

# Open Science e FAIR data management

Alessandria, 6 novembre 2023  
A.O. SS Antonio e Biagio  
e Cesare Arrigo

Elena Giglia  
Università di Torino

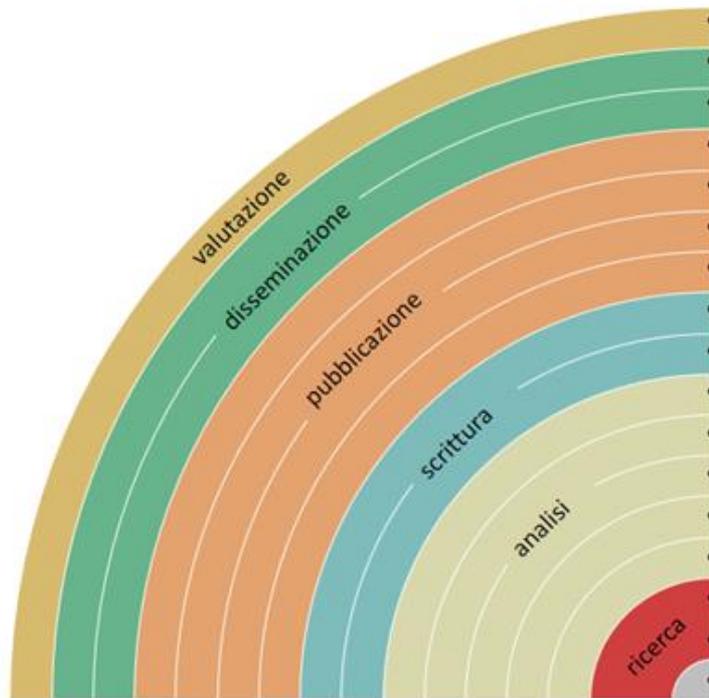
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 [@egiglia](#)



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# Come rendere Open ogni passo della ricerca...



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



## DUE MESSAGGI:

1. **SI PUÒ** FARE **ORA**, NONOSTANTE LE REGOLE ATTUALI DI VALUTAZIONE (SONO COMPLEMENTARI, NON ALTERNATIVE)
2. IN HORIZON EUROPE LO **DOVETE** FARE, PERCHÉ SIETE VALUTATI ANCHE SU COME FATE OPEN SCIENCE

# ...è ora di Open Science

## PhD on track

PhD on Track: A guide for researchers

- REVIEW AND WRITE**  
learn about:
  - reviewing
  - types of reviews
  - searching
  - searching techniques
  - writing
  - the dissertation
- SHARE AND PUBLISH**  
learn about:
  - where to publish
  - submitting articles
  - co-authorship
  - copyright
  - the Crislin system
  - citation impact
- OPEN SCIENCE**  
learn about:
  - open access publishing
  - open archives
  - research data
  - data management
  - sensitive data
  - preregistration

## Open Science MOOC

Welcome! What is Open Science?

What is European Open Science Cloud (EOSC)? Research data management

Completion Credits

In this module you will learn about the Open Science movement and its principles. We will also look at the practical advantages of embracing these principles and present some easy steps to join the movement.

By the end of this module, you will be able to:

- Define the concepts of Open Science and Open Access.
- Explain the benefits of Open Science practices from a researcher's and society's perspective.
- Start practicing Open Science.

YouTube IT Cerca

### OLS openlifescience full course online

## Open LifeSci

@OpenLifeSci  
332 iscritti

COMMUNITY CANALI INFORMAZIONI

Video Riproduci tutti

- Open Leadership: Academia, industry and beyond! 1:22:25
- Community Design for Inclusivity 1:25:00
- Workshop: Accessibility Inclusion for Visual Impairment 1:26:22
- OLS-6 cohort / Week 6 / Project Development and Introduction to Working Open 1:16:01
- OLS-6 cohort / Week 5 / GitHub for Collaboration! 1:02:18

## The Turing way

Welcome

The Turing Way is an open source community-driven guide to reproducible, ethical, inclusive and collaborative data science.

Our goal is to provide all the information that researchers, students, industry, government and the third sector need at the start of their projects.

The book started as a guide for technical skills are just one of the many things you will learn.

In February 2020, The Turing Way community, collaboration, communication, collaboration.

### OUVRIRE LA SCIENCE

OPEN SCIENCE COMMITTEE WORKING GROUPS BLOG SCHEDULE RESOURCES

2021 FR EN

#### PASSPORT FOR OPEN SCIENCE - A PRACTICAL GUIDE FOR PHD STUDENTS

2020

GUIDES

The Passport For Open Science is a guide designed to accompany PhD students at every step of their research career, whatever their disciplinary field. It provides a set of tools and good practices that can be directly implemented.

NOT TO DO

## FOSTER

About Resources Events Courses News

2018

### Open Science Training Handbook

# Help

OA@unito.it

CORSI  
COMPLETI

Seminari

Corsi e formazione

2023

1. Open science why and how / National PhD school in Neuroscience retreat, Bertinoro, 18/10
2. Open Science why and how, Bycyclos project, Bologna 3/10
3. Open Science why and how, MSCA postdoc fellowship candidates, Università di Torino, 20/6
4. Open Science e Citizen Science in Horizon Europe, Dip. Scienze cliniche e biologiche, Università di Torino, 7/6
5. Gestione dei dati FAIR by design, Area Science Park Trieste, 12/5
6. Open Science come e perché, Area Science Park Trieste, 9/5
7. What's next on Open Science: trends and opportunities of the near future, Digital Humanities course, Prof. Silvana, Università di Bologna, 4/5
8. Open Science: empowering researchers in FAIR data management, Università di Camerino, 3/5
9. Open Science A to Z+FAIR data management, PhD school, UniTO, 17, 18, 27, 28 / 4

2022



## "S-LÉGAMI!"

OPEN ACCESS - MANUALE D'USO PER RICERCATORI

Seconda edizione

aggiornata e ampliata con circa 100 domande sull'Open Science

In UniTO Come Cos'è utile Perché è importante Editori e Politiche Open Access (EPOCa) Eventi Corsi e formazione

Video Open Science

<https://www.oa.unito.it/new/>

## Open Science passo dopo passo

Si può fare Open Science, in concreto, ogni giorno, un passo per volta. E non è incompatibile con VQR, ASN...  
Provate uno strumento dall'elenco di link raccolti in Open Science in pratica (richiede login)

Open Science in pratica



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

OPEN-SCIENCE.IT  
La scienza condivisa

HOME NAVIGA IL SITO EVENTI

<https://open-science.it/>

# Dati della ricerca e aspetti legali

VAI ALL'ARTICOLO NAVIGA IL SITO

Italian Computing and Data Infrastructure

# Open Science Café

OS café

OA-Italia – Lista di discussione su temi relativi all'accesso aperto

Dettagli su OA-Italia

## Lista OA Italia

Scopo di questa lista è quello di condividere e scambiare opinioni, informazioni, iniziative relative all'accesso aperto (Open Access/OA) lista e' aperta, ed indicizzata dai principali motori di ricerca e il suo archivio e' liberamente consultabile. L'iscrizione viene verificata dal...

This list covers OA issues. The language of the list is Italian. It is open to anybody interested in this topic. The list Archive is freely accessible.

Per consultare la raccolta dei messaggi precedentemente inviati alla lista, visita gli [Archivi della lista OA-Italia](#).

Uso di OA-Italia

Per inviare un messaggio a tutti gli iscritti della lista, scrivi all'indirizzo [oa-italia@openarchives.it](mailto:oa-italia@openarchives.it).

Puoi iscriverti alla lista, o cambiare la tua iscrizione corrente, nella sezione sottostante.

Iscrizione a OA-Italia

Iscriviti a OA-Italia completando il seguente modulo. Questa è una lista chiusa, quindi la tua iscrizione è stata sospesa in attesa di autorizzazione tramite email. Questa è anche una lista privata, quindi l'elenco degli iscritti non è disponibile ai non iscritti.

... [nuovi giocatori: MUR] [???



TAVOLO  
TECNICO AL  
LAVORO

## PIANO NAZIONALE OPEN SCIENCE [20 giugno 2022]

5 ASSI:

1. OPEN ACCESS AI TESTI
2. DATI FAIR
3. VALUTAZIONE
4. COMMUNITY ENGAGEMENT
5. DATI COVID



Ministero  
dell'Università  
e della Ricerca



UNIVERSITÀ

RICERCA

[Home](#) | [Stampa](#) | [Notizie e comunicati stampa](#) | [Pubblicato il Piano nazionale della scienza aperta](#)

### Pubblicato il Piano nazionale della scienza aperta

Lunedì, 20/06/2022 2022

*Individuati 5 assi di intervento: pubblicazioni scientifiche, dati, valutazione della ricerca, partecipazione e apertura dei dati della ricerca su SARS-COV-2 e Covid-19*

Il Ministero ha pubblicato il [Piano nazionale della Scienza Aperta \(PNSA\)](#), in attuazione al Decreto Ministeriale n. 268 del 28 febbraio 2022. Il PNSA, insieme al Piano per le Infrastrutture di ricerca (PNIR), completa l'insieme dei Piani nazionali richiamati dal [Programma Nazionale per la Ricerca 2021-2027](#),



Ministero dell'Università e della  
PNR 2021-2027

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Programma nazionale per la ricerca

PIANO NAZIONALE OPEN SCIENCE REDATTO NEL 2019-PUBBLICATO 2022

# Open by design

**Openlifescience** OLS program OLS-7

## The OLS-7 program

**Purpose:** Training for early stage researchers and young leaders interested in furthering their Open Science skills

**Outcome:** Ambassadors for Open Science practice, training and education across multiple European and international bic

**Process:** A 16-week mentoring & training program, based on the [Mozilla Open Leader program](#), helping participants in using three principles:

1. **Sharing** essential knowledge required to create, lead, and sustain an Open Science project.
2. **Connecting** members across different communities, backgrounds, and identities I expertise.
3. **Empowering** them to become effective Open Science ambassadors in their comm

- Design
  - Illustrate the need for a project, its vision, and its goals
  - Embrace and communicate the benefits of Open Science and how to strategically appl
  - Identify the public resources to share their data
  - Identify the different type of Open Access and associated journals
- Build
  - **Start any project with openness in mind from day one**
  - Setup a project repository on GitHub using best practices for enabling collaboration
  - Choose and apply open licenses appropriately
- Empower
  - Create and enforce a safe working environment
  - Promote the values of Open Science to empower others to lead and collaborate
  - Include a broad range of contributors in their work
  - Communicate their work and vision in a 2min demo of elevator pitch
- Lead an open project in science

**IL WORKFLOW DI RICERCA DEVE ESSERE OPEN BY DESIGN [SE CI PENSATE SOLO ALLA FINE, AVETE OPZIONI LIMITATE]**

	Understanding	Sharing	Participation & Inclusion
Design for...	<ul style="list-style-type: none"> <li>• Content focus</li> <li>• Community interactions                             <ul style="list-style-type: none"> <li>◦ Learning through use</li> </ul> </li> <li>• Storytelling</li> </ul>	<ul style="list-style-type: none"> <li>• Information-sharing focus</li> <li>• Community interactions                             <ul style="list-style-type: none"> <li>◦ Gifting</li> <li>◦ Enhancing value exchange</li> <li>◦ Networking common interests</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Governance focus</li> <li>• Community interactions                             <ul style="list-style-type: none"> <li>◦ Creating together</li> <li>◦ Soliciting ideas</li> </ul> </li> <li>• Project identity</li> </ul>
Build for...	<ul style="list-style-type: none"> <li>• Communication</li> <li>• Design</li> <li>• Facilitation</li> <li>• Maintenance</li> <li>• Project management</li> </ul>	<ul style="list-style-type: none"> <li>• Commons-based production</li> <li>• Data stewardship</li> <li>• Documentation</li> <li>• Licensing</li> <li>• Networking</li> </ul>	<ul style="list-style-type: none"> <li>• Decision-making</li> <li>• Delegation</li> <li>• Event planning</li> <li>• Community Management</li> <li>• Mentoring</li> </ul>
Empower for...	<ul style="list-style-type: none"> <li>• Maintains clarity of vision &amp; purpose</li> <li>• Maintain authenticity &amp; integrity</li> <li>• Stays curious</li> </ul>	<ul style="list-style-type: none"> <li>• Makes connections</li> <li>• Resilience</li> <li>• Self-care</li> </ul>	<ul style="list-style-type: none"> <li>• Embraces failure</li> <li>• Ensures safety</li> <li>• Inspires contribution</li> </ul>



# The Turing Way

Search this book...

## Welcome

Guide for Reproducible Research

Guide for Project Design

Guide for Communication

Guide for Collaboration

Guide for Ethical Research

Community Handbook

## Afterword

Welcome

Guide for Reproducible Research

Guide for Project Design

Guide for Communication

Guide for Collaboration

Guide for Ethical Research

Introduction to Research Ethics

Research Ethics Committees

Workflows

Ethical Decisions in Preclinical Research

Law, Policy and Human Rights in Ethics

Research Ethics for Social Data

Activism for Researchers

Internal Policy Advocacy

Self-Reflection

Ethical Considerations for Open Source Governance Models

Community Handbook

Afterword

## The Turing Way

Search this book...

Welcome

Guide for Reproducible Research

Guide for Project Design

Overview of Project Design

Creating Project Repositories

Personas and Pathways

File Naming Convention

Code Styling and Linting

Sensitive Data Projects

Managing Sensitive Data Projects

Working on Sensitive Data Projects

Guide for Communication

Guide for Collaboration

Guide for Ethical Research

## Guide for Ethical Research

*This guide covers topics related to ethical aspects in data science.*

Data scientists make data-driven decisions that require the collection of data approaches that can have serious implications for health, security, politics, social associated with them. Researchers or any kind of stakeholders in data science consider the ethical standards and their impact on people's lives [Mar18].



## Guide for Project Design

*This guide covers topics related to effective project planning and management.*

In this guide, we compile best practices and guidance for designing research projects by including different aspects of project management and (iterative) development practices derived from academia and industry.

Before starting a project, researchers must define the project's scope. Researchers should start by identifying the main questions they aim to address through their work. Scope definition also includes defining the project goals, possible outcomes, resources requirements, people involved (collaborators, users and target audience) and possible constraints.

Researchers can then proceed to identify the expected minimum viable product of their project, synergies with other projects (similarities as well as differences), measure(s) of success, and the overall impact they hope to achieve. After these crucial questions are addressed, planning can focus on the operational

Data science is defined by its interdisciplinarity. Our work can only reach its highest potential with diverse teams of people involved in designing and delivering the research or product.



Fig. 97 There is more to collaboration than we see. *The Turing Way* project illustration by [author]. Used under a CC-BY 4.0 licence. DOI: 10.5281/zenodo.3332807.

There are many different skills required to work well in groups with a wide range of expertise. In this guide, we welcome contributions in developing guidance on following (but not limited to) the

## 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]

OPEN SCIENCE + RESEARCH  
INTEGRITY SONO  
COMPLEMENTARI  
KEYWORD: TRASPARENZA

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.

Library Element Report

SWG OSI Guideline Report on Research Integrity and Open Science

2021

Uploaded by RRI Tools on January 26, 2022

# ...essendo riproducibili

## Framework for Open and Reproducible Research Training

FORRT



# FORRT

Open Access | Published: 10 January 2017

2017

## A manifesto for reproducible science

Marcus R. Munafò, Brian A. Nosek, Dorothy V. M. Bishop, Katherine S. Button, Christopher D. Chambers, Nathalie Percie du Sert, Uri Simonsohn, Eric-Jan Wagenmakers, Jennifer J. Ware & John P. A. Ioannidis

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



"I THINK YOU SHOULD BE MORE EXPLICIT HERE IN STEP TWO!"



## The Turing Way

Version Control

Licensing

Research Data

Reproducible Environments

BinderHub

Code quality

Code Testing

Code Reviewing Process

Reusable Code

Continuous Integration

Reproducible Research

The Turing Way started by defining reproducibility in the context of this handbook, laying out its



### SEMINARS ON OPEN SCIENCE

A remote educational course open to everyone, focused on Master and PhD Students covering open science topics and practices.

### SAVE THE DATE

The first "ReproCoffee" will be held on June 15th, 3:30 pm (CEST), the event will be online, and "A manifesto for reproducible science" by Munafò et al., 2017 will be discussed.



## IT Italian Reproducibility Network

<https://www.itrn.org/>  
ITRN OPEN RESEARCH SURVEY

review of the common concepts, tools and training, and reproducible computational. Additional chapters have been written, edited,

add other important concepts in. Start from the start. Check out our contributing

We ask you for a few minutes of your time to answer some questions about the use of Open Research practices in your research. This is the link to participate: [RN survey](#)

Your responses will provide a provisional benchmark of where we are, and data will be used to shape future ITRN initiatives around Open Research. Thank you for your valuable contribution.

rch

Next >  
[Overview of Reproducible Research](#)

Search this book...

## ITALIAN REPRODUCIBILITY NETWORK

# ...iniziando con un po' di co-creation

**ORION INSPIRING STORIES INDEX**

- CITIZEN SCIENCE** (PAGE #)
  - Introducing co-creation in fundamental life sciences?
- CO-CREATION** (PAGE #)
  - Encouraging co-creation through a funding call
- OPEN SCIENCE** (PAGE #)
  - Aligning an entire country to develop an Open Science action plan
- PUBLIC DIALOGUES** (PAGE #)
  - Thinking differently through dialogue
- PUBLIC ENGAGEMENT** (PAGE #)
  - Using Art as a way to level the playing field

**2021**

## ORION INSPIRING STORIES

Ideas & examples

### 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 menu

**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 Area known as Open Science.

## CO-CREATION IN DIALOGO CON LA SOCIETÀ

**OPERAS**  
open scholarly communication in the european research area for social sciences and humanities



Research for

**OPERAS**  
open scholarly communication in the european research area for social sciences and humanities

Vera **OPERAS Vera**

**vera**  
activating research

A space for co-creation that provides a set of tools to discover potential partners, define and co-design the activities, to co-create new knowledge and solutions and deliver them to society.

VERA is an online collaboration platform where a diverse set of actors can build social science and humanities research together. It's a virtual gathering place for professionals and practitioners of all kinds and researchers. It's a place where ideas are dreamed and built, where collaborations can take place, and where links to funding can be found.

Method Name(s)	Objective	Audience Size	Audience Type	Event Time	Total Time	Budget (€-€€€€)	
Citizens Hearing	To inform and create discussion among citizens	20-25	Citizens, experts, decision-makers	1D	7M	€€€	Regional Development
Citizens Summit / Assembly	To find out the citizens' attitudes about political priorities and possible courses of action provided on an informed basis	200-5000	Anyone	1D	Var	€€€€	EU
Civic Dialogue	To encourage innovation, trust and confidence to facilitate the creation of a legitimate roadmap for moving forward in a particular direction	Var	CSOs, policy-makers, researchers	Var	Var	€€€	High-level dialogue on In
	To access and bring out the wisdom within a group, and particularly to release the creative potential that results from conflict	Var	Anyone	1-2 D	Var	€€	Conversation Across the S
	To provide a more robust, democratic and accountable decision making which better reflects public values	~ 60	Citizens, experts	60	4M-1Y	€€€€	Appraising options for add
	To enable small groups of people to engage with complex public policy issues	4 to 8	Citizens	1-4 D	Var	€	Public engagement 'Democs' tool, ESR
	To develop ongoing, embedded discussions around a topic	>5000	Researchers, citizens	2-5 D	>1Y	€€€	Bioenergy
	To synthesise a variety of inputs on a specialised topic and produce recommendations	~ 100	Researchers, citizens, policy makers	1-2 H	6M	€€	Translating Research into Pro
	To allow professional staff of laboratories and earth to researchers		CSOs, citizens	2-5 D	8M	€€	Opening up the community
			Citizens	4D	1Y	€€	PorGrow - growing th
				4-5 D	5M	€€€€	Citizens jury on Water
				3M	6M	€€	Biomass Dialogue, B
				2-5 D	6M	€-€€€	Research Agenda Scen

## SPAZIO DI CO-CREAZIONE, SCOPERTA DI POTENZIALI PARTNERS...

The COESO project (Collaborative Engagement on Societal Participatory research project, funded by the European Commission and supported by the OPERAS research infrastructure. It involves communities: the social sciences and humanities community, the open scholarly communication community. It will thus contribute to the development of citizen science in the social sciences and humanities research through a service-first approach. The project will

# ...aprendo l'intero ciclo



.@MarcusMunafa on preregistration vs established (post hoc) peer review:

"If we are going to fly an aeroplane, we do our pre-flight checks before we take off, not when we are about to land" #ukrnLeeds #OpenResearch



Dec. 14 2021

## CONTENT

- Why preregister studies?
- How to preregister your study
- Where to preregister?
- Deviating from preregistered plans
- References

## Preregistration

## Preregistration da PHDontrack



Preregistration involves specifying your hypotheses, study design and data analyses before writing up your final report. Sometimes, preregistration takes place before any data are collected, while in other cases (when using pre-existing data), it takes place before the data are analysed. Preregistration is typically done in a time-stamped, non-editable file, which is then deposited in a secure online archive. While not yet equally relevant in all disciplines or to all types of study, the practice of preregistration is currently expanding.



The open registries network

Search registrations...

<https://osf.io/registries/>

Search

256,423 searchable registrations as of May 13, 2018

CREATE



Create a new AsPredicted pre-registration

AsPredicted (e.g. approve, make public)

Your email address (used in AsPredicted)

SEE OWN

## PREREGISTRATION

OSF Registries o AsPredicted

- PRIORITÀ

- DIFFICILE FALSIFICARE I DATI

- RISULTATI NEGATIVI

### How does it work?

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

### What if things don't go "as predicted"

You can just say so in the paper:

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

# ... consapevoli dei vostri diritti

**2023**

**What is the "open access prior obligation"?**  
Per the signature of their grant agreement, for peer reviewed scientific publications relating to their results, Horizon Eu...

**Is the "open access prior obligation" aligned with the cOAlition S Rights Retention Strategy?**  
It is. All cOAlition S organisations require that authors (or their organisations) retain sufficient intellectual property righ...

**What if the publishing agreement proposed by the publisher does not allow Horizon Europe beneficiaries to provide immediate open access under CC BY or an equivalent license?**  
Unless the final peer-reviewed manuscript accepted for publication is already available in open access respecting the ...

**2022** Plan S Principles & Implementation

**LICENSES**

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**IL DIRITTO È DELL'AUTORE. NON CEDETELO!!!**

**Resources**

Go back

**Rights Retention S**

Open Access benefits everyone. Retain your rights. It's good for you, for science, and for society

The author's rights quiz: How well do you know your rights as an author?

**Plan S**  
Making full & immediate Open Access a reality

**The Author's Rights Quiz**  
How well do you know your rights as an author?

**Let's find out!** Press Enter

**Plan S**  
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The peer-reviewed Author Accepted Manuscript (AAM) is your intellectual creation, your valuable asset. Don't give it away.

**Publish with Power. Protect your Rights.**

**#RetainYourRights**



# Documenti vivi

## 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 preprints as a way to share their work before it's been peer reviewed.

And consider corrections. We know that scientific papers regularly contain errors. One algorithm that ran through psychology papers found that, at worst, more than one specific statistical error, and more than 15% of papers are wrong enough to overturn the results. With this kind of mistake is a slog: you have to wait for a journal, get the attention of the busy editor, and then wait for a new, short paper that formally details the errors. Many scientists who request corrections find their requests ignored by journals. Imagine the amount of scientific literature that haven't been corrected. It's a lot of hassle.

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.

F1000Research 2019 Search

BROWSE GATEWAYS & COLLECTIONS HOW TO PUBLISH ABOUT

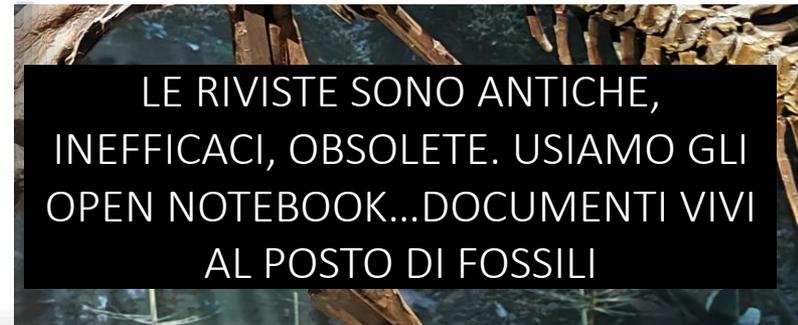
Home » Browse » Open laboratory notebooks: good for science, good for society, good...



OPINION ARTICLE

**REVISED** Open laboratory notebooks: good for science, good for society, good for scientists [version 2; peer review: 2 approved, 1 approved with reservations]

Matthieu Schapira <sup>1,2</sup>, The Open Lab Notebook Consortium, Rachel J. Harding <sup>1</sup>



LE RIVISTE SONO ANTICHE, INEFFICACI, OBSOLETE. USIAMO GLI OPEN NOTEBOOK...DOCUMENTI VIVI AL POSTO DI FOSSILI

OPPURE  
PREPRINT+OPEN  
PEER REVIEW

A Practical Guide to Preprints 2021

Accelerating Scholarly Communication



...con dati FAIR

**A** [NON = OPEN]  
REPOSITORIES,  
FORMATI

**R** LICENZE E  
DOCUMENTAZIONE

**F** METADATI,  
IDENTIFICATIVI  
PERSISTENTI...

**I** ONTOLOGIE,  
STANDARDS

## PRINCIPI FAIR

Comment | [OPEN](#)

The FAIR Guiding Principles for scientific data management and stewardship

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

## IN BREVE

Module 1: Introduction

Module 2: FAIR principles

Module 3: Data Management Plans



**Reference:** Vlachos, E., Larsen, A.V., Zurcher, S., Hansen, A.F. (2019). 'Introduction'. In: Holmstrand, K.F., den Boer, S.P.A., Vlachos, E., Martínez-Lavanchy, P.M., Hansen, K.K. (Eds.), Research Data Management (eLearning course) doi: 10.11581/du.0000048

**Reference:** Martínez-Lavanchy, P.M., Huser, F.J., Buss, M.C.H., Andersen, J.J., Begtrup, J.W. (2019). 'FAIR Principles'. In: Holmstrand, K.F., den Boer, S.P.A., Vlachos, E., Martínez-Lavanchy, P.M., Hansen, K.K. (Eds.), Research Data Management (eLearning course) doi: 10.11581/du.0000049

**Reference:** den Boer, S.P.A., Buss, M.C.H., Huser, F.J., Smed, U. (2019). 'Data Management Plans'. In: Holmstrand, K.F., den Boer, S.P.A., Vlachos, E., Martínez-Lavanchy, P.M., Hansen, K.K. (Eds.), Research Data Management (eLearning course) doi: 10.11581/du.0000050

[Video](#)



**FARM DATA TRAIN**

# [perché c'è EOSC!]

## The Vienna Declaration on the European Open Science Cloud

Vienna, 23 November 2018

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Vienna, Nov.23, 2018

### We, Ministers, delegates and other participants attending the launch event of the European Open Science Cloud (EOSC):

- 1. Recall** the challenges of data driven research in pursuing excellent science as stated in the “EOSC Declaration” signed in Brussels on 10 July 2017.
- 2. Reaffirm** the potential of the European Open Science Cloud to transform the research landscape in Europe. Confirm that the vision of the European Open Science Cloud is that of a research data commons, inclusive of all disciplines and Member States, sustainable in the long-term.
- 3. Recognise** that the implementation of the European Open Science Cloud is a process, not a project, by its nature iterative and based on constant learning and mutual alignment. Highlight the need for continuous dialogue to build trust and consensus among scientists, researchers, funders, users and service providers.
- 4. Highlight** that Europe is well placed to take a global leadership position in the development and application of cloud services for Science and the world, reaching out over
- 5. Recall** that the

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

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

**10. Note** that the 2018 EOSC Summit (held on 11 June 2018), called for acceleration towards making the European Open Science Cloud a reality, hinting at the need to further strengthen the ongoing dialogue across institutions and with stakeholders, for a new governance framework to be launched in Vienna, on 23 November 2018.

# Horizo

PRATICHE OBBLIGATORIE E RACCOMADATE –  
**IN SEDE DI PROPOSTA VIENE VALUTATO COME VENGONO  
ADOTTATE/ADATTATE**

NELLA METODOLOGIA  
VANNO DESCRITTE ENTRAMBE:  
1) COME SI SARÀ CONFORMI ALLE  
PRATICHE OBBLIGATORIE  
2) COME SI ADOTTERANNO  
PRATICHE RACCOMANDATE

## Open Science in Horizon Europe



# ... parliamo di Open Access / green e gold



SI **DEPOSITA** IN UN ARCHIVIO OPEN ACCESS LA VERSIONE FINALE DELL'ARTICOLO, OVUNQUE ESSO SIA STATO PUBBLICATO, NEL RISPETTO DELLE NORME DI COPYRIGHT DELL'EDITORE

FATTIBILE SUBITO,  
A COSTO ZERO,  
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(QUINDI SI FA VQR, ASN...)  
NON FA NESSUN DANNO ALLA  
VOSTRA CARRIERA!



SI **PUBBLICA** IN UNA RIVISTA OPEN ACCESS  
[senza abbonamento, 32% chiede spese pubblicazione]

DALLA BOZZA VQR 2020-2024 CI SARÀ  
RICHIESTA DI OPEN ACCESS E OPEN SCIENCE

# Depos

82% DEGLI EDITORI INTERNAZIONALI LO CONSENTE (Elsevier, Wiley, Springer...), VERIFICARE SU SHERPA ROMEO:

VIDEO  
TUTORIAL



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Open Access pathways permitted by this journal's policy are listed below by article version. Click on a more detailed view.

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**Accepted Version** [pathway b] Institutional Repository

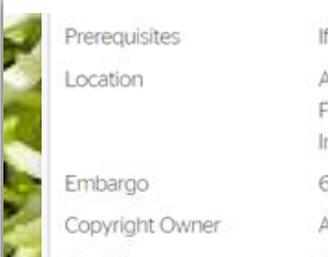
**Submitted Version** Preprint Repository, Author's Homepage

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...CON LIMITI:  
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[=MESI IN CUI ARTICOLO PUR DEPOSITATO NON È VISIBILE]



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# [colori e altre amenità

RIVISTE DI EDITORI  
COMMERCIALI IN  
ABBONAMENTO

...NON DIMENTICATE CHE ESISTE IL GREEN  
OPEN ACCESS – SEMPRE GRATIS  
(PUBBLICATE DOVE VOLETE E POI DEPOSITATE,  
VERIFICANDO LA VERSIONE CONSENTITA SU  
SHERPA ROMEO)

- 10 MILIARDI/ANNO
- TUTTI PAGANO LO STESSO CONTENUTO
- PAGHIAMO PER CHIUDERE

RIVISTE IBRIDE

NON AMMESSE IN  
HORIZON EUROPE

- 100% CHIEDE APC
- DAI 3000\$ AGLI 11.000 DI NATURE
- SI PAGA UN ARTICOLO MA LA RIVISTA  
RIMANE IN ABBONAMENTO  
(PAGHIAMO DUE VOLTE)

RIVISTE FULL OPEN  
ACCESS

DIAMOND=SENZA  
COSTI

- 32% RICHIEDE APC
- PAGATE UNA VOLTA PER SEMPRE  
DA UN SOLO ENTE
- PAGHIAMO PER APRIRE

# Senza vergogna

«OUT OF TOUCH AND OUTDATED» POSITION TO PREVENT RIGHT RETENTION

ACS Publications Information for: Open Access Read and F

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## Zero-Embargo Green Open Access

An alternative option for authors required to publish their peer-reviewed manuscript in a repository immediately after acceptance

## Supporting zero-embargo green OA

An [article development charge \(ADC\)](#) will be applied if the zero-embargo green OA route is requested by authors, and the manuscript is recommended to be sent out for peer review. The ADC covers the cost of ACS' publishing services through the final editorial decision.

The article development charge (ADC) is a flat fee of \$2,500 USD and is payable once the manuscript is sent for peer review. The ADC covers the cost of ACS' pre-acceptance publishing services, from initial submission through to the final editorial decision.

2.500 \$ PER MANTENERE IL DIRITTO DI DEPOSITARE A ZERO EMBARGO... OLTRAGGIOSO!!!

Plan S Making full & immediate Open Access a reality

Oct. 21, 2023

## American Chemical Society (ACS) and authors' rights retention

17/10/2023

In this post I shall describe how the American Chemical Society's (ACS) [new zero embargo policy](#) perpetuates an increasingly out-of-touch and outdated position taken by some publishers, who aim to prevent researchers from retaining their rights to use their own work as they choose.

Oct. 27 2023

Eloy Rodrigues 2 g

COAR's response to the American Chemical Society's new fee for repository deposit.

This move by ACS is simply outrageous, and should be strongly repudiated, by the research community and its institutions. Shame on ACS!

COAR Confederation of Open Access Repositories

Oct. 24, 2023

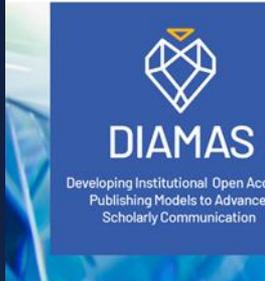
## COAR's response to the American Chemical Society's new fee for repository deposit

COAR strongly objects to this charge for the following reasons:

- **Authors own their manuscripts and should retain their rights.** Authors typically hold the copyright to their research, but too often transfer those rights to publishers when publishing their manuscript. When authors retain the copyright to their manuscript, they have the right to disseminate and use their own manuscript as they choose. If authors' rights are retained, publishers do not own an article accepted manuscript (AAM) and researchers should not be duped into paying a fee to exercise a right they already have.
- **This fee is in direct contravention with the ethos of open science, scholarship and equity.** Science is about sharing and advancing knowledge and open access policies are being designed very carefully to ensure that all researchers are able to do so, even if they do not have funding to pay to publish their articles.
- **ACS is charging \$2,500 while providing no added value.** There is not a fee for an extra service offered. It requires no extra work on the side of the publisher, but rather is an attempt to develop a new revenue stream, while at the same time they will be receiving funds from subscriptions and pay-to-access for this same article.  
**ACS is creating a false impression about compliance with funder policies.** There is no charge for complying with funder OA policies. Nor is there any charge for depositing manuscripts in OA repositories. A fee is only required if you want to publish in an ACS journal and sign over your rights.

OLTRAGGIOSO!  
RIFIUTATEVI!!

# Diamond Open Access



Council of the EU Press release 23

## Council calls for the high quality, transparent, open, trustworthy and equitable scholarly publishing

Today the Council has adopted conclusions on the 'high quality, transparent, open, trustworthy and equitable scholarly publishing', in which it calls for immediate and unrestricted open access in publishing research involving public funds.



If we really believe in open science, we need to make scientific findings available and re-usable and that high-quality science should be available to anyone that needs to read them. This should be particularly true for research funded by public funds: what has been paid by all of us should be available to all of us.

— Mats Persson, Swedish Minister for Education, Ministry of Education and Research

## The hazards of scholarly publishing

Scientific articles and other forms of scholarly publishing continue to be the primary source of new results and scientific findings. However, far from every article is available to other researchers or other interested readers.

The costs of paywalls to access and publish articles are becoming unsustainable and the publication channels for



Global Summit on #DiamondOpenAccess

A dialogue to strengthen #NonCommercialOpenAccess. October 23-27, 2023, venue @UAEM\_mx, Toluca, Mexico. In-person/virtual. Save the date and participate!

[amelica.org/index.php/en/2...](https://www.amelica.org/index.php/en/2...)

#DiamondSummit #Act4DiamondOA



El Acceso Abierto vía Diamante, entendido como la publicación sin cuotas por leer ni por publicar creada y mantenida por organismos académicos y científicos; así como el Acceso Abierto vía verde, son referentes de **modelos no comerciales compatibles con el paradigma de los bienes públicos**, y son inclusivos por definición.

# Diamond Open Access

**CUMBRE MUNDIAL SOBRE ACCESO ABIERTO DIAMANTE**  
Oct. 27, 2023  
GLOBAL SUMMIT ON DIAMOND OPEN ACCESS  
SOMMET MONDIAL SUR ACCÈS OUVERT DIAMANT  
CIMEIRA GLOBAL SOBRE ACESSO ABERTO DIAMANTE

EQUIDADE  
SOSTENIBILIDAD  
USABILITY  
QUALITÉ

23-27  
OCT 2023  
UNIVERSIDAD AUTÓNOMA  
DEL ESTADO DE MÉXICO  
TOLUCA, MÉXICO

Logos: UAEMex, amelica, unesco, CLACSO, UOR, anr, cOAlition S, OPERAS, etc.

## Conclusions and Way Forward

Knowledge is our most valuable asset and a public good that must be shared widely to ensure the sustainability of our planet and future. The digital revolution provides unprecedented means to spread scientific results and ideas around the world in instant, to the benefit of all.

## Manifiesto sobre la Ciencia como Bien Público Global: Acceso Abierto No Comercial

Oct. 27, 2023

ACCESSO APERTO NON COMMERCIALE, PER DEFINIZIONE INCLUSIVO, UNICA VIA VERSO LA CONOSCENZA COME BENE PUBBLICO

- 1** Derecho universal  
La ciencia es un bien público global y el acceso a ella es un derecho universal
- 2** Equidad, diversidad y multilingüismo  
La ciencia es inclusiva, multilingüe, accesible, reutilizable y colaborativa.
- 3** Propiedad de la academia y patrimonio de la humanidad  
La producción científica es propiedad de la academia y se debe al desarrollo y progreso de la sociedad como patrimonio de la humanidad
- 4** Reconocimiento y valoración  
Las entidades de acreditación, investigación y financiación deben reconocer, evaluar e incentivar los medios no comerciales de producción y circulación del conocimiento científico.
- 5** Colaboración  
La interacción y colaboración entre los agentes no comerciales, publicaciones científicas e infraestructuras abiertas es necesaria para la construcción de ecosistemas de bienes públicos.

# Predatory?

SONO UN  
SOTTOPRODOTTO DI  
QUESTA VALUTAZIONE  
QUANTITATIVA, NON  
DELL'OPEN ACCESS



Le riviste predatorie sono spesso definite come il lato oscuro dell'open access. Una sorta di effetto collaterale indesiderato di un movimento che in sé sarebbe virtuoso. L'analisi spesso si ferma qui e pochi collegano direttamente il fenomeno dell'editoria predatoria ai sistemi di valutazione performance based, che premiano e promuovono sulla base di indicatori quantitativi il cui soddisfacimento finisce per diventare lo scopo dei giovani ricercatori (When a measure becomes a target...). Recentemente si è affermato che la soluzione al fenomeno potrebbe essere rappresentata dall'acquisizione di black lists da

editori commerciali  
sarebbero e sono  
formazione dei r

Secondo questa prospettiva sarebbe l'open access la causa del proliferare delle riviste predatorie; i nostri esperti si sono appunto interrogati su che cosa si può fare per contrastare questo fenomeno, e in particolare come devono agire i ricercatori per evitare di esserne catturati.

iche  
la

Una simile impostazione affronta il problema a valle e non a monte, perché identifica il sintomo ma senza interrogarsi sulla causa con sufficiente radicalità. Se infatti si tratta di pubblicare a pagamento per interessi diversi da quello della partecipazione al dibattito scientifico, che la pubblicazione sia ad accesso aperto o chiuso dovrebbe essere teoricamente irrilevante.

Perché mai un ricercatore dovrebbe scegliere di pubblicare in una rivista predatoria, eventualmente ad accesso aperto? Certamente perché queste riviste garantiscono una pubblicazione rapida, cioè una riga in più nel proprio CV. Ma perché la riga in più nel CV è così importante? Perché al ricercatore è richiesto di soddisfare alcuni criteri numerici per poter aspirare ad una posizione da strutturato.

Visto da questa prospettiva allora la radice del fenomeno delle riviste predatorie è un sistema di valutazione che pone l'enfasi sulla quantità (di pubblicazioni e di citazioni). L'open access è un aspetto soltanto accidentale. Anche a riviste ad accesso chiuso capita di ospitare articoli privi di sostanza, talvolta neppure scritti da esseri umani. Si veda per esempio Cabanac, Guillaume, Cyril Labbé, e Alexander Magazinov. «Tortured phrases: A dubious writing style emerging in science. Evidence of critical issues affecting established journals». 12 luglio 2021. <http://arxiv.org/abs/2107.06751>.

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.



Researchers are not 'hoodwinked' victims. All choose to play the publishing game and some can choose to change it.

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 indirectly 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.

2015

I RICERCATORI NON SONO VITTIME. SONO PARTE DEL GIOCO. MA È ORA DI DIRE «GAME OVER»

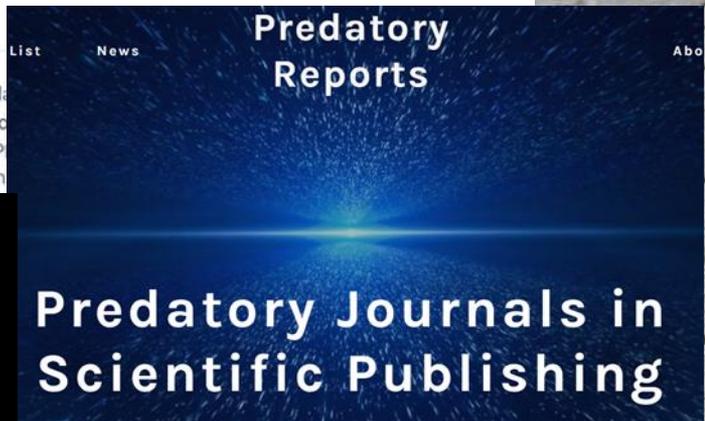
Scott Edmunds perhaps summed it up best at the FORCE2015 meeting in Oxford:



*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.*

Gianluca Sbardella @g\_sbardella 11 MARZO 2023

MDPI journals have been included in the list of predatory journals. It was about time.



If we cast ourselves as mere victims, it is an excuse for doing nothing.

1. DAVVERO DOBBIAMO FARCELO DIRE DA UNA LISTA NERA?
2. CHI C'È DIETRO?
3. PERCHÉ CI PUBBLICATE?



AVETE MAI PERSO I  
VOSTRI DATI?

DOPO ANNI, SARESTE IN  
GRADO DI DIRE COSA C'È  
NELLA COLONNA «CPR»? O  
NEL FILE «FINAL»?

SONO IN  
SPIAGGIA  
PRO  
DOPO

SOLO  
SOLE

PARLIAMO DI DATI

# 1. Gestione dei dati / perché

1. SONO IL FONDAMENTO DI UNA RICERCA SOLIDA



2. IL COVID HA DIMOSTRATO CHE SERVONO I DATI, NON SOLO GLI ARTICOLI, E SERVONO SUBITO

3. I DATI SONO FRAGILI, SI PERDONO

4. ALCUNI SONO UNICI E NON POSSONO ESSERE RIPRODOTTI (METEO, TERREMOTI...)

5. POSSONO ESSERE MANIPOLATI, GESTIRLI GARANTISCE INTEGRITÀ

6. PERMETTONO VALIDAZIONI E RIPRODUCIBILITÀ

7. I DATI CREANO PONTI FRA LE DISCIPLINE

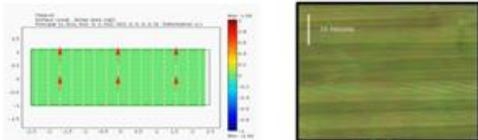
8. POSSONO ESSERE RIUTILIZZATI (IN MODO INEDITO)

# [una storia personale]

## Past scientific interests

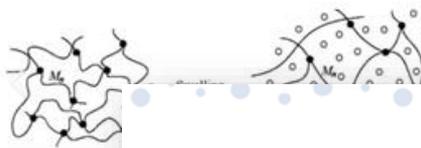
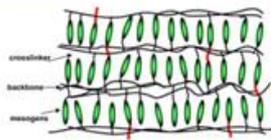
### Mathematical models for soft-active materials

- Elasticity within large deformation framework (non-linear models)
- Deformation of active-smart materials (swelling materials, nematic elastomers, ...)



M. de Luca, A. DeSimone: Elastomeric Gels: A Model and First Results. Innovative Numerical Approaches for Multi-Field and Multi-Scale Problems. Lecture Notes in Applied and Computational Mechanics, vol 81. Springer, Cham, (2016) [https://doi.org/10.1007/978-3-319-39022-2\\_4](https://doi.org/10.1007/978-3-319-39022-2_4)

M. de Luca, A. Petelin, M. Copic and A. DeSimone, "Sub-stripe pattern formation in liquid crystal elastomers: Experimental observations and numerical simulations", JMPs, 61 (2013) 2161 – 2177 <https://doi.org/10.1016/j.jmps.2013.07.002>



Research (FAIR) data management 2023

AREA SCIENCE PARK

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Institute for Research and Innovative Technologies (RIT)  
AREA SCIENCE PARK

1<sup>st</sup> Workshop for National PhD in "Theoretical and Applied Neuroscience", Bertinoro 18.10.2023

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10 ANNI DOPO... HO ACCESSO ALLE MIE PUBBLICAZIONI? DOVE SONO I MIEI DATI? POSSO RIPRODURRE LE MIE SIMULAZIONI?[ M.R. DE LUCA, PhD]

## What about my data and my publications?

- Do I have access to my publications?
- Where are my data?
- Can I reproduce my numerical simulations?

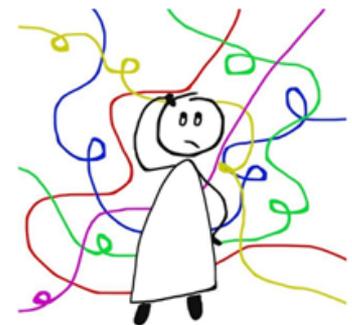


Image by Elisa from Pixabay



[i tre passi fondamentali]

OPEN

FAIR

GESTITI

1. I DATI DEVONO ESSERE «AS OPEN AS POSSIBLE»

2. MA SE I DATI NON SONO «FAIR», APRIRLI COMPORTA RISCHI  
(USO SCORRETTO, CATTIVE INTERPETAZIONI, ...)

3. MA SE I DATI NON SONO CORRETTAMENTE GESTITI, RENDERLI  
«FAIR» COSTA TROPPO TEMPO E DENARO. CON EOSC, DATI GESTITI E  
DATI FAIR TENDONO A COINCIDERE, FAIR BY DESIGN

E GESTIRE I DATI CORRETTAMENTE È NELL'INTERESSE PRIMARIO DI CHI FA RICERCA,  
PERCHÉ L'INTERA RICERCA SCORRE PIÙ FLUIDA

# 1. Gestire i dati

DESCRIZIONE  
(metadati)

ORGANIZZAZIONE  
(file naming,  
folders,  
versioning...)

BACKUP E  
STORAGE

CONSERVAZIONE  
SUL LUNGO  
PERIODO



ASPETTI LEGALI

LUNGO TUTTO IL CICLO DI VITA

# 2) rendering FAIR

FINDABLE



Metadata Standards Catalog

Search Sign in

Metadata standards catalog

## Metadata Standards Catalog

Metadata Standards Catalog is a collaborative, open directory of metadata standards for research data. It is offered to the international academic community to help address research data management needs.



ACCESSIBLE  
[≠OPEN]



### What are data journals?

Data journals are scholarly journals that publish datasets or data papers. According to *Geoscience Data Journal*, "a data paper describes a dataset, giving details of its collection, processing, software, file formats etc, without the requirement of novel analyses or ground breaking conclusions. It allows the reader to understand the when, how and why data was collected, and how it exists, as this data would be used in the future."

Data journals

If your data are stored in other formats than those mentioned below, please contact DANS.

Type DANS formats

Preferred format(s)

Non-preferred format(s)

Text documents

- PDF/A (.pdf)
- ODT (.odt)

- Microsoft Word (.doc)
- Office Open XML (.docx)
- Rich Text File (.rtf)
- PDF other than PDF/A

INTEROPERABLE

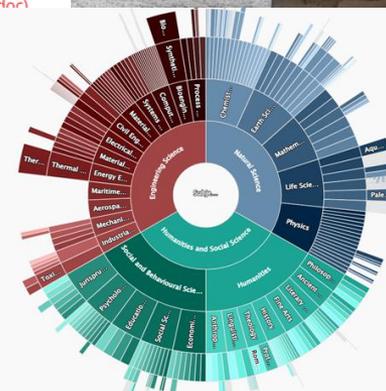
**FAIRsharing.org** standards, databases, policies

search through all content <https://fairsharing.org/>

STANDARDS DATABASES POLICIES COLLECTIONS ADD CONTENT STATS

A curated, informative and educational resource on data and metadata standards and policies inter-related to databases and data policies.

We guide consumers to discover, select and use these resources with confidence, and producers to make their data and metadata more discoverable, more widely adopted and cited.



REUSABLE

MIT Press Direct 2020

Data Intelligence

Volume 2, Issue 1-2 January 01 2020  
Winter-Spring 2020

Licensing FAIR Data for Reuse

Ignasi Labastida, Thomas Margoni

OpenAIRE SERVICES SUPPORT

Guides for Researchers

How do I know if my research data is protected?

Learn more about data protection and licensing

CC Factsheet

FACT SHEET ON CREATIVE COMMONS & OPEN SCIENCE

This information guide contains questions and responses to common concerns surrounding open science and the implications of licensing data under Creative Commons licenses. It is intended to aid researchers, teachers, librarians, administrators and many others using and encountering Creative Commons licences in their work.

Project-level documentation

The project-level documentation provides information on the level of individual objects such as research instruments that you use.

Data-level documentation

Data-level or object-level documentation provides information on the level of individual objects such as research instruments that you use.

CESSDA

Data Management Expert Guide

Sharing Data  
**Why share data**  
 2. Why share data?



# 3) Se possibile, render

**YOU SAVE LIVES.**

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 most visualized data in history and it was made publicly available on a daily basis to people all over the world. The urgent need to better understand and treat the virus in 2020 brought unprecedented collective and collaborative action from all research stakeholders on an international scale to bring down barriers to research and speed up analysis and testing. These efforts, combined with support from governments and industry, resulted in not one but many vaccines made available by the end of the year. This gives us a glimpse of what incredible research outcomes are possible when we start with collaboration to address a common threat. Imagine how much more we could do, how many more lives we could save, if research data was routinely made open and shared. So, why isn't data sharing the norm? The answers lie in the harmony needed between policies, infrastructure, and practices.

## Better research

- Demonstrates research integrity, as there is transparency and accountability in the production of the data
- Encourages research enquiry and debate
- Promotes innovation and potential new discoveries
- Encourages the improvement of research methods
- Prevents research fraud

## Better impact

- Enables peer scrutiny of the research findings, validating the work carried out
- Increases the visibility of the research
- Provides credit for the creation of the data
- Can lead to new collaborations
- Produces a public record of the research

## Better value

- Avoids duplication of effort in data creation
- Provides resources for use in teaching and learning
- Meets funder requirements
- Ensures data can be re-visited for future research
- Maximises return on research investment
- Preparing data for sharing also prepares it for reuse

**MIGLIORA LA RICERCA**  
 - INTEGRITÀ  
 - DIBATTITO  
 - RIUSO

**MIGLIORE IMPATTO**  
 - VISIBILITÀ  
 - CREDITO  
 - COLLABORAZIONE

**PIÙ VALORE**  
 - EVITA DUPLICAZIONI  
 - MASSIMO RITORNO SUGLI INVESTIMENTI

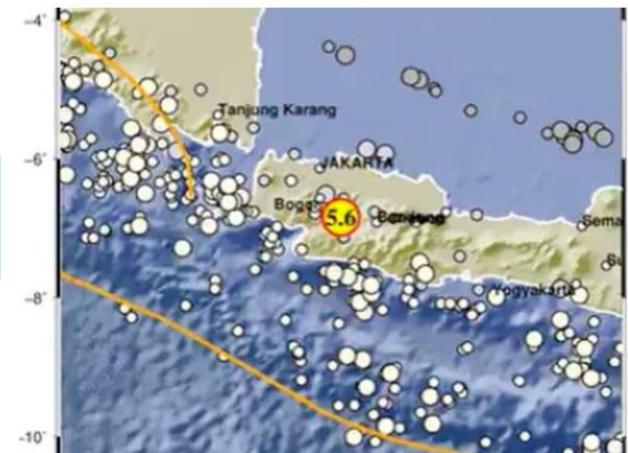
# ...il selfie...

How we can get those data

This was the best map that we can get (cited by the media)

Those data points are not really data points. They're just a selfie of data points.

They're not reusable.



RICORDATE...  
SE I DATI  
NON SONO APERTI E RIUSABILI  
SONO SOLO UN SELFIE DI DATI,  
QUINDI DEL TUTTO INUTILI  
[Dasapta Erwin Irawan]

Kissed or missed?



PRINCIPI FAIR SONO  
«MACHINE ACTIONABLE»  
(DIVERSO DA READABLE)  
FAIR = FULLY AI READY

# FAIR/Open

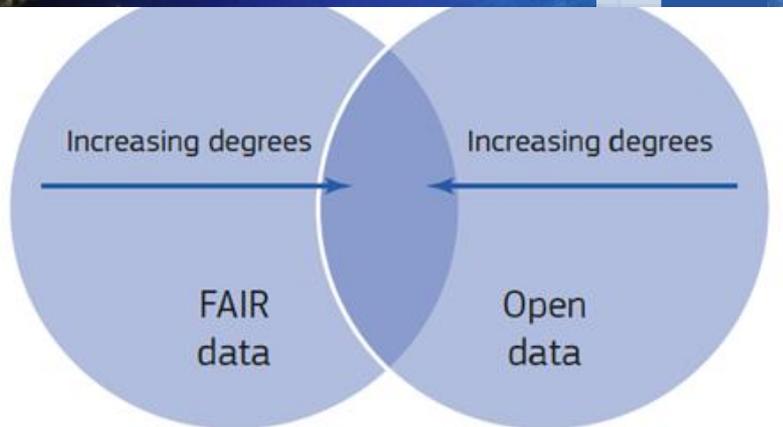


Figure 4. The relationship between FAIR and Open

A TENDERE, I DUE INSIEMI SARANNO SEMPRE PIÙ SOVRAPPOSTI. MA ESISTERANNO SEMPRE DATI PERFETTAMENTE FAIR CHE NON POSSONO ESSERE OPEN

# Supporto / Come essere FAIR

zenodo Search Upload Communities

January 11, 2022 2022 Book Open Access

## D7.4 How to be FAIR with your data. A teaching and training handbook for higher education institutions

Engelhardt, Claudia; Biernacka, Ka; Demchenko, Yuri; Downes, Stephe; Germer, Kerstin; Helbig, Kerstin; H; Jetten, Mijke; Karimova, Yulia; Kry; Viviana; McCutcheon, Valerie; Mc; Petrus, Ana; Reichmann, Stefan; R; Saenen, Bregt; Schmidt, Birgit; Sch; den Eynden, Veerle; Vandendorpe, Ju; Wuttke, Ulrike; Yeomans, Joanne;

- 5 – FAIR lesson plans
- 6 – Implementing FAIR
  - 6.1 Introduction
  - 6.2 Getting to FAIR institutional policies
  - 6.3 Data management planning

## FAIR Cookbook

Created by researchers and data managers professionals, the FAIR Cookbook is an online resource for the Life Sciences with recipes that help you to make and keep data Findable, Accessible, Interoperable and Reusable (FAIR).

### Turning FAIR into practice

The FAIR Principles put specific emphasis on enhancing the ability of machines to automatically find and use the data, in addition to supporting its reuse by individuals. However, the FAIR Principles are aspirational and generic. The FAIR Cookbook guides researchers and data stewards of the Life Science domain in their FAIRification journey; and also provides policy makers and trainers with practical examples to recommend in their guidance and use in their educational material.

- FOREWORD
- Introduction
- Ethical values of FAIR
- Glossary
- RECIPES
  - Findability
  - Accessibility
  - Interoperability

## Practical Support for FAIR Data

An overview of how the FAIR Toolkit provides practical support for implementation of FAIR data management through numerous use cases from industry and relevant tools, training and change methods.

### Practical Support FAIR Toolkit

The FAIR Toolkit is designed to provide support for management of the FAIR data life cycle as illustrated in Figure 1 below. It places emphasis on the practical aspects of FAIR data management through the leverage of existing resources that are most relevant to the needs of Life Science industry.

## HOW TO FAIR

### How to FAIR

- What is FAIR
- Why FAIR
- How to FAIR
- About
- Quiz

## A deep dive into FAIR data

This website will take you on a deep dive into the subject matter of FAIR research data. Over the course of

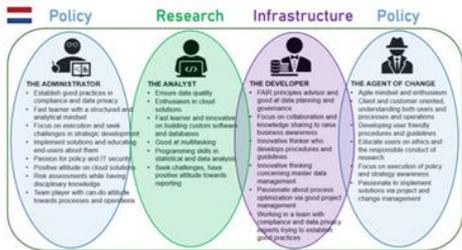
- 18 min read Documentation
- 12 min read File formats
- 20 min read Metadata
- 10 min read Access to data
- 7 min read Persistent identifiers
- 5 min read Data licences

# [parlare di dati significa anche data stewardship]

COMPETENZE SUI DATI DI DOMINIO +  
COMPETENZE  
TECNICHE SU FAIR

## Chi è il «data steward» (2)

### Profili professionali del data steward



Lorna Wildgaard et al. (2020). National Coordination of Data Steward Education in Denmark: Final report to the National Forum for Research Data Management. Zenodo. <https://doi.org/10.5281/zenodo.369515>

Valentina Pasquale - Istituto Italiano di Tecnologia

«Data Steward» per i dati FAIR 2021

Valentina Pasquale<sup>1</sup>, Emma Lazzeri<sup>2</sup>, Elena Giglia<sup>3</sup>

<sup>1</sup>Istituto Italiano di Tecnologia, <sup>2</sup>GAIR, <sup>3</sup>Università di Torino

... hanno (preferibilmente) un PhD e possiedono nozioni su come i dati vengono gestiti in un dominio di ricerca specifico

... possibilmente hanno esperienza progressa in programmazione, sviluppo software, gestione di database e infrastrutture di ricerca, sicurezza dei dati

... hanno buone capacità comunicative, di insegnamento e organizzative

... possiedono nozioni su aspetti legali della gestione dei dati (privacy, proprietà intellettuale) ed etici

... comprendono la psicologia dei ricercatori e parlano lo stesso linguaggio specifico

... desiderano intraprendere un percorso di carriera che non è né puramente scientifico né tecnico

KOBENHAVNS UNIVERSITET

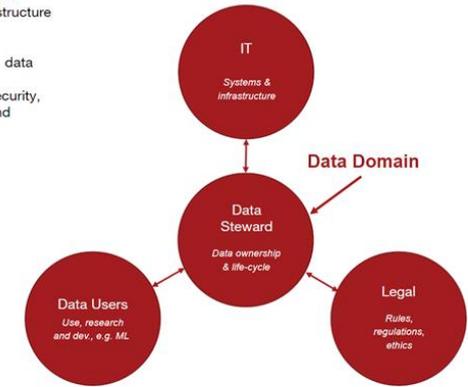
### Competence Profile

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 data internally and externally in the organisation.

#### Competence profile examples

- Domain-specific data understanding
- Ability to ensure that structured and unstructured data and meta data is modelled, harvested, stored, and maintained in a 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.



Copenhagen Univ. June 17 2020

- SERVONO 500.00 DATA STEWARDS  
- DATA STEWARDS SONO UNO DEI FATTORI DI SUCCESSO DI EOSC

Strategic Research and Innovation Agenda (SRIA) of the European Open Science Cloud (EOSC)

SRIA 1.0 Version 1.0 15 February 2021

## 7.4. Critical success factors

The developments and expected impacts described above will not happen spontaneously. For these benefits to materialise a number of critical success factors (CSFs) must be in place. The following CSFs have been identified for EOSC:

- 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 help implement FAIR principles and support Open Science;

# Perché c'è EOSC: dati

...IL VALORE DEGLI OPEN DATA:  
ATTIVARE IL POTENZIALE DEI DATI DELLA  
RICERCA PER ACCELERARE PROGRESSO E  
INNOVAZIONE

## EOSC EOSC Strategy – Status Current Thinking

What

**EOSC is a web of FAIR data and related services for research**  
Research data that is easy to find, access, interoperate and reuse (FAIR)  
Trusted and sustainable research outputs are available within and across scientific disciplines

Why

**Unlock the full potential of research data to accelerate discoveries and innovation**

How

### Access and interoperability of research data and results

- Define ownership, authorship and responsibility of data and research outputs
- Ensure long-term preservation of data throughout its lifecycle
- Enable the creation of standards for all research domains
- Make data machine-actionable
- Enable new scientific discovery methods and science disciplines
- Train researchers on adopting FAIR principles as an integral part in their activity

### A sustainable coordinated infrastructure

- Establish and maintain a coordinated federated reference architecture
- Implement an operational infrastructure framework that is long term sustainable
- Ensure high quality of data and services
- Ensure secure access to data and services
- Define clear standards for API and interoperability of data and services
- Apply user friendly practices
- Inspire EOSC ambassadors to assist in on-boarding of researchers

### Inspired people and robust governance

- Communicate an inspiring EOSC vision and strategy
- Implement an unambiguous and clearly mandated governance structure
- Establish a framework to engage human capital in institutions, countries and scientific communities
- Enable disciplinary and cross-disciplinary transnational research to find new insights from existing and new research data and outputs

# [EOSC NON È UNA BIG BOX]

## THE EUROPEAN OPEN SCIENCE CLOUD? SOME NUANCES AND DEFINITIONS

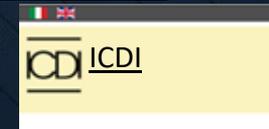
Imagine a federated, globally accessible environment where researchers, innovators, companies and citizens can publish, find and re-use each other's data and tools for research, innovation and educational purposes. Imagine that this all operates under well-defined and trusted conditions, supported by 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 leads to knowledge creation, meet global challenges and fuel economic growth.

EOSC = AMBIENTE CHE FAVORISCE  
LA OPEN SCIENCE E NON UN «OPEN  
CLOUD» PER LA SCIENZA

EOSC NON È UN  
REPOSITORY O UN  
SERVIZIO «CLOUD»

SI RENDONO I DATI  
FAIR IN MODO CHE I  
\*SERVIZI\* IN EOSC  
POSSANO TROVARLI  
(«FINDABLE»)

NON SI FA  
«UPLOAD» DEI DATI  
DENTRO EOSC



UN DOCUMENTO  
FORMALE SULLA  
GESTIONE DEI DATI CHE  
NE ASSICURA INTEGRITÀ

REGOLE CHIARE=MENO  
ERRORI DA SUBITO

...CHIARIAMO:  
IL PROBLEMA NON È  
«IMPARARE» A FARE UN DMP  
MA IMPARARE A GESTIRE I  
DATI IN MODO FAIR E  
RESPONSABILE

- NO DISSERTAZIONE
- ELENCHI PUNTATI
- SPECIFICO E SINTETICO (IMPOSSIBILE COPIARE)
- SE NON LO SAPETE, DITELLO (NON LASCIATE UNA «CASELLA VUOTA»
  - NON SIATE GENERICI

È UN «LIVING DOCUMENT»,  
CRESCE COL PROGETTO

- È LA SEDE IN CUI
- 1) GIUSTIFICATE LE SCELTE  
OPEN/CLOSED
  - 2) STIMATE I COSTI

...per i dati FAIR serve il Data Management  
Plan

...non siete soli...

# Open Science Café

2023



GIOVEDÌ 12 GENNAIO, 14.30 - 15.30

## Come scrivere un Data Management Plan (DPM)



Elena Giglia, Università di Torino  
Introduce: Emma Lazzeri, GARR

YouTube video player showing the title "DMPonline video tutorial". The video content shows a slide with the text "DMP ONLINE .BE A tool to help researchers write their Data Management Plan". The video progress bar is at 0:12 / 6:01.

YouTube video player showing the title "How to create a DMP for an Horizon Europe project". The video content features the "argos" logo and the text "How to create a DMP for an Horizon Europe project". The background shows a person sitting on a bench by the water.

YouTube video player showing the title "Video Data Wizard". The video content displays an "Outline" section with the following items:

- Introduction
- DSW for Researchers + Demo
- DSW for Data Stewards + Demo
- How to Get Started
- Questions & Discussion

VIDEO TUTORIALS

Screenshot of the DMPonline website. The page title is "Video DMPonline". It features a "Prova video" section with a play button icon. Below the video player, there is a list of instructions for writing a DMP, such as "State the purpose of the data collection/generation" and "Specify the types and formats of data generated/collected".

TUTORIAL (IT)

Screenshot of the DS Wizard software interface. The interface shows a sidebar with "DS Wizard" and "Knowledge Modules". The main content area displays a "Current Phase" of "Before Submitting the Proposal" and a list of "Chapters" including "Administrative information", "Re-using data", "Creating and collecting data", "Processing data", "Preparing data", and "Giving access to data". A play button icon is visible over the content area.

ONE DAY OR  
DAY ONE  
you decide.

GRAZIE!