

# New developments in scholarly publishing

Iryna Kuchma, Open Access Programme Manager



### UNESCO Recommendation on Open Science

In a world first, UNESCO sets international standards for open science

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### Global call for best practices in open science

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### Call for papers

Open science policies as an accelerator for achieving the Sustainable Development Goals

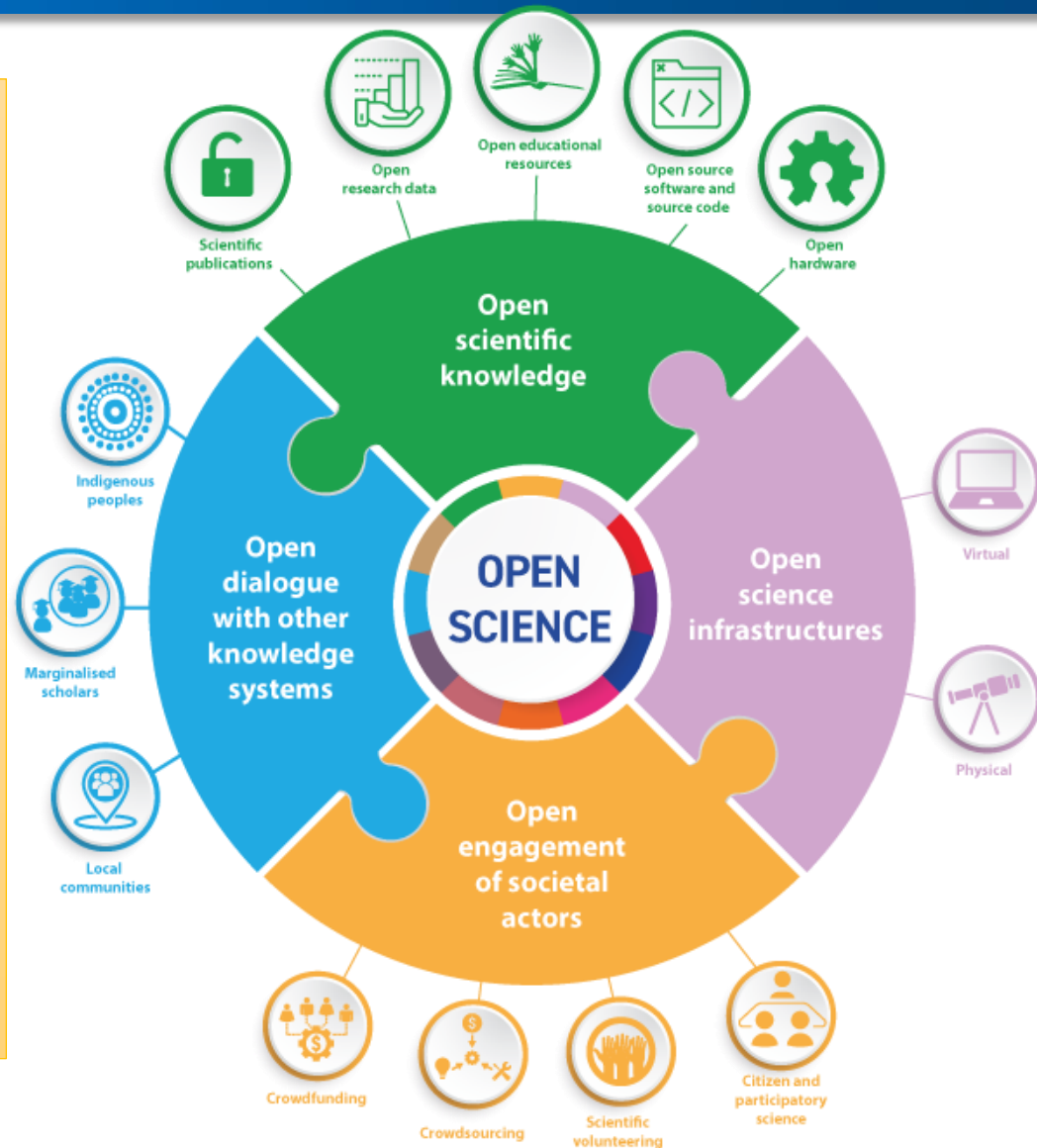
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<https://www.unesco.org/en/natural-sciences/open-science>

# Definition of Open Science

## Open Science:

- ❖ makes scientific knowledge openly available, accessible and reusable for everyone,
- ❖ increases scientific collaborations and sharing of information for the benefits of science and society,
- ❖ opens the processes of scientific knowledge creation, evaluation and communication to societal actors beyond the traditional scientific community.



# Disseminating scientific publications

Scientific publications may be **disseminated by publishers on open access online publishing platforms and/or deposited and made immediately accessible in open online repositories upon publication, that are supported and maintained by an academic institution, scholarly society, government agency or other well established not-for-profit organization devoted to common good** that enables open access, unrestricted distribution, **interoperability and long-term digital preservation and archiving**



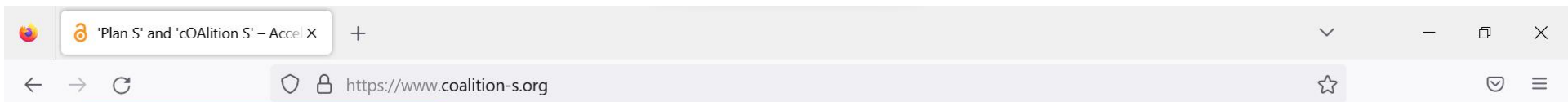
# Providing clear access rights

A paywalled method of publication, where immediate access to scientific publications is only granted in exchange for payment, is not aligned with the present Recommendation.



Open access scientific publications are available in the public domain or under copyright and licensed under an **open license that must allow access, re-use, repurpose, adaptation and distribution under specific conditions**, provided to all actors immediately and free of charge.

Any transfer or licensing of copyrights to third parties should not restrict the public's right to immediate open access to a scientific publication.



# Plan S

Making full & immediate  
Open Access a reality

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Plan S

Making full and  
immediate  
Open Access a  
reality



<https://www.coalition-s.org>



*Basic mandatory conditions for all publication venues:*

- > cOAlition S emphasises the need for high-quality journals, therefore requiring journals/platforms to have a solid system in place for review according to the standards within the relevant discipline and guided by the core practices and policies outlined by the [Committee on Publication Ethics \(COPE\)](#). Details must be openly available on the respective journal and platform websites. In particular, payment of publication fees or waiver status must not in any way influence the editorial decision-making process on the acceptance of a paper.
- > The journal/platform must provide, on its website, a detailed description of its editorial policies and decision-making processes. In addition, at least [basic statistics](#) must be published annually, covering in particular the number of submissions, the number of reviews requested, the number of reviews received, the approval rate, and the average time between submission and publication.
- > The journal/platform must accept the retention of copyright by the authors or their institutions, at no extra cost. Licenses to publish must preserve the right and responsibility of the author/institution to make the VoR or the AAM of the article Open Access immediately upon publication, under an open license as defined in [Part II Section 2](#).
- > The journal/platform must either enable authors to publish with immediate and permanent Open Access (without any kind of technical or other form of obstacles) under an open license as defined in [Part II Section 2](#), or to deposit the AAM or VoR in an Open Access repository at no extra cost and under an open license as defined in [Part II Section 2](#). In either case, no embargo period can be applied (including for early view versions, i.e., online VoR before inclusion in an issue).

[https://www.coalition-s.org/technical-guidance\\_and\\_requirements/](https://www.coalition-s.org/technical-guidance_and_requirements/)





*Mandatory technical conditions for all publication venues:*

- > Use of persistent identifiers (PIDs) for scholarly publications (with versioning, for example, in case of revisions), such as DOI (preferable), URN, or Handle.
- > Deposition of content with a long-term digital preservation or archiving programme (such as CLOCKSS, Portico, or equivalent).
- > High-quality article level metadata in standard interoperable non-proprietary format, under a CCo public domain dedication. Metadata must include complete and reliable information on funding provided by cOAlition S funders (including as a minimum the name of the funder and the grant number/identifier).
- > Machine-readable information on the Open Access status and the license embedded in the article, in standard non-proprietary format.

*Strongly recommended additional criteria for all publication venues:*

- > Support for PIDs for authors (e.g. ORCID), funders, funding programmes and grants, institutions, and other

Show desktop

*Strongly recommended additional criteria for all publication venues:*

- > Support for PIDs for authors (e.g., ORCID), funders, funding programmes and grants, institutions, and other relevant entities.
- > Registering the self-archiving policy of the venue in SHERPA/RoMEO.
- > Availability for download of full text for all publications (including supplementary text and data) in a machine-readable community standard format such as JATS XML.
- > Direct deposition of publications (in a machine-readable community standard format such as JATS XML, and including complete metadata as described above) by the publisher into author designated or centralised Open Access repositories that fulfil the Plan S criteria.
- > [OpenAIRE](#) compliance of the metadata.
- > Linking to data, code, and other research outputs that underlie the publication and are available in external repositories.
- > Openly accessible data on citations according to the standards by the [Initiative for Open Citations \(I4OC\)](#).

## 1.2 Specific conditions applicable to Open Access journals and Open Access publishing platforms:

The journal/platform must be registered in the Directory of Open Access Journals (DOAJ) or in the process of being registered.

In addition, the following criteria are required:

- Open Access journals must not have a mirror/sister subscription journal with substantial overlap in editorial board to avoid business models charging for both access and publication. Such journals will de facto be considered 'hybrid' journals.
- Transparent costing and pricing: information on the publishing costs and on any other factors impacting the publication fees must be openly available on the journal website/publishing platform (see also [Part II Section 5](#)).
- The journal/platform must provide APC waivers for authors from [low-income economies](#) and discounts for authors from [lower middle-income economies](#), as well as waivers and discounts for other authors with demonstrable needs. Waiver policies must be described clearly on the journal website/platform and statistics on waivers requested and granted must be provided.

- Basic mandatory conditions for all publication venues**
  - Review policies
  - Editorial policies
  - Statistics
  - Retention of copyright and open access (open licensing and self-archiving)
- Mandatory technical conditions for all publication venues**
  - Persistent identifiers for publications
  - Long-term digital preservation
  - Article metadata quality
- Embedded OA status and license**
- Strongly recommended additional criteria for all**

## Guide to Plan S compliance in OJS

[Edit this page or make a suggestion](#)

Contributors: Kate Shuttleworth, Mariya Maistrovskaya

### Introduction #

### What is Plan S #

**Plan S** is an initiative for Open Access publishing that was launched in September 2018. The plan is supported by cOAlition S, an international consortium of research funding and performing organisations. Plan S requires that, from 2021, scientific publications that result from research funded by public grants must be published in compliant Open Access journals or platforms.

**cOAlition S** consists of a group of national research funding organisations, with the support of the

- Persistent identifiers for authors, funders, etc.
- Self-archiving policy in Sherpa Romeo
- Full text in XML
- Direct deposit into repositories
- OpenAire metadata compliance
- Link to research data
- Open citation data
  
- Specific conditions for Open Access journals**
  - DOAJ registration
  - No mirror / sister subscription journal
  - Transparent costing and pricing
  - APC waivers
  
- Relevant resources**

## Implications for OJS journals #

For cOAlition S funded research covered by Plan S requirements, all peer-reviewed scholarly articles must be published in venues that fulfil the “Requirements for Publication Venues.” Individual publication venues (such as journals publishing on OJS) are responsible for ensuring that they meet these requirements. Journals that do not meet these requirements will not be suitable for scholarly articles resulting from cOAlition S-funded research.

Many of the Plan S requirements for publication venues represent best practices for quality, discoverability, and interoperability in scholarly publishing. We recommend that journals adopt these practices regardless of whether they intend to publish scholarly articles resulting from Coalition S-funded research.

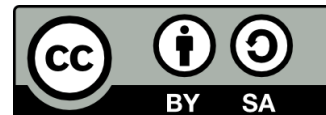
## What to expect from this guide #

This guide is intended for journals published on OJS which intend to meet the Requirements for Publication Venues articulated by Plan S under [Part III: Technical Guidance and Requirements](#)

<https://docs.pkp.sfu.ca/plan-s/en>

# Open access - DOAJ definition

A journal where the copyright holder of a scholarly work grants usage rights to others using an **open license** (Creative Commons or equivalent) allowing for immediate free access to the work and permitting any user to read, download, copy, distribute, print, search, or link to the full texts of articles, crawl them for indexing, pass them as data to software, or use them for any other lawful purpose.



# Importance of licensing

- Free access does not always mean open access!
- **Open access = free access + usage rights**
- Use licensing to:
  - Inform readers how they may reuse content
  - Inform readers of any reuse that is not allowed
  - Protect the author and journal against unauthorised use
- DOAJ recommends use of **Creative Commons** licenses (or equivalent)
  - **No charge** for using CC licenses
- State your licensing terms on the journal website



# LICENSES



# TERMS



BY

## Attribution

Others can copy, distribute, display, perform and remix your work if they credit your name as requested by you



ND

## No Derivative Works

Others can only copy, distribute, display or perform verbatim copies of your work



SA

## Share Alike

Others can distribute your work only under a license identical to the one you have chosen for your work



NC

## Non-Commercial

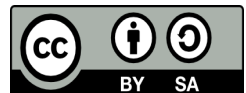
Others can copy, distribute, display, perform or remix your work but for non-commercial purposes only.





# Licensing best practice


- Licensing terms must be clearly stated on the journal website
- Copyright notice and publishing agreement must not conflict with license
- Different licenses may be applied under certain conditions
  - Funder requirements
  - Author's employer requirements
- Only one license can be applied to an individual article
- Embed or **display licensing information** in full text articles
  - Useful when articles are downloaded and shared
  - Recommended but not required for inclusion in DOA



# © Copyright & licensing

## Licensing

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License(s) permitted by the journal 

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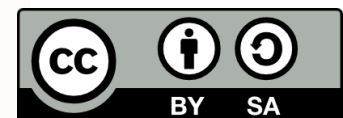
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CC0

Public domain

Publisher's own license



# Copyright

- Copyright of a published work can be held by the author or publisher
- Best practice in open access is for authors to retain copyright
  - But DOAJ will accept journals where copyright is transferred
- State your copyright policy on the journal website
- We recommend to provide a link to author agreement



# Copyright (2)

Copyright terms applied to the published content may be different to the copyright of the website as a whole

- Articles - copyright of authors or publisher
- Website - copyright of publisher



# Copyright best practice

- **Authors retain copyright** of their work
  - Publisher has right of first publication
  - Recommended but not required for inclusion in DOAJ
- Authors also retain **full publishing rights**
  - Publisher is granted non-exclusive rights to publish and distribute
  - Publishers cannot license rights to third parties
  - Authors can reuse their work without restriction
  - Recommended but not required for inclusion in DOAJ

# Copyright ownership options

- Copyright retained by the authors WITHOUT restriction
- Copyright TRANSFERRED to the publisher
- Some rights transferred or licensed to the publisher
  - Usually commercial rights



# Copyright without restrictions

- If authors retain copyright and full publishing rights
  - The author can use their work as they wish
  - Not bound by user license or publisher terms
- If authors do not retain unrestricted rights
  - They are bound by the terms of the publishing agreement
  - They may have no more rights than an end-user



# Copyright with restrictions

- Copyright retained by the author but...
  - Exclusive publishing rights given to the publisher
  - Author has granted or transferred exclusive commercial rights
- **Author no longer retains full rights**





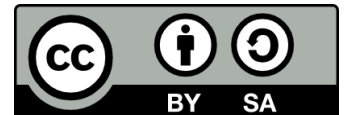
# Copyright and licensing

- Copyright and licensing are not the same thing
- Used together to specify
  - Ownership of content
  - Usage rights
- **Copyright holder is not bound by the terms of the user license**
- **Copyright holder gives a license to users of their work**



# Copyright and licensing (2)

- Copyright held by author without restrictions
  - License applies to readers and publisher
- Copyright transferred or exclusively licensed to publisher
  - License applies to readers and author(s)
- Copyright held by author, but commercial rights by publisher, and non-commercial license used
  - License applies to readers and author(s)





# Reused from DOAJ Introduction and Overview Copyright and Licensing in Open Access Journals

Tom Olyhoek, Editor in Chief  
Judith Barnsby, Senior Managing Editor

AJOL, ASSAf, DOAJ, EIFL, LIBSENSE and UCT initiative for  
African journal editors and publishers  
Webinar series 2022



# Thinking beyond scientific articles



**Scientific outputs related to publications** (e.g. original scientific research results, research data, software, source code, source materials, workflows and protocols, digital representations of pictorial and graphical materials and scholarly multimedia material) **that are openly licensed or dedicated to the public domain should be deposited in a suitable open repository, following appropriate technical standards that allow them to be properly linked to publications.**

Editorial Policies x +  
https://www.glossa-journal.org/site/editorial-policies/

## Data Policy

The journal requests authors to make all data associated with their submission openly available, according to the FAIR principles (Findable, Accessible, Interoperable, Reusable). This should be linked to from a Data Accessibility Statement within the submitted paper, which will be made public upon publication. **If data is not being made available within the journal publication, a statement from the author should be provided to explain why.** Data obtained from other sources must be appropriately credited. When depositing data for a submission, the below should be considered:

- The repository the data is deposited in must be suitable for this subject and have a sustainability model.
- The data must be deposited under an open license that permits unrestricted access (e.g. CC0, CC-BY). More restrictive licenses should only be used if a valid reason (e.g. legal) is present.
- The deposited data must include a version that is in an open, non-proprietary format.
- The deposited data must have been labelled in such a way that a 3rd party can make sense of it (e.g. sensible column headers, descriptions in a readme text file).
- Research involving human subjects, human material, or human data, must have been performed in accordance with the Declaration of Helsinki. Where applicable, the studies must have been approved by an appropriate ethics committee. The identity of the research subject should be anonymised whenever possible. For research involving human subjects, informed consent to participate in the study must be obtained from participants (or their legal guardian).
- A 'Data Accessibility Statement' should be added to the submission, prior to the reference list, providing the details of the data accessibility, including the DOI linking to it. If the data is restricted in any way, the reasoning should be given.

A list of data repositories is available at [http://oad.simmons.edu/oadwiki/Data\\_repositories](http://oad.simmons.edu/oadwiki/Data_repositories).

Upload the files to your chosen open repository and make note of the DOI that they will provide (most suitable for datasets or information that act as foundations to the research being published. This option makes the files more findable and more citable). We recommend an open repository such as [osf.io](https://osf.io), which allows you to create a "project" under which you can upload relevant files (datasets, analysis scripts, experimental materials, etc.). The project will be associated with a unique DOI. You can then include in your manuscript a citation of the OSF entry and/or a link to the project page on OSF, to direct interested readers to the supplementary materials. During review, please be sure that the link to the repository is anonymized to maintain a fully double masked review process. Instructions for doing this on

<https://www.glossa-journal.org/site/editorial-policies/>

Submit your Research

My Submissions

Article Guidelines

Article Guidelines (New Versions)

Data Guidelines

Article Processing Charges

Finding Article Reviewers

## 1.1 Open Data Policy

Open Research Europe requires open access to research data supporting articles under the principle ‘as open as possible, as closed as necessary’, according to the policy of Horizon Europe. Data should be deposited in trusted data repositories.

All articles should include citations to repositories that host the data underlying the results, together with any information needed to replicate, validate, and/or reuse the results/ your study and analysis of the data – as part of the Data Availability Statement. This includes details of any software, instrument or other tool used to process results and, where relevant, the raw data. Importantly, publishing your data will allow you to track its provenance and ensure that those responsible for its generation are adequately credited for their work. Others who then reuse your data for their own studies can cite your data (which can be cited separately from your article if appropriate). Failure to openly provide data for publication without good justification will result in your article being rejected.

**Exceptions:** We recognize that openly sharing data may not always be feasible. Exceptions to open access to research data underlying publications in the Open Research Europe are permitted according to the relevant policy of Horizon Europe. These consider the obligation to protect results, confidentiality obligations, security obligations, the obligation to protect personal data and other legitimate constraints. For Horizon Europe grants, these exceptions should be noted in the associated Data Management Plan. Where open access is not provided to the data needed to validate the conclusions of a publication that reports original results, authors should provide the relevant access needed to validate the conclusions to the extent their legitimate interests or constraints are safeguarded (see [Add a Data Availability Statement to Your Article](#)).

Stay informed +

- Submit your Research
- My Submissions
- Article Guidelines
- Article Guidelines (New Versions)
- Data Guidelines**
- Article Processing Charges
- Finding Article Reviewers

### 2.3 Add a Data Availability Statement to Your Article

All articles must include a Data Availability statement, even where there is no data associated with the article. **This statement should be added to the end of the article *prior to submission*.** The Data Availability statement should not refer readers or reviewers to contact an author to obtain the data, but should instead include the applicable details listed below.

#### No associated or additional data

For articles which have no associated data, the statement should read:

“No data are associated with this article.”

For articles where all associated data are presented in the article itself, please include the statement:

“All data underlying the results are available as part of the article and no additional source data are required.”

#### Repository-hosted data

Where underlying and/or extended data are hosted in a repository, please include the name of the repository used and the license along with details indicated in the ‘What to include in the data availability section of your article’ column in the [tables](#) above. This should be done in the style of, for example:

Repository: Manually annotated miRNA-disease and miRNA-gene interaction corpora.  
<https://doi.org/10.5256/repository.4591.d34639>.

This project contains the following underlying data:

- Data file 1. (Description of data.)
- Data file 2. (Description of data.)

Stay informed +

- Submit your Research
- My Submissions
- Article Guidelines
- Article Guidelines (New Versions)
- Data Guidelines**
- Article Processing Charges
- Finding Article Reviewers

### Data that cannot be shared

#### **Exceptions**

In these instances, an extensive metadata record describing the research, where it is stored, and how to access it should be deposited openly in a repository and cited in the Data Availability statement (please see [Repository-hosted data](#) above). Metadata records must adhere to any legal or ethical requirements. Metadata records must not contain data that is protected, confidential, secure, or personal.

#### ***An obligation to protect results because of legitimate interests or other constraints***

Where data cannot be open because of legitimate interest, such as for example because of industrial exploitation, or constraints such as confidentiality, trade secrets, security rules, Union competitive interests or Intellectual property Rights including patents and trade secrets, authors may be asked to provide evidence of this. The article must include a description of the restrictions on the data and all necessary information required for a reader or reviewer to apply for access to the data and the conditions under which access will be granted – or the PID of an open and FAIR metadata record containing this information.

For more information on this exception, please see [Horizon Europe Model Grant Agreement](#) – Articles 13 (confidentiality and security), 16 (intellectual property rights) and 17 (open science).

#### ***An obligation to protect personal data***

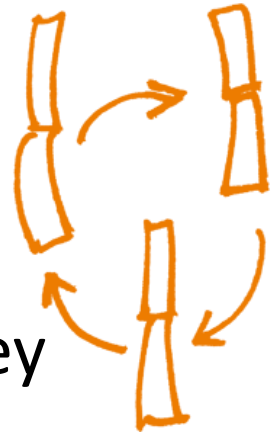
Personal data must be processed in compliance with applicable EU and national law on data protection. Where human data cannot be sufficiently de-identified, please include: an explanation of the data protection concern; what, if anything, the relevant Institutional Review Board (IRB) or equivalent said about data sharing; and, where applicable, all necessary information required for a reader or reviewer to apply for access to the data and the conditions under which access will be granted – or the PID of an open and FAIR metadata record containing this information.

Stay informed +



# Supporting inclusive engagement and dialogue

Open science includes all scientific disciplines and aspects of scholarly practices and builds on four key pillars: **open access to scientific knowledge, open science infrastructures, open engagement of societal actors and open dialogue with other knowledge systems.**

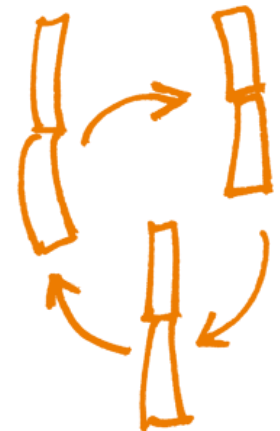


There are multiple actors and stakeholders in research and innovation systems and each of them play a role in the operationalization of open science.

Similarly, scientific publishing serves many audiences in addition to academics and scientific researchers.

# Supporting inclusive engagement and dialogue (2)

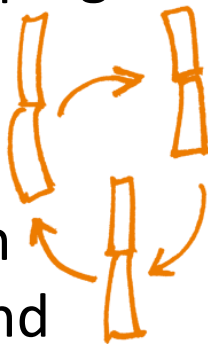
In practice, inclusive engagement ranges from addressing practical aspects of accessibility through to meaningful engagement with marginalized and underrepresented groups. Engagement and dialogue can inform the creation, use, publication and dissemination of published scientific outputs in multiple formats.



# Open engagement of societal actors

**Extended collaboration between scientists and societal actors beyond the scientific community.** Open science provides the basis for citizen and community involvement in the generation of knowledge and for enhanced dialogue between scientists, policymakers and practitioners, entrepreneurs and community members, giving all stakeholders a voice in developing research that is compatible with their concerns, needs and aspirations. This is achieved by

- opening up practices and tools that are part of the research cycle and by making the scientific process more inclusive and accessible to the broader inquiring society;
- new forms of collaboration and work such as crowdfunding, crowdsourcing and scientific volunteering.



# Are your publishing values aligned with the core values and principles of the [UNESCO Recommendation on Open Science](#)?

## VALUES

### Quality and integrity

facilitating a transparent evaluation processes

### Collective benefit

scientific knowledge should be openly available and its benefits universally shared

### Equity and fairness

fair and reciprocal sharing of scientific inputs and outputs

### Diversity and inclusiveness

of knowledge, practices, workflows, languages, research outputs & topics

## PRINCIPLES

Transparency, scrutiny, critique and reproducibility

Equality of opportunities

Responsibility, respect and accountability

Collaboration, participation and inclusion

Flexibility

Sustainability

OPEN SCIENCE



# Sustainability



To be as efficient and impactful as possible, **open science** should build on long-term practices, services, infrastructures and funding models that ensure the equal participation of scientific producers from less privileged institutions and countries. Open science infrastructures should be organized and financed upon an essentially not-for-profit and long-term vision, which enhance open science practices and guarantee permanent and unrestricted access to all, to the largest extent possible.

**OPEN SCIENCE**



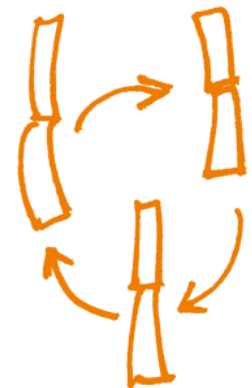
**AREAS OF ACTION**

<https://www.unesco.org/en/natural-sciences/open-science>

# Checklist on the areas of actions from the UNESCO Recommendation on Open Science

Do you incorporate the following areas of action into your publishing activities? If not, have you fully understood the reasons and planned a timetabled route to incorporate this area of action in the future?

**Promoting a common understanding of open science, its associated benefits and challenges, as well as diverse paths to open science**





# Encouraging bibliodiversity and multilingualism



Encouraging bibliodiversity through the **diversity of formats and means of publications**, including those produced by the humanities and social sciences, and **diversity of business models, by supporting not-for-profit, academic and scientific community-driven publishing models as a common good.**

Encouraging **multilingualism** in the practice of science, in scientific publications and in academic communications.



#InAllLanguages

- READ
- SIGN
- SIGNATORIES
- EVENTS
- MEDIA
- INFO

Choose Language English ▾

## Helsinki Initiative on Multilingualism in Scholarly Communication

Research is international. That's the way we like it! Multilingualism keeps locally relevant research alive. Protect it! Disseminating research results in your own language creates impact. Endorse it! It is vital to interact with society and share knowledge beyond academia. Promote it! Infrastructure of scholarly communication in national languages is fragile. Don't lose it!

<https://www.helsinki-initiative.org/en>



### **1. Support dissemination of research results for the full benefit of the society.**

- Make sure researchers are merited for disseminating research results beyond academia and for interacting with heritage, culture, and society.
- Make sure equal access to researched knowledge is provided in a variety of languages.

### **2. Protect national infrastructures for publishing locally relevant research.**

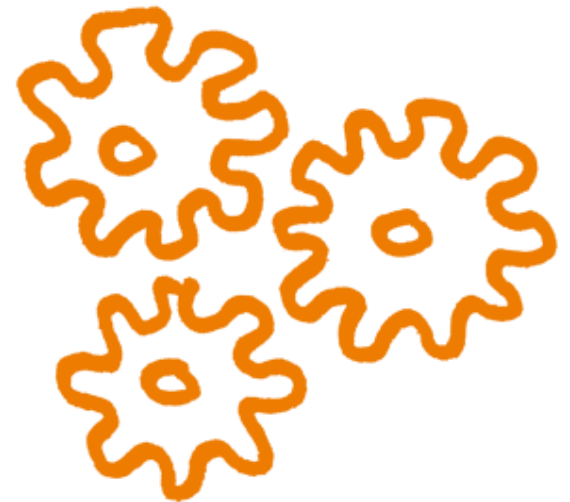
- Make sure not-for-profit journals and book publishers have both sufficient resources and the support needed to maintain high standards of quality control and research integrity.
- Make sure national journals and book publishers are safeguarded in their transition to open access.

### **3. Promote language diversity in research assessment, evaluation, and funding systems.**

- Make sure that in the process of expert-based evaluation, high quality research is valued regardless of the publishing language or publication channel.
- Make sure that when metrics-based systems are utilized, journal and book publications in all languages are adequately taken into account.

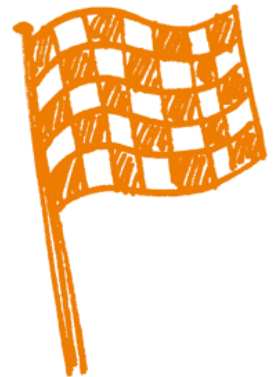
<https://www.helsinki-initiative.org/en>

# **Investing in open science infrastructure and services**



# Helping develop contextualized community agreements

International scientific unions and associations, regional or national research infrastructures and journal editorial boards each have a role to play in **helping develop community agreements**, concluded in the context of regional or global research communities, which define community practices **for data sharing, data formats, metadata standards, ontologies and terminologies, tools and infrastructure.**



**Investing in human  
resources, training,  
education, digital literacy  
and capacity building for  
open science**



# Supporting science communication

Supporting science communication of open science practices, with a view to the dissemination of scientific knowledge to:

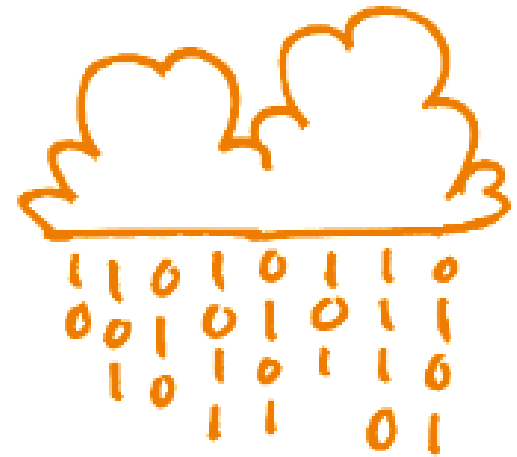
- scholars in other research fields
- decision-makers
- the public



To build **public trust in science**, while increasing the engagement of societal actors beyond the scientific community.

# Supporting science communication (2)

In science communication of open science, **to avoid misinterpretation and dissemination of misinformation, the quality and appropriate citation of original sources of information are of paramount importance.**





**Fostering a culture of  
open science and  
aligning incentives for  
open science**



# **Adopting policies that require and reward open access to scientific knowledge, including scientific publications, open research data, open software, source code and open hardware**

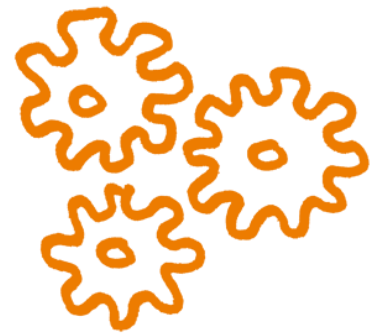
Encouraging funders, research institutions, journal editorial boards, learned societies and publishers to **adopt policies that require and reward open access to scientific knowledge**, including scientific publications, open research data, open software, source code and open hardware, in line with the provisions of this Recommendation.

Support open infrastructures.



**Ensuring diversity, open, transparent and equitable access and supporting non-commercial publishing models and collaborative publishing models with no charges**

**Ensuring diversity in scholarly communications with adherence to the principles of open, transparent and equitable access and supporting non-commercial publishing models and collaborative publishing models with no article processing charges or book processing charges**



# Addressing inequality and preventing related predatory behaviours; promoting high-quality and responsible research

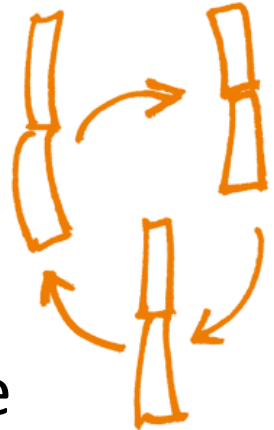


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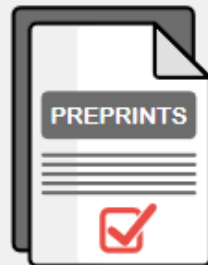
Promoting high-quality and responsible research in line with the 2017 UNESCO Recommendation on Science and Scientific Researchers and **exploring the potential of open science practices to reduce scientific misconduct, including the fabrication and falsification of results, violation of scientific ethical norms, and plagiarism.**

# Encouraging community-driven collaboration and other innovative models, for example preprints

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# Why should I care?



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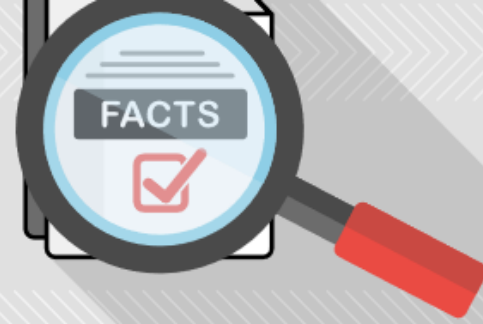
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A preprint provides funders and hiring committees with public evidence of your work.<sup>4</sup>

Infographics by ASAPbio Fellows:

Ana Dorrego-Rivas (@adorrego\_r), Carrie Iwema  
and Mafalda Pimentel (@Maf\_Pimentel)

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Preprints allow you to establish priority for your discoveries. 99.3% of preprint authors reported no scoop problems.<sup>1</sup>



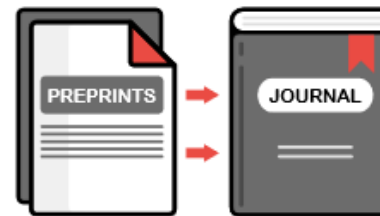
## Preprints are journal compatible

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## 'Mathematics is an unknown land': meet Fields Medal winner Maryna Viazovska

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We gratefully acknowledge support from the Simons Foundation and member institutions.

Mathematics > Number Theory

[Submitted on 14 Mar 2016 (v1), last revised 4 Apr 2017 (this version, v2)]

# The sphere packing problem in dimension 8

Maryna Viazovska

In this paper we prove that no packing of unit balls in Euclidean space  $\mathbb{R}^8$  has density greater than that of the  $E_8$ -lattice packing.

Comments: 22 pages, 2 figures  
Subjects: **Number Theory (math.NT)**; Metric Geometry (math.MG)  
Cite as: arXiv:1603.04246 [math.NT]  
(or arXiv:1603.04246v2 [math.NT] for this version)  
<https://doi.org/10.48550/arXiv.1603.04246>  
Journal reference: Annals of Mathematics, Pages 991-1015 from Volume 185 (2017), Issue 3  
Related DOI: <https://doi.org/10.4007/annals.2017.185.3.7>

### Submission history

From: Maryna Viazovska [view email]  
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Steph Hays  
PhD student, Harvard Medical School

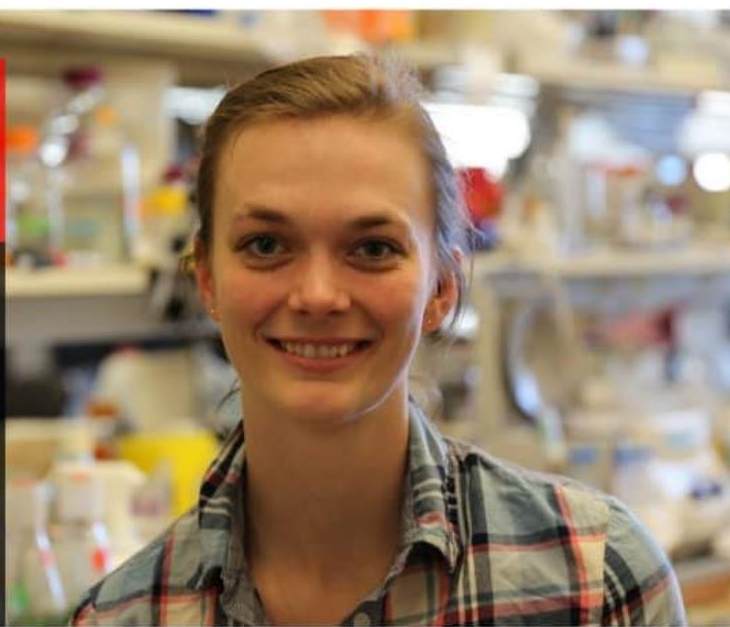
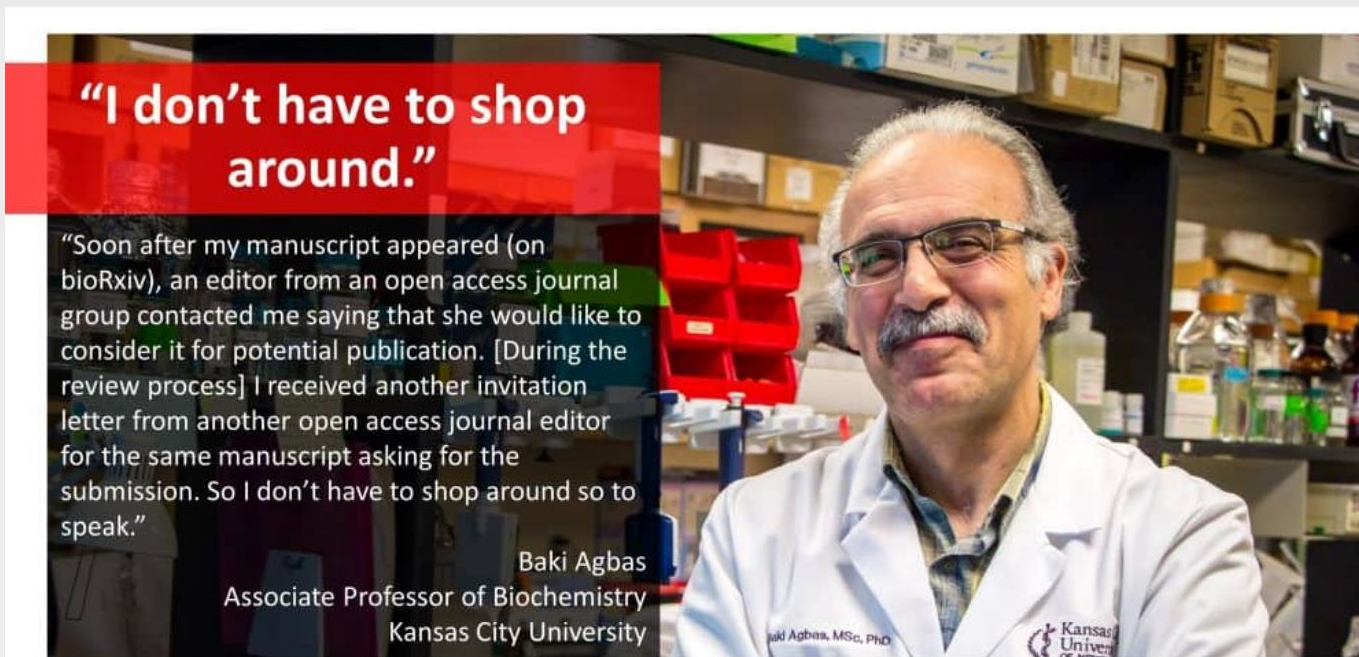


Photo by Alina Chan



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Baki Agbas  
Associate Professor of Biochemistry  
Kansas City University

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The first detection of *Salmonella enterica* subspecies *enterica* serovar *Choleraesuis* in farm-raised pigs in Serbia, 2019

Preprint
  Open Access
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Authors: Bozidar Savic, Nemanja Zdravkovic, Oliver Radanovic, Nemanja Jezdimirovi, Branislav Kureljusic, Ognjen Stevancevic

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Short Report

# Molecular Epidemiology and Genetic Evolution of Canine Parvovirus Type 2 in Diarrheic Dogs in Serbia From 2008 To 2020

Vesna Milicevic, Dimitrije Glisic, Zorana Zurovac Sapundzic, Milan Ninkovic, and 3 more

This is a preprint; it has not been peer reviewed by a journal.

<https://doi.org/10.21203/rs.3.rs-1121627/v1>  
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## Abstract

Canine Parvovirus 2 (CPV2) is a causal agent of an infectious disease with the highest fatality rate among dogs. However, in Serbia, it has never been investigated thoroughly. This study was conducted on samples originating from dogs with diarrhea in anamnesis, stored in the sample bank, submitted for various reasons to the Institute of Veterinary Medicine of Serbia. In total, 50 rectal swab samples were collected from the period 2008 to 2020, and consequently ~~total~~ Out of 50 rectal swab samples, the CPV2 genome was detected in 14 (28%). This

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Veterinary Research Communications

### Version 1

posted 30 Dec, 2021

- Reviews received at journal 28 Dec, 2021
- Reviewers invited by journal 28 Dec, 2021
- Editor assigned by journal 27 Dec, 2021
- First submitted to journal 26 Dec, 2021
- Editorial decision: Major revisions 03 Dec, 2021

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doi: <https://doi.org/10.1101/2021.11.30.21267085>

**This article is a preprint and has not been peer-reviewed [what does this mean?]. It reports new medical research that has yet to be evaluated and so should not be used to guide clinical practice.**



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
### Identification of SARS-CoV-2 Papain-like protease (PLpro) inhibitors using combined computational approach

Working Paper

**Milan Sencanski**  Laboratory of Bioinformatics and Computational Chemistry, Institute of Nuclear Sciences Vinca, National Institute of the Republic of Serbia, University of Belgrade, Belgrade, Serbia,  
**Vladimir Perovic** Laboratory of Bioinformatics and Computational Chemistry, Institute of Nuclear Sciences Vinca, National Institute of the Republic of Serbia, University of Belgrade, Belgrade, Serbia,  
**Jelena Milicevic** Laboratory of Bioinformatics and Computational Chemistry, Institute of Nuclear Sciences Vinca, National Institute of the Republic of Serbia, University of Belgrade, Belgrade, Serbia,  
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**Veljko Veljkovic** Biomed Protection, Galveston, TX, 77550, USA,  
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Journal Article  
*ChemistryOpen*, Volume 11, Issue 2  
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Oct 04, 2021 Version 2  
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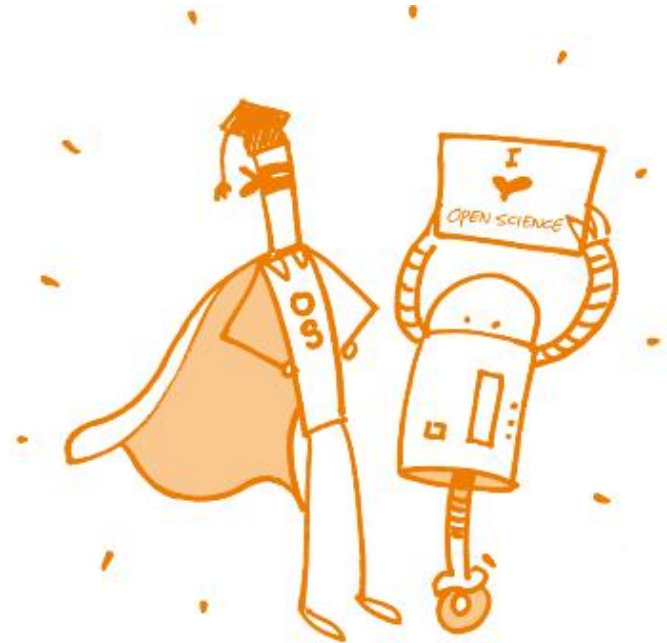
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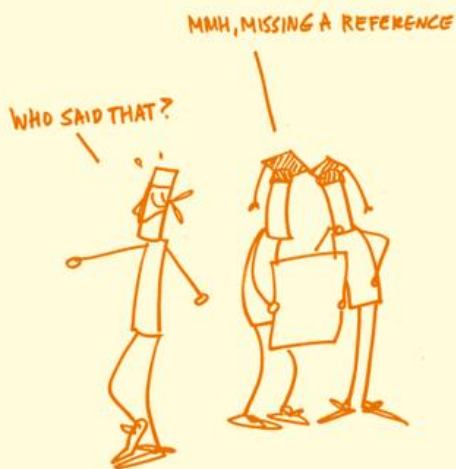
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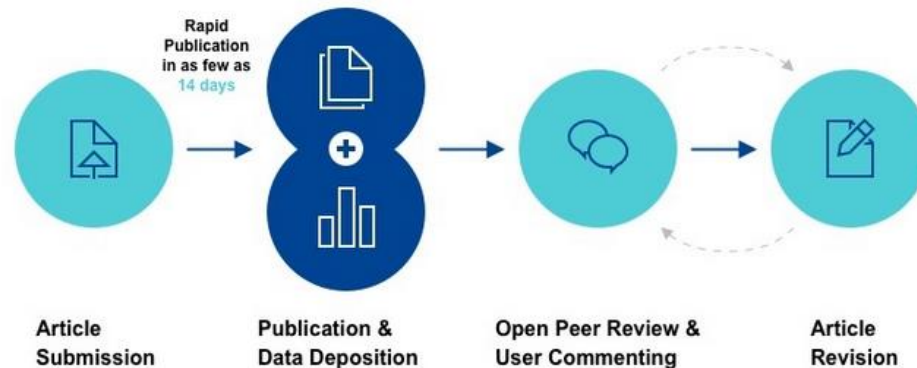
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REVIEW

# Transition from monolithic to microservice-based applications. Challenges from the developer perspective [version 1; peer review: awaiting peer review]

Antonios Makris , Konstantinos Tserpes, Theodora Varvarigou

[Article](#)[Authors](#)[Metrics](#)

## Abstract

Microservices have taken the world of software development by storm. Application developers are struggling to understand the new concepts and make the transition by the so-called monolithic" application approach to microservices. This paper touches upon this delicate issue, providing a more concrete view of the developers' concerns together with recent responses to these concerns. The objective is to place the concept of microservices in the most up-to-date context and shed some light in the challenges that puzzle the developers the most while they attempt to make use of this development and design style.

**Corresponding Author:** Antonios Makris

**Competing Interests:** No competing interests were disclosed.

**Grant Information:** This work was supported by the CHARITY and ACCORDION projects that have received funding from the European Union's Horizon 2020 research and innovation program under Grant Agreement Nos. 101016509 and 871793, respectively.

*The funders had no role in study design, data collection and analysis, decision to publish, or preparation of the manuscript.*

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**First Version Published:** 23 Feb 2022, 2:24 (<https://doi.org/10.12688/openreseurope.14505.1>)

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# REVISED Hydrogen and deuterium charging of lifted-out specimens for atom probe tomography [version 2; peer review: 1 approved, 1 approved with reservations]

Heena Khanchandani , Se-Ho Kim, Rama Srinivas Varanasi, TS Prithiv , Leigh T. Stephenson, Baptiste Gault 

This article is included in [Excellent Science gateway](#)


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## Abstract

Hydrogen embrittlement can cause a dramatic deterioration of the mechanical properties of high-strength metallic materials. Despite decades of experimental and modelling studies, the exact underlying mechanisms behind hydrogen embrittlement remain elusive. To unlock understanding of the mechanism and thereby help mitigate the influence of hydrogen and the associated embrittlement, it is essential to examine the interactions of hydrogen with structural defects such as grain boundaries, dislocations and stacking faults. Atom probe tomography (APT) can, in principle, analyse hydrogen located specifically at such microstructural features but faces strong challenges when it comes to charging specimens with hydrogen or deuterium. Here, we describe three different workflows enabling hydrogen/deuterium charging of site-specific APT specimens: namely cathodic, plasma and gas charging. All the experiments in the current study have been performed on a model twinning induced plasticity steel alloy. We discuss in detail the caveats of the different approaches in order to help future research efforts and facilitate further studies of hydrogen in metals. Our study demonstrates successful cathodic and gas charging, with the latter being more promising for the analysis of the high-strength steels at the core of our work.

 **Corresponding Author:** Baptiste Gault

**Competing Interests:** No competing interests were disclosed.

**Grant Information:** This project has received funding from the European Research Council (ERC) under the European Union's Horizon 2020 research and innovation programme (grant agreement No 771602). R.S.V was supported by an IMPRS SurMat scholarship

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Version 2 (Revision) 21 Feb 22		
Version 1 14 Oct 21	✓ read	? read

1. **Maria Auger** , University of Oxford, Oxford, UK
2. **Gregory Thompson**, University of Alabama, Tuscaloosa, AL, USA

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## Amendments from Version 1

The reviewers' comments have been very helpful in improving the manuscript. In response to them, the title of the manuscript is changed to emphasize that the work is focused on the lifted-out specimens. The study was conducted on a model twinning induced plasticity steel alloy. This fact has now been included in the abstract and conclusions. Figure 1 has been moved to Figure 4 as an introduction to the workflows. The first paragraph of introduction has been modified to improve its clarity.

[See the detailed response from the author\(s\) to the review by Maria Auger](#)

[See the detailed response from the author\(s\) to the review by Gregory Thompson](#)

## Introduction

The ingress of hydrogen inside structural metallic materials in engineering parts in service leads to a degradation of their mechanical properties and their premature catastrophic failures<sup>1-4</sup>. Hydrogen that freely diffuses through the material under ambient conditions<sup>5</sup> can interact with crystalline defects and contributes to the deterioration of the mechanical properties<sup>3,5-7</sup>. A strategy to mitigate the deleterious influence of hydrogen is to design alloys with a high number density of trapping sites to limit the deleterious influence of H on moving dislocations<sup>5,6,8</sup>. Traps can even be irreversible traps, i.e. H is unable to re-enter the lattice under service conditions, owing to the high binding energy with H<sup>9,10</sup>. Trapped hydrogen has even been reported to potentially increase the resistance to hydrogen embrittlement of some materials<sup>1,2,5</sup>. In order to guide the design of hydrogen-resistant materials, it is necessary to study the details of the structure and composition of sites that can trap diffusible hydrogen, which are mostly defects such as stacking faults, dislocations and phase and grain boundaries<sup>1,5</sup>. Very few techniques have the combination of high spatial resolution and compositional sensitivity.

Atom probe tomography (APT) is a time-of-flight mass spectroscopy technique, which maps the spatial distribution of specific chemical species within a three-dimensional (3D) volume with sub-nanometre resolution<sup>11,12</sup>. In principle, APT is capable of detecting and quantifying hydrogen in three dimensions at near-atomic scale<sup>13</sup>. Yet despite some successes<sup>14-17</sup>, and decades of work from numerous research groups, hydrogen microanalysis remains very challenging<sup>1,2,13,14,17-20</sup>. There are issues associated with the influence of residual gases from the analysis chamber of atom probe, specimen preparation and transport<sup>20,21</sup>, and a strong dependence of the analytical performance on the analysis conditions<sup>22-25</sup>. Let us discuss these aspects in more details.

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Reviewer Status ✓ ? ⓘ

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1. **Maria Auger** , University of Oxford, Oxford, UK
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METHOD ARTICLE

# Optimization and parallelization of the discrete ordinate method for radiation transport simulation in OpenFOAM: Hierarchical combination of shared and distributed memory approaches [version 1; peer review: 2 approved]

Jose Moreno-SanSegundo, Cintia Casado, David Concha, Antonio S. Montemayor, Javier Marugán

This article is included in Societal Challenges gateway 

**Article** Authors Metrics

## Abstract

This paper describes the reduction in memory and computational time for the simulation of complex radiation transport problems with the discrete ordinate method (DOM) model in the open-source computational fluid dynamics platform OpenFOAM. Finite volume models require storage of vector variables in each spatial cell; DOM introduces two additional discretizations, in direction and wavelength, making memory a limiting factor. Using specific classes for radiation sources data, changing the store of fluxes and other minor changes allowed a reduction of 75% in memory requirements. Besides, a hierarchical parallelization was developed, where each node of the standard parallelization uses several computing threads, allowing higher speed and scalability of the problem. This architecture, combined with optimization of some parts of the code, allowed a global speedup of x15. This relevant reduction in time and memory of radiation transport opens a new horizon of applications previously unaffordable.

✉ **Corresponding Author:** Javier Marugán

**Competing Interests:** No competing interests were disclosed

## Open Peer Review

Reviewer Status ✓ ✓ ⓘ

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	1	2
Version 1 24 Mar 21	✓ read	✓ read

1. **João Miguel Nóbrega**, University of Minho, Guimarães, Portugal
2. **George Karpouzias**, Engys Hellas, Athens, Greece  
**Eugene de Villiers**, Engys Ltd, London, UK

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## What does 'pass peer review' mean?

**Awaiting peer review:** All articles are labelled with this immediately upon publication. As soon as a report is published, this is updated to reflect its new approval status.

**Approved:** The reviewer has asked for a few small changes, or no changes at all.

**Approved with reservations:** The reviewer believes the article has academic merit, but requires a number of small changes, or significant revisions.

**Not approved:** The reviewer considers the article to have fundamental flaws and be of low quality. The article is still published on Open Research Europe, and authors are strongly encouraged to publish an updated version which addresses specific concerns raised by the reviewer.

*An article passes peer review with two **Approved** ratings, or one **Approved** and two **Approved with reservations**, and will be included in **PubMed**, **Scopus**, and other major indexes, along with its review reports.*

## What gets peer reviewed?

Open Research Europe publishes a variety of research outputs, which are all peer-reviewed. It's important to note that we don't publish **Posters**, **Slides**, and **Documents**. All other **article types** (such as **Research Articles**, **Software Tool Articles**, and **Data Notes**) undergo the same open, post-publication peer review process explained here.



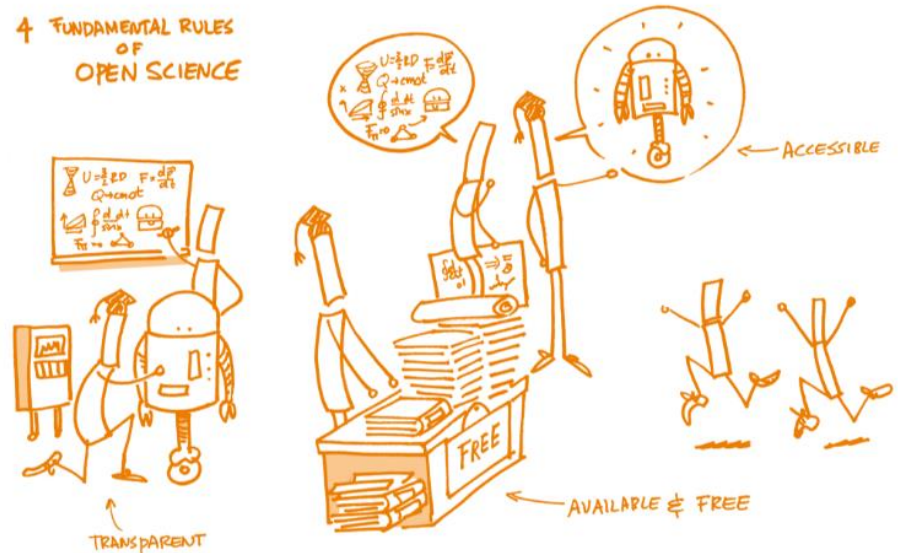
### Guidance for peer reviewers

Are you a peer reviewer?  
Check out our resources and guidance for peer reviewers, created to help you understand everything you need to know about our open model and what your role is throughout the process.

[LEARN MORE](#)

# Sharing of negative scientific results

Encouraging and valuing publication and sharing of negative scientific results and those that do not conform to the results expected by the researchers who carried them out, and data associated with them, as these results also contribute to the advancement of scientific knowledge

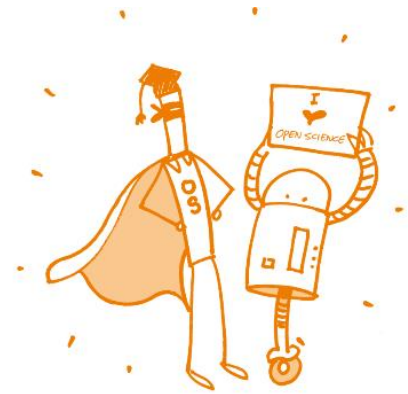


**Promoting international  
and multi-stakeholder  
cooperation in open  
science and aiming to  
reduce digital,  
technological and  
knowledge gaps**



# Encouraging international scientific collaborations

Encouraging international scientific collaborations as:



- one of the integral practices of open science
- an essential driving factor for an intensive exchange of scientific knowledge and experience
- paramount for the openness of science



# Promoting international collaboration on metrics for open science

Working **internationally** with organizations involved in scholarly communication to agree on **shared open science metrics** that support all elements of the Recommendation and its implementation.



## EIFL CHECKLIST: GOOD PRACTICES IN USING OPEN JOURNAL SYSTEMS SOFTWARE (OJS) FOR JOURNAL EDITING AND PUBLISHING (VERSION 2)

Updated version of the EIFL guide to support journal editors and publishers of open access journals using Open Journal Systems software

<https://www.eifl.net/resources/eifl-checklist-good-practices-using-open-journal-systems-software-ojs-journal-editing-0>

Home > Resources > EIFL Checklist: Good Practices in Using Open Journal Systems Software (OJS) for journal editing and publishing (Version 2)

### ABOUT THE RESOURCE

TYPE:	GUIDE
PUBLISHER:	EIFL
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This is an updated and revised version of our checklist to support editors and publishers of open access journals using Open Journals Systems (OJS) software. OJS is created by the Public Knowledge Project (PKP), which is a multi-university initiative developing free and open source software to improve the quality and reach of scholarly publishing.

Version 2 of the checklist includes more details about the current production release of software - OJS 3, and tips on organizational identifiers plugin, DOAJ (Directory of Open Access Journals) registration, copyright and licensing, the PKP Project Preservation Network and journal content accessibility. There is also a useful updated list for further reading.

If you have any comments and suggestions regarding the checklist, please email them to EIFL Open Access Programme Manager Iryna Kuchma, [iryna.kuchma@eifl.net](mailto:iryna.kuchma@eifl.net).



**ARE YOU USING THE LATEST VERSION OF THE SOFTWARE - OJS 3?**

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**HAVE YOU SECURED YOUR SYSTEM?**

5

**HAVE YOU ACTIVATED PLUGINS?**

5

Facilitating citations and social media sharing

5

Plugin to enable download of article metadata (BibTeX, MARC XML, RDF, RIS) in OJS

5

Article level metrics

5

Author identification

5

Depositing journal articles in repositories

6

**DO YOU TRACK AND ANALYSE STATISTICS?**

6

**HOW VISIBLE AND DISCOVERABLE IS YOUR JOURNAL?**

6

Enable OAI-PMH protocol and register with OA content aggregators

6

Index your journal with search engines

7

- Tips for using Google Search Console
- Tips for indexing with Google Scholar

7

8

Create Keywords for Article

9

Embed Dublin Core metadata in PDFs

9

Export DOI and associated metadata export

9

Register with DOAJ

9

More about improving visibility and discoverability of your journal

10

**ARE YOUR JOURNAL PROCEDURES AND POLICIES AVAILABLE ONLINE?**

10

**DO YOU PARTICIPATE IN THE PKP PROJECT PRESERVATION NETWORK?**

10

**HOW ACCESSIBLE IS YOUR JOURNAL CONTENT?**

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**FURTHER READING**

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# Editorial Policies

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## Peer Review Process

### Suitable submissions

When an article is submitted to *Glossa*, the Editor in Chief first decides whether the focus and scope of the submission is [suitable for the journal](#). If the submission is deemed unsuitable, the author will be informed within a week. If the submission is in line with *Glossa's* focus and scope, the Editor in Chief will assign one of the Editors to act as Handling Editor for the submission. All submissions are automatically checked with plagiarism software.

If a manuscript has previously been submitted elsewhere, the editors of *Glossa* would like to request that authors provide information about the previous reviewing process and its outcome. This provides an opportunity for authors to detail how subsequent revisions have taken into account previous reviews, and why certain reviewer comments were not taken into account. Information about the author's previous reviewing experience is to the author's advantage: it often helps the editors select more appropriate reviewers.

The reason *Glossa* has this policy is to discourage authors from simply resubmitting papers to different journals without taking into account reasonable requests from previous rounds of reviewing elsewhere. Such a situation often comes to light when reviewers inform the editors that they have reviewed the paper for a different journal and no changes were made in the new submission to *Glossa*. The editors believe this is a waste of precious reviewing resources.

The journal is happy to accept submissions of papers that have been uploaded onto preprint servers or personal websites, presented at conferences, or disseminated through other informal communication channels. As long as they have not been peer-reviewed, and the authors have retained copyright, these formats are not considered prior publications. Authors are encouraged to create a link from any prior posting of their paper to the final published version in *Glossa*, if possible.

<https://www.glossa-journal.org/site/editorial-policies/>

## The reviewing process

Within a week after being assigned a paper, the Handling Editor will contact three reviewers to evaluate the paper and assess it for clarity, validity, and sound methodology. Reviewers have two weeks to respond to the invitation. If they do not, new reviewers will be contacted by the Handling Editor until a quorum of three is reached. The time reviewers take to react may substantially lengthen the duration of the reviewing process.

Reviewers are asked to send in their reviews four weeks after accepting the invitation, but this is negotiable. They are invited to use a review form to evaluate the paper, but using this form is not compulsory. Reviewers are gently and regularly reminded of their invitations to review and the due dates for their reviews.

The reviewing process is double-blind: reviewers have no access to the identity of the authors, and the authors do not know who the reviewers are. However, if reviewers happen to know the identity of the author, this does not automatically disqualify them as reviewers.

During submission, authors can suggest and exclude reviewers for their submission, and they may justify these proposals. The Editors are free (but not obliged) to invite suggested reviewers. They will however never invite reviewers for the purposes of reviewing a submission who have been explicitly excluded by the author.

Members of the editorial team/board/guest editors are permitted to submit their own papers to the journal. In cases where an author is associated with the journal, they will be removed from all editorial tasks for that paper and another member of the team will be assigned responsibility for overseeing peer review. A competing interest must also be declared within the submission and any resulting publication.

## Editorial decisions and revisions

When all reviews are in, the Editor makes an editorial decision, usually based on three reviews. In exceptional cases, or in the case of squibs, a decision may be made with two reviews. This is, for example, necessary when a third review fails to materialize after repeated reminders, and time is too short to invite a new reviewer. At *Glossa*, timely initial editorial decisions are generally prioritized over a complete set of three reviews.

If the editorial decision is "resubmit for review", "revisions required", or "accept submission", authors are asked to provide a detailed document explaining how their revised submission has taken reviewers' comments into account. This document will be read both by the reviewers (in the case of "resubmit for review") and the

# Reviewer Guidelines

Reviewers are asked to provide comment on the below topics and guidelines:

- Does the paper present an empirical discovery potentially of interest to most of this journal's readers?
- Is the empirical content of the paper sound (e.g. fieldwork includes proper controls and comparisons, experiments well designed, etc.)?
- Does the paper make a broader proposal about an aspect of linguistic theory potentially of interest to most of this journal's readers?
- Is the argumentation linking the paper's broader conclusions to its empirical or theoretical premises sound?
- Comment on the paper's premises or the conceptual framework that it assumes.
- Any other comments relevant to the evaluation of the paper as a whole.
- Suggestions for improving the paper.
- Specific line-by-line comments on details of the paper.

*Glossa* does not accept papers of more than 15.000 words for publication. Therefore, if the paper is close to or over this limit and you are recommending expansion in some area, it would be helpful if you could also identify areas in which it might be cut. We would also welcome any observations on matters of presentation that might occur to you in the course of reading the article.

## Reviewing matters

Reviewers have a crucial responsibility in the decision process leading from submission to publication. Here are some things that you as reviewers can do to help us editors improve and accelerate that process.

1. **Please answer the invitation to review as promptly as possible**, especially if you cannot do the review. That will allow the editor to invite a new reviewer and considerably shorten the submission-to-decision (StD) time. If you don't answer quickly, the editors will wait for your answer for 10-15 days before inviting a new

<https://diamasproject.eu>



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**Objective 1:** To gain knowledge on the institutional OA publishing landscape (including the services and infrastructure that supports it) across the ERA in its diversity in terms of size, types of institutions, location, disciplines and languages, with a gap analysis of institutional OA publishing against a baseline of existing good practices (SO1).

**Objective 2:** To standardise and to improve current institutional publishing practices by setting up an innovative European Quality Standard for Institutional Publishing (EQSIP) to be adopted by IPSPs, providing a coordination tool at EU level, modular and flexible enough to accommodate cultural, economic, historical and organisational diversity across different countries, communities, and types of organisations (SO2).

**Objective 3:** To enhance the capacities of IPSPs through the creation of operational toolkits, specific standards, guidelines, training materials, and business model canvasses; to support IPSPs on their way towards the European quality standard and coordinate them through the development of a Global Network of IPSPs, base of the future OA Capacity Centre for Institutional Publishing. This objective will also address the sustainability of IPSPs by better understanding and optimising their costs through the promotion of specific shared resources, increased collaboration, and the creation of new funding models (SO3).

**Objective 4:** To support policies and strategies in OA publishing by engaging with governments, RFOs, RPOs and policy-making bodies at the highest level of governance (DG-RTD, ministries, university leadership, university head librarians, directors) to provide them with sets of recommendations to implement strategies and policies to improve and raise the profile of the IPSP they host or support in the long term (SO4).

**Thank you!**  
**Questions?**  
**Your thoughts?**

**Contact: [iryna.kuchma@eifl.net](mailto:iryna.kuchma@eifl.net)  
[@irynakuchma](https://www.instagram.com/irynakuchma)**

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