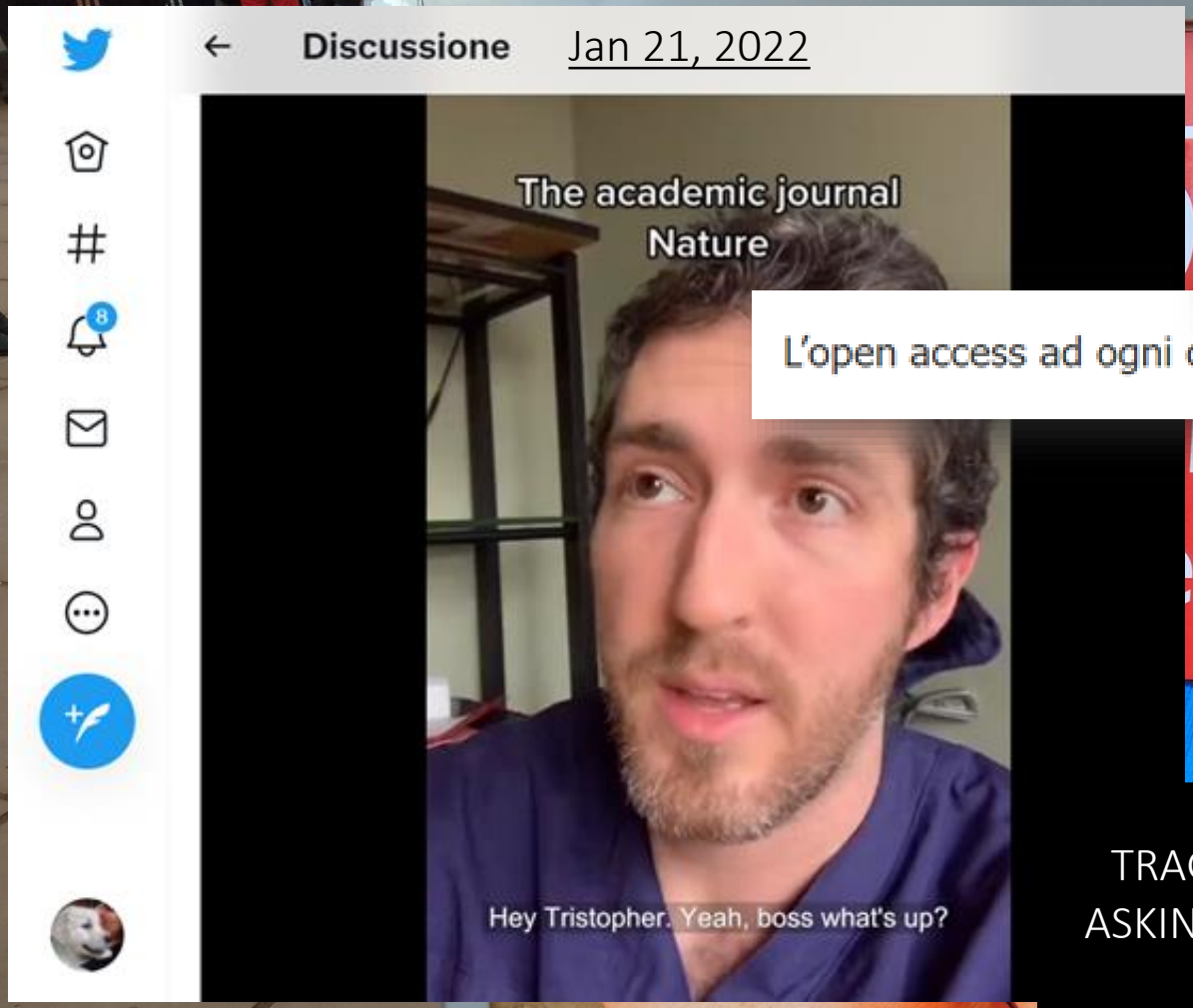
Linking impact factor to 'open access' charges creates more inequality in academic publishing

needed to fulfil our obligations. This has seen us stop using journal impact factors in isolation in our marketing (note: a prospectus is a legal document aimed at potential investors, not a marketing tool for authors or librarians). In fact, for more than 10 years, long before DORA, *Nature* editorials have expressed concerns about the overuse

«PRESTIGE» IS A RECIPE FOR DISASTER

10.2.5 Increasing Share in Revenues from Open Access

Springer Nature was one of the first academic publishers to actively embrace the opportunities offered by open access, which provides us additional opportunities to generate revenues, as open access publications are funded by authors and/or their funders or the relevant research institutions, not libraries. Accordingly, revenues stemming from APCs are in the short- to medium-term supplementary to the subscription business, not cannibalistic. Some of our journals are among the open access journals with the highest impact factor, providing us with the ability to charge higher APCs for these journals than for journals with average impact factors.



2022

AISA

Associazione italiana per la promozione della scienza aperta

L'open access ad ogni costo non può essere una opzione.

OPEN ACCESS AT ANY COST IS NOT AN OPTION

TRAGICOMIC VIDEO ON NATURE ASKING 11.500$ APC FOR A SINGLE ARTICLE…

[it's up to you]

ACADEMIC FREEDOM, PRESTIGE AND PUBLIC PROCUREMENT: YOU SHOULD NOT BE ALLOWED TO BUY A ROLLS – ONLY BECAUSE IT'S PRESTIGIOUS - IF AN ALTERNATIVE EXISTS

One may argue that authors ought to be able to choose their publication venue and I agree, of course. there should not be any restrictions on the choice of publication venue. However, arguably, this does not necessarily entail that the public purse must reimburse authors for even their most extravagant publication choices, if reasonable substitutes exist.

An analogy may help explain the argument: In many areas of science, transportation is needed for small groups of students and faculty to do field research. According to procurement rules, a tender would be organized and the award may, for instance, go to a company that sells electric vans seating seven passengers and a driver, and offers a ten year warranty. Many would probably agree that the cost of some tens of thousands $/€ for each van is reasonable, given the functionality of the vans and their climate-friendly propulsion. Faculty, however, claim that because these vans do not carry enough prestige, each van must instead be replaced with eight 1930s Rolls Royce Phantom II, such as this one:

Mar 30

WHY PUBLICATION SERVICES MUST NOT BE NEGOTIATED

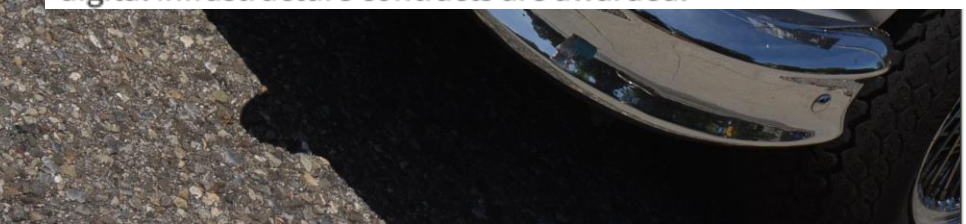
In: Science Politics • Tags: infrastructure, rolls royce

March 2022

or: how journals are like 1930s Rolls Royce Phantom IIs

have always argued for such a balance of public and research interests. academic freedom does not automatically exempt academics from procurement rules.

Therefore, ten experts advocate a ban on all negotiations with publishers and, instead, advocate policies that ensure that all publication services for public academic institutions must be awarded by tender, analogous the the example set by Open Research Europe and analogous to how all other, non-digital infrastructure contracts are awarded.



without such prestige, the faculty argue, they cannot work, risk their careers and funding. Arguments that these ancient vehicles are unreliable, unaffordable and dysfunctional are brushed away by emphasizing that their academic freedom allows them to drive whatever vehicle they want to their field work. Moreover, they argue, the price of around one million is "very attractive" because of the prestige the money buys them.

[reminder #2]

PUBLISHING SHOULD SERVE SCIENCE, BUT IT DOESN'T. SCIENCE SEEMS TO SERVE PUBLISHERS

Ivo Grigorov
@OAforClimate

In risposta a @EvaHnatkova, @Eurodoc e altri 8

Challenges for #OpenScience: "Publishing should serve Science, but it doesnt't! Science seems to serve publishers", Kostas Glinos @KGlinos @EU_Commission #KRECon2021

Traduci il Tweet

1:32 PM · 11 nov 2021 · Twitter for iPhone Nov. 11, 2021

Elsevier world

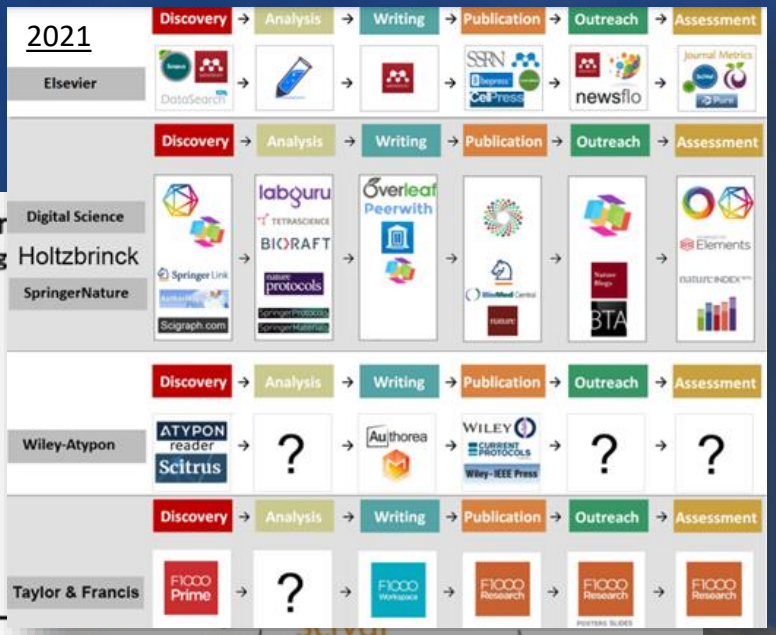
Publishers are increasingly in control of scholarly infrastructure and why we should care

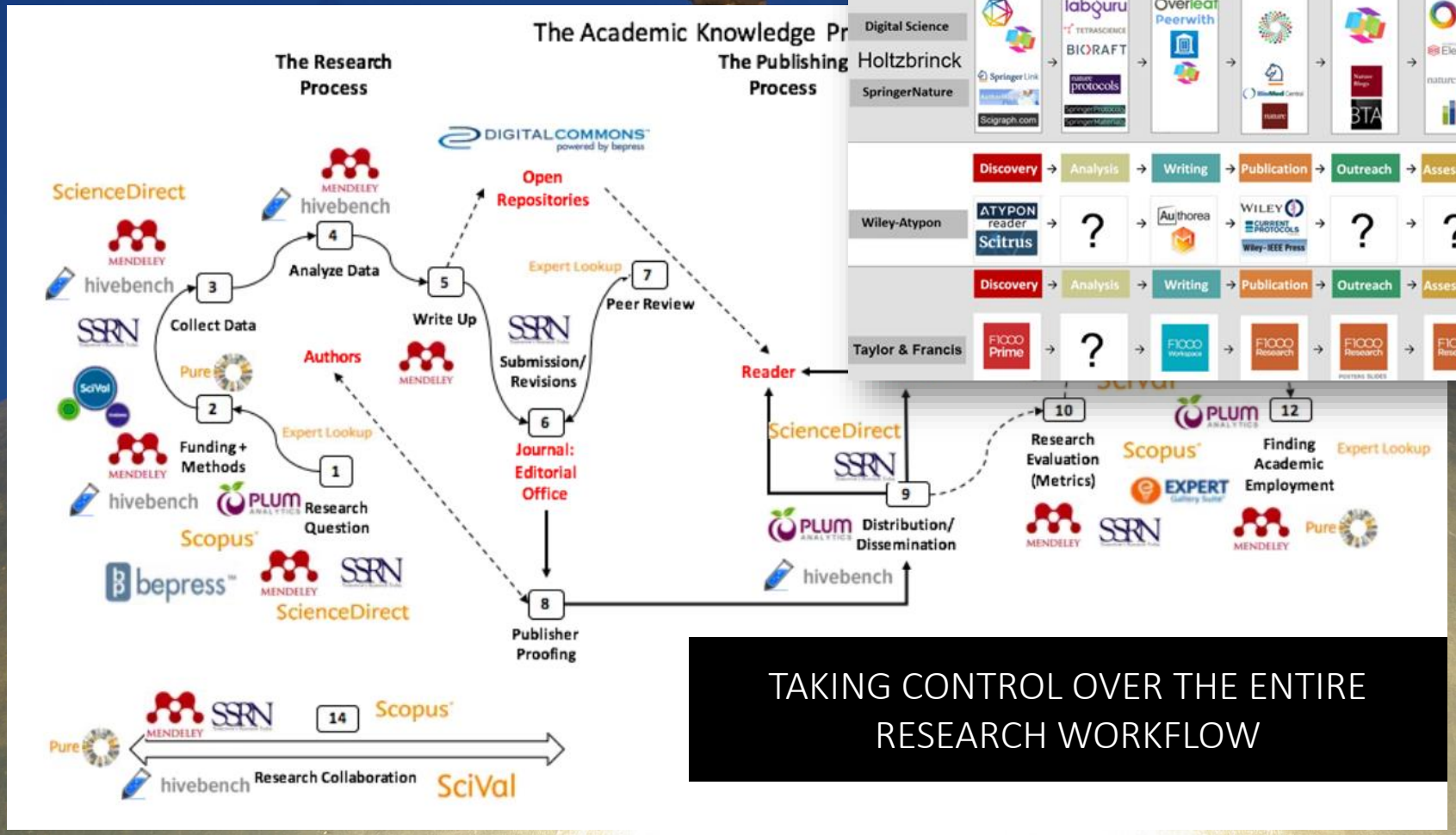
A Case Study of Elsevier

Written by: Alejandro Posada and George Chen, University of Toronto Scarborough

Published on September 20th 2017

2017





TAKING CONTROL OVER THE ENTIRE RESEARCH WORKFLOW

REPORT
JUN 22, 2020

2020 Update: SPARC Landscape Analysis & Roadmap for Action

This report takes a look at the events of the past year—particularly the global COVID health crisis and its resulting economic impact—and provides updates on the academic publishing market landscape and the status of the key companies involved.

ELSEVIER

About

Elsevier is a leader in information and analytics for customers across the global research and health ecosystems

NO LONGER «PUBLISHERS» EVEN ON THEIR HOMEPAGE

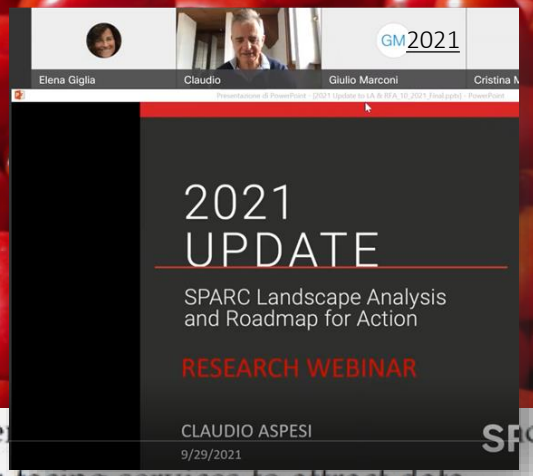
1. A significant deepening in the shift of major companies away from research publishing and towards research assessment;

2. A shift away from individual research distribution to more communal, consolidated models; and

3. The emergence of a "Bigger Deal," where institutional content licensing is directly linked to the purchase of data analytics services.

2020

FROM TEXTS TO DATA ANALYTICS



WE ARE THE PRODUCT (AND WE PAY FOR IT!)

Surveillance Publishing

Nov. 2021

Jefferson D. Pooley
Muhlenberg College
pooley@muhlenberg.edu
jeffpooley.com

It's a good business for Elsevier [illegible] have to give away their consumer-facing services to attract data-producing users. If you're not paying for it, the Silicon Valley adage has it, then you're the product. For Elsevier and its peers, we're the product *and* we're paying (a lot) for it. Indeed, it's likely that windfall subscription-and-APC profits in Elsevier's "legacy" publishing business have financed its decade-long acquisition binge in analytics.[3] This is insult piled on injury: Fleece us once only to fleece us all over again, first in the library and then in the assessment office.

[reminder #3]

SPARC update 2021

The fact that Elsevier (and, potentially, other companies) would pursue interests that put them at odds with the interests of the academic community and tolerate internal conflicts of interest should not come as a surprise. The business of publishers is to make money; the "business" of academic institutions is to advance knowledge, not to enable publishers to achieve their commercial goals. Unfortunately, the responsibility for high-lighting and resolving conflicts of interest falls squarely onto the academic community.

THE BUSINESS OF PUBLISHERS IS TO MAKE MONEY;
THE «BUSINESS» OF ACADEMIA IS TO ADVANCE KNOWLEDGE

…BUT:
is scholarly communication a market?

Principles of the Self-Journal of Science: bringing ethics and freedom to scientific publishing

VERSION 1 Released on 24 January 2015 under Creative Commons Attribution 4.0 International License

2017

Michaël Bon[1]
Authors' affiliations
1. SJS - The Self Journal of Science

Inappropriateness

The dissemination of Science is organized as a free market, where publishers compete for reputation and scientists compete for limited number of slots in journals. The rationale of the free market economy is to have efficient exchanges of rare and substitutable goods (apples, mobile phones, money...) between those who own them and those who want them. Yet scientific knowledge, unlike money, is something its owners want to share. It is not a substituable good. Scientists do want to be paid, but in a different currency – one that involves recognition and credit – whose amount on Earth is not limited. Therefore, the current system is deeply inappropriate to disseminate Science: it creates an artificial rarity that overrides the exchanges naturally underlying Science.

KNOWLEDGE IS SOMETHING YOU WANT TO SHARE – UNLIKE MONEY

Access is still an issue

SMEs, START-UPs,
PRACTITIONERS,
STUDENTS ONCE GRADUATED…
NOBODY CAN READ THE OUPUTS OF RESEARCH (WHICH IS FUNDED BY PUBLIC MONEY)

95% HIT A PAYWALL

Joanne Kamens ✓
@JKamens
Segui

In risposta a @jasonpriem e @unpaywall

and btw the "everyone who needs it has access" is completely wrong. I have worked in small biotechs for the last 10 years and hit frustrating paywalls EVERY DAY trying to do good science.

Traduci dalla lingua originale: inglese

15:14 - 4 gen 2018

permesso di accesso Posta in arrivo ×

Niccolò [redacted]gmail.com>
a me

Buongiorno,
sono uno studenti UNIMI e sto preparando la tesi, spesso nelle mie ricerche per il materiale, mi imbatto nel vostro sito IRIS ma non posso accedere all'articolo a cui sono interessato. Come posso ottenere il permesso?

The Results Are In of our Open Access Survey — Oct.2021

November 1, 2021 * Author: Mary Kennedy

There were three parts to this survey. In the first part, we asked some general questions on the topic of open access. Here is what we found:

- **83% of the respondents agree that the scholarly community could perform research more effectively if all scientific communication were made freely available under an open access license.**
- **95% of respondents have had the experience of being unable to access a research article they needed due to paywalls.**
- **83% have downloaded an open access book for their research.**
- **Half of the respondents admitted to at least once illegally downloading a research paper that they couldn't access because it was behind a paywall.**

Also, interestingly about **one-fifth of respondents said that the COVID-19 pandemic changed their view of open access research.** One responder commented particularly that they felt this when the

… if not, Sci-Hub would not exist

Science Home News

Who's downloading pirated papers?

EVERYONE

In rich and poor countries, researchers turn to the Sci-Hub website.

2016

Bernard Rentier
@bernardrentier

Following

The single fact that providing free information on universal Science is illegal tells us a lot about how absurd it has become, in the Internet era, to rely on the old research publication model. #FreeOpenAccessNow

> **Jon Tennant** @Protohedgehog
> Oh wow. Looks like anyone can now create their own @sci_hub mirror github.com/bsidio/sci-hub You can use this to help accelerate research and society by providing free access to millions of research articles. But it's probably illegal, so don't do it.

Traduci il Tweet

08:37 - 10 mag 2018

March 10, 2018

[alternative ways to g

2021

← **Aleksandra Lazic**

A place [Mesto] where [gde] I write [pišem] about [o] scienc

Ten ways to find open access articles

November 05, 2021

unpaywall

UNPAYWALL – IT WORKS ONLY IF AUTHORS SELFARCHIVE

An open database of 17.025.907 free scholarly articles.

We harvest Open Access content from over 50,000 publishers and repositories, and make it easy to find, track, and use.

LEARN MORE GET THE EXTENSION

2020

open access.nl News and events What

Alternative ways to access journal articles

1. Unpaywall

Install the free Chrome or Firefox extension and then click on it from a paywalled article's page to download its open access version.

2. Open Access Helper

Install the free Chrome or Firefox extension a access version. You can also get the iOS or m

3. Open Access Button

Install the free Chrome or Firefox extension a access version. You can also enter an article'

When free access is not found, the OA Button

4. Google Scholar

Search for articles through Google Scholar. To locate the full text of an article, try clicking (a) a right of the search result or (b) "All versions" under the search result to explore the alternative s are available here.

You can also install the free Chrome or Firefo you're reading and then click the button to find

5. Open repositories & portals

Here are examples of repositories and portals

- OSF Preprints (an aggregator of various as SocArXiv, PsyArXiv, ArXiv, engrXiv, bi
- Zenodo
- ScienceOpen
- Research Square (for preprints)
- Qeios (for preprints)
- Social Science Research Network (SSRI

6. A simple Web search

Why not try a simple Web search using your fav

Using some advanced search strategies can co filetype:pdf. Google Advanced Search is autom

7. Sources of dubious legality

Please be aware that the following sources are rely on them or not. Their content may be piracy or break copyright law.

- Sci-Hub is a shadow library website that provides free access to millions of articles by bypassing publishers' paywalls. It was founded by Alexandra Elbakyan in 2011. Find out more on the Wikipedia page.
- Library Genesis (Libgen) is a shadow library website. Find out more on the Wikipedia page.
- ResearchGate is a for-profit social networking site for scientists to share their papers. You don't have to register – scroll down to the website footer and click on "Publications".
- Academia.edu is a for-profit social networking site for scientists to share their papers. You don't have to register – scroll down to the website footer and click on "Papers".

8. Author's website

Authors often post PDFs of their published articles on their institutional or persona

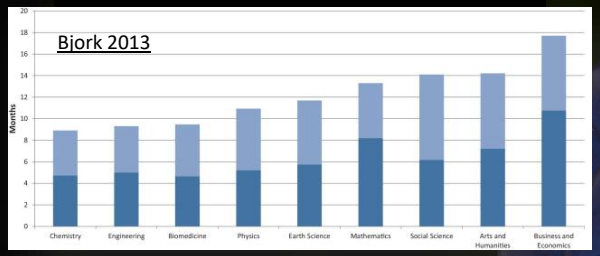
This image was created by Scriberia for The Turing Way community and is used under a CC-BY lice

9. Ask the author

What do we get in change?

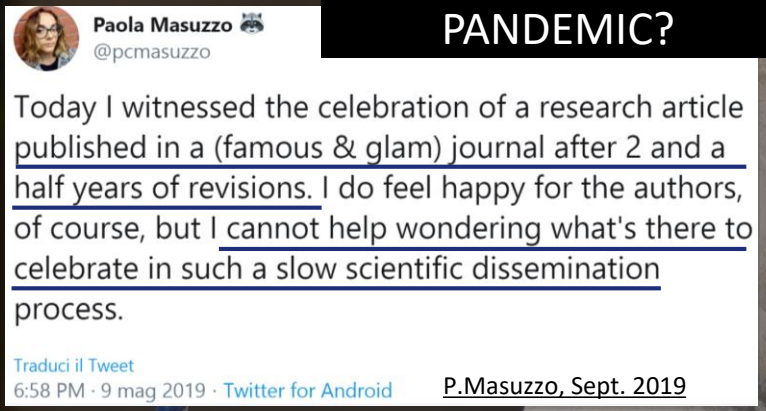
43%

AVERAGE PUBLICATION TIME



9-18 MONTHS

DURING A PANDEMIC?

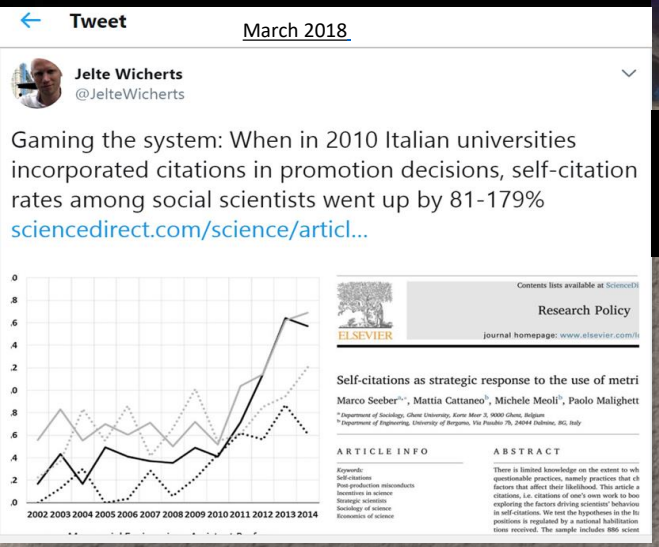


P.Masuzzo, Sept. 2019

SELF CITATIONS INCREASE IN ITALY AFTER VQR

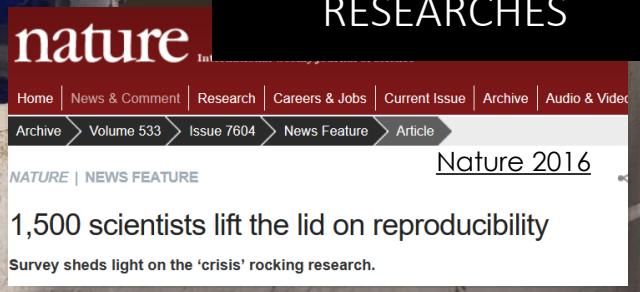
179%

NON-REPRODUCIBLE RESEARCHES



March 2018

Science



Nature 2016

70%

More than half of high-impact cancer lab studies could not be replicated in controversial analysis

Cancer reproducibility project couldn't assess many papers because of uncooperative authors and other challenges

7 DEC 2021 · 8:00 AM · BY JOCELYN KAISER

Dec. 7, 2021

[Houston, we ha

No academic post for fraudster Diederik Stapel, after all

Recently, we reported that social psychologist and renowned data faker Diederik Stapel had found himself a new gig supporting research at a vocational university in the Netherlands — but it appears that was short-lived.

According to multiple news reports, NHTV Breda will not be employing Stapel, after all.

Here's our Google translate of a portion from *De Telegraaf*: Continue reading →

Diederik St

2013

Does scientific misconduct cause patient harm? The case of Joachim Boldt

The Retraction Wa Leaderboard

Who has the most retractions? Here's our unofficial list (see notes on methodology), which we'll update as more information comes to light:

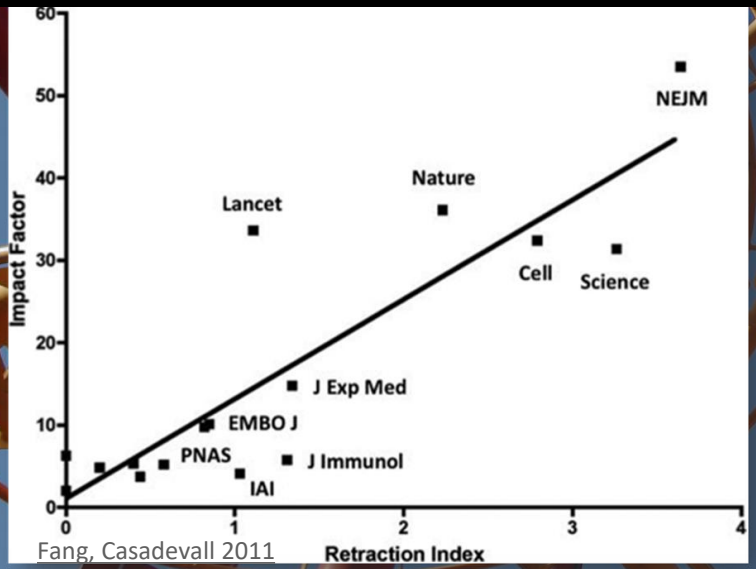
1. Yoshitaka Fujii (total retractions: 183) See also: Final report of investigating committee, our reporting, additional coverage
2. Joachim Boldt (136) See also: Editors-in-chief statement, our coverage
3. Yoshihiro Sato (102) See also: our coverage
4. Jun Iwamoto (78) See also: our coverage
5. Ali Nazari (62) See also:
6. Diederik Stapel (58) See
7. Yuhji Saitoh (53) See als
8. Adrian Maxim (48) See a

https://retractionwatch.com/

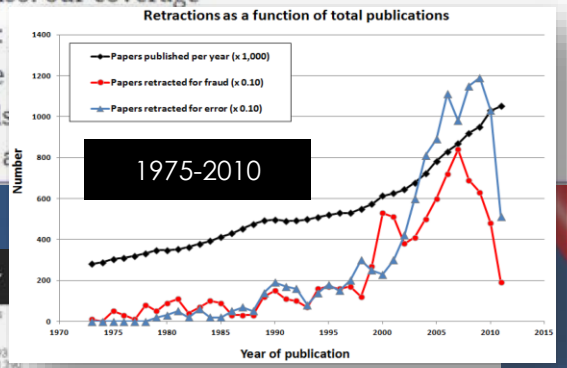
Retraction Watch

Tracking retractions as a window into the scientific process

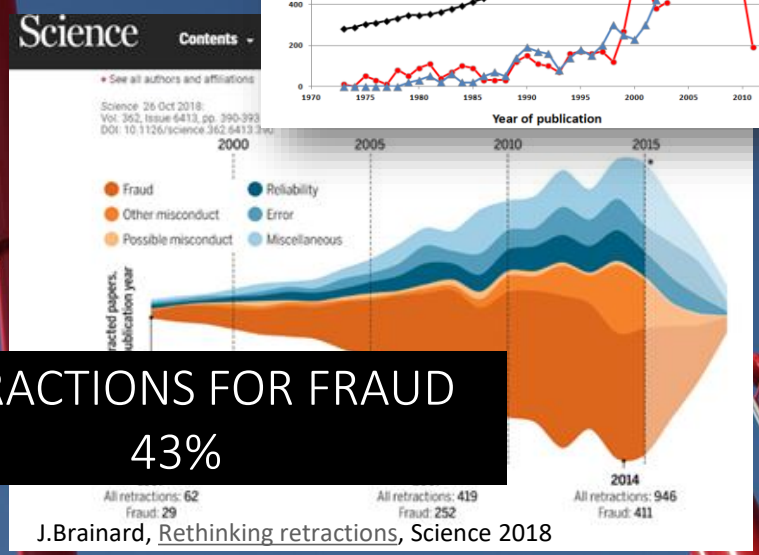
DIRECT CORRELATION
#RETRACTIONS/IMPACT FACTOR



Fang, Casadevall 2011



1975-2010



RETRACTIONS FOR FRAUD
43%

J.Brainard, Rethinking retractions, Science 2018

ROYAL SOCIETY OPEN SCIENCE

rsos.royalsocietypublishing.org

The natural selection of bad science

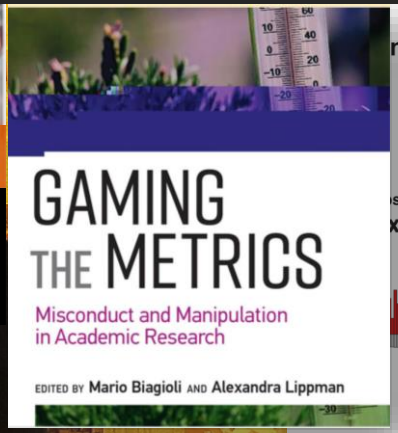
P.Smaldino, 2016

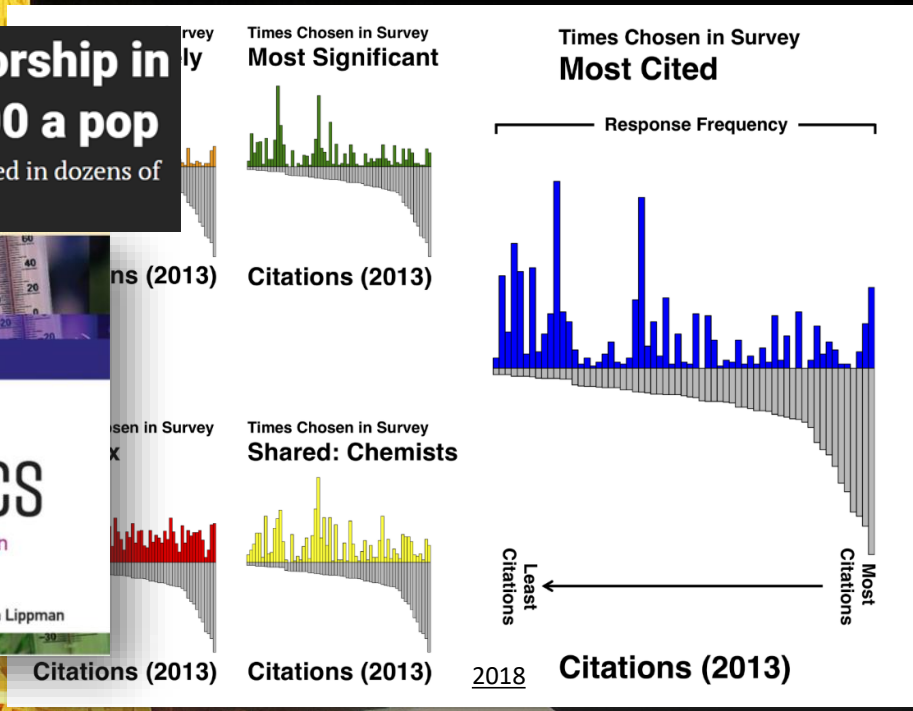
… because evaluation = obsession

Russian site peddles paper authorship in reputable journals for up to $5000 a pop

Advertisements promised adding names to articles that appeared in dozens of journals

COBRA EFFECT: WHEN INDIANS WERE PAID FOR EVERY DEAD COBRA THEY HANDED, THEY STARTED BREEDING COBRAS





EVALUATION BECAME AN OBSESSION

- «NOT ONLY ARE WE FAILING TO PROVIDE HE RIGHT INCENTIVES, WE ARE PROVIDING PERVERSE ONES»
- GOODHART'S LAW: «**WHEN A MEASURE BECOMES A TARGET, IT CEASES TO BE A GOOD MEASURE**»
- «PEOPLE GAME THE SYSTEM AT EVERY LEVEL»

… evaluation is the key

EVALUATION
- AFFECTS THE BEHAVIOUR OF RESEARCHERS
- PROMOTES COMPETITION OVER COLLABORATION
- MAINTAINS HIGH JOURNALS PRICES BASED ON PRESTIGE
- FAILS TO RECOGNIZE RESEARCH OUTPUTS LIKE DATA, CODE, BLOGS…

International Science Council

metrics designed to assess the importance and impact of research as an aid to evaluation, with publication outputs in traditional scientific journals being the major focus. These metrics in turn affect the behaviour of researchers, such as their choice of journals, as they seek to maximize their performance as measured by the metrics used. They can contribute to the maintenance of high journal prices, promote intense competition rather than openness and sharing, and fail to recognize research contributions such as the production of datasets, software, code, blogs, wikis and forums.

ICSU 2014

It does not work, the way it is

WORLD VIEW · 06 FEBRUARY 2019

2019

We need to talk about systematic fraud

Software that uncovers suspicious papers will do little for a community that does not confront organized research fraud, says Jennifer Byrne.

let alone talk about it. It is even more uncomfortable to think about organized fraud that is so frequently associated with one country. This becomes a vicious cycle: because fraud is not discussed, people don't learn about it, so they don't consider it, or they think it's so rare that it's unlikely to affect them, and so papers are less likely to come under scrutiny. Thinking and talking about systematic fraud is essential to solving this problem. Raising awareness and the risk of detection may well prompt new ways to identify papers produced by systematic fraud.

Causes for the Persistence of Impact Factor Mania

2013

Arturo Casadevall[a] and Ferric C. Fang[b]

▸ Author information ▸ Copyright and License information Disclaimer

This article has been corrected. See mBio. 2014 June 3; 5(3): e01342-14.

This article has been cited by other articles in PMC.

ABSTRACT

Go to:

Numerous essays have addressed the misuse of the journal impact factor for judging the value of science, but the practice continues, primarily as a result of the actions of scientists themselves. This seemingly irrational behavior is referred to as "impact factor mania." Although the literature on the impact factor is extensive, little has been written on the underlying causes of impact factor mania. In this perspective, we consider the reasons for the persistence of impact factor mania and its pernicious effects on science. We conclude that impact factor mania persists because it confers significant benefits to individual scientists and journals. Impact factor mania is a variation of the economic theory known as the "tragedy of the commons," in which scientists act rationally in their own self-interests despite the detrimental consequences of their actions on the overall scientific enterprise. Various measures to reduce the influence of the impact factor are considered.

RESEARCH CULTURE IS BROKEN,
OPEN SCIENCE CAN FIX IT

YouTube IT

June 2019

Research Culture is Broken; Open Science can Fix It | Rachael Ainsworth | TEDxMacclesfield

nature index

2018

Home News Current Index Annual tables Supplements Client services About

Home > News > What's wrong with the journal impact factor in 5 graphs

EXPLAINER · 3 APRIL 2018

What's wrong with the journal impact factor in 5 graphs

Scholars love to hate the journal impact factor, but how flawed is it?

The purpose of scholarly communication

2016

But let's not ignore the facts: the science system is in landslide transitio sparse to data-saturated. Meanwhile, scholarly communication, data management methodologies, reward systems and training curricula do not adapt quickly enough if at all to this revolution. Researchers, funders and publishers (I always thought that meant making things public) keep each other hostage in a deadly embrace by continuing to conduct, publish, fund and judge science in the same way as in the past century.

So far, no-one seems to be able to break this deadlock. Open
solve only a fraction of the problem. Neither 'open research data' alone will do. We still try to press

A DEADLY EMBRACE

The virus is reminding us that the purpose of scholarly communication is not to allocate credit for career advancement, and neither is it to keep publishers afloat. Scholarly communication is about, well, scholars communicating with each other, to share insights for the benefit of humanity. And whilst we've heard all this before, in a time of crisis we realise afresh t

IF WE HAVE CREATED A GENERATION OF SCHOLARS WHO ARE IN IT ONLY FOR THE GLORY OF A PAPER IN A PRESTIGIOUS JOURNAL, THEN WE ARE IN TROUBLE

the coffin will be closed?!" If we've created a generation of scholars who are just in it for the glory of papers in glamorous journals, and not to do good research that changes the world a little bit, then we really are in trouble.

WONKHE ABOUT US+ EVENTS LATEST+ JOBS+ SUBSCRIPTION+ SUS+

2020

The purpose of publications in a pandemic and beyond

OPEN SCIENCE MIGHT HELP?

Open Science – definition

Open Access | Lic. Info | Cite
Qeios
https://doi.org/10.32388/838962

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.

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/

NEW WAY OF
- CONDUCTING
- PUBLISHING
- EVALUATING

RESEARCH

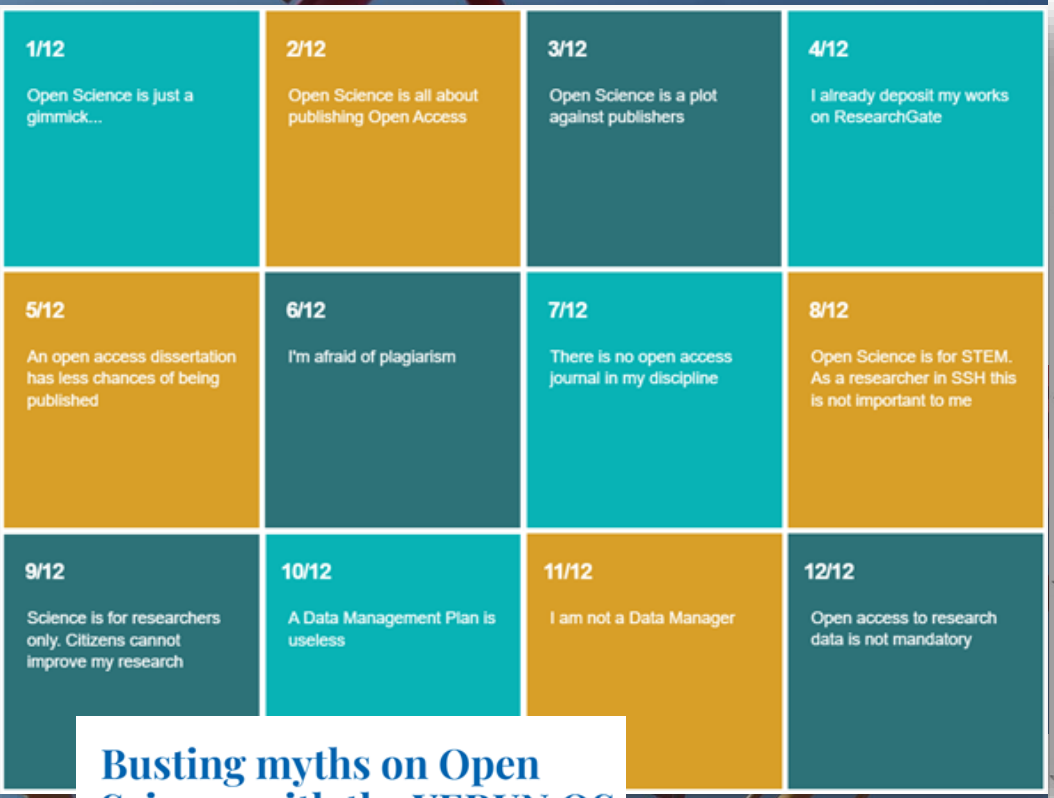
SHARING
- DATA/TEXTS
- TOOLS
- RESULTS…

AS EARLY AND OPEN AS POSSIBLE

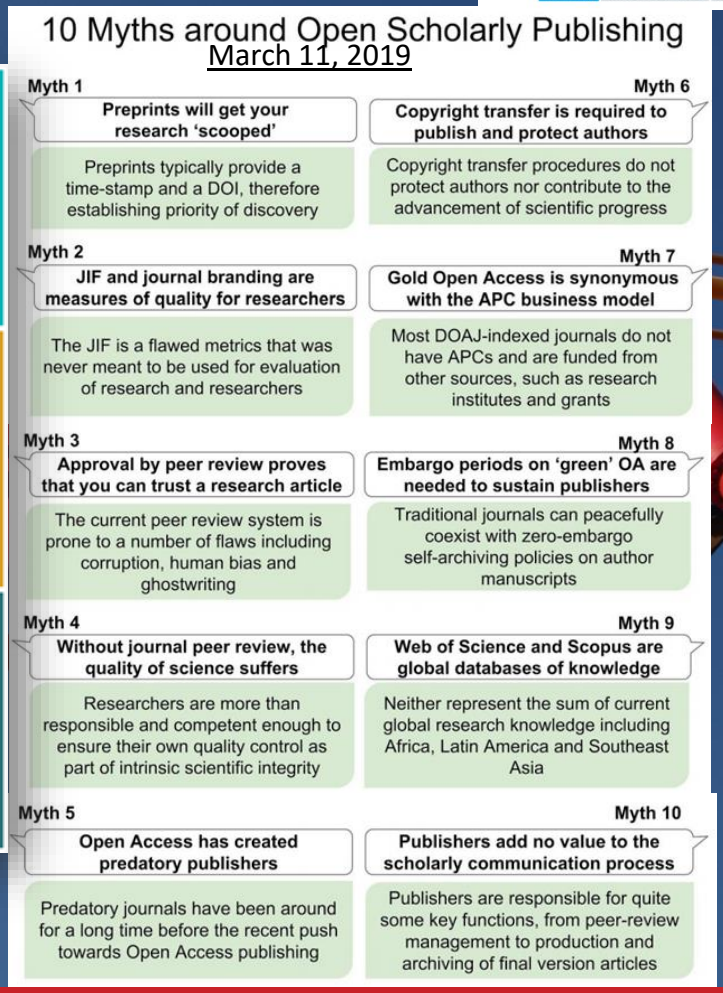
THIS IS THE REAL PURPOSE

OS LEADS TO MORE ROBUST SCIENTIFIC RESULTS, MORE EFFICIENT RESEARCH AND FASTER ACCESS
+ GREATER SOCIETAL AND ECONOMIC IMPACT

[Houston, we have a probl



Busting myths on Open Science with the YERUN OS Calendar 2021! Dec. 2021



DIFFUSED MISCONCEPTIONS:

OPEN SCIENCE=OPEN ACCESS, YOU ALWAYS PAY TO PUBLISH, OA= PREDATORY, I CAN'T OPEN MY DATA……

New entry (on di

jean-claude Guédon
@jcdrg

It would have been useful to restrict the reach of the title to bio-security issues and to particular sectors of life sciences. Otherwise, we are dealing with journalistic hype.

Traduci il Tweet

> **Richard Poynder** @RickyPo · 23 apr
> Making Science More Open Is Good for Research—but Bad for Security
> wired.co.uk/article/making... via @WiredUK

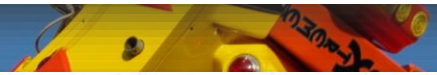
10:53 PM · 23 apr 2022 · Twitter Web App

2022 April 24

GRACE BROWNE SCIENCE 22.04.2022 12:00 PM

Making Science More Open Is Good for Research—but Bad for Security

The open science movement pushes for making scientific knowledge quickly accessible to all. But a new paper warns that speed can come at a cost.



are less meticulous. In particular, the field of synthetic biology —which involves the engineering of new organisms or the reengineering of existing organisms to have new abilities—faces what is called a dual-use dilemma: that while quickly released research may be used for the good of society, it could also be co-opted by bad actors to conduct biowarfare or bioterrorism.

Ope

Embrace open and reproducible research to the extent you want and you can. Seek allies and support around you, but do not feel pressured. It isn't open or closed. It is certainly not the same open or close for everybody.

So my very first take-home messages are:

- Open and reproducible aren't binary, they are gradients, multidisciplinary and multidimensional.
- How to be an open scientist and implement RR:
- Let's be open and understanding of different situations and constraints, including our own.

- OPEN IS A WORK IN PROGRESS, A GRADIENT
- OPEN IS NOT «GOOD BY DEFAULT»

Open != reproducible

Open != good (by default)

Reproducible != good (by default)

Open research and reproducible research aren't the same thing, and one doesn't imply the other. Even though in our modern understanding of these terms and concepts, they are intimately linked, historically, they are very different. And research being open or reproducible doesn't make it good (whatever the definition of good).

BUT OPEN AND REPRODUCIBLE RESEARCH ARE SUPPORTED BY GOOD DATA MANAGEMENT AND LEAD TO TRUST AND VERIFICATION

4TU.ResearchData
SCIENCE • ENGINEERING • DESIGN

2021

ABOUT YOUR DATA ▾ ABOUT 4TU.RESEARCHDATA ▾ ABOUT OUR COMMUNITY ▾ NEWS & EVENTS ▾

HOW TO MANAGE DATA: DATA STEWARDSHIP AND FAIR SKILLS

Marta Teperek
October 26, 2021

0 Comment

But open and reproducible research are **supported by good data management** (the topic of this talk/post) and lead to **trust, verification and guarantees**:

- Trust in Reporting – result is accurately reported
- Trust in Implementation – analysis code successfully implements chosen methods
- Statistical Trust – data and methods are (still) appropriate
- Scientific Trust – result convincingly supports claim(s) about underlying systems or truths

which are a hallmark of good research.

Open Science Saves Lives: Lessons from the COVID-19 Pandemic

2021

Lonni Besançon, Nathan Peiffer-Smadja, Corentin Segalas, Haiting Jiang, Paola Masuzzo, Cooper Smout, Eric Billy, Maxime Deforet, Clémence Leyra

doi: https://doi.org/10.1101/2020.08.13.249847

This article is a preprint and has not been certified by peer review [what does t

EVEN «OPEN SCIENCE» HAS TO BE DONE RIGHT!!!

Ope

possible»

«AS OPEN AS POSSIBLE, AS CLOSED AS NECESSARY»

Carlos Moedas ✓
@Moedas

2/4 "Open as possible, as closed as necessary" is the new principle for all #data from publicly funded #research in Europe #openaccess

RETWEET 76 MI PIACE 32

What key advice would you give to new ERC grantees?

Be as open as you can, publish as openly as you can, submit preprints and open data – but continue publishing in the journals that you think are the best for your career. No one has to become an open science martyr, you can be open without harming your career chances. But at the same time, recognize the deep flaws of the current system of evaluation and rewards and call for a reform – as an ERC grantee your voice carries weight.

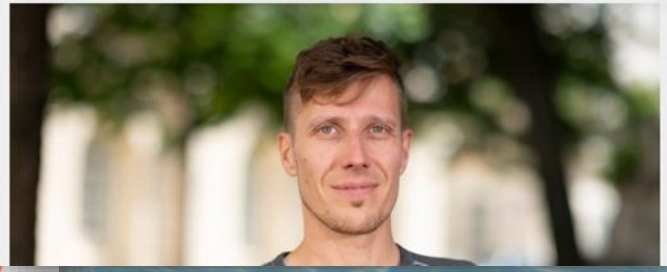
"Be as open as you can, [but] you don't have to become an open science martyr"

YOU CAN DO IT!
EVEN WITH THE CURRENT RESEARCH ASSESSMENT

Open science needs no martyrs, but we must recognize the need for reform

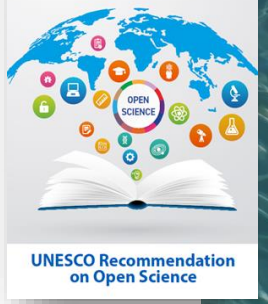
Oct. 2021

28 October 2021



Open Science – definition

Nov. 23, 2021



Open science increases scientific collaborations and sharing of information for the benefits of science and society

UNESCO video

makes multilingual scientific knowledge openly available, accessible and reusable for everyone

opens the processes of scientific knowledge creation, evaluation and communication to societal actors beyond the traditional scientific community.

Open Science

Video

Jeff Rouder
@JeffRouder

Segui

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

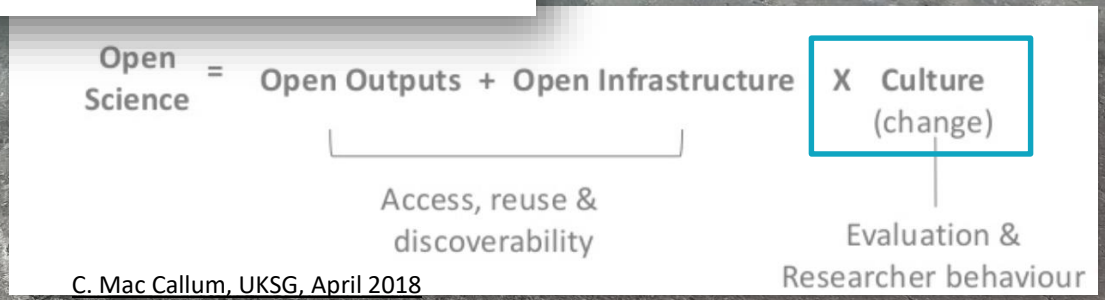
Traduci il Tweet

21:47 -

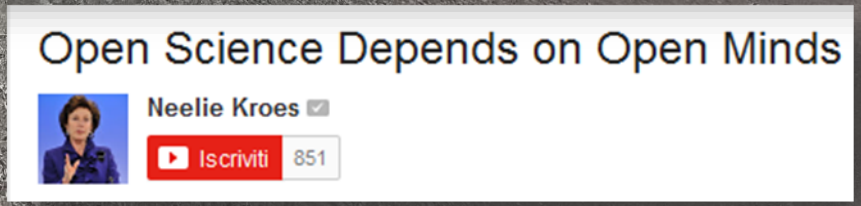
Open Science @openscience · 5 h

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

13 8



C. Mac Callum, UKSG, April 2018



[…cultural change or excuse?]

DON'T WAIT FOR RULES TO CHANGE. YOU CAN CREATE THE CHANGE WITH YOUR BEHAVIOUR

'Devastating career event': scientists caught out by change to Australian Research Council fine print

Aug. 20, 2021

Researchers say a ban on preprint material citations in funding applications is a 'remarkably stupid own-goal for Australian science'

Preprint rule out of line with 'modern publication culture'

In their 41-page document of instructions to DECRA applicants, the ARC asks researchers to "include information about national and international progress" relevant to their application and field of research.

One scientist said
without referring
said.

Another said: "I m
These are two fair
cite them I would

One astrophysicis
comments from A
citing a piece of so
a preprint.

"I was really anno
ruled out on a tech

A Future Fellowship applicant, who described feeling "angry, destroyed,

Aug. 20

Yvonne Nobis @yvonnenobis · 1h

This is bonkers. One of my partner's most highly cited papers (Planck collaboration) is a pre-print. It does not differ in any material way from the final published article, which followed several years later (a special journal ed).

(nb. citations from the preprint don't count)

The Hidden Professor @thehiddenprof · 1h

rdian.com/education/2021...

14 September 2021

Sept. 14, 2021

Australian Government

Australian Research Council

Adjustments to the ARC's position on preprints

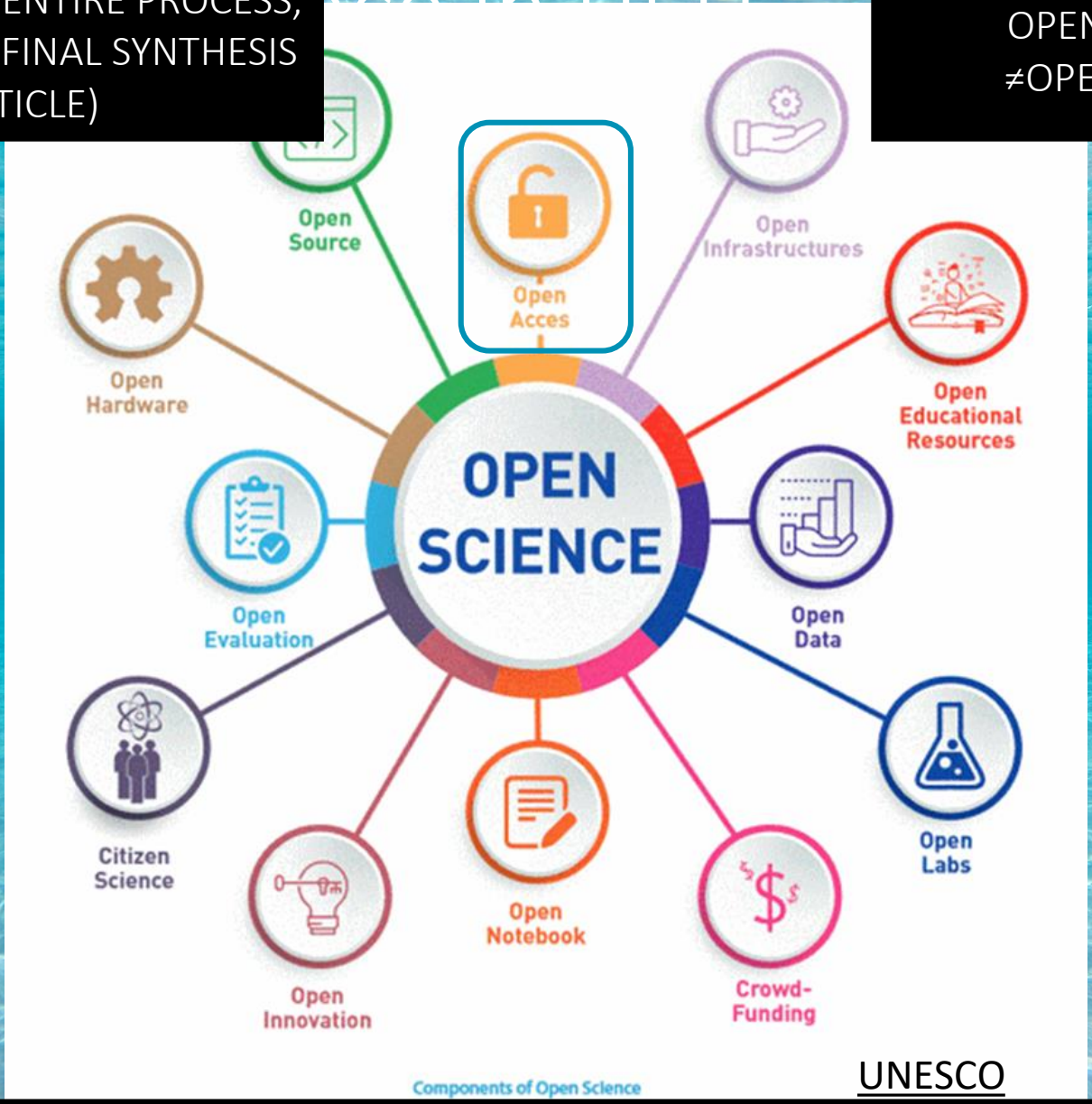
For future scheme rounds, the Australian Research Council (ARC) will allow the referencing and inclusion of preprints in a grant application. This includes within the Research Outputs list as well as the body of an application.

This adjustment to ARC's policy position reflects contemporary trends and the emerging significance of preprint acceptance and use across multiple research disciplines as a mechanism to expedite research and facilitate open research, as well as to provide greater equity across disciplines and career stages.

PREPRINT WERE BANNED FROM GRANT PROPOSALS.
PROTESTS AS THE MOST RECENT RESEARCH IN ON PREPRINT. NOW THEY ARE INCLUDED RECOGNIZING THEIR «WIDE ACCEPTANCE»

FOCUS ON THE ENTIRE PROCESS, NOT ONLY THE FINAL SYNTHESIS (ARTICLE)

OPEN SCIENCE ≠OPEN ACCESS



UNESCO

ALL THESE COMPONENTS TO BE EMBEDDED IN THE PROPOSAL TEMPLATE, 1.2 EXCELLENCE-METHODOLOGY AND TO BE EVALUATED UNDER «SCIENTIFIC EXCELLENCE»

…but…

Jan. 2022

IT'S NOT JUST PUTTING «OPEN» BEFORE THAT WE ARE DONE…

frontiers Mission statement Conversations Commentaries Evidence snapshots

Commentaries

Members of the Open Science community react to the UNESCO Recommendation

We asked 11 leading experts and advocates of the Open Science and Open Access movement to share their views on the significance of the UNESCO Recommendation on Open Science adopted in late 2021. Here are their responses and their own recommendations for how to achieve the objectives set by UNESCO.

recommendations. But, so far, most continue to put this still-fermenting new wine into the old wineskins of their current reward systems and publishing requirements. Ultimately, the escape from the 17th-century scholarly communication prison is *not* about blaming the publishers, but about facing our own, dried-out, elitist, and anachronistic ivory-tower scholarly communication practice (from which the publishers live lavishly).

IT'S US TO BLAME!

Barend Mons

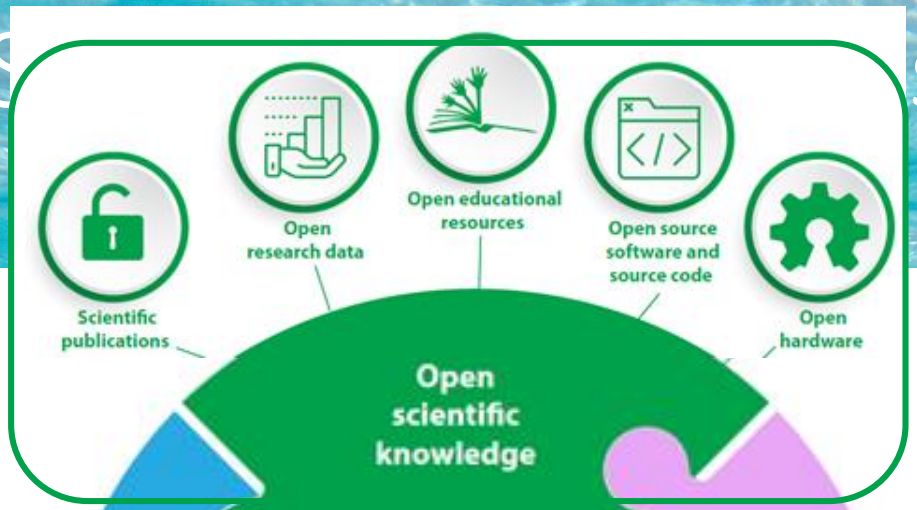
primarily communicated via human-readable narrative. However, we must realise that the evidence on which we base our knowledge should be centered on data and relevant, reproducible, observations and patterns that lead to precise claims[2], rather than on storytelling. Narrative is necessary but is *supplementary* to data and actual claims.

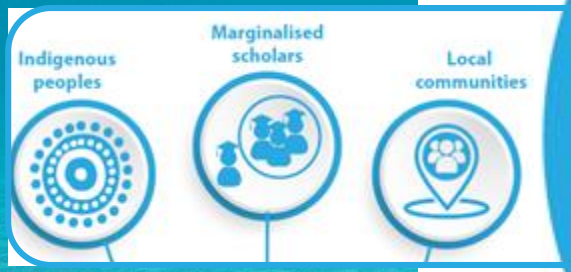
ly

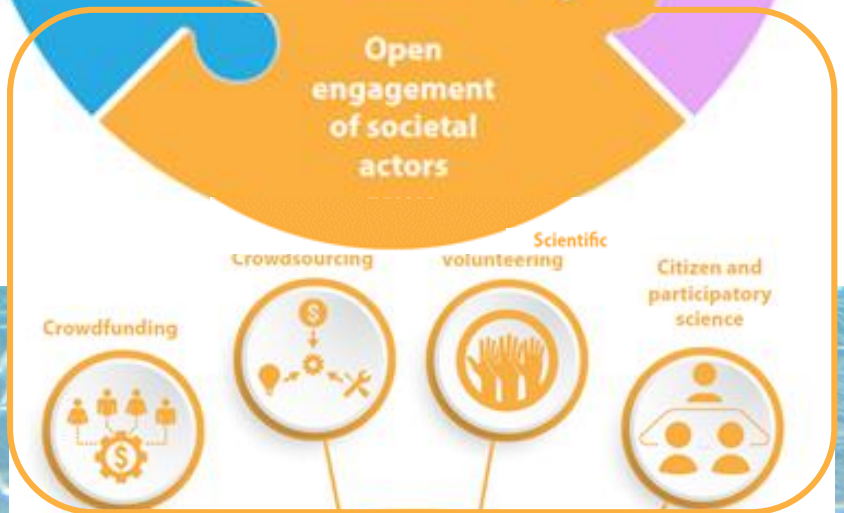
the Global North can have our electric cars and cleaner cities? Why would science be different? The (almost) universally agreed-upon (among intellectuals) new wine, *although wonderful and tasty*, goes quickly into the old wineskins of the current, journal-based scholarly communication and reward system, which *will resist until it finally bursts*. Many

DON'T PUT NEW WINE IN OLD WINESKINS (THE CURRENT JOURNAL SYSTEM)

…Open S…s







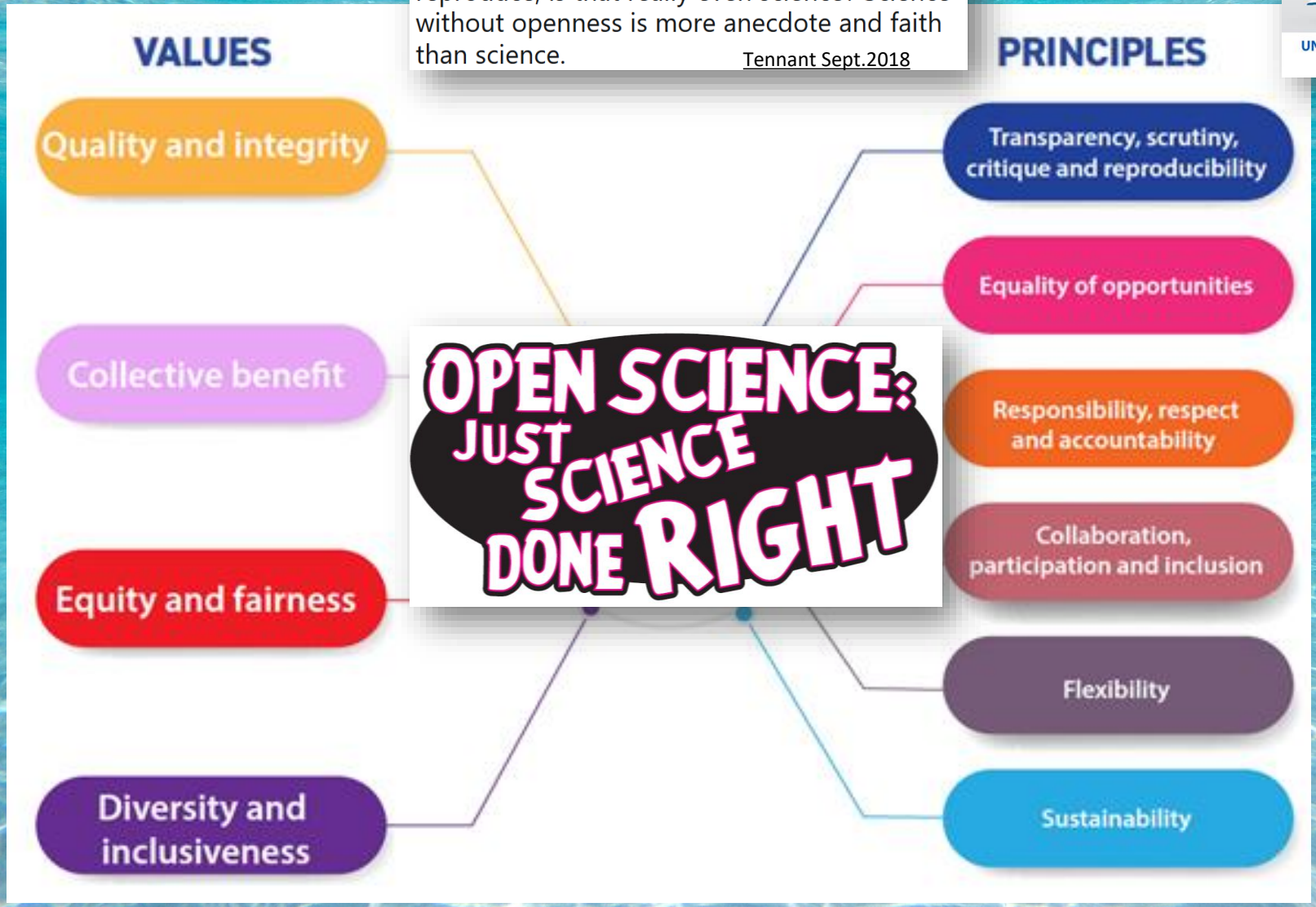
NOT ONLY SCIENTIFIC KNOWLEDGE. OPEN DIALOGUE, OPEN ENGAGEMENT OF SOCIETAL ACTORS

…Open Sc…es

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



Closed/bad science

From Jon's Slideshow

Academic: *"This research paper has been published and therefore is scientifically valid."*
Non-academic: *"But it's paywalled. I can't access it. How do I know it's valid?"*
Academic: *"Because it has been peer reviewed."*
Non-academic: *"Can you show me the peer reviews?"*
Academic: *"No. But it was done by two experts in the field."*
Non-academic: *"Which experts?"*
Academic: *"We don't know. But it's in a top journal."*
Non-academic: *"Why is it in a top journal?"*
Academic: *"Because it has a high impact factor, so is highly cited."*
Non-academic: *"Why does that make the research better?"*
Academic: ***"Trust me. I'm a scientist."***

1 5

D@sapta Erwin Irawan
@dasaptaerwin

I remember he told this dialogue when we first met in person in Bali, April 2018. :). @BreznauNate And then I flashed my t-shirt showing a quote "Impact Factor is a Myth"

Traduci il Tweet

Nate Breznau @BreznauNate · 4 gen
1/6 "Open science is just good science". So said Jon Tennant; and I've transcribed, edited and appended one of his talks to deliver this message with maximum impact.
crowdid.hypotheses.org/548
@hypothesesorg
Mostra questa discussione

Jan 11 2022

9:34 AM · 11 gen 2022 · Twitter Web App

Open Science

OPEN SCIENCE HAS THE POTENTIAL OF INCREASING QUALITY AN MAKING THE ENTIRE PROCESS MORE TRANSPARENT

Open Science has the potential of increasing the quality of science and making the entire scientific process more transparent, collaborative and inclusive.

Open Science can accelerate progress towards SDGs and it can be a true game changer in bridging the science, technology and innovation gaps between and within countries and fulfilling the human right to science.

OPEN SCIENCE AS ACCELERATOR TOWARDS SGD – A GAME CHANGER

unesco

Ana Persic, Sept.10 #OAI12

Open Science

- OPEN SCIENCE IS A HUMAN RIGHT
  - LEAVE NO ONE BEHIND

Sept. 21, 2019

Also noting that the global COVID-19 health crisis has proven worldwide the urgency of and need for fostering equitable access to scientific information, facilitating the sharing of scientific knowledge, data and information, enhancing scientific collaboration and science- and knowledge-based decision making to respond to global emergencies and increase the resilience of societies,

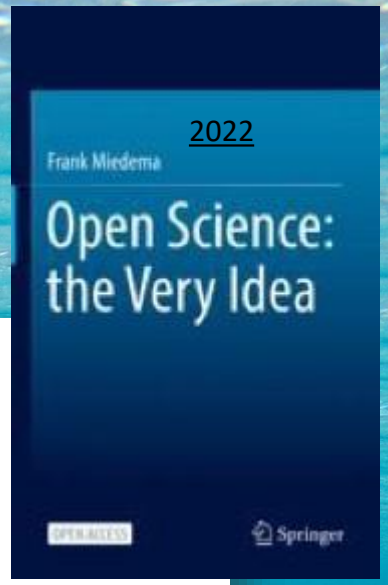
Committed to leaving no one behind with regard to access to science and benefits from scientific progress by ensuring that the scientific knowledge, data, methods and processes needed to respond to present and future global health and other crises are openly available for all countries, in accordance with the rights and obligations, including the exceptions and flexibilities, under applicable international agreements,

Affirming the principles of the Universal Declaration of Human Rights, notably those contained in Articles 19 and 27 and also affirming the 2007 United Nations Declaration on the Rights of Indigenous Peoples,

Nov. 23, 2021

Open Science

SCIENCE FOR A BETTER WORLD



Utrecht University

TOWARDS OPEN SCIENCE

FUTURE

PAST

SCIENCE

SOCIETY

OPEN ACCESS

FAIR DATA & SOFTWARE

PUBLIC ENGAGEMENT

REWARDS AND INCENTIVES

SCIENCE FOR A BETTER WORLD

Transparency

Distinction between academic and support staff reduced

Multidisciplinary and inclusive teams

Impact

Open access of output

Sharing data and code

Co-operation instead of competition

Teamwork

New evaluation criteria

Leadership

Involving society

OPEN SCIENCE PROGRAMME

https://www.uu.nl/en/research/open-science

Open Science

ARTICLES? ALSO DATA, CODE, PROTOCOLS…

REDEFINE «EXCELLENCE»…

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

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

put science back at the heart of society

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

@pcmasuzzo
Oct.5, 2020

TAKE BACK CONTROL, ENGAGE PEOPLE…

TELL IT LIKE IT IS: TAKE BACK YOUR RIGHT TO BE WRONG, REDEFINE «FAILURE», FOCUS FROM OUTPUTS TO PRACTICE

+ Open Science]

Recommendations (summary)

1. **Communicate about Open Science and Research Integrity in a positive way, as two fundamental and complementary pathways towards excellent science and greater social impact of research.** Indeed Open Science and Research Integrity both ultimately relate to the need to foster responsibility and trust in research and innovation.
2. **Commit to reforming the research assessment system to provide the right recognition, incentives and rewards** for methodological rigour, for enabling the wider uptake of open science practices, and to move at the same time towards a system that supports integrity and that rewards the plural characteristics of highquality research.
3. **Journals and publishing platforms should be transparent about their editorial processes**, including peer reviewing, and promote reproducibility of research through support of FAIR data and, whenever possible, by facilitating open access to data, codes and methodologies.
4. **Make sure that researchers** (at every stage of their career), **as well as other involved stakeholders** (like university lawyers or funders), **receive adequate training on research integrity and Open Science.**

OPEN SCIENCE + RESEARCH INTEGRITY ARE COMPLEMENTARY TOWARDS EXCELLENT RESEARCH AND MORE SOCIETAL IMPACT
KEYWORD: TRANSPARENCY

Library Element | Report

SWG OSI Guideline Report on Research Integrity and Ope Science

Uploaded by RRI Tools on January 26, 2022

2021

9. **Promote cooperation between Open Science and Research Integrity offices at a national and institutional levels.** This is essential to develop training and materials that contribute to supporting researchers in practicing open science and ensure that high standards of research integrity are complied with. It would also help ensuring that fast pace developments in the area of Open Science are taken into account and appropriately reflected in codes of conduct for Research Integrity.
10. **Publicize information and enhance visibility about main Open Science and Research Integrity policies/documents/guidelines at a national and institutional level**, notably through websites that could be considered as general knowledge hubs in this regard.

KEYWORD=TRANSPARENCY/ RESPONSIBILITY

[Responsible con

Open and Responsible Research

Roles and Responsibilities for Data Stewards

2021

LOUISE BEZUIDENHOUT

Responsible Conduct of Research

- Research misconduct (fabrication, falsification, plagiarism) is a familiar topic for most researchers
- Responsible research extends beyond research misconduct to many other areas of responsibility
- Areas of responsibility reflect multiple roles that researchers play in academic environments
- Responsible Conduct of Research (RCR) is a framework that brings together these different areas of responsibility

https://www.nap.edu/catalog/12192/on-being-a-scientist-a-guide-to-responsible-conduct-in

6

Openness as an Extension of Responsibility

Open Lab Books: Transparency in research practices
Sharing and openness: enhance transmission of values

Open Peer Review: Transparency in peer review leads to better dialogue and collegial behaviour

Open Access: Improves availability of research outputs
Open publishing: leads to improved citations, credit and collaboration

Open Data and Open Methodologies: Improve transparency and reproducibility of research

Open Science Tools: Improve collaboration

[Integrity?]

2. Interviews and focus groups

1. What is research **SUCCESS?** ← 2. What threatens research **INTEGRITY?**

Current research assessments

…overvalue **outputs** →	ignores research **process**
…expect **exceptional** output →	discourage **realism**
…look at researchers **individually** →	discourage **collaboration**
…are based on **competition** →	discourage **openness** and **collegiality**

DORA — About DORA — Meetings

The Declaration — Signers — Case Studies — Resources — Blog — Sign DORA

RESOURCE

Webinar March 24, 2021

Advancing science or advancing careers? Researchers' opinions on success indicators

We know there are core problems with research systems but approaches for integrity tend to focus on researchers

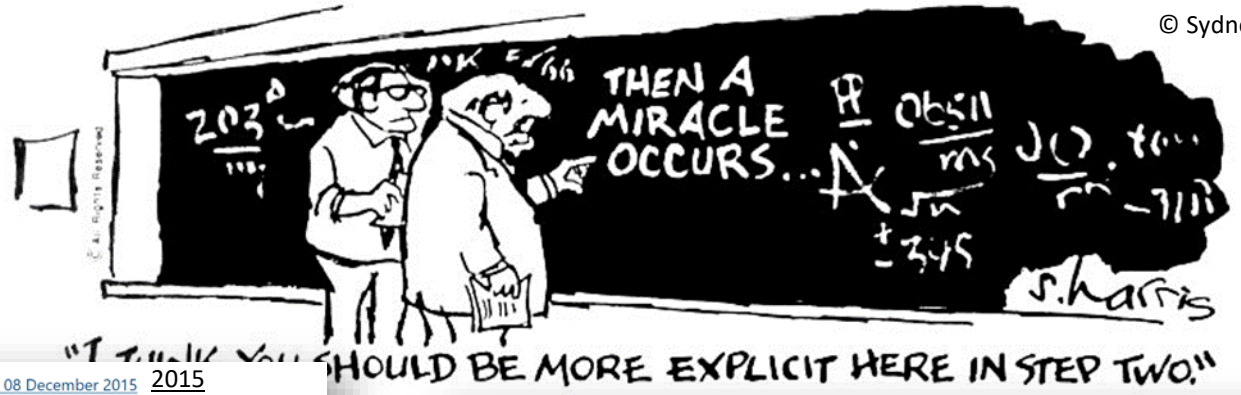
The way in which we measure success is problematic and could even lead to integrity issues

Indicators used to advance research careers are misaligned with indicators needed to advance science

THE RESEARCHER IS NOT THE FOCUS

RESEARCH CAREERS INDICATORS MISALIGNED WITH RESEARCH ADVANCEMENT

[selfis e]



Comment | Open Access | Published: 08 December 2015 2015

Five selfish reasons to work reproducibly

Florian Markowetz

Genome Biology **16**, Article number: 274 (2015) | Cite this article

18k Accesses | **38** Citations | **456** Altmetric | Metrics

Reason number 1: reproducibility helps to avoid disaster

"How bright promise in cancer testing fell apart" titled a *The New York Times* article published in summer 2011 [1] highlighting the work of Keith Baggerly and Kevin Coombes, two biostatisticians at M.D. Anderson Cancer Center. Baggerly and Coombes had exposed lethal data analysis problems in a series of high-impact papers by breast cancer researchers from Duke University [2].

Reason number 2: reproducibility makes it easier to write papers

Transparency in your analysis makes writing papers much easier. For example, in a dynamic document (Box 1) all results automatically update when the data ar
confident your numbers, figures and tables are up-to-date. Additio
are more engaging, more eyes can look over them and it is much ea

Reason number 3: reproducibility helps reviewers see it your way

Most of us like to moan about peer review. One of the complaints I hear most often is: the reviewers didn't even read the paper and had no idea what we were really doing.

This starkly contrasts with my experience during the review process of a recent paper [4], for
d well-documented code easily accessible to the reviewers.
a slight change to some analyses, and because he had access to
directly try out his ideas on our data and see how the results
pletely on board, the only thing left to discuss was the best
how a constructive review should be. And it would have been
nt and reproducible presentation of our analyses.

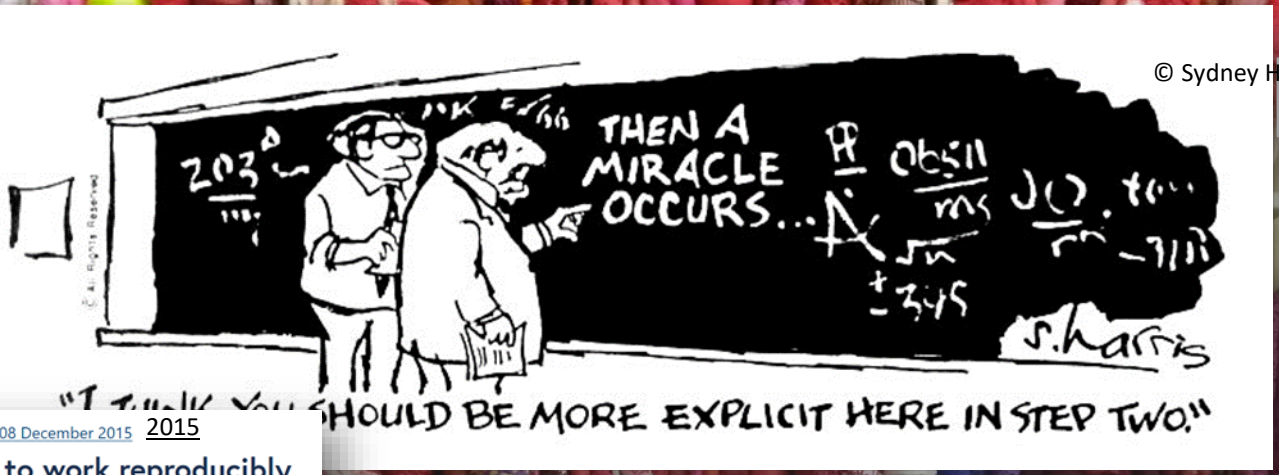
Reason number 5: reproducibility helps to build your reputation

For several papers, we have made our data, code and analyses available as an Experiment Package on Bioconductor [5]. When I came up for tenure, I cited all of these packages as research output of my lab. Generally, making your analyses available in this way will help you

Reason number 4: reproducibility enables continuity of your work

I would be surprised if you hadn't heard the following remarks before, maybe you have even said them yourself: "I am so busy, I can't remember all the details of all my projects" or "I did this analysis 6 months ago. Of course I can't remember all the details after such a long time"

[selfis e]



Comment | Open Access | Published: 08 December 2015 2015

Five selfish reasons to work reproducibly

Florian Markowetz

Genome Biology **16**, Article number: 274 (2015) | Cite this

18k Accesses | **38** Citations | **456** Altmetric | Metrics

What's holding you back?

Have I convinced you? Maybe not. Here is a collection of responses I sometimes get to my insistence on reproducible research (as well as my answers to them):

"*It's only the result that matters*!" You are wrong.

"*I'd rather do real science than tidy up my data*". If you don't work reproducibly, you are not doing science at all [7].

"*Mind your own business! I document my data the way I want!*" Yes, please do! There are many ways to work reproducibly [8] and you can pick whatever suits you best.

"*Excel works just fine. I don't need any fancy R or Python or whatever*". The tool you mention might work well if lots of manual curation is needed, but as soon as you do data analysis, less clicking and more scripting are the way to go. Imagine you have to do a simple analysis such as a regression plot 5 times (10 times, 20 times) and compare doing it by hand 5 times (10 times, 20 times) to writing a simple loop to do it for you. Now imagine having to do it again 3 weeks later because the data have slightly changed. R and Python are clearly the way to go.

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.

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

DIVERSITY=ASSET

Feb. 13 2022

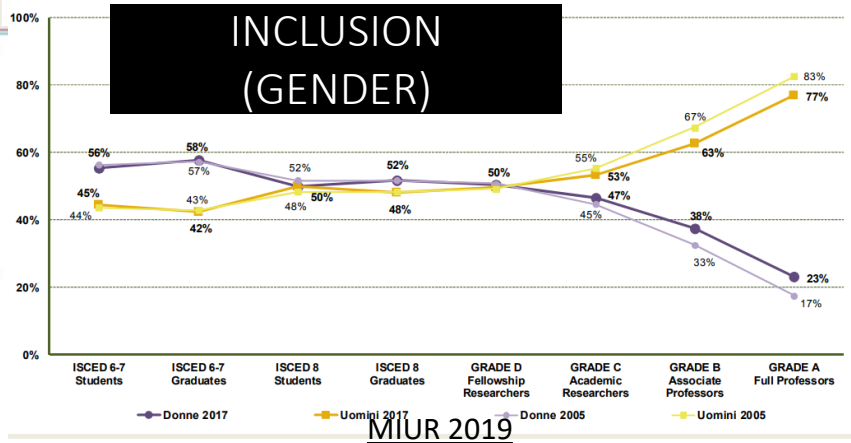
D@sapta Erwin Irawan
@dasaptaerwin

I searched for in title (mahakam) then I came up with this visualization. Scopus gets 170 docs (earth), @TheLensOrg gets 10x more docs (saturn), @CrossrefOrg gets 40x times more docs (super planet TOI-849b). #scicomm #sciart with @canva.

Traduci il Tweet

8:43 AM · 13 feb 2022 · Twitter for iPad

2 Retweet 2 Tweet di citazione



INCLUSION (GENDER)

MIUR 2019

INCLUSION ALSO MEANS MULTILINGUALISM

Comité pour la science ouv...
@ouvrirlascience

#OSEC2022 #PFUE2022
Le multilinguisme, un oublié de la réforme de l'évaluation, Emanuel KULCZYCKI (Adam Mickiewicz University in Poznań) - @ekulczycki - @ScholarlyCommRG

Traduci il Tweet

10:26 AM · 5 feb 2022 · TweetDeck

2 Retweet 1 Mi piace

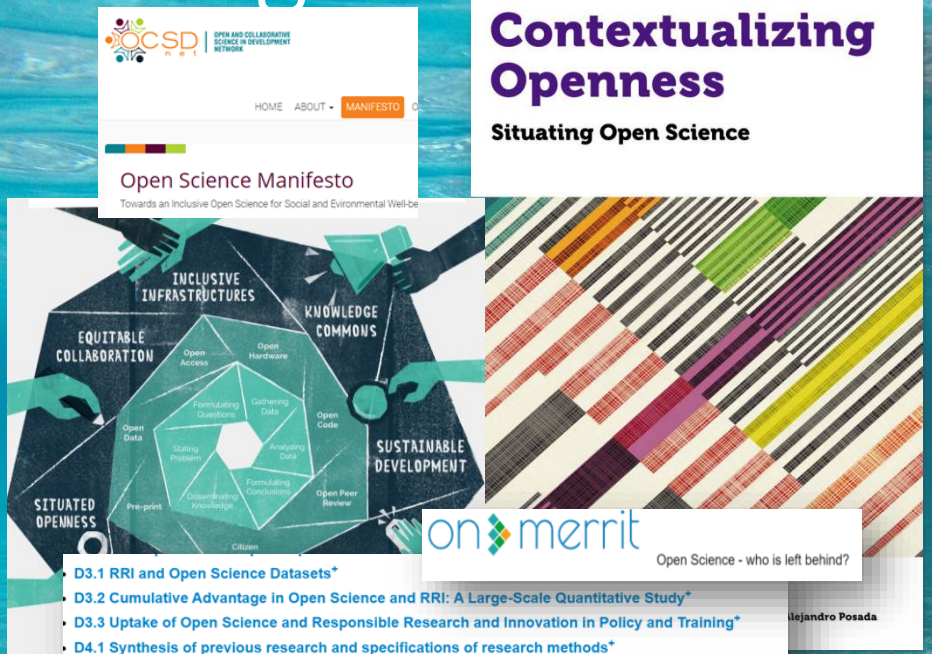
Twitta la tua risposta Rispondi

@JFSmith434

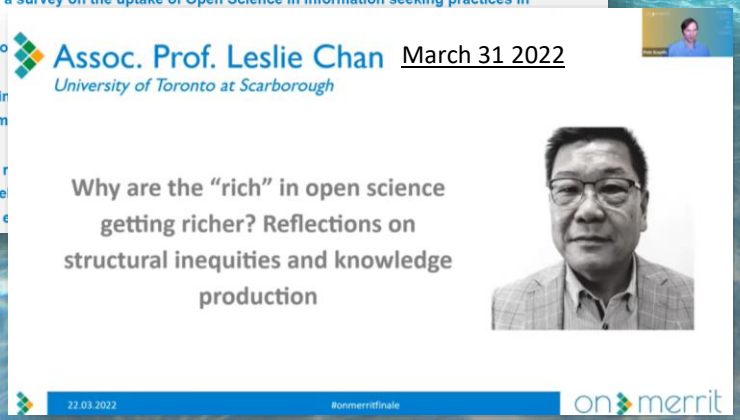
"If we are not careful, we will have an open science that perpetuates the inequalities in academia and science." @mendulla #osfair2017

46.24 Inclusive Open Science, 7 Sept. 2017

Open [collaborative] Science – being inclusive



- D3.1 RRI and Open Science Datasets+
- D3.2 Cumulative Advantage in Open Science and RRI: A Large-Scale Quantitative Study+
- D3.3 Uptake of Open Science and Responsible Research and Innovation in Policy and Training+
- D4.1 Synthesis of previous research and specifications of research methods+
- D4.2 Drivers and barriers to uptake of Open Science resources in industry+
- D4.3 Quantifying the influence of Open Access on innovation and patents+
- D5.1 Scoping report of previous research on the role of Open Science resources in deliberative policy-making+
- D5.2 Results of a survey on the uptake of Open Science in information seeking practices in policymaking+
- D5.3 Networks o
- participation+
- D6.1 Investigatin
- D6.2 Scenario m
- transition+
- D6.3 Synthesis r
- D6.4 Final guide
- for maximising e



Dec.2021

Beyond Diversity and Inclusion: Challenging Structural Racism and Systemic Biases in Academic Knowledge Production

Leslie Chan
Global Development Studies
Knowledge Equity Lab
University of Toronto Scarborough
@lesliekwchan @knowequitylab

Main points

Contemporary inequity in knowledge production has deep historical roots – tracing back to colonialism and the spread of imperial science

Addressing compositional diversity doesn't address the underlying problems of structural racism and systemic biases rooted in whiteness

Structural racism is about the maintenance and reproduction of power

Uncritical acceptance of "openness" risks reproducing and amplifying existing inequities

Design principles based on epistemic justice and knowledge equity are possible – Centering Human Relations and Solidarity

UNCRITICAL ACCEPTANCE OF «OPENNESS» RISKS REPRODUCING AND AMPLIFYING EXISTING INEQUITIES

...in a nutshell...

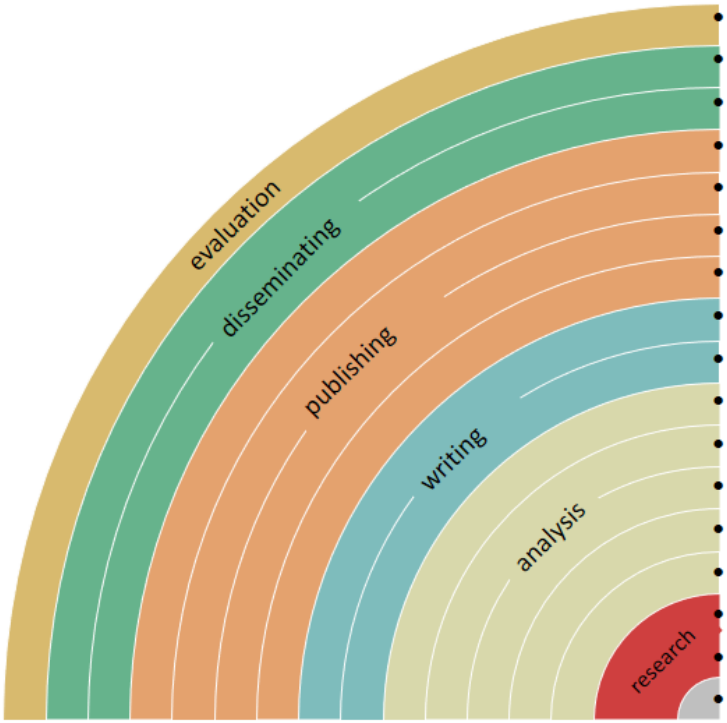
It was really helpful to have in mind there is an alternative way [Open Science] that gives us the chance **of being treated with dignity and truly focus on the essence of our work**

[Petra, PhD, May 2020]

Oper

ANY COMPONENT OF THIS RAINBOW SHOULD COUNT AS «RESEARCH OUTPUT»

YOU CAN MAKE YOUR WORKFLOW MORE OPEN BY...



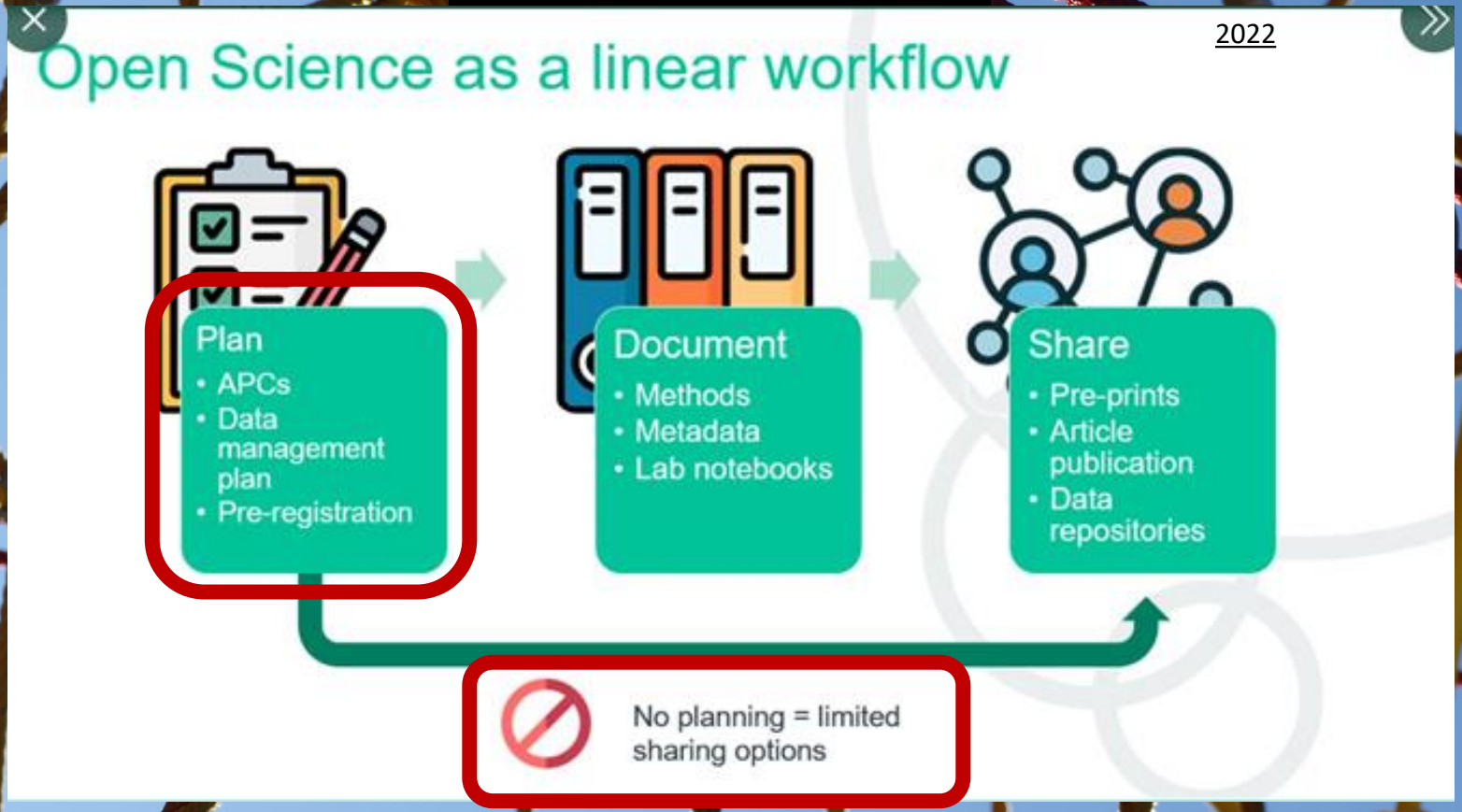
- adding alternative evaluation, e.g. with. altmetrics
- communicating through social media, e.g Twitter
- sharing posters & presentations, e.g. at FigShare
- using open licenses, e.g. Creative Commons BY
- self archiving in archives or publishing on Open journals
- using open peer review, e.g. at PubPeer o F1000
- sharing preprints, e.g. at OSFpreprint, arXiv o biorXiv
- using actionable formats, e.g. with Jupyter o CoCalc
- open XML-drafting, e.g. at Overleaf o Authorea
- sharing protocols & workflows, e.g. at Protocols.io
- sharing notebooks, e.g. at OpenLabNotebook
- sharing code, e.g. at GitHub licensing GNU/MIT
- sharing data, e.g. at Dryad, Zenodo o Dataverse
- pre-registering, e.g. at OSFregistry o AsPredicted
- commenting openly, e.g. with Hypothes.is o Pund.it
- using shared reference libraries, e.g. with Zotero
- sharing (grant) proposals, e.g. with RIO Journal

Interactive rainbow 2021

TECHNICALLY, IT'S THERE.
WHAT IS STILL NEEDED IS THE CULTURAL SHIFT...
AND YOUR FIRST STEP!

[Open Science in pratice]

TO SHARE YOUR RESEARCH
YOU NEED TO PLAN IT
FROM THE BEGINNING



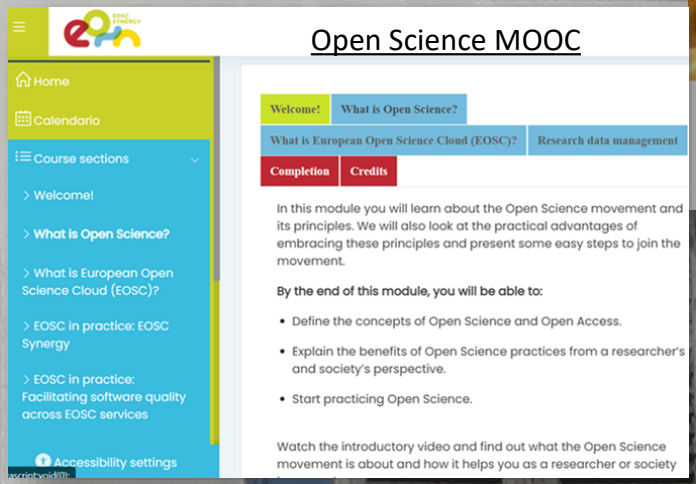
…it's time for Open Scie

Open Scientist Handbook

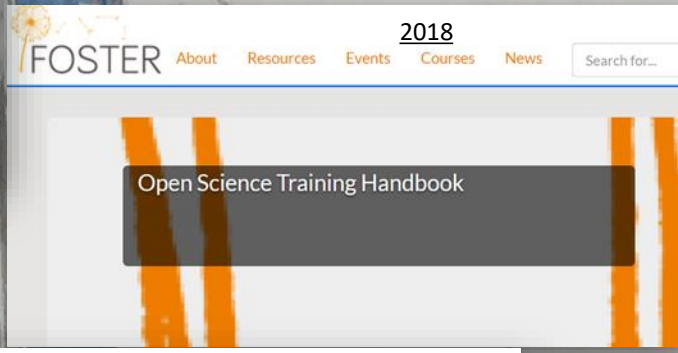
Bruce R. Caron

2020

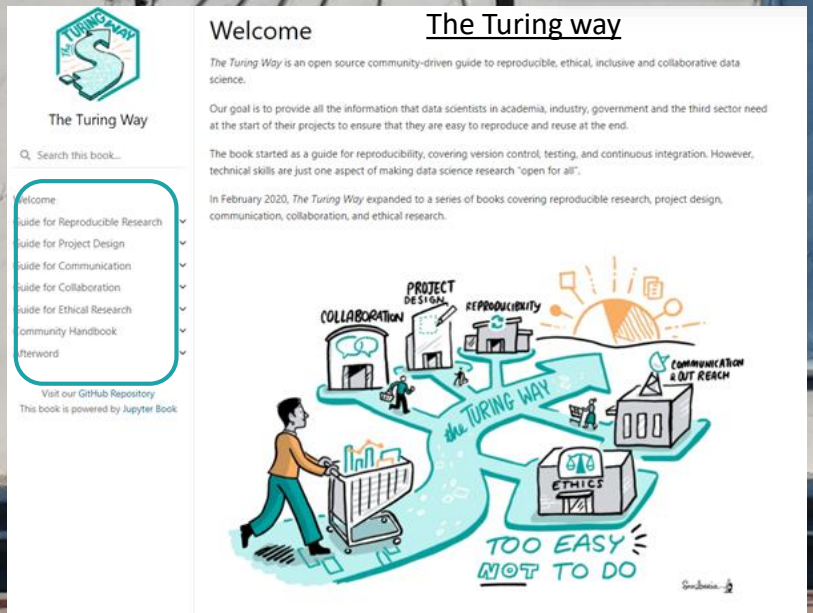
Open Science MOOC



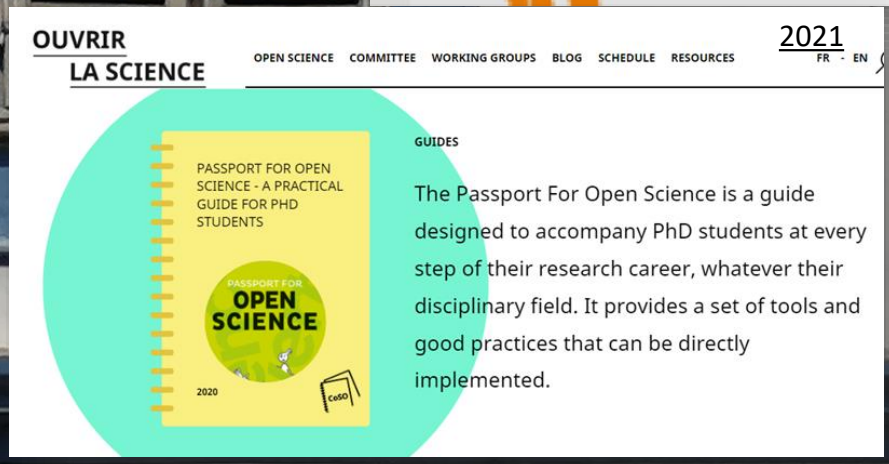
2018



The Turing way



2021



OS-CAM, the Career Assessme

MATRIX NOT METRICS

HANDBOOK ON
Research Assessment in the Social Sciences
Edited by
Tim C.E. Engels & Emanuel Kulczycki
EE Elgar

Research output
Research Process
Service & Leadership
Research Impact
Teaching and supervision
Professional Experience

2022

2017
Evaluation of Research Careers fully acknowledging Open Science Practices

CAREER DIVERSIFICATION
RESPECT OF INDIVIDUALS AND TEAM WORK
QUALITY
OPEN SCIENCE
LEADERSHIP

Room for everyone's talent
towards a new balance in the recognition and rewards of academics
2020

THE WORLD IS CHANGING, OUT THERE

START
- Not with what others' value (external drivers)
- Not with available data sources (the 'Streetlight Effect')

CONTEXT considerations
- WHO are you evaluating? (Entity size)
- WHY are you evaluating?
- Do you need to evaluate at all?

OPTIONS for ev
- Consider b
- Be careful
- Evaluate wi

YOU EVALUATE WHAT YOU VALUE

PROBE deeply
- WHO might your evaluation approach discriminate against?
- HOW might your evaluation approach be gamed?
- WHAT might the unintended consequences be?
- Does the cost outweigh the benefit?

EVALUATE your evaluation
- Did your evaluation achieve its aims?
- Was it formative as well as summative?

DORA
The Declaration | Signers | Case Studies | Resources | Blog

Reimagining academic assessr
stories of innovation and chan
Case studies of universities and national consortia highlight key elements of institutional change to improve academic career as

Tampere University
FINLAND
University College London
UNITED KIN
Univ
CHINA
Ghent
BELGIUM
Univ
NORWAY

HuMetricsHSS
HUMANE METRICS INITIATIVE
VALUES FRAMEWORK
Live your values. Transform the academy.

EQUITY
Accessibility | Equitable Access | Inclusivity | Public Good | Social Justice

OPENNESS
Accountability | Candor | Learning From Failure | Open Process | Open Source | Transparency

COLLEGIALITY
Ethical Imagination | Kindness | Generosity | Empathy | Self Care | Respect

SOUNDNESS
Knowledge Advancement | Creativity | Integrity | Intentionality | Originality | Boundary Pushing | Reproducibility

COMMUNITY
Attunement | Connection | Engagement | Holism | Leadership | Preservation

humetricshss.org

1 Start with what you value
2 Context considerations
3 Options for evaluating
4 Probe deeply
5 Evaluate

STEPS FOR REALISING THE VISION FOR FAIReR ASSESSMENTS 2021

1 MAKE IT MEANINGFUL | 2 MAKE IT POSSIBLE | 3 MAKE IT REWARDING

FAIReR ACADEMIC ASSESSMENTS

Recognise and value diversity and disciplinary differences of academic work

Diversity needs to be represented in information supporting assessment

Diversity of outputs, activities and missions need to be included among assessment criteria

ACKNOWLEDGE DIVERSITY

EXAMPLE RESEARCH DATA

Identify practices (e.g.):
- Sharing research data
- Creating FAIR data
- Using open data
- FAIR expertise

Develop eInfrastructures for:
- Publishing and sharing research data
- Integrating metadata and indicators for research data practices

Reward researchers for (e.g.):
- Sharing datasets
- FAIR datasets
- Data citations
- Data stewardship

TRIPLE: Team Spirit as the default approach to working in academia
2021

IMPACT
PROFESSIONAL PERFORMANCE
RESEARCH
EDUCATION
LEADERSHIP
TEAM

…chang

V.1.1 July 2021

Horizon Europe

Programme Guide

Finally, in **part A of their proposals**, proposers are asked to list up to five relevant publications, widely used datasets or other achievements of consortium members that they consider significant for the action proposed. Open access is expected for publications, in particular journal articles, while datasets are expected to be FAIR and 'as open as possible, as closed as necessary'. If publications are not open access, proposers are strongly encouraged to deposit them retroactively in repositories and provide open access to them when possible. The significance of publications will not be evaluated on the basis of the Journal Impact Factor of the venue they are published in, but on the basis of a qualitative assessment provided by the proposers for each publication.

HORIZON EUROPE DOES NOT CONSIDER IMPACT FACTOR

nature

June 2021

Explore content

DUTCH UNIVERSITIES ABANDON IMPACT FACTOR

nature > career news > article

CAREER NEWS | 25 June 2021

Impact factor abandoned by Dutch university in hiring and promotion decisions

Faculty and staff members at Utrecht University will be evaluated by their commitment to open science.

ERC ABANDONED IMPACT FACTOR

DORA

About DORA

The Declaration Signers Case Studies Resources Blog

July 2021

RESOURCE

European Research Council (ERC)

The number of peer reviewed publications and preprints that can be listed is limited to ten (five for Starting Grant applicants). While it is expected that the publications have a significant reach, applicants are explicitly asked not to include the Journal Impact Factor.

Reforming research assessment

ANVUR AND THE MINISTRY SIGNED THE EXPRESSION OF INTEREST

NEWS | 18 January 2022 | Brussels, Belgium | Research and Innovation

Process towards an agreement on reforming research assessment

EC process

The Commission has called for organisations to express their interest in being part of a coalition on reforming research assessment.

The coalition will bring together research funding organisations, research performing organisations, national/regional assessment authorities or agencies, associations of research funders, of research performers, of researchers, as well as, learned societies and other relevant organisations, all willing and committed to implement reforms to the current research assessment system.

Call for interest - Towards an agreement on reforming research assessment

Call for interest

Fields marked with * are mandatory.

Introduction

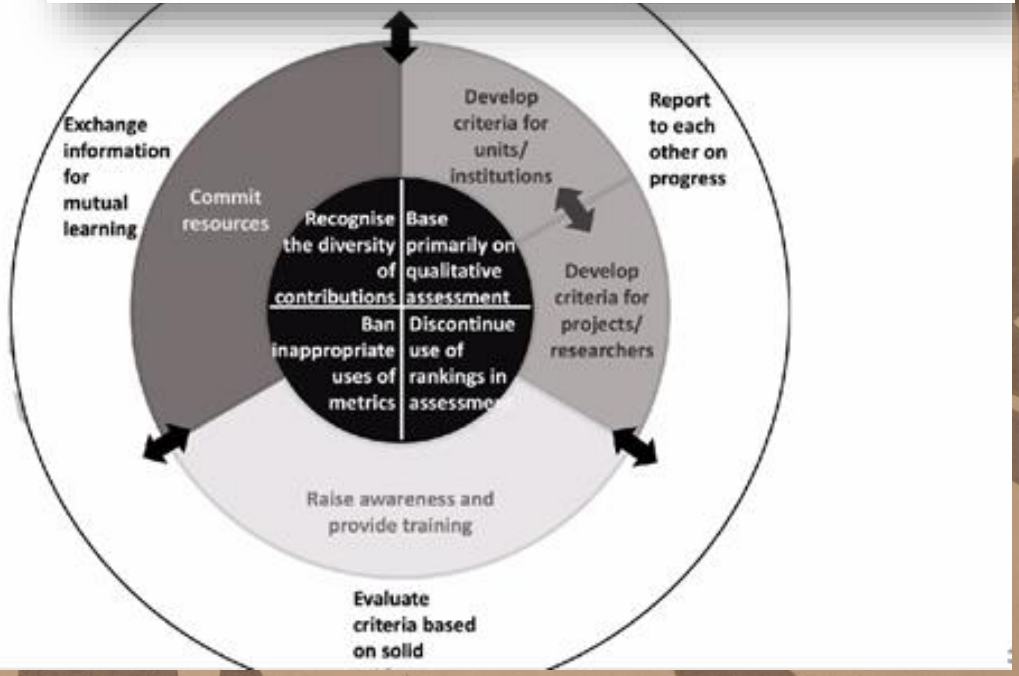
This call aims at gathering expressions of interest to become part of a coalition of organisations on reforming research assessment, and to be involved in the process of drafting an agreement. The coalition will bring together organisations funding research, research performing organisations, national/regional assessment authorities or agencies, as well as associations of the above organisations and learned societies, all willing and committed to reform the current research assessment system.

For more information about this initiative and the proposed approach, please consult the European Commission scoping report "Towards an agreement on reforming research assessment": https://data.europa.eu/doi/10.2777/707440

Organisations having expressed interest will be contacted in view of being involved in the agreement drafting process, discussions on governance and other preparatory activities.

WORKSHOP I: INITIATING THE PROCESS OF RESEARCH ASSE

Proposed commitments



THE EC INITIATIVE TOWARDS A REFORM OF RESEARCH ASSESSMENT IS GOING AT A SPEEDY PACE

- SEPT. 2022 SIGN THE AGREEMENT
- BY 2023 SHOW THE ROADMAP
- BY 5 YEARS SHOW THE RESULTS

…with new strategies to publish

my/our strategy:

My/my team's publishing goal is to establish priority on findings. That is why we intend to pub
possible in our workflow. We aim to use these platforms and venues to communicate and sha

is sheet can be used for discussing current ways of working and for discussing strategies, in groups as well as individual settings. Relevant options can vary for different projects yo
herent strategy options chosen in the various columns make sense and do not contradict, although you can have multiple goals and parallel ways of working. You can try the tool her
full interactive functionality, first download your own copy of the worksheet. Then start by ticking a goal, which will often trigger some suggestions in the other columns that you can
making selections your narrative will be built. The i's lead to general background information, u's to information in the Utrecht University context (when reusing outside Utrecht you ca
onal context). Note this tool should not be a straitjacket but rather facilitate discussion. Copy-paste and manually edit the narrative generated here. Read more on the ABOUT page.

Publication strategy: A preconsidered & coherent set of choices regarding the why, what, when, how and where of sharing/publishing research.
What are your or your team's priorities for the next project coming up? What role for open science practices in your publishing?

[WHY] As my/my team's publishing goal is to ...	[WHAT] ... we intend to publish these ...	[WHEN] ... at these moments ...	[HOW] ... while trying to ...	[WHERE] ... using these platforms/venues:
☑ establish priority on findings	☐ research applications/proposals	☐ upon creation (open drafting)	☐ use double blind peer review	☐ fully open access journals
☐ invite comments, feedback & scrutiny	☐ preregistrations	☑ as early as possible in our workflow	☐ use single blind peer review	☑ fully open access journals without APCs
☐ archive evidence	☐ registered reports	☐ also before review (e.g. as preprint)	☐ use open peer review (identities)	☐ open access books
☐ promote my (team's) visibility	☑ data	☐ after formal peer review	☑ allow open peer review reports	☑ institutional repositories
☐ create material to use in education	☐ data papers		☑ discuss author order with all authors	☐ subject repositories
☑ communicate with societal stakeholders	☐ code & software		☐ indicate contributor roles (CREDIT)	☐ general repositories like Zenodo
☐ meet formal funder requirements	☐ workflows and methods		☐ credit all contributors to the research	☑ our own project website
☑ foster careers of ECRs and temporary staff	☐ presentation slides		☑ add a plain language abstract	☐ journals with a high impact factor
☐ get new funding	☐ conference posters		☐ add a data availability statement	☐ journals reaching the intended audience
☐ have work formally peer reviewed	☑ articles/books reporting research results		☐ cite OA (versions of) literature	☐ learned society journals
☐ provide information researchers can build on	☐ negative/null results		☐ add multilingual abstracts	☐ journals of prestigious publishers
☐ provide information practioners etc. can build on	☑ replication studies		☐ contribute to closed peer review	☐ highly selective journals
☐ make scholarly communication more equitable	☐ review articles		☐ contribute to open peer review	☐ journals only checking methodological rigour
☑ make it easy for others to use the work	☐ systematic reviews		☐ contribute to open commenting	☐ journals with statistical review expertise
☑ help improve reproducibility of science	☐ meta-analyses		☐ improve versions using public comments	☐ journals with the largest readership
☐ contribute to knowledge curation	☐ popularising books		☐ add a visual abstract	☐ specialised topical journals
☐ reach the largest possible audience	☐ blogs etc. on project progress		☐ provide formal data/software citations	☐ broad multidisciplinary journals
☐ make it easy for others to assess the work	☑ blogs etc. aimed at discussion		☑ provide researcher identifiers (ORCIDs)	☐ journals explicitly aimed at interdisciplinarity
	☐ opinion pieces (e.g. in newspapers)		☑ attach a CC-BY or CC0 license	☐ data archives

Jeroen Bosman Feb.13 2022 ···
@jeroenbosman

Our new experimental tool helps rethink publishing strategies in an open science context. Based on your goals you can select what, when, how and where to publish. With suggestions & background links and an automatically generated

lishing-str...

As my/my team's publishing goal is to ...	... we intend to publish these ...	... at these moments ...
☑ establish priority on findings i	☑ research applications/proposals	☐ upon creation (open drafting)
☐ invite comments, feedback & scrutiny	☐ preregistrations i u	☑ as early as possible in our workflow
☐ archive evidence	☐ registered reports i u	☐ also before review (e.g. as preprint)
☐ promote my (team's) visibility u	☑ data i u	☐ after formal peer review i
☐ create material to use in education	☐ data papers i	
☐ communicate with societal stakeholders	☐ code & software i u	
☐ meet formal funder requirements	☐ workflows and methods	
☐ foster careers of ECRs and temporary staff	☐ presentation slides	
☐ get new funding	☐ conference posters i	
☐ have work formally peer reviewed i	☐ articles/books reporting research results i	
☐ provide information researchers can build on	☐ negative/null results i	
☐ provide information practioners etc. can build on	☐ replication studies	

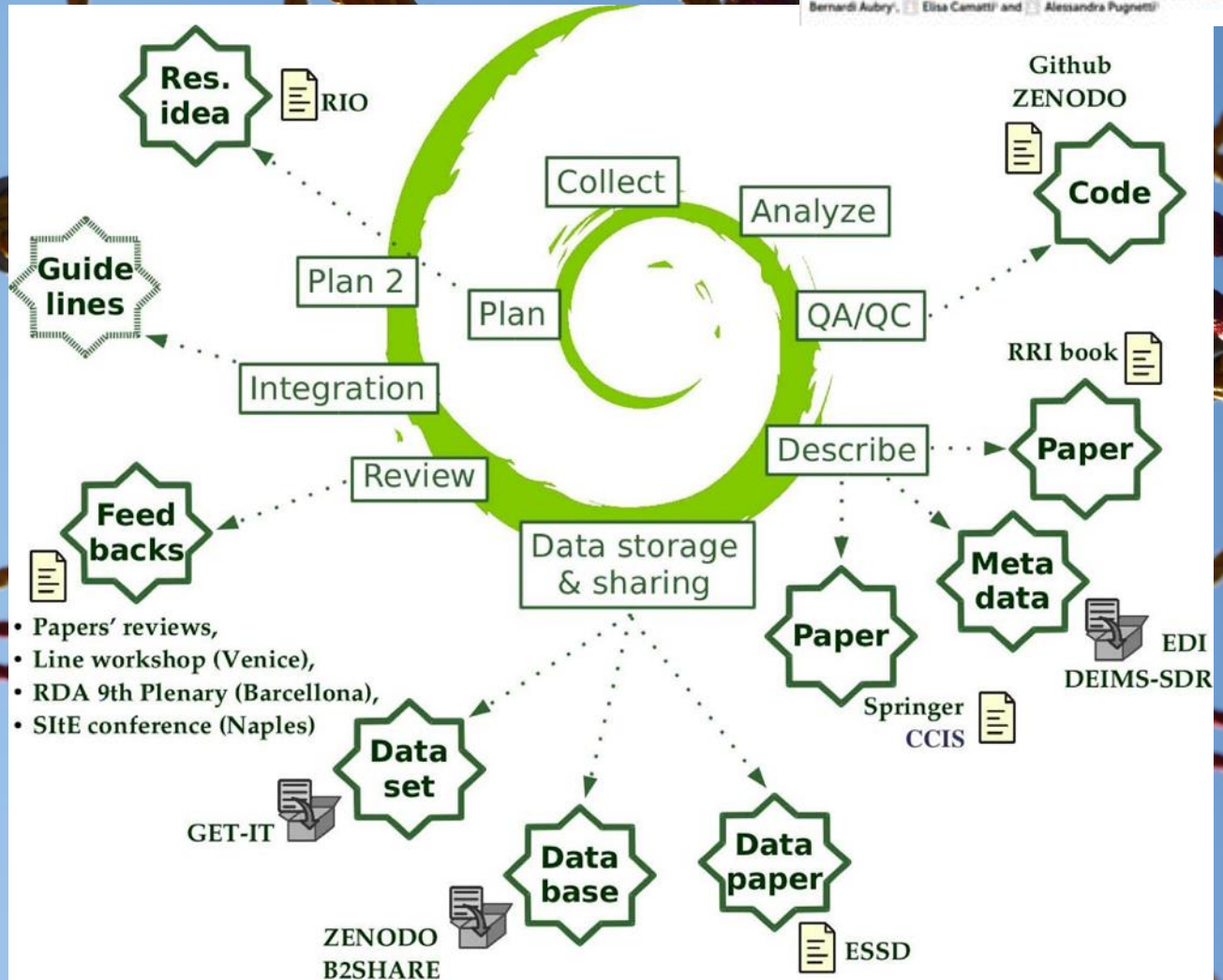
BUILD YOUR PUBLISHING STRATEGY [USEFUL ALSO FOR HORIZION EUROPE PROPOSALS]

[Open Science in pratice]

2021

Opening Marine Long-Term Ecological Science: Lesson Learned From the LTER-Italy Site Northern Adriatic Sea

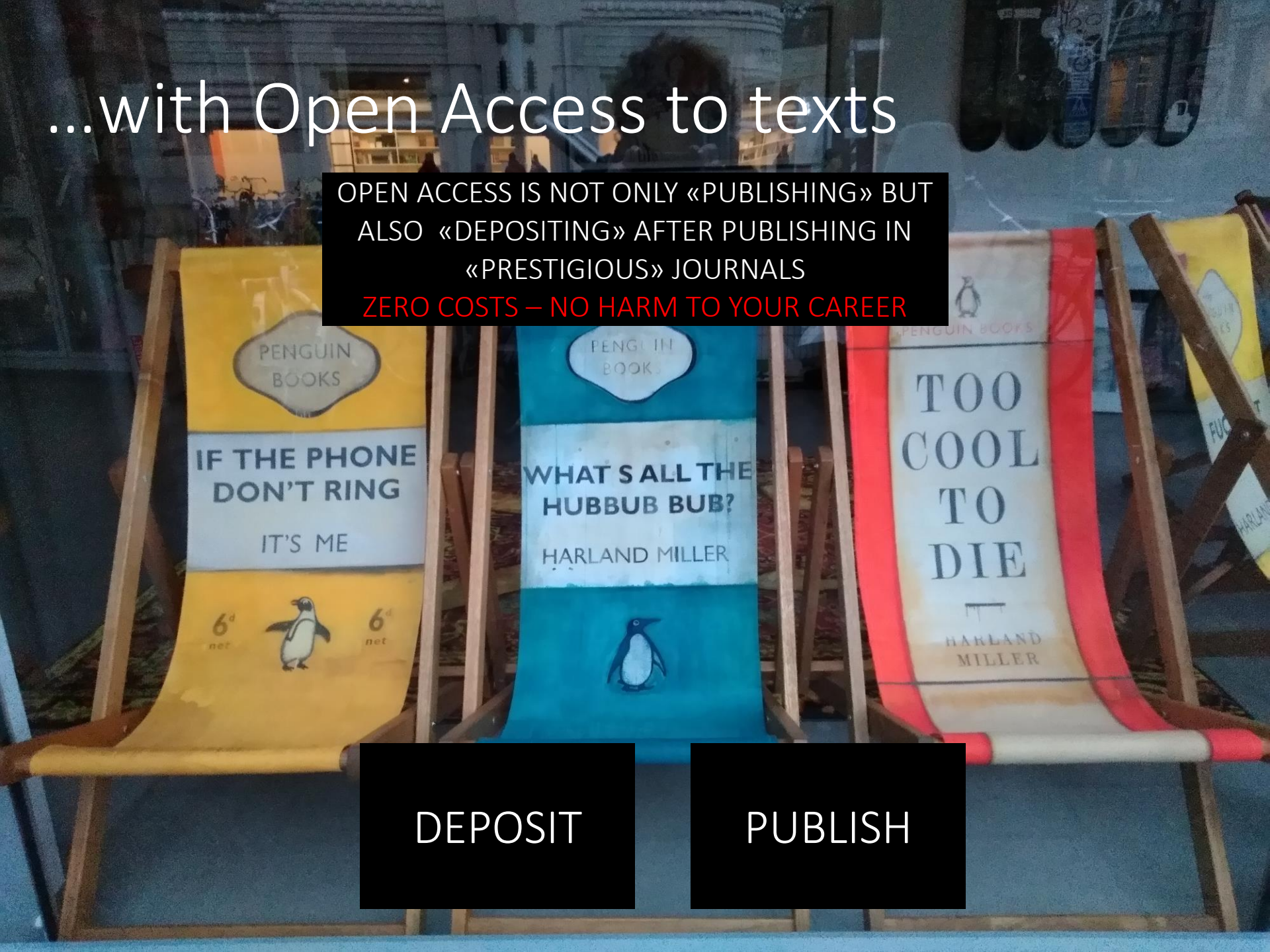
Annalisa Minelli[1], Alessandro Sarretta[1], Alessandro Oggioni[2], Caterina Bergami[1], Mauro Bastianini[1], Fabrizio Bernardi Aubry[1], Elisa Camatti[1] and Alessandra Pugnetti[1]



…with Open Access to texts

OPEN ACCESS IS NOT ONLY «PUBLISHING» BUT ALSO «DEPOSITING» AFTER PUBLISHING IN «PRESTIGIOUS» JOURNALS

ZERO COSTS – NO HARM TO YOUR CAREER



DEPOSIT

PUBLISH

Green and Gold Open Access

AUTHORS PUBLISH IN AN OPEN ACCESS JOURNAL
29% ASK FOR APCs, ARTICLE PROCESSING CHARGES

- IMMEDIATE, ZERO COSTS
- CHECK THE COPYRIGHT POLICY ON SHERPA ROMEO
- YOU KEEP PUBLISHING ON THE «PRESTIGIUOS» JOURNALS BUT YOU MAKE YOUR PAPER FREE

AUTHOR SELF-ARCHIVES
IN AN OPEN ACCESS REPOSITORY
THE ALLOWED VERSION OF THE PAPER ,
WHEREVER IT WAS PUBLISHED,
ACCORDING TO PUBLISHERS' COPYRIGHT POLICIES

Diamond C

DIAMOND=NOBODY PAYS

duction

This Action Plan provides a set of priority actions to further develop and expand a sustainable, community-driven Diamond scholarly communication ecosystem. It aims to bring together Diamond Open Access journals and platforms around shared principles, guidelines, and quality standards respecting the cultural, multilingual and disciplinary diversity that constitute the strength of the sector. Researchers, editors, and research institutions will benefit from this Action Plan.

1. Efficiency

Diamond Open Access currently represents an archipelago of rel
journals and platforms. They would benefit from sharing common
action plan proposes to undertake the following actions to incr
and economies of scale:

- Flexibly align quality standards, create sustainability, and enha
stakeholders by promoting the sharing of infrastructures, stan
practices, and funding streams while respecting cultural d
disciplinary requirements.
- Make technical services and operations more accessible, inte
streamlined for Diamond journals and platforms. Particular a
paid to the alignment and interoperability of submission sy
platforms, and metadata.
- Build synergies between Diamond journals and platforms in the same discipline, geographical location, or language via a network of existing organisations, groups, and societies to provide better service t
and readers in general.

2. Quality standards

Diamond Open Access journals and platforms have different practi
quality standards rooted in historical, cultural, and disciplinary dive
and flexibly align the quality profile of the ecosystem, this action p
to undertake the following actions:

- Flexibly align existing standards and best practises for OA publi
developed by various organisations (including OASPA, DOAJ, CO
and EASE). This will be done in co-creation with the communities
Diamond journals into an international framework for Diamor

3. Capacity buildi

Diamond Open Access journals and platforms differ in
management skills. To build capacity, this action pr
undertake the following actions:

- Build capacity through the creation of a toolsuite
publishing. This includes training materials for Diam
and service providers, quality standards for journa
policies and guidelines that will be made available in
- Engage all stakeholders in Diamond Open Access – r
university libraries, university presses, faculties,
institutes, scholarly societies, ministries – to make th
in Diamond Open Access.
- Reach out to scholars with a targeted communication
Open Access publishing.
- Create a dedicated nonprofit Capacity Centre for Diamond Publishing (CCDP) within 30 months that provides technical, financial, and training services and resources at different levels to eligible journals and editors. Governance of the CCDP will be transparent and representative of its stakeholder communities, with proper consideration for the decentralised and diverse nature of the Diamond ecosystem.

4. Sustainability

Although Diamond Open Access journals and platforms are scholar-owned and -led, their legal status and governance is often unspecified. Moreover, their revenue streams often depend on a patchwork of in-kind contributions, funding by various types of institutions, and temporary grant money. To improve the sustainability of the Diamond Open Access publishing ecosystem, this action plan proposes to undertake the following actions:

ACTION PLAN FOR
DIAMOND OPEN ACCESS
MARCH 2022

Mar 2022

"By strengthening the Diamond Open Access sector we are contributing to support a scholarly publishing model that is equitable, community-driven, and academic-led and -owned."

Lidia Borrell-Damián
Secretary General of Science Europe

BUILD A SUSTAINABLE ECOSYSTEM RESPECTING DIVERSITY

THOUGHT PIECES

Words matter

Jan 18 2022

GINNY BARBOUR

January 18, 2022 • 2 min read • readability score 34.2 •
https://do[illegible].org/1[illegible].54[illegible]0[illegible]/r[illegible]zt[illegible]0n [illegible]8[illegible]a[illegible]b5-68ncg

If anyone thought that 2022 was going to be a time of peace and harmony in open access, some of the last salvos of 2021 will surely have put that to rest. 2021 was the year in which Plan S requirements kicked in, when transformative agreements were negotiated more widely than ever before and when publishers really showed their colours in the way they moderated their actions and, crucially, their language to describe and shape the open access world they would like to see. Undoubtedly, the arcane language that is all too common in publishing nowadays does not help, not least the colours that have unfortunately come to be associated with various types of open access.

This is not new, of course. In past years publishers used their words to shape public perceptions of open access to attempt to undermine its credibility — equating open access with low quality, non peer-reviewed work, and attempting to shore up the myth that only expensive commercial publishers could be trusted with the academic literature.

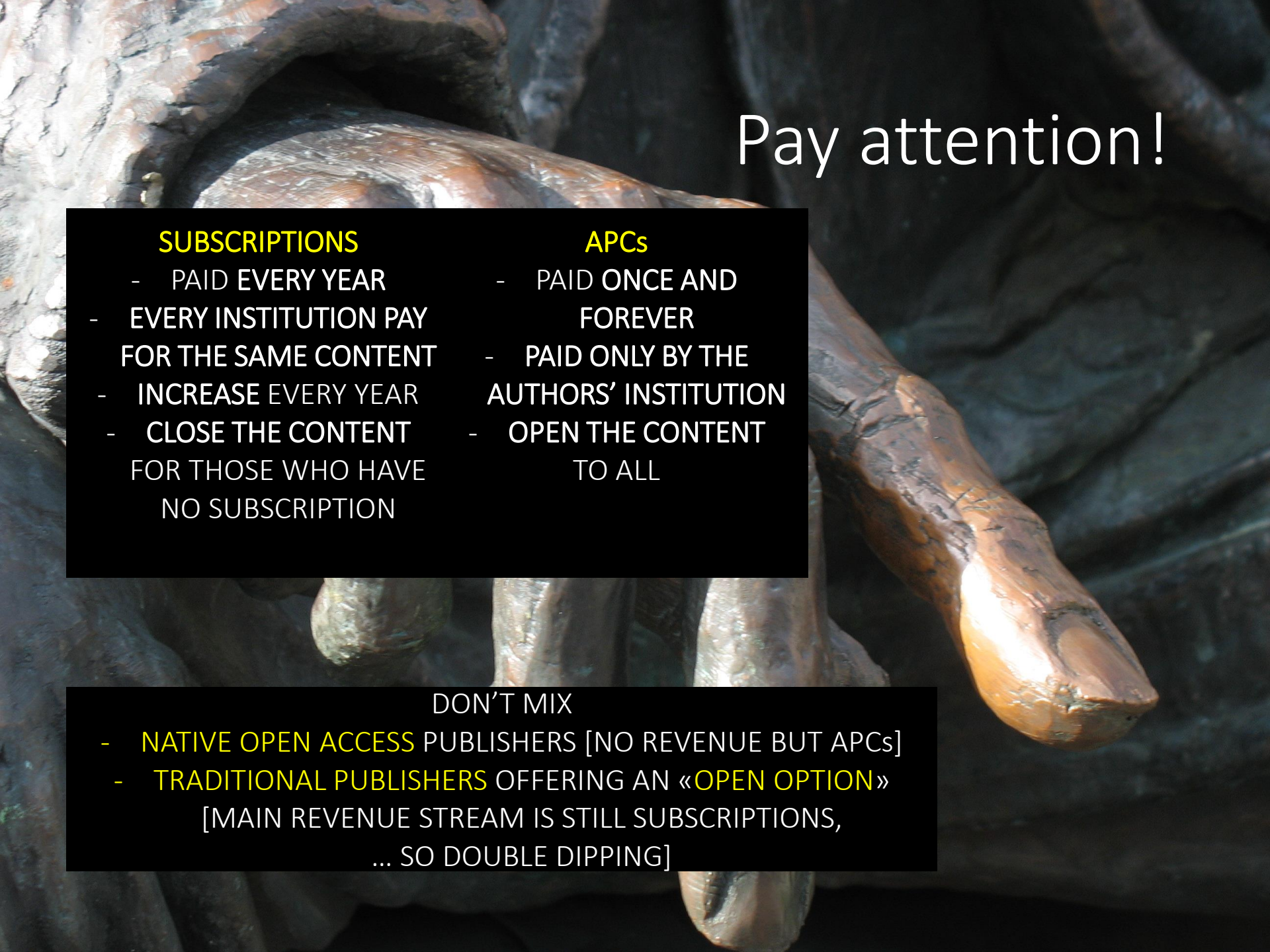
However, as open access to research publications continued to advance, supported by funder policies and buoyed up by innovation from small publishers within the open access sector, the larger commercial publishers have turned their attention towards ensuring that they shape the growing open access market to support their business models. Some of their action has been in buying up competitors and then folding them in or shutting them down. But this won't work for every competitor and this is where words and their meanings come in.

So what should we be looking out as we negotiate the word salad of publishing nowadays? First, some of the basics: use descriptive exact terms, not terms that only have meaning by association. For example:

say: "fully open access" (not "gold") when referring to a journal where all of the content is open access

say: "repository-based" (not "green") when referring to open access in an institution or other open repository

DEFINTIONS USED TO UNDERMINE CREDIBILITY «FULLY OPEN ACCESS» «REPOSITORY BASED». DO NOT USE «GOLD» FOR «PAID» – THIS IS WHAT THEY WANT



Pay attention!

SUBSCRIPTIONS

- PAID **EVERY YEAR**
- **EVERY INSTITUTION PAY FOR THE SAME CONTENT**
- **INCREASE** EVERY YEAR
- **CLOSE THE CONTENT** FOR THOSE WHO HAVE NO SUBSCRIPTION

APCs

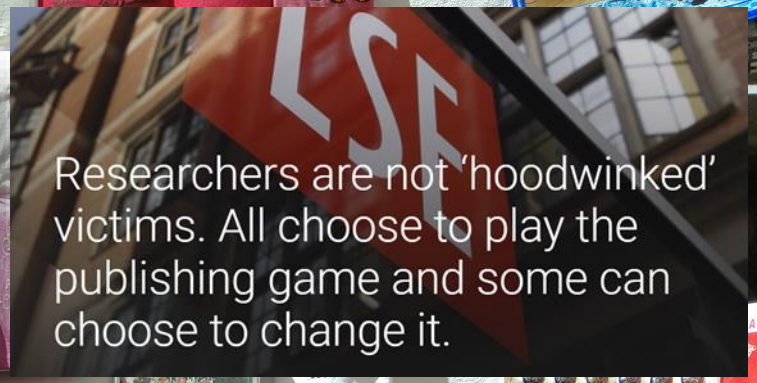
- PAID **ONCE AND FOREVER**
- **PAID ONLY BY THE AUTHORS' INSTITUTION**
- **OPEN THE CONTENT** TO ALL

DON'T MIX

- NATIVE OPEN ACCESS PUBLISHERS [NO REVENUE BUT APCs]
- TRADITIONAL PUBLISHERS OFFERING AN «OPEN OPTION»

[MAIN REVENUE STREAM IS STILL SUBSCRIPTIONS,
… SO DOUBLE DIPPING]

What is a line on a CV worth? Does it make that grant a little more likely? Does it get you past the magic threshold to get on the applicant short list? Is there a shortcut? Researchers are experts at behaviour optimisation and seeing how systems work. I simply don't buy the "hapless victim" stance and a lot of the hand wringing is disingenuous at best. On a harsh economic analysis this is perfectly rational behaviour. Smart people doing dumb things for smart reasons.



2015

In both cases the researcher is presented as a hapless victim, "hoodwinked" as the headline states into parting with money (either directly in the form of APCs or indirect through their libraries). But really? I've no intent to excuse the behaviour of these publishers, but they are simply serving a demand. A demand created by researchers under immense pressure to demonstrate their productivity. Researchers who know how to play the game.

RESEARCHERS ARE NOT VICTIMS
IT'S NOT PEOPLE GAMING THE SYSTEM. THE SYSTEM IS A GAME. TIME TO SAY GAME OVER

Scott Edmunds perhaps summed it up best at the FORCE2015 meeting in Oxford:

> *It is no longer the case that people are gaming the system, the system has become a game. It's time to say Game Over.*

If we cast ourselves as mere victims we'll never change the rules. The whole narrati is an excuse for doing nothing.

At times it is tempting to suggest that it is not publishers that are predatory, but researchers. But of course the truth is that we are all complicit, from publishers and authors producing content that no-one reads, through to administrators counting things that they know don't matter, and funders and governments pointing to productivity, not to mention secondary publishers increasing the scope of they indices knowing that this leads to ever increasing inflation of the metrics that makes the whole system go round.

We are all complicit. Everyone is playing the game, but that doesn't mean that all the players have the same freedom to change it. Commercial suppliers are only responding to demand. Governments and funders can only respond to the quality assessments of the research community. It is only the research community itself that can change the rules. And only a subset of that.

Predatory?

ONLY
2%-5%

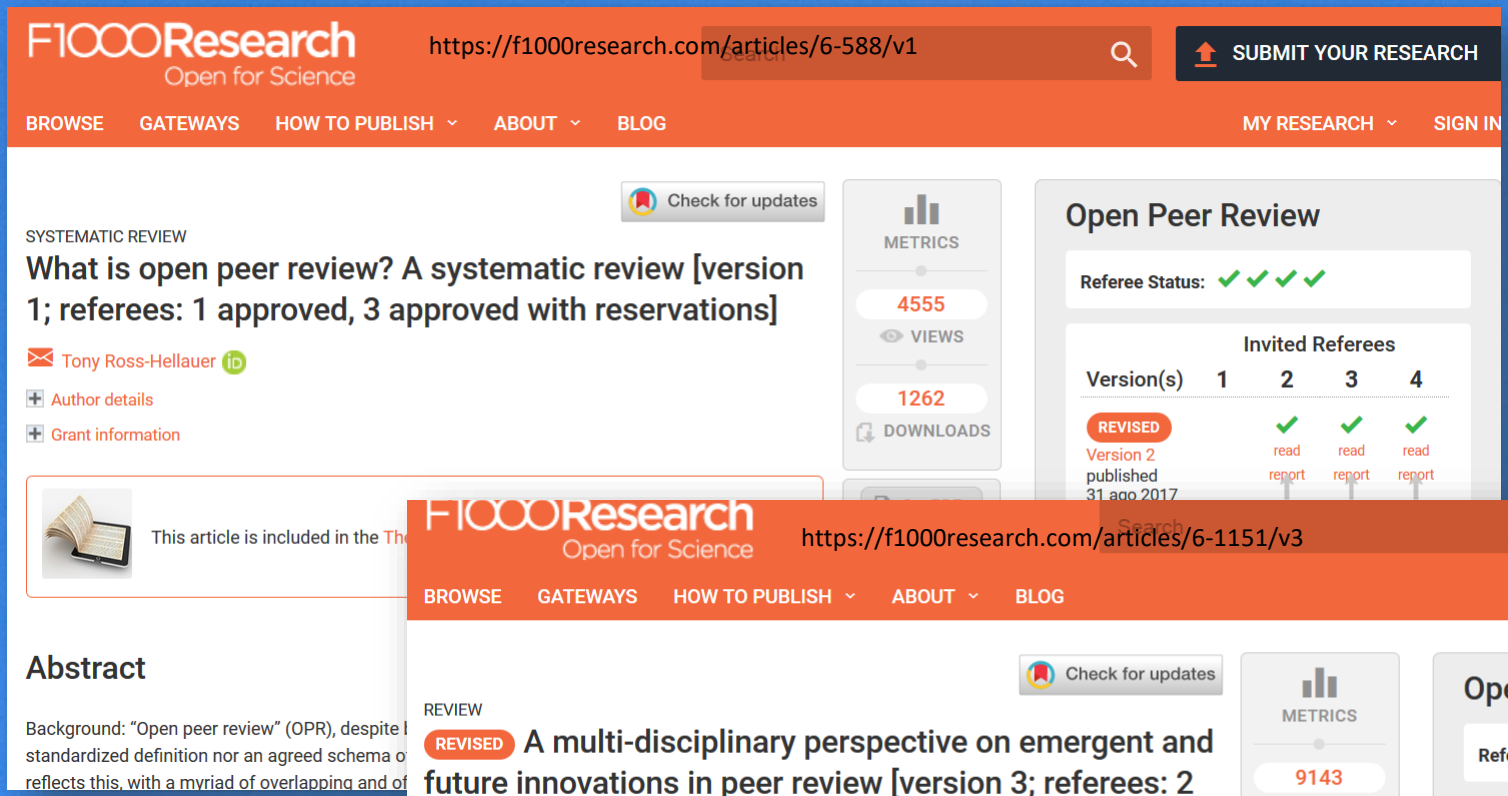
QUALITY DEPENDS ON
EDITORIAL PROCESS
NOT BUSINESS MODEL

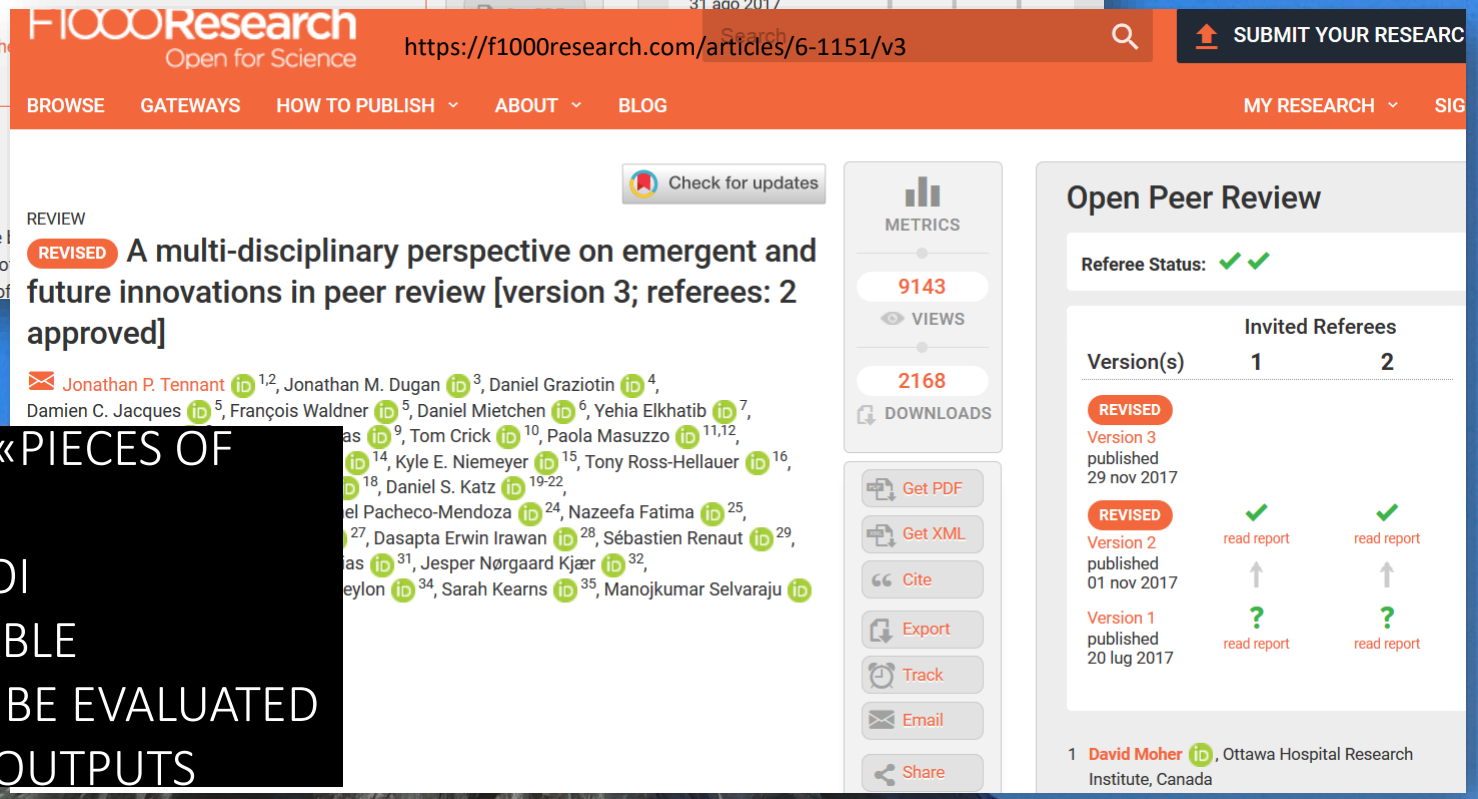
(Springer >400 retractions for false review,
Elsevier 7 journals retracted, paid by Big Pharma)

IF REVIEWS
WERE PUBLIC…

…AND IF YOU WEREN'T UNDER THE PUBLISH OR PERISH PRESSURE, WOULDN'T YOU BE MORE CAREFUL IN CHOOSING YOUR PUBLICATION VENUE?

… reviewing openly





- REVIEWS ARE «PIECES OF KNOWLEDGE»
- THEY GET A DOI
- THEY ARE CITABLE
- THEY SHOULD BE EVALUATED AS RESEARCH OUTPUTS

…non only texts

https://github.com/

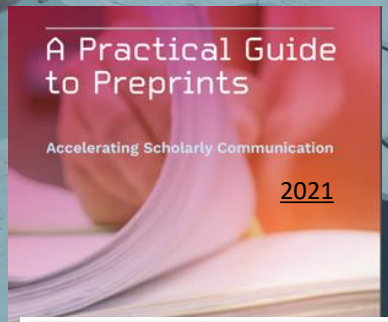
https://zenodo.org/

https://www.protocols.io /

YOU CAN DEPOSIT DATA, SOFTWARE,
IMAGES, POSTER,
PROTOCOLS, WORKFLOWS…
THEY BECOME KNOWLEDGE «BLOCKS»
TO BE REUSED

… not only articles

PREPRINTS



May 2017

PLOS COMPUTATIONAL BIOLOGY

Browse | Publish | About | Search

OPEN ACCESS

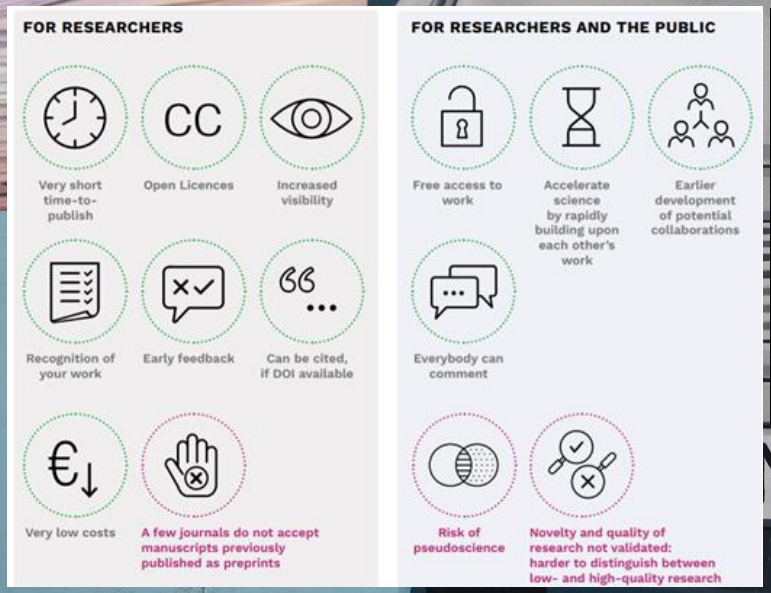
EDITORIAL

Ten simple rules to consider regarding preprint submission

Philip E. Bourne, Jessica K. Polka, Ronald D. Vale, Robert Kiley

Published: May 4, 2017 • https://doi.org/10.1371/journal.pcbi.1005473

92 Save | 4 Citation | 20,822 View | 217 Share



- IMMEDIATE PUBLICATION
- SCIENTIFIC PRIORITY
- NO POST SUBMISSION «BLACK HOLE»
- FOCUS ON THE CONTENT (AND NOT ON THE BOX)

Dec.14, 2020

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

CRUCIAL DURING PANDEMICS

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

…no more

RESEARCH EQUALS…
IF YOU PUBLISH OPEN (CCBY) IS FOR FREE
IF YOU WANT TO KEEP IT CLOSE, YOU PAY

ResearchEquals

Log in | Create account

Step by step publishing of your research

A new publishing format: Research modules.

Get started | Browse modules

Zero cost

We ♡ open access, so we made it free.

- ✓ CC0 Public Domain Dedication
- ✓ CC BY 4.0

POLICY

WHEN PRIVACY-BOUND RESEARCH PAYS FOR OPEN SCIENCE 2016

27 APRIL, 2016 | EUROSCIENTIST | 1 COMMENT

A new open science business model charges those who want to keep information private to subsidise those who share it

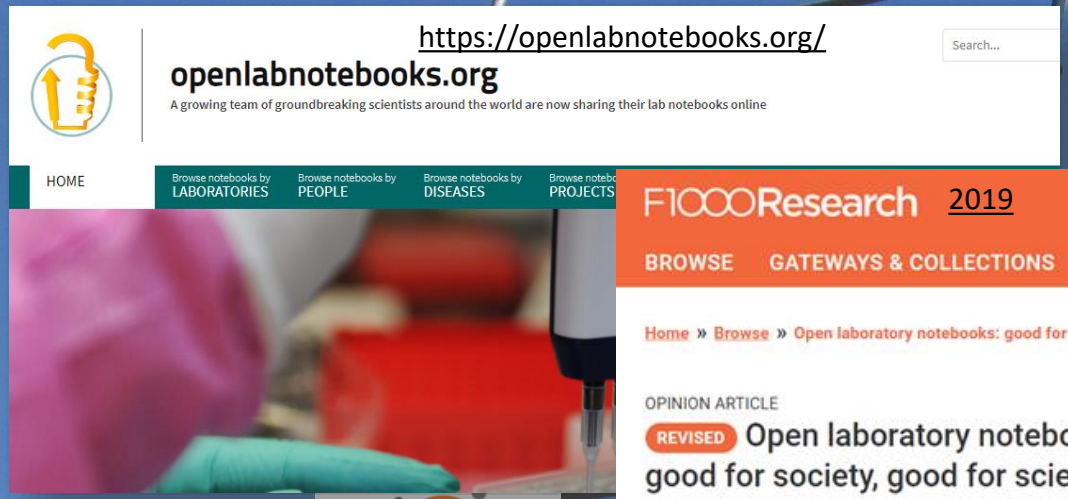
Pay to close

Need more restrictive licenses?

- € 149.99 - CC BY-SA 4.0
- € 194.99 - CC BY-NC 4.0
- € 249.99 - CC BY-ND 4.0
- € 329.99 - CC BY-NC-SA 4.0
- € 429.99 - CC BY-NC-ND 4.0
- € 549.99 - All rights reserved

BAREND MONS 2016:
CLOSED SCIENCE ALSO PAYS FOR OPENNESS

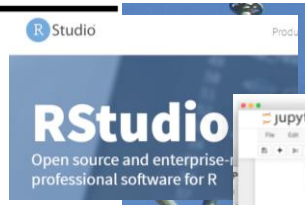
https://openlabnotebooks.org/

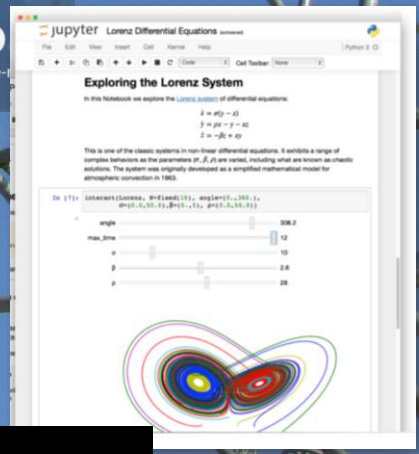


What is an Open Notebook?

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.





OPEN LAB NOTEBOOK CONTAIN EVERYTHING: TEXTS, DATA, EXECUTABLE CODE…DO WE REALLY STILL NEED JOURNALS?

Living documer fossils

The big idea: should we get rid of the scientific paper?

Apr. 11, 2022

As a format it's slow, encourages hype, and is difficult to correct. A radical overhaul of publishing could make science better

Consider the messy reality of scientific research. Studies almost always throw up weird, unexpected numbers that complicate any simple interpretation. But a traditional paper - word count and all - pretty well forces you to dumb things down. If what you're working towards is a big, milestone goal of a published paper, the temptation is ever-present to file away a few of the jagged edges of your results, to help "tell a better story". Many scientists admit, in surveys, to doing just that - making their results into unambiguous, attractive-looking papers, but distorting the science along the way.

"Some fields of science are already using online notebooks instead of journals – living documents instead of living fossils

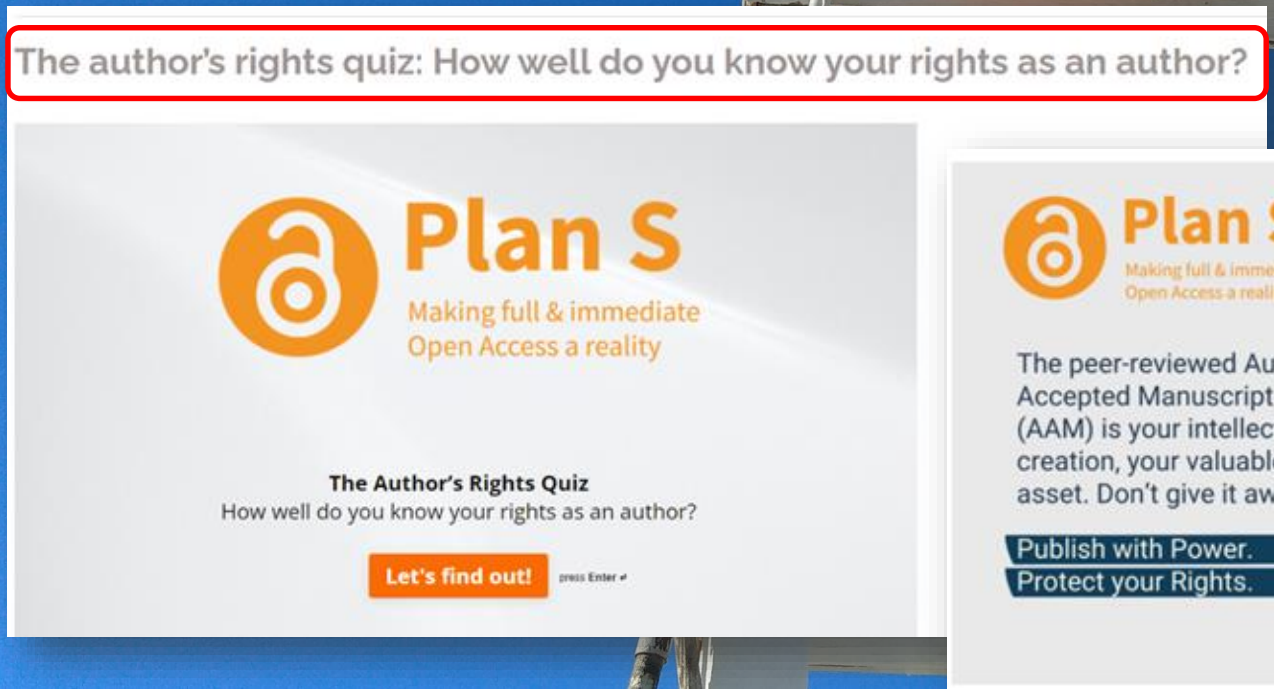
And consider corrections. We know that scientific papers regularly contain errors. One algorithm that ran through thousands of psychology papers found that, at worst, more than 50% had one specific statistical error, and more than 15% had an error serious enough to overturn the results. With papers, correcting this kind of mistake is a slog: you have to write in to the journal, get the attention of the busy editor, and get them to issue a new, short paper that formally details the correction. Many scientists who request corrections find themselves stonewalled or otherwise ignored by journals. Imagine the number of errors that litter the scientific literature that haven't been corrected because to do so is just too much *hassle*.

OLD FASHIONED, BIASED, NOT EFFECTIVE… LIVING FOSSILS. GET RID OF JOURNALS, USE NOTEBOOKS INSTEAD

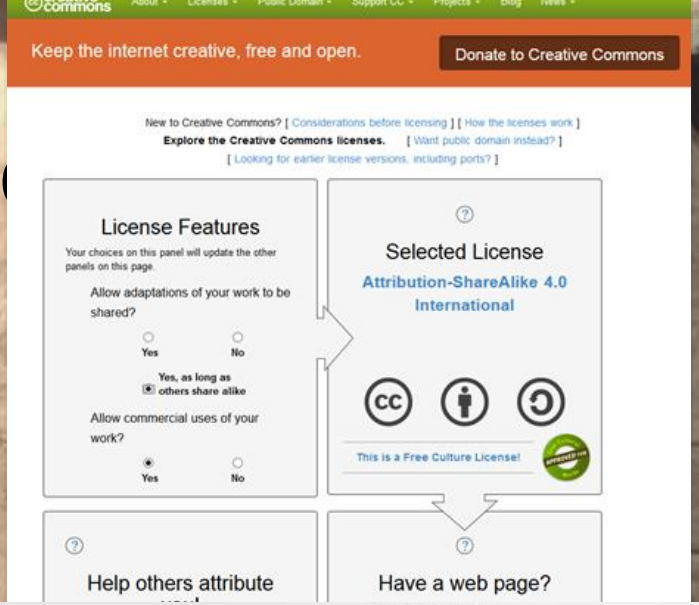
We've made astonishing progress in so many areas of science, and yet we're still stuck with the old, flawed model of publishing research. Indeed, even the name "paper" harkens back to a bygone age. Some fields of science are already moving in the direction I've described here, using online notebooks instead of journals - living documents instead of living fossils. It's time for the rest of science to follow suit.

… being aware of your rights

YOUR INTELLECTUAL PRODUCTION IS YOURS. DON'T GIVE IT AWAY!!!



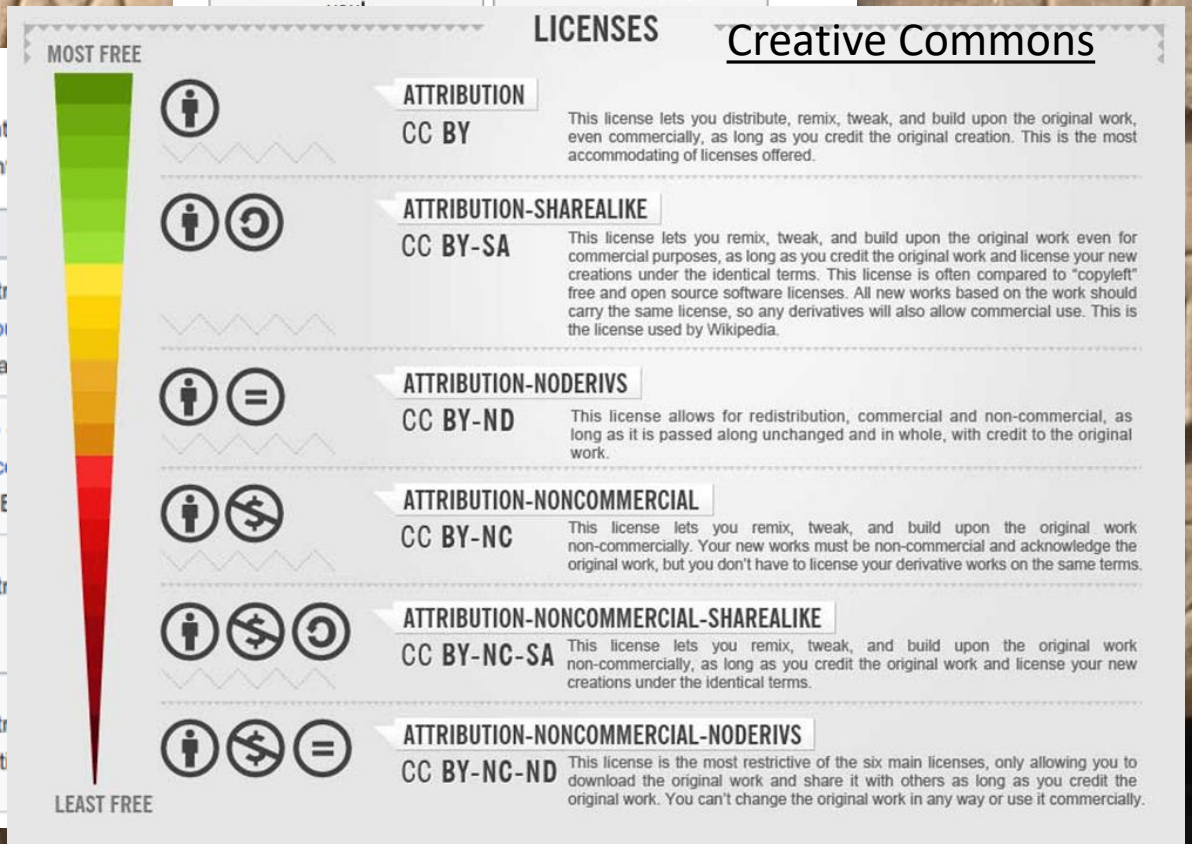
Creative Comm



Four rights [edit]

The CC licenses all grant "baseline rights", such as the right
addition, different versions of license prescribe different righ

Icon	Right	
	Attribution (BY)	Licensees may copy, distr licensor the credits (attrib attribution to the creator a
	Share-alike (SA)	Licensees may distribute original work. (See also c license clauses, e.g. CC B
	Non-commercial (NC)	Licensees may copy, distr commercial purposes.
	No derivative works (ND)	Licensees may copy, distr Since version 4.0, derivat



...with a bit of co-creatio

2021

ORION
open science

ORION INSPIRING STORIES

Ideas & examples

Co-creation menu

What is Co-creation?

Co-creation has been defined as **"purposeful action of associating with strategic customers, partners or employees to ideate, problem solve, improve performance, or create a new product, service or business"**. In essence, co-creation experiences are a way in which to connect multiple stakeholders, bringing them together to discover their interests and values and using these opportunities to discuss, develop and implement projects or ideas to achieve new, inclusive, forward-thinking research strategies. As a result, co-creation experiences allow high-quality interactions and unique experiences, with those involved becoming connected, informed and empowered.

Co-creation experiences seek to engage multiple stakeholders at all points of the research lifecycle, from conception of a novel research project, through funding selection and resourcing, to dissemination of research findings and use of those findings within society, which in turn informs future funding calls. In this way, the hopes, concerns and aspirations of the end users of research, the public, are integrated from the very beginning of the process right through to the end. This concept maps well with the idea of making science truly open, transparent and responsive to societal needs, a new approach of the European Research Areaknown as Open Science.

Rathenau Instituut 2022

Themes ▾ Dossiers ▾ Science in figures About us ▾ Contact ▾ NL \ EN

REPORT INCLUSIVE SCIENCE 23 FEBRUARY 2022

Moving forward together with open science

Towards meaningful public engagement with research

… with FAIR data…

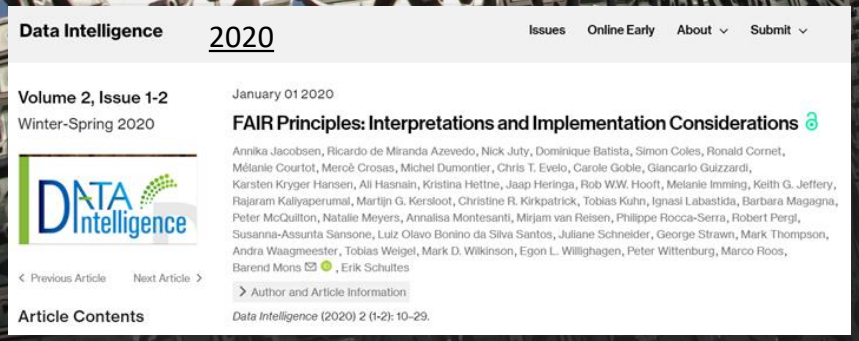
F METADATA, PERSISTENT IDENTIFIERS…

A TRUSTED REPOSITORIES, FORMATS

I ONTOLOGIES, STANDARDS

R LICENSES AND DOCUMENTATION

TO KNOW MORE


Data Intelligence 2020

Issues Online Early About Submit

Volume 2, Issue 1-2
Winter-Spring 2020

January 01 2020

FAIR Principles: Interpretations and Implementation Considerations

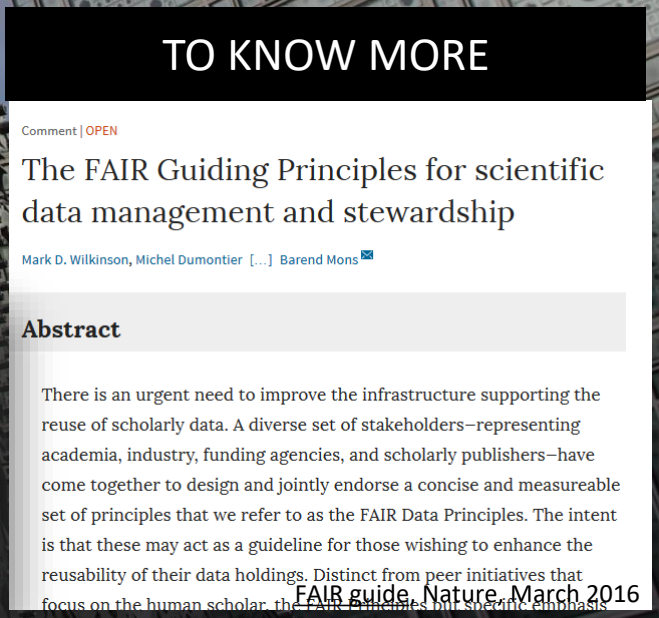
Annika Jacobsen, Ricardo de Miranda Azevedo, Nick Juty, Dominique Batista, Simon Coles, Ronald Cornet, Mélanie Courtot, Mercè Crosas, Michel Dumontier, Chris T. Evelo, Carole Goble, Giancarlo Guizzardi, Karsten Kryger Hansen, Ali Hasnain, Kristina Hettne, Jaap Heringa, Rob W.W. Hooft, Melanie Imming, Keith G. Jeffery, Rajaram Kaliyaperumal, Martijn G. Kersloot, Christine R. Kirkpatrick, Tobias Kuhn, Ignasi Labastida, Barbara Magagna, Peter McQuilton, Natalie Meyers, Annalisa Montesanti, Mirjam van Reisen, Philippe Rocca-Serra, Robert Pergl, Susanna-Assunta Sansone, Luiz Olavo Bonino da Silva Santos, Juliane Schneider, George Strawn, Mark Thompson, Andra Waagmeester, Tobias Weigel, Mark D. Wilkinson, Egon L. Willighagen, Peter Wittenburg, Marco Roos, Barend Mons, Erik Schultes

Previous Article Next Article

Author and Article Information

Article Contents

Data Intelligence (2020) 2 (1-2): 10–29.


Comment | OPEN

The FAIR Guiding Principles for scientific data management and stewardship

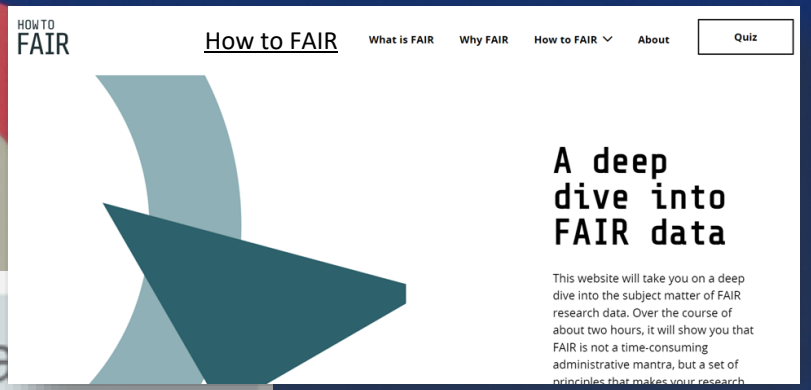
Mark D. Wilkinson, Michel Dumontier […] Barend Mons

Abstract

There is an urgent need to improve the infrastructure supporting the reuse of scholarly data. A diverse set of stakeholders—representing academia, industry, funding agencies, and scholarly publishers—have come together to design and jointly endorse a concise and measureable set of principles that we refer to as the FAIR Data Principles. The intent is that these may act as a guideline for those wishing to enhance the reusability of their data holdings. Distinct from peer initiatives that focus on the human scholar, the FAIR Principles put specific emphasis

FAIR guide, Nature, March 2016

FAIR principles



FAIR Principles

Compli

Findability

Resource and its metadata are easy to find by both, humans and computer systems. Basic machine readable descriptive metadata allows the discovery of interesting data sets and services.

- **F1.** Resource is uploaded to a public repository.
- **F2.** Metadata are assigned a globally unique and persistent identifier.

Accessibility

Resource and metadata are stored for the long term such that they can be easily accessed and downloaded or locally used by humans and ideally also machines using standard communication protocols.

- **A1.** Resource is accessible for download or manipulation by humans and is ideally also machine readable.
- **A2.** Publications and data repositories have contingency plans to assure that metadata remain accessible, even when the resource or the repository are no longer available.

Interoperability

Metadata should be ready to be exchanged, interpreted and combined in a (semi)automated way with other data sets by humans as well as computer systems.

- **I1.** Resource is uploaded to a repository that is interoperable with other platforms.
- **I2.** Repository meta- data schema maps to or implements the CG Core metadata schema.
- **I3.** Metadata use standard vocabularies and/or ontologies.

Reusability

Data and metadata are sufficiently well-described to allow data to be reused in future research, allowing for integration with other compatible data sources. Proper citation must be facilitated, and the conditions under which the data can be used should be clear to machines and humans.

- **R1.** Metadata are released with a clear and accessible usage license.
- **R2.** Metadata about data and datasets are richly described with a plurality of accurate and relevant attributes.

FAIR principles

«ACCESSIBLE» DOES NOT MEAN «OPEN».

DATA CAN BE CLOSED, PROVIDED YOU – AND MACHINES - KNOW WHERE TO FIND THEM AND UNDER WHAT ACCESS CONDITIONS

FAIR research software

The FAIR4RS Principles are:

F: Software, and its associated metadata, is easy for both humans and machines to find.
F1. Software is assigned a globally unique and persistent identifier. • F1.1. Components of the software representing levels of granularity are assigned distinct identifiers. • F1.2. Different versions of the software are assigned distinct identifiers. F2. Software is described with rich metadata. F3. Metadata clearly and explicitly include the identifier of the software they describe. F4. Metadata are FAIR, searchable and indexable.
A: Software, and its metadata, is retrievable via standardized protocols.
A1. Software is retrievable by its identifier using a standardized communications protocol. • A1.1. The protocol is open, free, and universally implementable. • A1.2. The protocol allows for an authentication and authorization procedure, where necessary. A2. Metadata are accessible, even when the software is no longer available.
I: Software interoperates with other software by exchanging data and/or metadata, and/or through interaction via application programming interfaces (APIs), described through standards.
I1. Software reads, writes and exchanges data in a way that meets domain-relevant community standards. I2. Software includes qualified references to other objects.
R: Software is both usable (can be executed) and reusable (can be understood, modified, built upon, or incorporated into other software).
R1. Software is described with a plurality of accurate and relevant attributes. • R1.1. Software is given a clear and accessible license. • R1.2. Software is associated with detailed provenance. R2. Software includes qualified references to other software. R3. Software meets domain-relevant community standards.

Table 1: The FAIR Principles for Research Software

FAIR RESEARCH SOFTWARE

Data

ALLEA 2020

We could then define data in the humanities broadly as all materials and assets scholars collect, generate and use during all stages of the research cycle. In this report we focus on digital assets.

DATA=ALL MATERIALS AND ASSETS COLLECTED, GENERATED AND USED DURING THE RESEARCH CYCLE

THINK OF ALL YOUR RESEARCH ASSETS AS RESEARCH DATA THAT COULD POTENTIALLY BE REUSED

RECOMMENDATIONS

» Think of all your research assets as research data that could be potentially reused by other scholars. Consider how useful it would be for your own work if others shared their data.

[the 3 steps]

1. DATA SHOULD BE AS OPEN AS POSSIBLE

2. BUT IF DATA ARE NOT «FAIR», OPENING IS RISKY (MISUSE, MISINTERPRETATION, …)

3. IF DATA ARE NOT PROPERLY MANAGED FROM THE BEGINNING, IT'S ALMOST IMPOSSIBLE TO MAKE THEM «FAIR» [WITH EOSC MANAGED/FAIR INCREASINGLY OVERLAPPING, «FAIR BY DESIGN»]

AND MANAGING DATA PROPERLY IS IN THE PRIMARY INTEREST OF ANY RESEARCHER, AS THE WHOLE RESEARCH PROCESS RESULTS STREAMLINED AND MORE EFFECTIVE

Data management

DESCRIPTION FOR DISCOVERABILITY (metadata)

ORGANIZATION (file naming, folders, versioning…)

BACKUP AND STORAGE

LONG TIME PRESERVATION

LEGAL ASPECTS

ALONG THE ENTIRE LIFE CYCLE

FAIR/Open

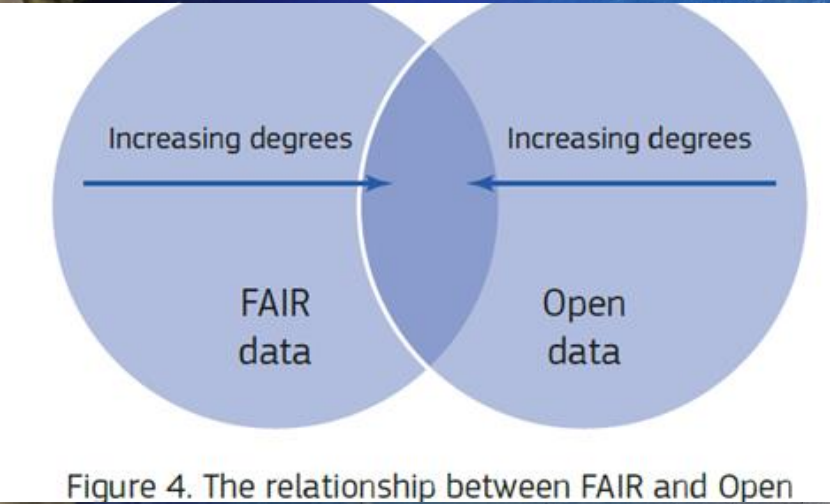
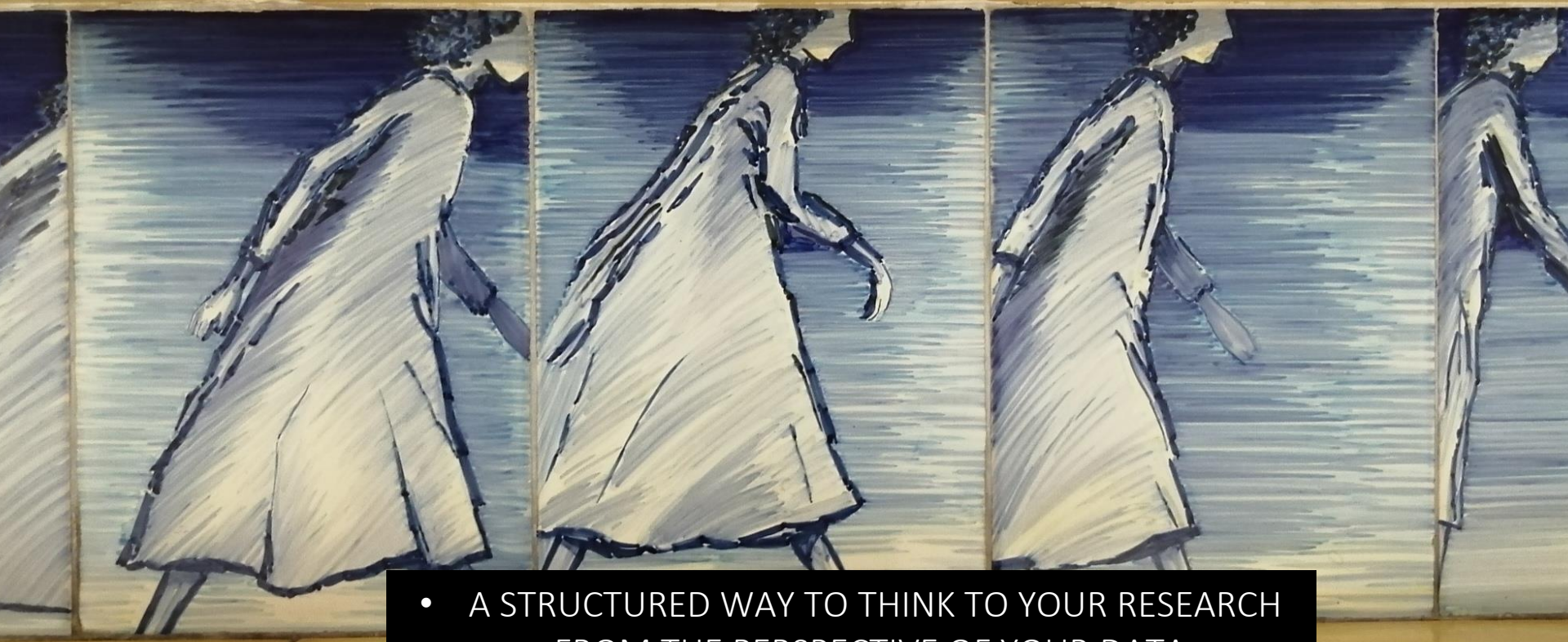


Figure 4. The relationship between FAIR and Open

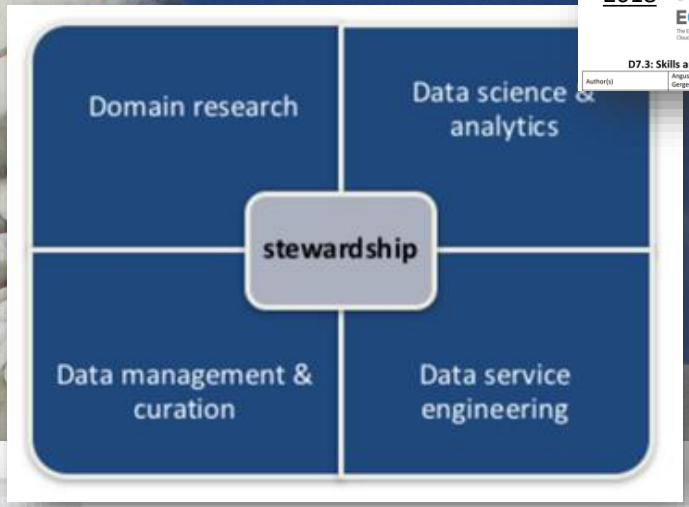
THERE WILL BE AN INCREASING DEGREE IN OVERLAPPING.
BUT WE'LL ALWAYS HAVE PERFECTLY FAIR CLOSED DATA

…and a Data Management Plan



- A STRUCTURED WAY TO THINK TO YOUR RESEARCH FROM THE PERSPECTIVE OF YOUR DATA: collection, preservation, description, sharing
- COMMITTMENT ON DATA MANAGEMENT
- LIVING DOCUMENT TO BE UPDATED
- …AND THEN… ACT ACCORDINGLY…

…and we need data



2018

EOSCpilot

D7.3: Skills and Capability Framework

Author(s): Angus Whyte, Jerry de Vries, Rahul Thorat, Eileen Kuehn, Gergely Sipos, Valentino Cavalli, Vasso Kalaitzi, Kevin Ashley

KØBENHAVNS UNIVERSITET

Competence Profile

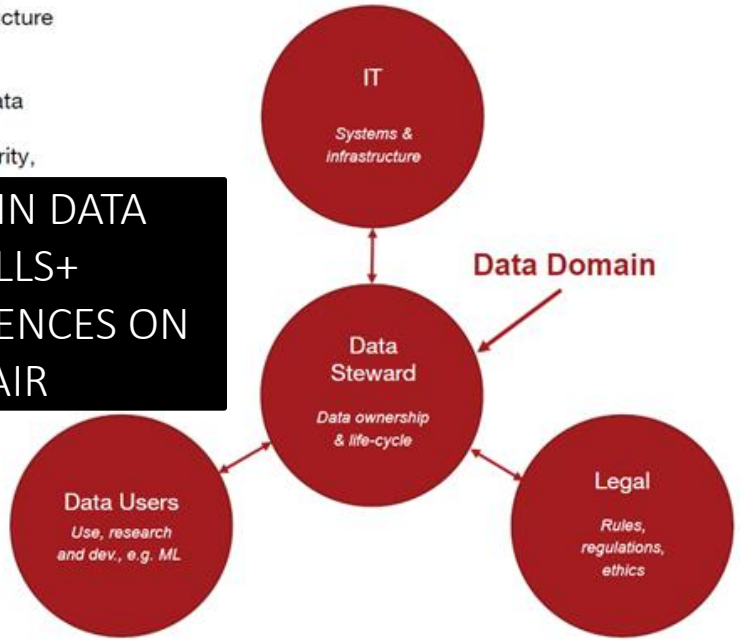
A data steward is a data specialist with strong domain-specific knowledge who understands and appreciates the relevance of data, data sources, data infrastructure and constraints within a scientific or other application domain.

The future Data Steward must assume ownership and responsibility for data, data quality, and the data life-cycle as their primary function. They should ensure collaboration and coherence between IT competences, quality assurance, security, rules & regulations, and facilitate the application and use of [illegible] externally in the organisation.

Competence profile examples

- Domain-specific data understanding
- Ability to ensure that structured and unstructured data data is modelled, harvested, stored, and maintained in documented, and regulated fashion with focus and findability, accessibility, interoperability, and reusability.
- Competences to facilitate HPC (High Performance Computing) during development and research through handling of large-scale data in public and private enterprises.
- Understanding of and competences within legal, ethical and security aspects of data handling, data sharing, e.g., integrity and GDPR.

DOMAIN DATA SKILLS+ COMPETENCES ON FAIR



Copenhagen Univ. June 17 2020

Data ste

Data Stewardship: Addressing Disciplinary Data Management Needs 2018

Marta Teperek
Research Data Services
TU Delft Library

Maria J. Cruz
4TU.Centre for Research Data
TU Delft Library

- **Analyse data management needs** – through undertaking a mixture of semi-structured qualitative interviews and quantitative surveys;
- **Provide advice and consultancy** – meet with researchers, discuss their data management practices, make suggestions for possible improvements and become the trusted person for any questions about data management;
- **Liaise with key faculty stakeholders** – ensure that the various faculty service providers (such as contracts managers or faculty information coordinators) are aware of good data stewardship and that requirements of good data stewardship are aligned with their workflows (for example, budgeting for data management in grant applications);
- **Train and inspire** – advocate for good data management, deliver information sessions, analyse training needs, develop and deliver workshops to ensure that researchers have the skills necessary for responsible data stewardship;
- **Help comply with funders' and journals' policies** – assist researchers with drafting their data management plans, preparing their research data for deposit and advise them on changes to data policies;
- **Develop faculty research data policies** – organise and facilitate policy consultations across the faculty, help faculty define roles and responsibilities of the different faculty-level stakeholders, and drive policy implementation, evaluation and revision;
- **Prepare the faculty for the future** – keep the faculty up to date with new developments and policy changes related to data stewardship, and keep abreast of new developments in the faculty's research area to ensure that researchers have the right skills to manage their data, despite of evolving research methodologies;
- **Liaise with the Data Stewardship Coordinator and other stewards** – liaise with other members of the Data Stewardship programme to exchange practice and to discuss relevant issues;
- **Deliver regular reports** – regularly evaluate, monitor and report on data management practices within the faculty.

[BTW, time to rethink…]

nature

Explore content | About the journal | Publish with us | Subscribe

nature > career column > article

CAREER COLUMN | 14 April 2022

Time to re-think the divide between academic and support staff

Apr. 2022

Research professionals should not be split into two categories, say Marta Teperek, Maria Cruz and Danny Kingsley.

In recent years, we have seen 'support' jobs become more important at research organizations, including roles such as data stewards, research software engineers, scientific community managers and programme managers. We have seen how a diversity of roles and contributions drives progress and success in research and innovation.

We have come to see the sharp distinction between 'academics' and 'support staff' as a barrier to effective research because it discourages a culture of collaboration and appreciation of a diversity of roles and contributions.

drives rift between academic and non-academic staff

As professionals, we make a significant contribution alongside conventional academics. Like many of our colleagues in 'support' roles, we are well connected with the academic community. We work in partnership with researchers, contributing unique expertise and skills. We have academic credentials. We write papers, books, grant proposals, reports and manuals. We train students and academic staff; manage projects; organize and present at conferences and workshops; and lead developments in our areas of expertise. We are knowledge brokers, able to translate generic infrastructure, tools and policies into practical solutions that make research more efficient.

- DIVERSITY OF CONTRIBUTIONS IS A SUCCESS FACTOR
- CULTURE OF COLLABORATION

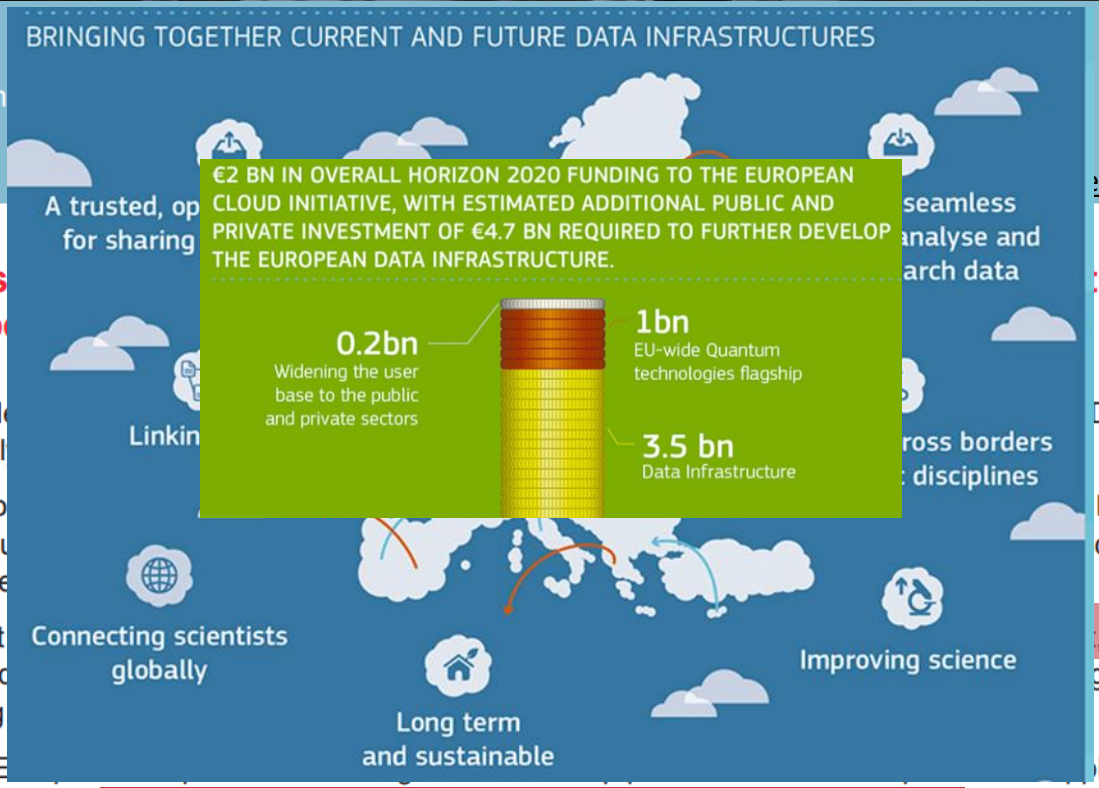
[AS NOW WE HAVE THE EOSC!]

The Vienna

Vienna, 23 Novem

u 1 8 · a t

enna, Nov.23, 2018



We, Ministers … of the European Op…

1. Recall the chall… Declaration" signed in Brussels on 10 Jul…

2. Reaffirm the po… Europe. Confirm that the vision of the Eu… ciplines and Member States, sustainable…

3. Recognise that… by its nature iterative and based… gue to build trust and consensus among…

4. Highlight that E… lication of cloud services for Science. Rea… and open to the world, reaching out over time to…

5. Recall that the Council … roadmap and the federated

SEAMLESS ACCESS
TO OPEN BY DEFAULT FAIR DATA

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.

EOSC IS NOT A BIG BOX]

THE EUROPEAN OPEN SCIENCE CLOUD? SOME NUANCES AND DEFINITIONS

Imagine a federated, globally accessible environment where researchers, innovators, companies and citizens can publish, find and re-use each other's data and tools for research, innovation and educational purposes. Imagine that this all operates under well-defined and trusted conditions, supported by a sustainable and just value for money model. This is the environment that must be fostered in Europe and beyond to ensure that European research and innovation contributes in full to knowledge creation, meet global challenges and fuel economic prosperity in Europe. This we

EOSC IS NOT A REPOSITORY NOR A «CLOUD»

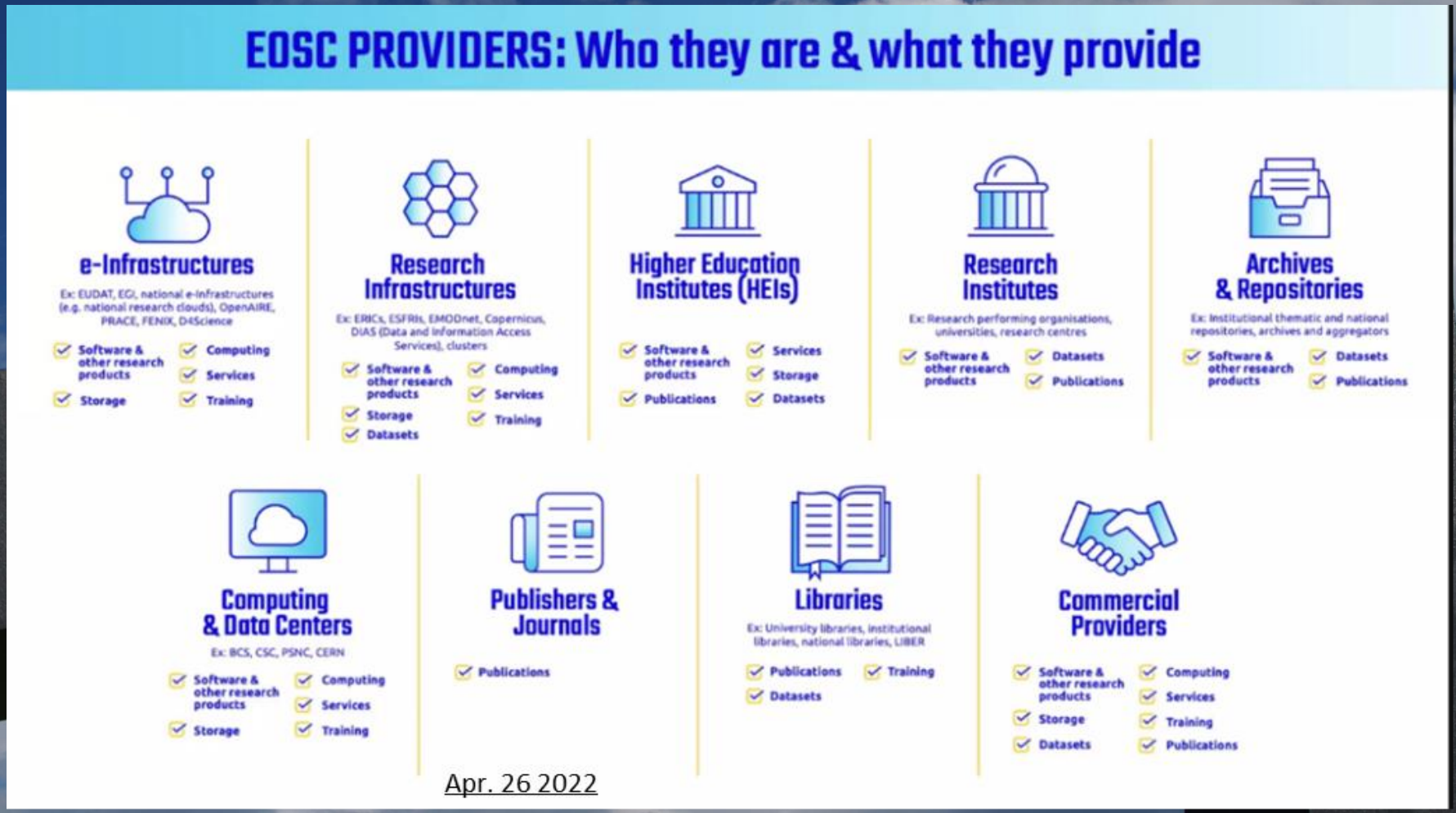
YOU MAKE YOUR DATA FAIR SO THAT EOSC *SERVICES* CAN «FIND» THEM…

A SUPPORTING ENVIRONMENT FOR OPEN SCIENCE AND NOT AN «OPEN CLOUD» FOR SCIENCE

YOU DON'T «UPLOAD» YOUR DATA INTO EOSC

AND GIVE SEAMLESS ACCESS TO 20 M EU RESEARCHERS

EOSC providers



EOSC: critical success factors

DATA FAIR BY DESIGN…
AND THEN NOT EVALUATED
AS «RESEARCH OUTPUTS»???

Strategic Research and Innovation Agenda (SRIA)
of the
European Open Science Cloud (EOSC)
SRIA Version 0.9 16 November 2020

A number of critical success factors must be in place for for those benefits to be realised. They include:

- Researchers performing publicly funded research make relevant results available, as openly as possible;
- Professional data stewards are available in research-performing organisations in Europe to support Open Science;
- Research data produced by publicly funded research in Europe is FAIR by design;
- The EOSC Interoperability Framework supports a wide range of FAIR digital objects including data, software and other research artefacts;
- EOSC is operational and provides a stable infrastructure, supporting researchers addressing societal challenges;
- EOSC is populated with a valuable corpus of interoperable data;
- EOSC is a valuable and valued resource to a wide range of users from the R&E, public and private sectors.

EOSC association

BORN DEC. 2020
MAKE YOUR VOICE HEARD

- AG Implementation of EOSC
  - TF PID Policy and Implementation
  - TF Researcher Engagement and Adoption
  - TF Rules of Participation Compliance Monitoring
- AG Metadata and Data Quality
  - TF FAIR Metrics and Data Quality
  - TF Semantic Interoperability
- AG Research Careers and Curricula
  - TF Data Stewardship Curricula and Career Paths
  - TF Research Careers, Recognition, and Credit
  - TF Upskilling Countries to Engage in EOSC
- AG Sustaining EOSC
  - TF Defining Funding Models for EOSC
  - TF Long-Term Data Preservation
- AG Technical Challenges on EOSC
  - TF AAI Architecture
  - TF Infrastructure for Quality Research Software

TASK FORCES

EOSC Association: Advancing Open Science to accelerate the creation of new knowledge, insp education, spur innovation and promote accessibility and transparency

The European environment open and sea data , across borde

EOSC is being

The EOSC As research envi Science and t ultimately, to make the Europea will offer researchers open and analysing and re-using research new knowledge and spur innovation.

In joining us you will:

- Shape the European Open Science Cloud;
- Guide the strategy for the EOSC implementation phase;
- Participate in Advisory Groups and General Assembly meetings;
- Engage in policy dialogues;
- Network with like-minded people.

Together, we can create a European Research Data Commons that will not enges worldwide.

13
Task forces

200+
Members and observers

Join the Association

ICDI

IN ITALY: ICDI TO SYNERGISE

HOME ABOUT ACTIVITIES DOCUMENTS COVID-19 NEWS CONTACTS

https://www.eosc.eu/


WHAT'S GOING ON IN EUROPE

…actually, not only in Europe…

Feb.4, 2021

eua EUROPEAN UNIVERSITY ASSOCIATION

Universities without walls
A vision for 2030

Acknowledging that Open Science should not only foster enhanced sharing of scientific knowledge solely among scientific communities but also promote inclusion of scholarly knowledge from traditionally underrepresented or excluded groups (such as women, minorities, Indigenous scholars, scholars from less-advantaged countries and low-resource languages) and contribute to reducing inequalities in access to scientific development, infrastructures and capabilities among different countries and regions,¶

Oct. 27, 2020

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

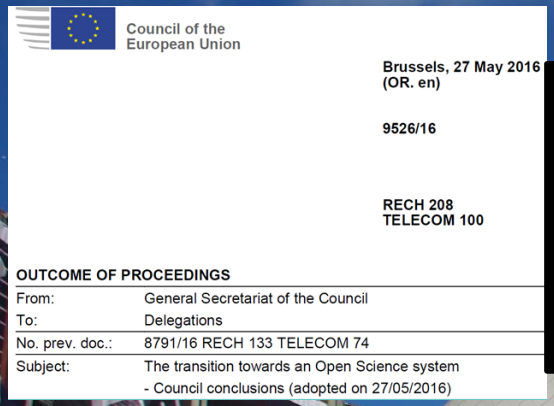
ISC

Business-as-usual approaches to science and science funding are incommensurate with the timeline for achieving the SDGs or that of addressing our current planetary crises in a humane, dignified and equitable manner. A major qualitative and quantitative step-change is needed in science to support critical societal transformations towards a more sustainable, equitable and resilient future.

2020

Towards Op e

NATIONAL POLICIES FOR TEXTS AND DATA (RECOMMENDATION 790/2018)


Council of the European Union

Brussels, 27 May 2016
(OR. en)

9526/16

RECH 208
TELECOM 100

OUTCOME OF PROCEEDINGS

From:	General Secretariat of the Council
To:	Delegations
No. prev. doc.:	8791/16 RECH 133 TELECOM 74
Subject:	The transition towards an Open Science system - Council conclusions (adopted on 27/05/2016)

OPEN ACCESS BY DEFAULT IN 2020 (COMPETITIVENESS COUNCIL 2016)


2018

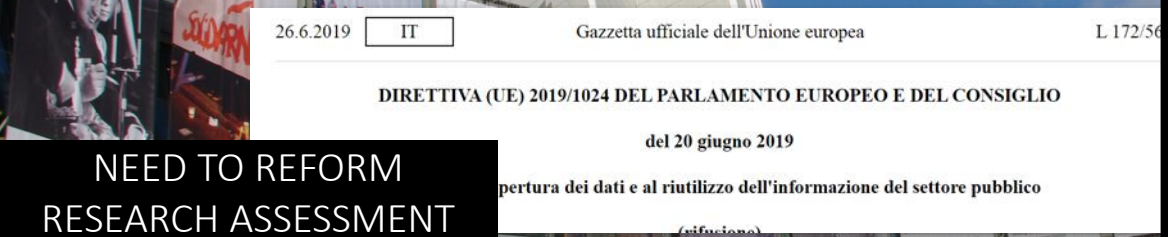
EUROPEAN COMMISSION

Brussels, 25.4.2018
C(2018) 2375 final

COMMISSION RECOMMENDATION

of 25.4.2018

on access to and preservation of scientific information


26.6.2019 IT Gazzetta ufficiale dell'Unione europea L 172/56

DIRETTIVA (UE) 2019/1024 DEL PARLAMENTO EUROPEO E DEL CONSIGLIO

del 20 giugno 2019

pertura dei dati e al riutilizzo dell'informazione del settore pubblico

RESEARCH DATA=PUBLIC SECTOR INFORMATION (DIRECTIVE 1024/2019) + D.Lgs 200/2021

NEED TO REFORM RESEARCH ASSESSMENT (COUNCIL CONCLUSIONS ON THE FUTURE GOVENRANCE OF THE ERA – COM 14308/21)


14308/21

RECH 538
COMPET 865

Dec. 2021

OUTCOME OF PROCEEDINGS

From:	General Secretariat of the Council
On:	26 November 2021
To:	Delegations
No. prev. doc.:	14126/21
Subject:	Future governance of the European Research Area (ERA) - Council conclusions (adopted on 26/11/2021)

EUROPEAN STRATEGY FOR DATA (COMMUNICATION 66/2020)


EUROPEAN COMMISSION

Brussels, 19.2.2020
COM(2020) 66 final

COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT, THE COUNCIL, THE EUROPEAN ECONOMIC AND SOCIAL COMMITTEE AND THE COMMITTEE OF THE REGIONS

A European strategy for data

Removing barriers to open science

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

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 3
12. Encourage stakeholders to share expe

2016

Amsterdam Call for Action on Open Science

Integrated advice of the Open Science Policy Platform on 8 prioritised Open Science ambitions 2018

- Rewards and Incentives
- Research Indicators and Next-Generation Metrics
- Future of Scholarly Communication
- European Open Science Cloud
- FAIR Data
- Research Integrity
- Skills and Education
- Citizen Science

June 2020

Progress on Open Science: Towards a Shared Research Knowledge System

Final Report of the Open Science Policy Platform

As representatives of key stakeholders in the research system, we call on all European Member States and other relevant actors from the public and private sectors to help co-create, develop and maintain a 'Research System based on shared knowledge' by 2030. As a start, we commit to working together to implement a system with the five attributes outlined below.

1. An academic career structure that fosters outputs, practices and behaviours to maximise contributions to a shared research knowledge system. To this

2019

Future of Scholarly Publishing and Scholarly Communication

Report of the Expert Group to the European Commission

The conclusion is actually simple: the evaluation of research is the keystone, and it has already been identified by scholars around the world, and by various expert groups within the European Commission, as structuring a global research architecture characterised by an unlimited quest for rankings. The ranking imperative affects all levels of the research structure, and it tends to constrain change for nearly all actors. This is true of individual

«make science fit for the 21th century»

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 European Commission has taken

THERE IS A HIGHER RISK OF BEING A FOLLOWER

Open science will make science more efficient, reliable, and responsive to societal challenges. The European Commission

E ARTICLE Provisionally accepted The full-text will be published soon Notify me
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

[Nov.2019]

Jean-Claude Burgelman[1*], Corina Pascu[1*], Katarzyna Szkuta[1], Rene Von Schomberg[1], Athanasios Karalopoulos[1], Konstantinos Repanas[1] and Michel Schouppe[1]

Open science (or in fact, open scholarship) has shifted the prime focus of researchers away from publishing toward knowledge sharing.

and access will be maximized. In Horizon Europe, research data will be open by default while taking into account the need to balance openness and protection of scientific information, commercialization and Intellectual Property Rights, privacy concerns and security, following the principle "as open as possible, as closed as necessary." Data management plans (DMP) will become mandatory, even if not making research data open. The requirement for responsible data management will be separated from the requirement for providing open access to research data. Emphasis will be placed on supporting as much as possible the proliferation of data that are findable, accessible, interoperable, and re-usable (FAIR). Finally, the use of trusted or certified repositories and infrastructures like the European Open Science Cloud (EOSC) will be required for research data in some Horizon Europe work programs.

OVERVIEW OF THE EU POLICIES TOWARDS OPENNESS

Changing the reward and incentive system for researchers is a key open science challenge and a broader issue for which primarily the responsibility lies in the scientific community (universities and funders). This includes making open science practices rewardable and fundable as well as the employment of specific indicators for researchers' engagement with open science. A change of the reward and incentive system can only be stakeholders-driven, and it has to be bottom-up. This change also includes changing mind-sets of researchers to open up and share data and "seduction" to make open science easy, useful, and affordable[3].

The European Open Science agenda contain the ambition to make FAIR data sharing the default for scientific research by 2020. To

Open Science in HEU

OPEN SCIENCE PRACTICES
EVALUATED UNDER
«EXCELLENCE»
a) MANDATORY
b) RECOMMENDED
BOTH TO BE EMBEDDED IN
THE PROPOSAL

Open science

Open science in Horizon Europe

Open science is an approach based on open cooperative work and systematic sharing
knowledge and tools as early and widely as possible in the process. It has the potenti
to increase the quality and efficiency of research and accelerate the advancement
knowledge and innovation by sharing results, making them more reusable an
improving their reproducibility. It entails the involvement of all relevant knowledg
actors.

Horizon Europe moves beyond open access to open science for which it feature
a comprehensive policy implemented from the proposal stage to project reporting. Th
Horizon Europe Regulation sets the legal basis for the open science obligations an
incentives that apply to Horizon Europe beneficiaries. The Annotated Grant Agreemer
provides guidance on how to comply with the open science obligations required in th
Model Grant Agreement. **The present guide complements the information**
pro
the

In Horizon Europe, open science practices are considered in the evaluation of proposals, under 'excellence' and under the 'quality and efficiency of implementation'.[17] There are mandatory open science practices, which are required for all projects through the Model Grant Agreement and/or through the work programme or call conditions, and recommended practices (all open science practices that are not mandatory). Recommended open science practices are incentivised through their the evaluation at the proposal stage. Proposers should be aware of both mandatory and recommended practices and integrate them into their proposals.

V.1 June 17 2021

Horizon Europe

ART. 6.2 SPECIFIC ELIGIBILITY CONDITIONS FOR EACH BUDGET CATEGORY C.3 OTHER GOODS [P.30]

ART. 17 COMMUNICATION, DISSEMINATION AND VISIBILITY [P.49]

ANNEX 5, TO ART. 17, OPEN SCIENCE [P.107-109]

PART A – LIST OF PUBLICATIONS (OPEN ACCESS) [P.12]

PART B – 1.EXCELLENCE – 1.2 METHODOLOGY (OPEN SCIENCE+DATA MANAGEMENT) [P.8]

PART B – 2.IMPACT

PART B – 3.2 CONSORTIM CAPACITY [P.15]

Horizon Europe

- ART. 6.2.C.3 OTHER COSTS (DISSEMINATION) P.[69]
- ART.17 COMMUNICATION& DISSEMINATION [P.113-115]
- ANNEX 5 IPR RULES [P.124-125 E 133-146 EXPLOITATION&PROTECTION]
- ANNEX 5 DISSEMINATION & OPEN SCIENCE [P.153-161]

DEFINTION OF «TRUSTED REPOSITORY» P. 156

- ANNEX 5 DISSEMINATION PLAN [P. 162]

- DISSEMINATION & IPR MANAGEMENT [P.30-37]
- OPEN SCIENCE [P.38-52]

RIGHT RETENTION CLAUSE [P.49] AND USEFULT TOOLS

- CITIZIEN SCIENCE [P.52-54]

Open Science in Horizon Europe

MANDATORY AND RECOMMENDED PRACTICES TO BE ADAPTED TO YOUR PROJECT – EVALUATED AT THE PROPOSAL STAGE

Open Science in Horizon Europe RIA/IA/CSA

IN THE METHODOLOGY YOU NEED TO ADDRESS BOTH:
1) HOW YOU WILL COMPLY WITH THE MANDATORY PRACTICES
2) HOW YOU WILL ADOPT RECOMMENDED PRACTICES

RECOMMENDED PRACTICES

- IN THE **LIST OF ACHIEVEMENTS**: 5 RELEVANT OUTPUTS (publications, data) OPENLY ACCESSIBLE + PERSISTENT IDENTIFIER + «AS OPEN AS POSSIBLE»
- IN THE PROJECT **METHODOLOGY** 1) EMBEDDED OPEN SCIENCE PRACTICES 2) FAIR DATA MANAGEMENT + DMP SCHEMA
- **MAXIMIZING IMPACT** USING OPEN SCIENCE (OS IS AMONG KEY PATHWAY INDICATORS) + SCHEMA OF DISSEMINATION PLAN (DELIVERABLE M6)
- OPEN SCIENCE PRACTICES/SKILLS IN PREVIOUS PROJECTS TO EVALUATE **QUALITY OF IMPLEMENTATION AND CONSORTIUM CAPACITY**

MANDATORY PRACTICES

- **DEPOSIT+ IMMEDIATE ACCESS** (ZERO EMBARGO + CC BY) = 1. OPEN RESEARCH EUROPE 2. OA JOURNAL 3. TRADTIONAL JOURNAL [RETAINING RIGHTS]
- 1. RESPONSIBLE MANAGEMENT ACCORDING TO **FAIR PRINCIPLES** 2. DATA AND OTHER OUTPUTS **«AS OPEN AS POSSIBLE, AS CLOSED AS NECESSARY»** 3. DATA MANAGMENT PLAN BY M6
- **INFORMATION** ON OUTPUTS/TOOLS AND ACCESS TO DATA/RESULTS FOR **VALIDATION OF RESEARCH**

LIST OF ACHIEVEMENTS	EXCELLENCE	IMPACT	QUALITY OF IMPLEMENTATION	OPEN SCIENCE	OPEN SCIENCE	ENSURE REPRODUCIBILITY
Template PartA	Template PartB	Template PartB	Template PartB	Publications	FAIR data	

PROJECT PROPOSAL **WILL BE EVALUATED ON**
a) HOW IT WILL ADOPT RECOMMENDED PRACTICES AND b) HOW IT WILL BE COMPLIANT TO MANDATORY ONES

Horizon Europe

Infographic created by Open science team, Ghent University Library and adapted by Elena Giglia

Giglia 2021

Open Science in Horizon Europe

EXAMPLES OF MANDATORY/RECOMMENDED PRACTICES

Open Science practices

What?	How?	Mandatory in all calls/recommended
Early and open sharing of research	Preregistration, registered reports, preprints, etc.	Recommended
Research output management	Data management plan (DMP)	**Mandatory**
Measures to ensure reproduciblity of research outputs	Information on outputs/tools/instruments and access to data/results for validation of publications	**Mandatory**
Open access to research outputs through deposition in trusted repositories	• Open access to publications • Open access to data • Open access to software, models, algorithms, workflows etc.	• **Mandatory** for peer-reviewed publications • **Mandatory** for research data **but** with exceptions ('as open as possible…') • Recommended for other research outputs
Participation in open peer-review	Publishing in open peer-reviewed journals or platforms	Recommended
Involving all relevant knowledge actors	Involvement of citizens, civil society and end-users in co-creation of content (e.g. crowd-sourcing, etc.)	Recommended

Slide courtesy Victoria Tsoukala, EC

Mandatory/recommended

IN THE PROPOSAL YOU NEED TO ADDRESS BOTH:

1. HOW YOU WILL BE COMPLIANT TO THE MANDATORY
2. HOW YOU WILL ADOPT THE RECOMMENDED

MANDATED OPEN SCIENCE PRACTICES ARE DETAILED IN THE GRANT AGREEMENT:

- OPEN ACCESS TO PUBLICATIONS
- OPEN ACCESS TO DATA
- RESEARCH OUTPUTS MANAGEMENT
- REPRODUCIBILITY

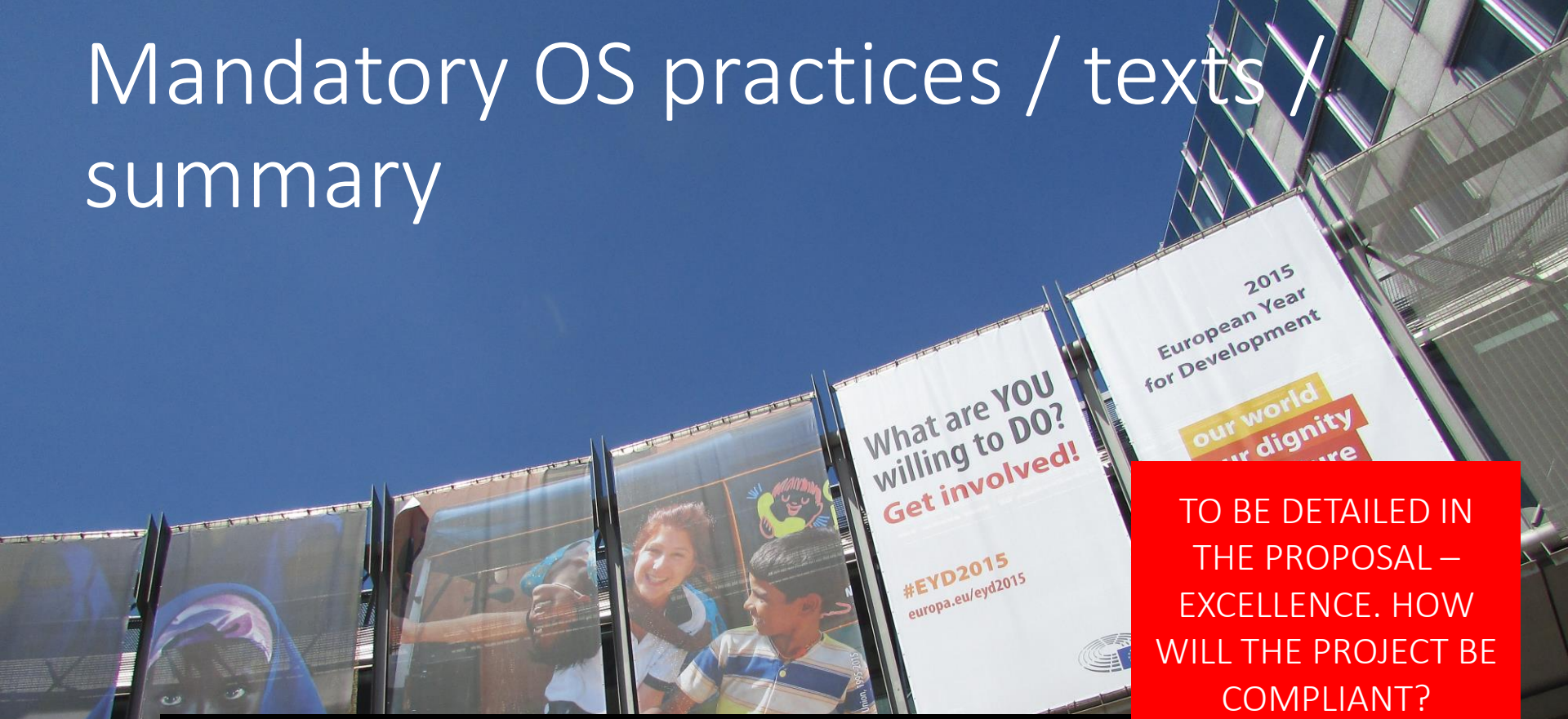
RECOMMENDED OPEN SCIENCE PRACTICES :

e.g. open peer review, pre-registration, citizen science…

SOME CALLS COULD MANDATE MORE PRACTICES

«RECOMMENDED» BUT THE PROPOSAL IS EVALUATED ALSO ON THIS BASIS

Mandatory OS practices / texts / summary



TO BE DETAILED IN THE PROPOSAL – EXCELLENCE. HOW WILL THE PROJECT BE COMPLIANT?

OPEN ACCESS TO TEXTS:

1. DEPOSIT IN TRUSTED REPOSITORY [ALWAYS]
2. GIVE IMMEDIATE ACCESS MANTAINING THE RIGHTS TO DO SO
3. ANY ELEMENT USEFUL TO VALIDATE
4. METADATA OPEN + GRANT FOR OPENAIRE

[Patents and Open Science]

European Commission

IP Helpdesk

Home | Services | Regional helpdesks | IP management and resources | About | News & Events

European Commission > IP Helpdesk > News & Events > News > Open Science vs. IPR in Horizon Europe – which one wins?

NEWS ARTICLE | 17 September 2021 | European Innovation Council and SMEs Executive Agency

Open Science vs. IPR in Horizon Europe – which one wins?

1) MANDATORY TO PROTECT (IF THE CASE)
2) MANDATORY TO DISSEMINATE IN OPEN ACCESS DOES NOT MEAN «MANDATORY TO PUBLISH».

IF YOU PUBLISH, IT MUST BE OPEN

Our enquirer's concerns were the following: is it possible to first file for a patent (his proposed project would involve the development of a new invention), and only then to proceed to the dissemination of results via an open access article? Or does the Open Science policy applicable in Horizon Europe prevail over IPR protection, and imposes the disclosure of the invention in an open access journal as soon as possible?

To answer this, it is essential to keep in mind that in Horizon Europe (including MSCA), grant beneficiaries have the **obligation to protect their results** - see Annex 5 to the model GA for Unit ants incl. MSCA (page 88 onwards).

the other hand, Open Science practices, while compulsory in Horizon Europe, are not ompatible with this obligation… even though they may seem so. Indeed, the open access gation (for example) is NOT an obligation to publish. Simply, if/when fellows publish a scientific cle, it will have to be in open access.

ther words, Open Science obligations in Horizon Europe are NOT a general obligation to seminate. **They are even less an obligation to surrender IP rights, and for this reason uld not be construed in opposition to IP protection**. The dissemination of Horizon results can postponed to allow the appropriate protection of results beforehand - see the grant agreement uses on dissemination (annex 5 to the MGA for Unit Grants, pp.94-95) according to which **the semination obligation is made subject to any restrictions linked to the protection of ellectual property**.

is is confirmed by the European Commission in the annotated model grant agreement for Horizon Europe (see page 153).

To sum up: not only is it possible for fellows and beneficiaries to protect their results first (e.g. via a patent filing), but **it is also necessary to ensure compliance with the obligation to protect the project results**. This is something that can be explained in the proposal – that the strategy is, first, to secure IP protection, and that once this is completed, dissemination obligations will be fulfilled, including via open access if publications are foreseen.

3 ways to be compliant

1. PUBLISH IN ORE – OPEN RESEARCH EUROPE

NO COSTS

2. PUBLISH IN AN OPEN ACCESS JOURNAL + DEPOSIT [IN HE ALWAYS NEEDED]

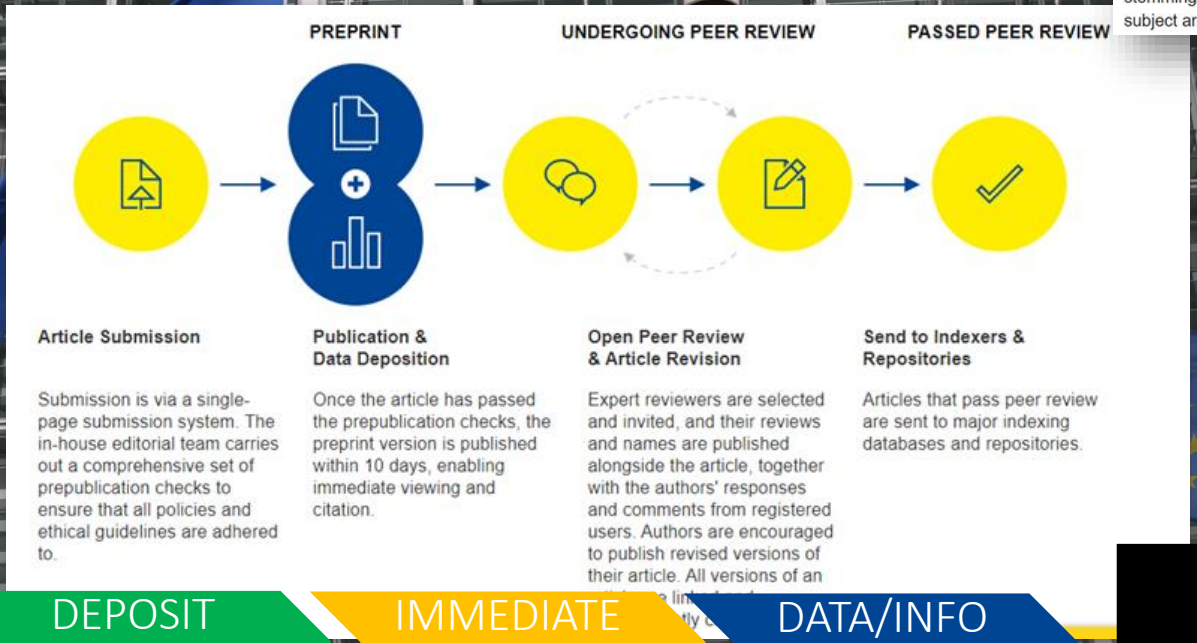
POSSIBLE APC - REIMBURSED

NO REIMBURSE FOR HYBRID

3. PUBLISH IN A SUBSCRITPION BASED JOURNAL + RETAIN RIGHTS TO DEPOSIT+ IMMEDIATE ACCESS

1. Publishing in ORE

ORE



DEPOSIT [INCLUDED] → IMMEDIATE OPEN → DATA/INFO [INCLUDED] → COMPLIANT

PLUS:

- GRATIS
- OPEN PEER REVIEW
- INDEXING
- NOT TO BE IN THE BUDGET
- OPEN PRACTICE
- MAX IMPACT

2. Publishing on an Open Access journal [Gold o Diamond]

Three tips to choose a publishing venue using the Directory of Open Access Journals (DOAJ)

Published on January 11, 2021

Jan. 11, 2021

Andrea Chiarelli
Senior Consultant at Research Consulting | Enhancing the effectiveness and impact of research
4 articles ✓ Following

DOAJ DIRECTORY OF OPEN ACCESS JOURNALS
Apply News About For Publishers API

DOAJ

> 17.000
FULL OPEN ACCESS

DEPOSIT
[UP TO YOU]

IMMEDIATE
OPEN

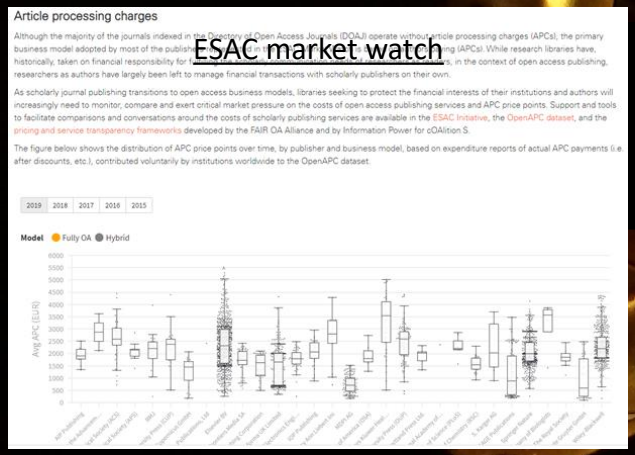
DATA/INFO
[UP TO YOU]

COMPLIANT

- IR
- ZENODO

COSTS
?

- ZENODO
- [RE3DATA]



ESAC market watch

29% ASK FOR APCs
250-2900 $

- COSTS TO BE INCLUDED INTO YOUR BUDGET
- MEAN COST IN ESAC MARKET
- CHECK YOUR SPECIFIC JOURNAL

ELIGIBLE ONLY COSTS FOR
- FULL OPEN ACCESS (NO HYBRID)
- DIGITAL (NO PRINT FOR BOOKS)

3. Publishing on a traditional journal (subscritpion based)

DEPOSIT [UP TO YOU]

- IR
- ZENODO

IMMEDIATE OPEN

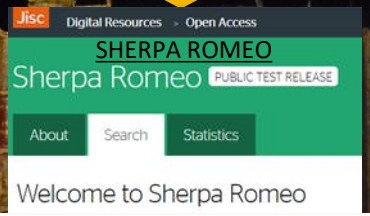
CAN I?

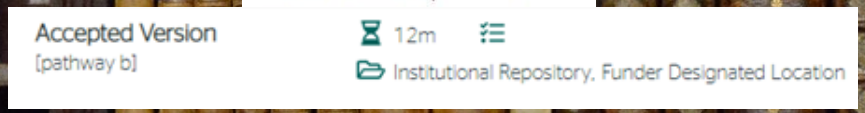
DATA/INFO [UP TP YOU]

- ZENODO
- [RE3DATA]

COMPLIANT

CHECK FOR EMBARGO (SHERPA ROMEO)





IF AN EMBARGO IS REQUIRED, YOU MUST RETAIN RIGHTS TO GIVE IMMEDIATE ACCESS IN THE ARCHIVE

IT'S A PRIOR OBLIGATION TO THE FUNDER

IN THE PROGRAMME GUIDE P.49 CLAUSE TO BE ADDED

3. Traditional journal

HYBRID APCs NOT ELIGIBLE

⚠ Publishing fees (including page charges or colour charges) for publications in other venues, for example in subscription journals (including hybrid journals) or in books that contain some scholarly content that is open and some that is closed are NOT eligible costs. Publishing fees for open access books may be eligible to the extent that they cover the first digital open access edition of the book (which could include different formats such as html, pdf, epub, etc.). Printing fees for monographs and other books are NOT eligible.

PRINT COSTS NOT ELIGIBLE («OPEN» ONLINE)

[reminder]

"WE DO NOT TELL RESEARCHERS WHERE TO PUBLISH, SO NOTHING IS PROHIBITED. HOWEVER, WE DO CARE WHERE WE SPEND TAXPAYER MONEY"

«TRUSTED REPOSITORY»

Trusted repositories are:

- Certified repositories (e.g. CoreTrustSeal, nestor Seal DIN31644, ISO16363) or disciplinary and domain repositories commonly used and endorsed by the research communities. Such repositories should be recognised internationally.
- General-purpose repositories or institutional repositories that present the essential characteristics of trusted repositories, i.e.:
  - display specific characteristics of organisational, technical and procedural quality such as services, mechanisms and/or provisions that are intended to secure the integrity and authenticity of their contents, thus facilitating their use and re-use in the short- and long-term. Trusted repositories have specific provisions in place and offer explicit information online about their policies, which define their services (e.g. acquisition, access, security of content, long-term sustainability of service including funding etc.).
  - provide broad, equitable and ideally open access to content free at the point of use, as appropriate, and respect applicable legal and ethical limitations. They assign persistent unique identifiers to contents (e.g. DOIs, handles, etc.), such that the contents (publications, data and other research outputs) are unequivocally referenced and thus citeable. They ensure that contents are accompanied by metadata sufficiently detailed and of sufficiently high quality to enable discovery, reuse and citation and contain information about provenance

facilitate mid- and long-term preservation of the deposited material. They have mechanisms or provisions for expert curation and quality assurance for the accuracy and integrity of datasets and metadata, as well as procedures to liaise with depositors where issues are detected. They meet generally accepted international and national criteria for security to prevent unauthorized access and release of content and have different levels of security depending on the sensitivity of the data being deposited to maintain privacy and confidentiality.

- INTEGRITY
- PRESERVATION
- SECURITY
- IDENTIFIERS
- REUSE/LICENSES

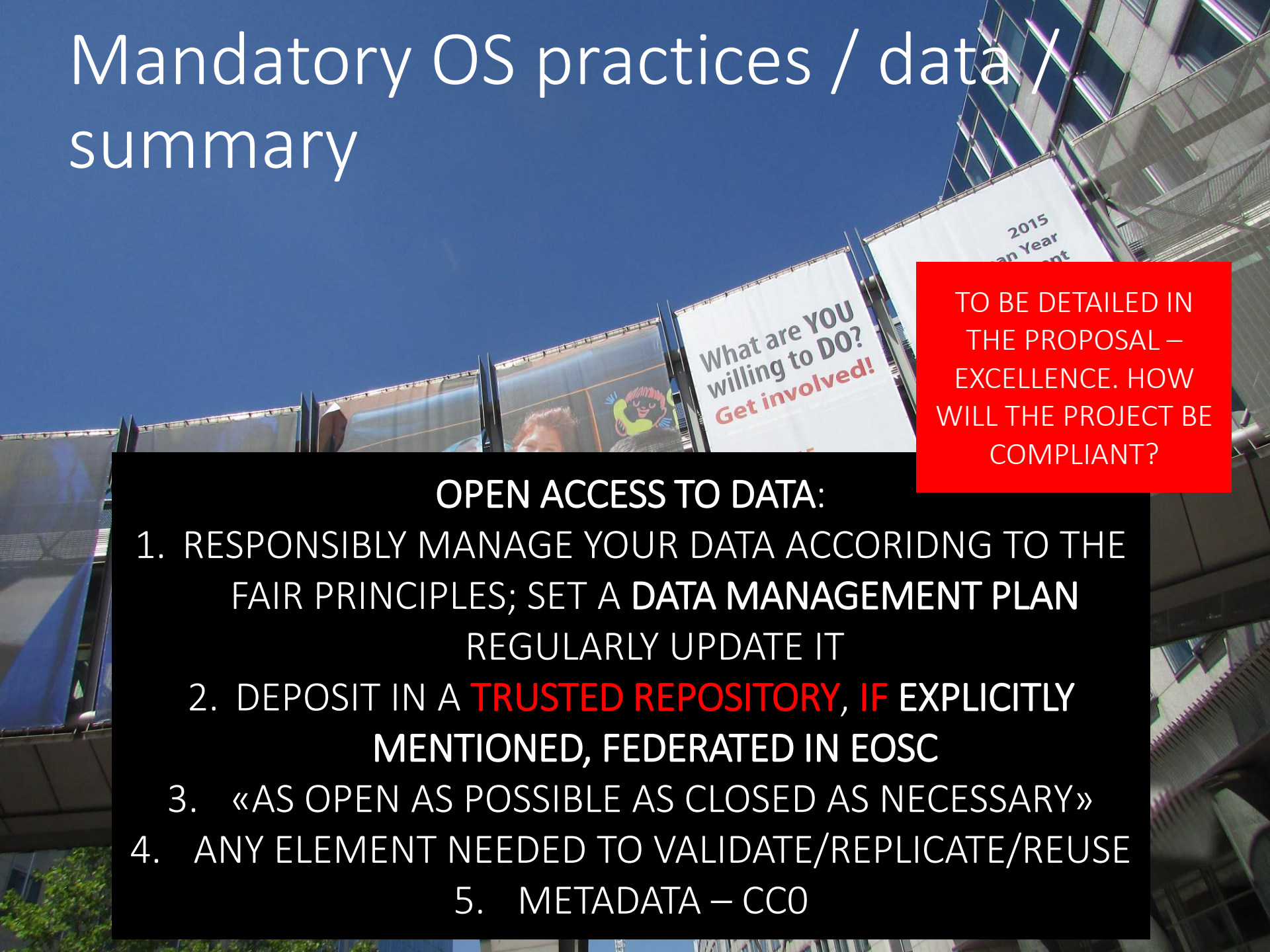
Right retention clause

CLAUSE TO BE USED UPON SUBMISSION
[PRIOR OBLIGATION]

beneficiaries/researchers are encouraged to notify publishers of their grant agreement obligations (including the licensing requirements) already at manuscript submission. For example, by adding the following statement to their manuscript: "*This work was funded by the European Union under the Horizon Europe grant [grant number]. As set out in the Grant Agreement, beneficiaries must ensure that at the latest at the time of publication, open access is provided via a trusted repository to the published version or the final peer-reviewed manuscript accepted for publication under the latest available version of the Creative Commons Attribution International Public Licence (CC BY) or a licence with equivalent rights. CC BY-NC, CC BY-ND, CC BY-NC-ND or equivalent licenses could be applied to long-text formats.*" If the publishing agreement is contrary to the grant agreement obligations, authors should negotiate its terms and, alternatively, look for a different publishing venue/options.

IF THE PUBLISHERS REFUSES, LOOK FOR A DIFFERENT ONE!

Mandatory OS practices / data / summary



TO BE DETAILED IN THE PROPOSAL – EXCELLENCE. HOW WILL THE PROJECT BE COMPLIANT?

OPEN ACCESS TO DATA:

1. RESPONSIBLY MANAGE YOUR DATA ACCORIDNG TO THE FAIR PRINCIPLES; SET A **DATA MANAGEMENT PLAN** REGULARLY UPDATE IT
2. DEPOSIT IN A TRUSTED REPOSITORY, IF **EXPLICITLY MENTIONED, FEDERATED IN EOSC**
3. «AS OPEN AS POSSIBLE AS CLOSED AS NECESSARY»
4. ANY ELEMENT NEEDED TO VALIDATE/REPLICATE/REUSE
5. METADATA – CC0

What if I generate no data?

Research data management (RDM): RDM is mandatory in Horizon Europe for projects generating or reusing data. If you expect to generate or reuse data and/or other research outputs (except for publications), you are required to outline in a maximum of one page how these will be managed. Further details on this are provided

YOU SIMPLY DON'T HAVE TO DRAFT ANY DATA MANAGEMENT PLAN!
JUST STATE IN THE PROPOSAL THAT YOUR PROJECT IS NOT GOING TO GENERATE DATA

IF YOU GENERATE SOFTWARE, THEN THIS IS AN OUTPUT TO BE DEPOSITED (IN GITHUB?) AND ADDRESSED IN A SHORT DMP


IT IS A STRUCTURED WAY TO THINK OF YOUR DATA
CLEAR RULES, LESS MISTAKES FROM THE BEGINNING
IT'S A FORMAL DOCUMENT ABOUT HOW YOU ARE GOING TO MANAGE YOUR DATA
A NEW WAY OF THINKING TO YOUR RESEARCH, FROM THE PERSPECTIVE OF YOUR DATA
IT'S A «LIVING DOCUMENT», IT GROWS WITH THE PROJECT
...LET'S BE CLEAR:
THE ISSUE HERE IS NOT «LEARNING» HOW TO DRAFT A DMP
BUT LEARNING HOW TO RESPONSIBLY MANAGE FAIR DATA.
DMP IS ITS PRACTICAL DECLARATION
IT IS THE RIGHT VENUE TO JUSTIFY YOUR CHOICES ON OPEN/CLOSED
DATA MANAGEMENT PLAN

Tips and tricks

SINTETIC AND SPECIFIC

DO NOT COPY/PASTE

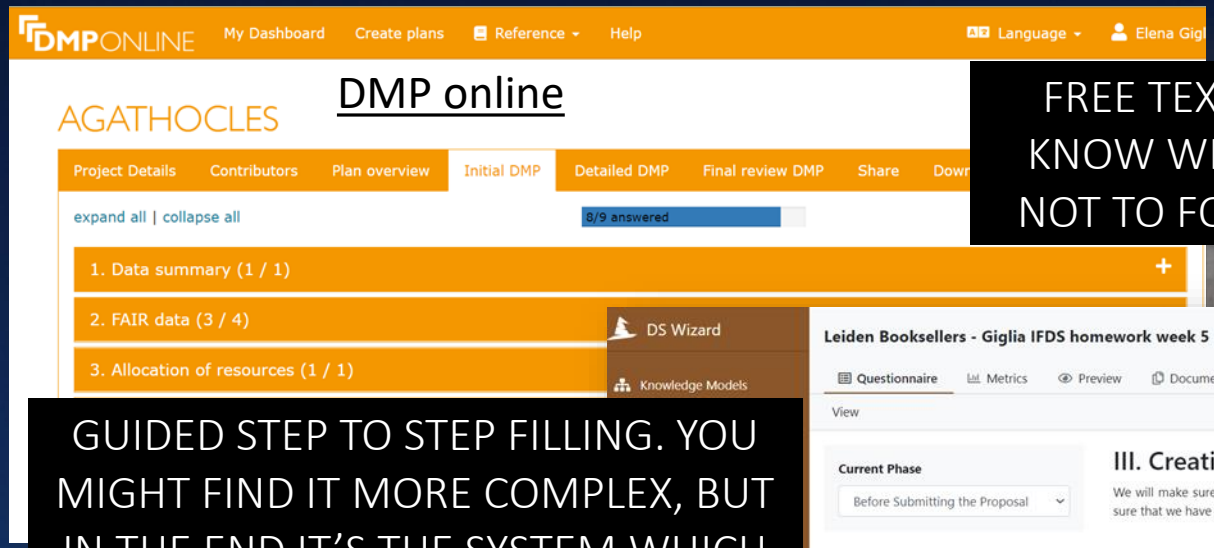
BEING GENERIC IS USELESS
[we expect a huge size of data; data will be available]

EVERY DATASET IS UNIQUE, EVERY INFRASTRUCTURE IS DIFFERENT, EVERY RESEARCH HAS DIFFERENT PARTNERS/POLICIES

- LET'S USE TABLES AND BULLET POINTS
- BE CLEAR, SHORT SENTENCES. IT'S NOT A DISSERTATION

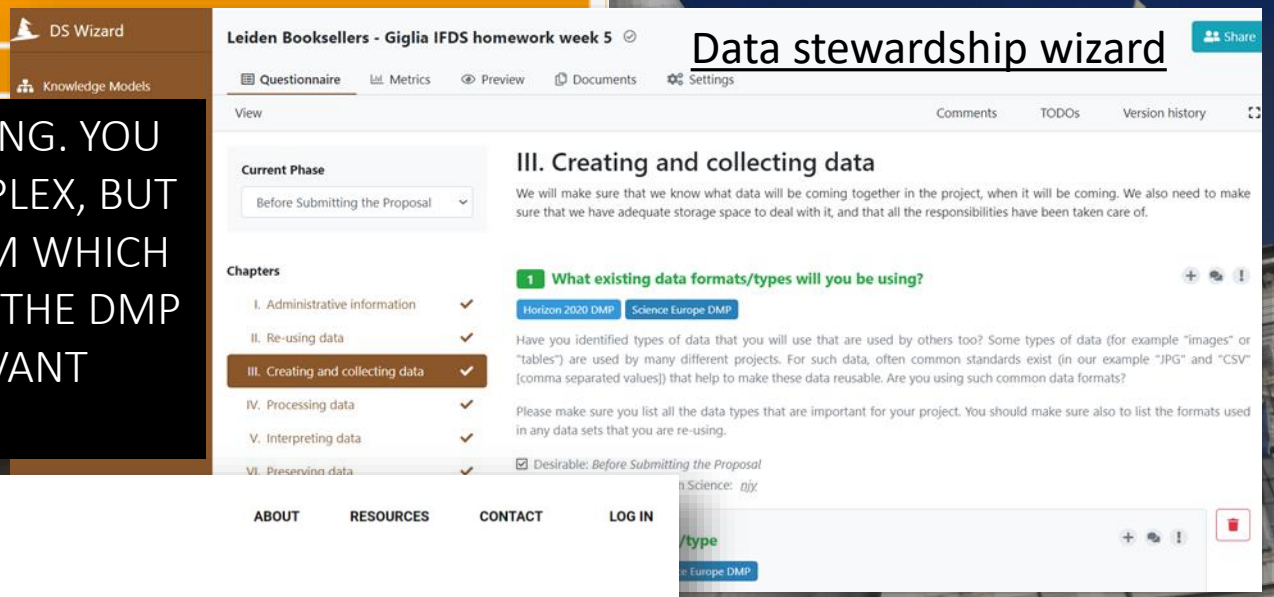
- IF YOU DON'T KNOW IT, SAY IT [THEN YOU'LL UPDATE]
- IF NOT, IT SEEMS YOU ARE NOT AWARE [SAME DIFFERENCE BETWEEN BLANK CELL AND A CELL WITH N.A.]

WHAT YOU STATE IN THE DMP THEN HAS TO BE DONE…
DON'T SHOW OFF
DON'T DECLARE SOMETHING YOU CAN'T GET
e.g. PSEUDONIMYZED DATA, not ANONIMYZED



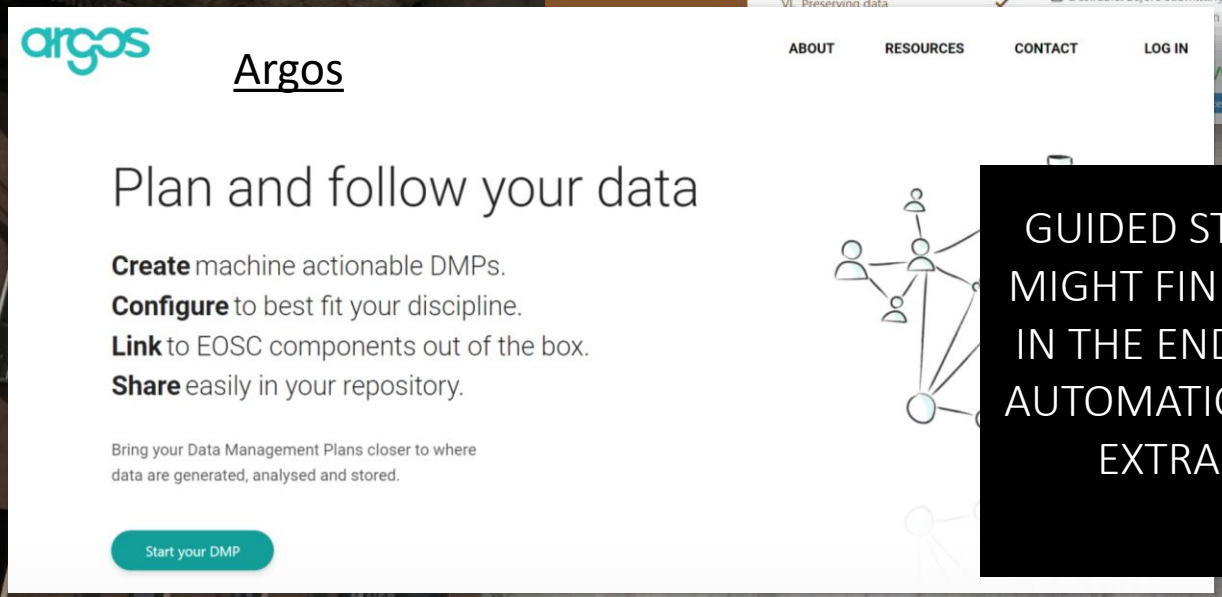
DMP online

FREE TEXT. YOU HAVE TO KNOW WHAT TO ADDRESS NOT TO FORGET ANYTHING



Data stewardship wizard

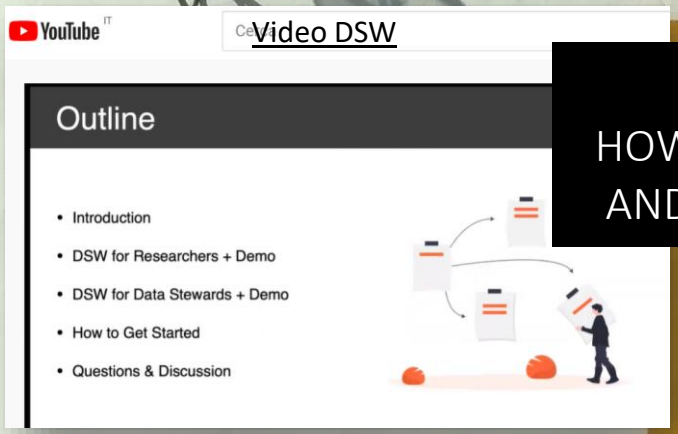
GUIDED STEP TO STEP FILLING. YOU MIGHT FIND IT MORE COMPLEX, BUT IN THE END IT'S THE SYSTEM WHICH AUTOMATICALLY GENERATE THE DMP EXTRACTING THE RELEVANT INFORMATION



Argos

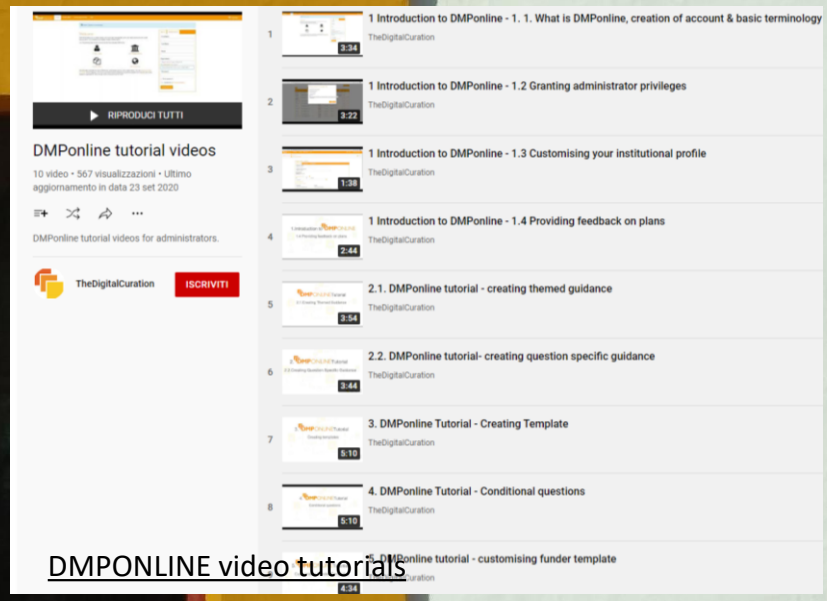
GUIDED STEP TO STEP FILLING. YOU MIGHT FIND IT MORE COMPLEX, BUT IN THE END IT'S THE SYSTEM WHICH AUTOMATICALLY GENERATE THE DMP EXTRACTING THE RELEVANT INFORMATION

DMP online and Data Wizard video tutorials



Video DSW

VIDEO – HOW DMPONLINE AND DSW WORK



DMPONLINE video tutorials

Mandatory OS practices / validation / summary

MEASURES TO ENSURE REPRODUCIBILITY:

1. INFORMATION ON TOOLS AND MATERIALS NEEDED TO VALIDATE THE RESULTS PUBLISHED IN THE PAPER
2. INFORMATION ON TOOLS AND MATERIALS NEEDED TO VALIDATE AND REUSE THE DATA
3. WHENEVER POSSIBLE, GIVE ACCESS TO IT

Proposal / methodology / Open Science

IN THE METHODOLOGY - EXCELLENCE (TOT 15 PAGES)

MAX 1 PAGE ON OPEN SCIENCE

- HOW THE PROJECT WILL BE COMPLIANT TO THE MANDATORY PRACTICES (TEXTS, DATA, REPRODUCIBILITY)
(e.g. ARE YOU PUBLISHING INORE? DEPOSITING IN ZENODO?)
- HOW THE PROJECT WILL ADOPT/ADAPT RECOMMENDED PRACTICES (OPEN PEER REVIEW, CITIZEN SCIENCE, PREPRINT, PREREGISTRATION…)

[Guide]

PROGRAMME GUIDE, p.41-42

- EARLY SHARING
- FAIR DATA MANAGEMENT
- REPRODUCIBILITY
- OPEN ACCESS
- OPEN PEER REVIEW
- CITIZIEN SCIENCE

Early and open sharing: Provide specific information on whether and how you will implement early and open sharing and for which part of your expected output. For example, you may mention what type of early and open sharing is appropriate for your discipline and project, such as preprints or preregistration/registration reports, and which platforms you plan to use.

Research data management (RDM): RDM is mandatory in Horizon Europe for projects generating or reusing data. If you expect to generate or reuse data and/or other research outputs (except for publications), you are required to outline in a maximum of one page how these will be managed. Further details on this are provided

Reproducibility of research outputs: you should outline the measures planned in the project that tend to increase reproducibility. Such measures may already be interweaved in other parts of the methodology of a proposal (such as transparent research design, the robustness of statistical analyses, addressing negative results, etc) or in mandatory/non-mandatory open science practices *(e.g. the DMP, early sharing through preregistration and preprints, open access to software, workflows, tools, etc)* to be implemented. More detailed suggestions on good practices for enhancing

Open access: Offer specific information on how you will meet the open access requirements, that is deposition and immediate open access to publications and open access to data (the latter with some exceptions and within the deadlines set in the DMP) through a trusted repository, and under open licenses. You may elaborate on the (subscription-based or open access) publishing venues that you will use. You may also

Open peer review: Anytime it is possible, you are invited to prefer open peer review for your publications over traditional ('blind' or 'closed') peer review. When the case, you should provide specific information regarding the publishing venues you envisage to make use of, and highlight the venues that would qualify as providing open peer review.

Citizen, civil society and end-user engagement: Provide clear and succinct information on how citizen, civil society and end-user engagement will be implemented in your project, where/if appropriate. The kinds of engagement activities will depend on the type of R&I activity envisaged and on the disciplines and sectors implicated.

Proposal/ Methodology / data

IN THIS SECTION YOU HAVE OT SHOW HOW YOU ARE GOING TO RESPONSIBILY MANAGE YOUR DATA AND DETAIL THE COSTS

IN THE METHODOLOGY- EXCELLENCE (TOT 15 PAGG.)

MAX 1 PAGE ON DATA

1. TYPE OF DATA (EXPERIMENTAL, OBSERVATIONAL…)
2. PERSISTENT IDENTIFIERS
3. ACCESS POLICIES (OPEN/CLOSED/EMBARGO)
4. WHERE DATA CAN BE ACCESSED (REPOSITORY)
5. DATA SECURITY
6. STANDARDS, ONTOLOGIES, METADATA
7. DOCUMENTATION AND ANYTHING NEEDED TO VALIDATE/REUSE
8. LICENSES TO REUSE
9. LOG TERM PRESERVATION

(WITH DETAILED COSTS)

YOU ALSO HAVE TO STATE IF THE DATA WILL BE CLOSED AND WHY

THANK YOU!