

How to open science in OP JAK Návraty



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Návraty na UK

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Open Science



Open science: Why?

- What science looks like now



Open science: Why?

- And often it is actually even worse
 - Paying for access to publications (subscription), copyright owned by publishers





Replication crisis

Replication crisis = many studies can't be replicated, it is not possible to again achieve published results

Psychology's Replication Crisis Is Running Out of Excuses

Another big project has found that only half of studies can be repeated. And this time, the usual explanations fall flat.

Half of top cancer studies fail high-profile reproducibility effort

Barriers to reproducing preclinical results included unhelpful author communication, but critics argue that one-time replication attempts don't tell the whole story.

More than 10,000 research papers were retracted in 2023 – a new record

The number of articles being retracted rose sharply this year, but this is only the tip of the iceberg.

A wave of retractions is shaking physics

Grappling with problematic papers and poorly documented data, researchers and journal editors gathered in Pittsburgh to hash out the best way forward.

Nový rektor Mendelovy univerzity má problém. Jeho laboratoř falšovala data

May 15, 2024

Replication crisis

What is good for
science?

Properly done
research (research
question,
methodology)

Publication of all
relevant findings

What is good for
scientists?

Publishing many
groundbreaking
results

Questionable Research Practices

- Selective reporting
- HARKing (= Hypothesizing after results are known)
- *p*-hacking

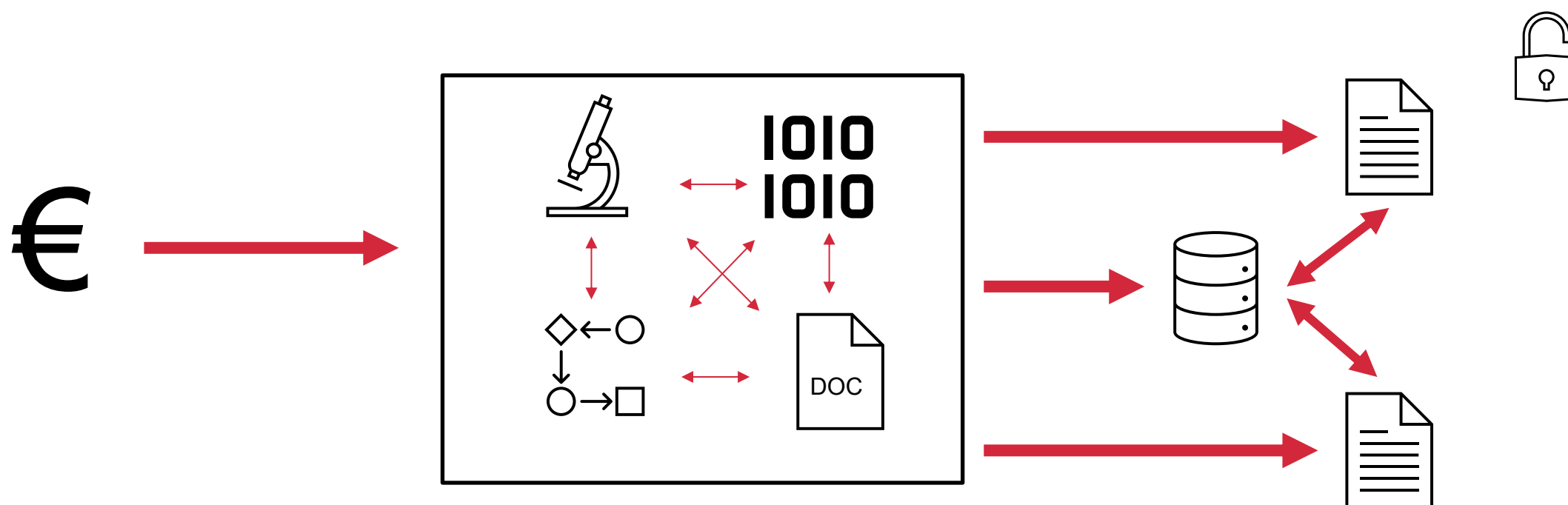
Data fabrication and
falsification



Robust and reproducible research

Open science: Goals

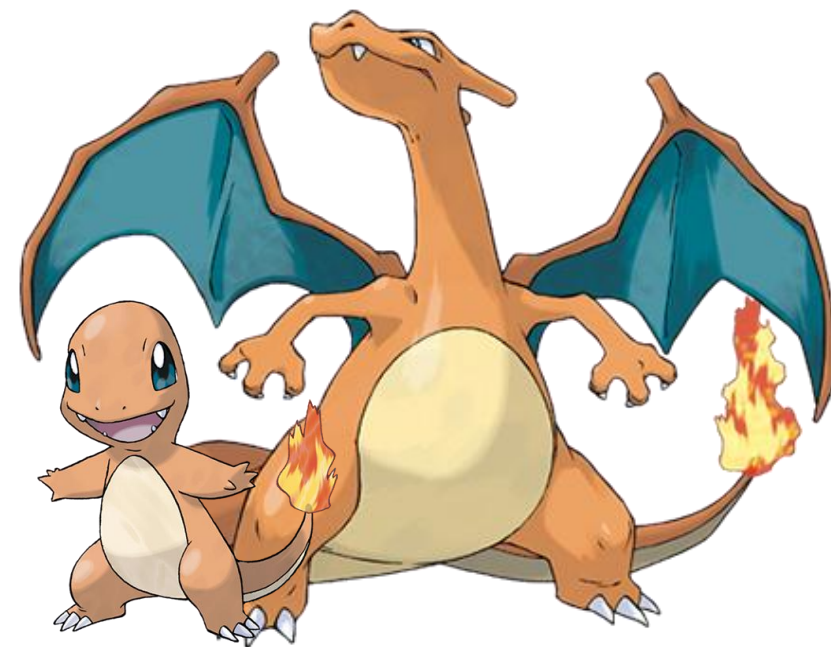
- Transparent research, accessible research outputs
- Science is not article shaped – many different output types



Open science: Ultimate goals

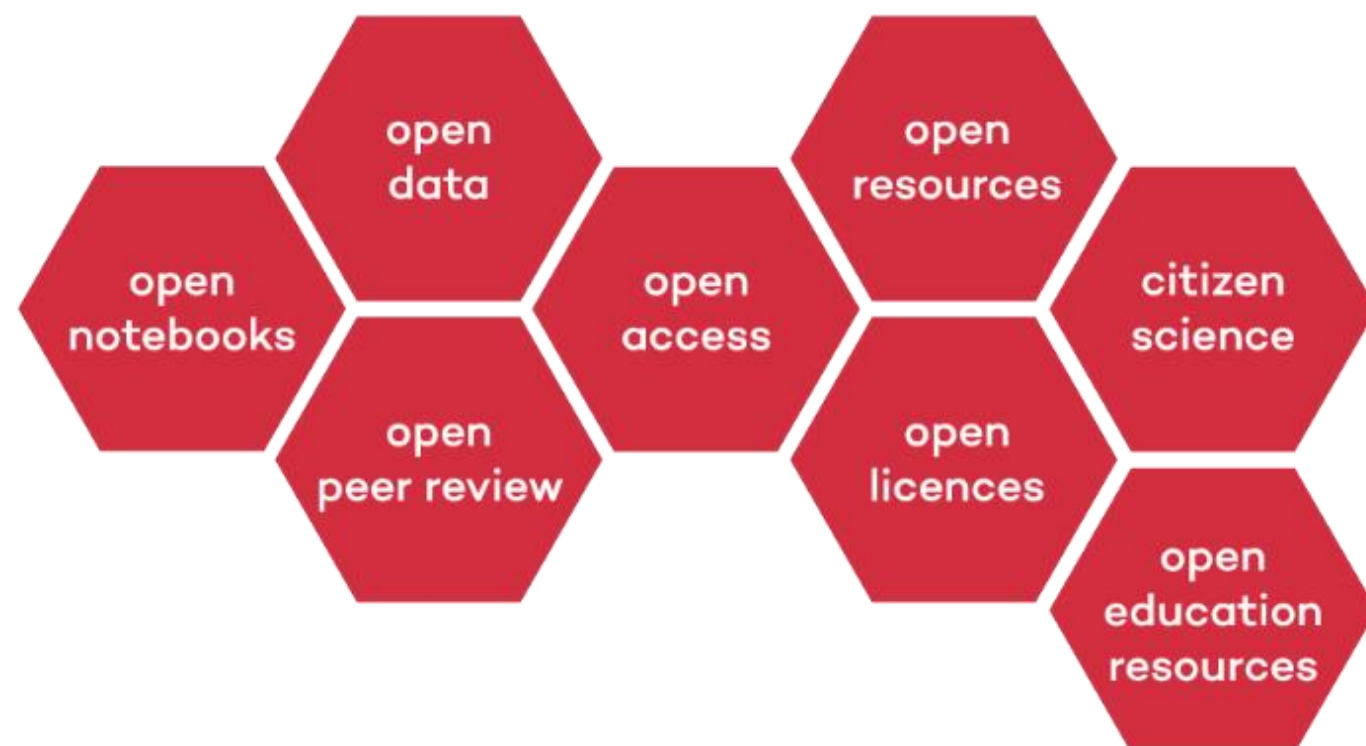
- Providing access to research outputs (publications, data, ...)
- Reusability of research outputs
- Transparent and replicable research
- Improving trust in research results
- Effective use of resources
- New collaborations

Open science is not a revolution, but **an evolution!**





Open science



**Operační program
Jan Amos Komenský**

PŘÍRUČKA POSTUPŮ OTEVŘENÉ VĚDY

Verze:	1.1
Vydal:	Řídící orgán OP JAK
Datum platnosti:	Dnem zveřejnění na webových stránkách OP JAK
Datum účinnosti:	28. 6. 2023



Research data



Research data

= information that has been collected, observed, generated, or created to validate or reproduce your research findings

Research data can take various forms (digital or non-digital)

- Spreadsheets, documents
- Images, audio & video recordings
- Questionnaires, test answers, interview transcripts
- Lab notebooks, field notes
- Software, script
- Samples, artefacts

Research data management

- During the whole research process
- Makes writing and revising papers easier
- Reduces the risk of article retraction due to mixing up or mislabelling the data
- If there is a problem with your results, you will be in a good position to defend yourself





CUNI Research Data Policy

Aim: Specify the **basic principles** of research data management and delineate the **responsibilities** of the University and its researchers

- Basic principles
 - Collection, preservation and sharing
- Responsibilities
 - Researcher: Follows the basic principles
 - University: Provides infrastructure and support
- Available support




**Charles
University**



Charles University Research Data Policy

1. Preamble

Charles University is committed to ensuring that its research is transparent, replicable and its research results are widely accessible and reusable, in line with the principle 'as open as possible, as closed as necessary'. The University strongly believes that such practice improves the quality of research and benefits not only the wider research community but individual researchers as well by fostering collaboration and increasing their impact. Making research results widely available will further highlight the excellence of the University's research and enable public engagement.

The University recognizes that research data are an integral part of the research process and that research data management is a key component of research quality and integrity. The aim is for the University researchers to produce research data that are managed in accordance with the FAIR principles.

2. Definitions

Research data: Research data can be characterised as any information that has been collected, observed, generated, or created to validate or reproduce research findings. Research data can take various forms, including but not limited to documents, spreadsheets, images, audio and video recordings, code, software, laboratory notebooks or samples, and may be digital as well as non-digital.

Metadata: Metadata provide information about other data. They may include, for example, information about who the author of the data is, or when and where the data were created.

FAIR principles: The FAIR principles describe how research data should be organised so they can be more Findable, Accessible, Interoperable and Reusable.

Data management plan (DMP): Data management plan (DMP) is a document that specifies what data will be created and how, and outlines the plans for sharing and preservation of the data, both during and after the research project. DMP should be updated regularly to reflect what actually happened with the data.

Repository: Repository is a digital online storage for storing and sharing the results of creative activities (e.g., publications or data).

Persistent identifier: Persistent identifier is a long-lasting reference to a unique entity. Persistent identifiers may be used, for example, for digital objects (e.g., DOI, handle), researchers (e.g., ORCID, ResearcherID), organisations (e.g., ROR) or other entities.



Research data in Návraty

The PI must **ensure that data are managed** in line with the FAIR principles, in particular by:

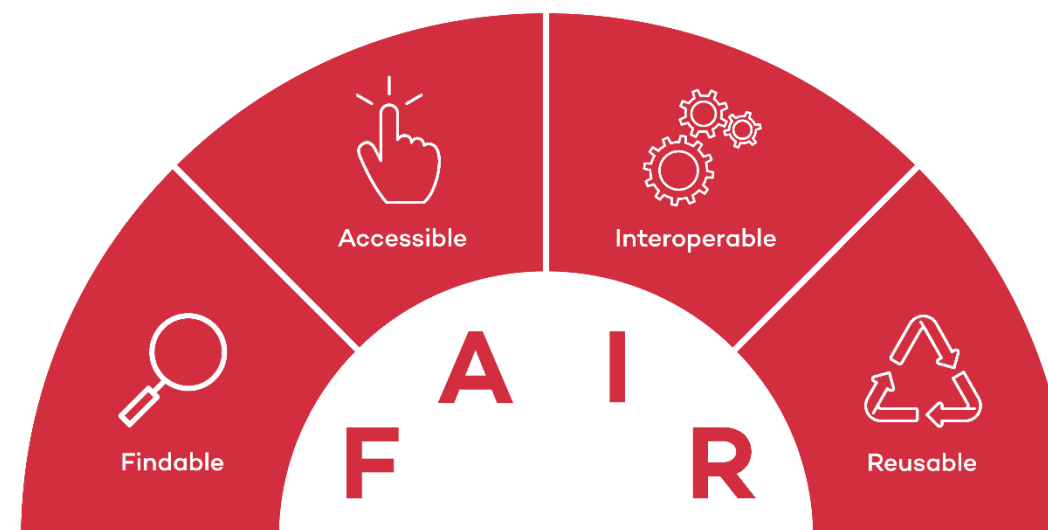
- Creating a data management plan
- Depositing research data in a repository
- Ensuring open access to research data
- Providing information about related outputs
- Sharing metadata

FAIR data

1. UK zajistí správu výzkumných dat shromážděných či vytvořených v průběhu řešení projektu
Návraty na UK odpovědně v souladu s FAIR⁶ principy, a to zejména těmito prostředky:

In order to enhance the **reusability** of your research data, you should aim to make your data FAIR:

- Findable
- Accessible
- Interoperable
- Reusable



FAIR: Findable

*= your data should be findable by both humans and machines.
Machine-readable metadata and persistent identifiers are key.*

- Metadata
 - Poor metadata → data cannot be found
- Persistent identifiers (PID)
 - ORCID, DOI, ROR
- Links to related outputs
 - Using PIDs

DOI:

DOI 10.5281/zenodo.3978090

Keyword(s):

pine wood nematode Bursaphelenchus xylophilus
quarantine pest survey Finland

Subject(s):

Bursaphelenchus [↗](#) surveillance [↗](#) data [↗](#)

Related identifiers:

Supplement to
[10.3897/neobiota.58.38313](#) (Journal article)
[10.5281/zenodo.3842358](#) (Software)

FAIR: Accessible

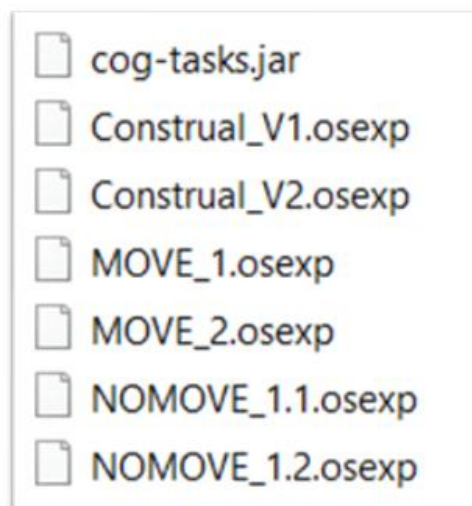
*= ensuring **open access** to research data, or at least to related metadata*

- Access ideally via a **repository**
 - Download option
- Restricting access might be in accordance with FAIR
 - Authentication & authorization are possible
- Metadata should be freely accessible
 - Accessible via a persistent identifier
 - If the data are removed, the metadata should remain accessible

FAIR: Interoperable

= possibility to *integrate* data with other data and ensuring *compatibility* with tools for their processing

- Using *standardised terms*
- Open formats
- Subject specific standards
 - Research infrastructures



FAIR: Reusable

= *optimise your data for **reuse***

- Thorough description of data– **documentation**
 - Descriptive metadata
 - Provenance and context
- Use **licences**

 01.docx
 01_A.docx
 01_Ab.docx
 01_Ac.docx
 01_C.docx

	File names				
01	original text with no changes, along with title, source and word count				
01_O	original text with no changes, Task 1 format				
01_R	all articles removed from the text, Task 2 format				
01_Ac	articles manipulated - the same as in Task 4; update after 01/02/2018 meeting: no highlighting				
01_C	articles manipulated and highlighted along with their respective nouns, Task 4 format				

 02_A.docx

FAIR data

- Many of the requirements can be sorted by choosing an **appropriate repository** (F, A)
- Fulfilling other principles (I, R) is heavily dependent on how you **work with your data during the research process** and is hard to achieve at the time of data publication
- FAIR principles are not a „binary metric“ – not everything can be 100% FAIR → we try to get as close as possible
- There are many training materials on FAIR to help you:
 - [FAIRsharing](#), [FAIRsFAIR](#), [How to FAIR](#), [FAIR-Aware](#)

Data management plan (DMP)

- hlavní řešitel návratového grantu je povinen vypracovat **Plán správy dat** v souladu s FAIR principy a **pravidelně jej aktualizovat**. Plán správy dat předkládá řešitel návratového grantu k věcnému posouzení prostřednictvím Průběžné zprávy o činnosti skrze IS Věda, a to prvotně **po 6 měsících od zahájení fyzické realizace tohoto grantu**, a dále jej aktualizuje a předkládá prostřednictvím IS Věda dle potřeby; ⁷

- The first DMP must be submitted **in 6 months!**
- DMPs must follow the DMP template for the Horizon Europe programme

HE template



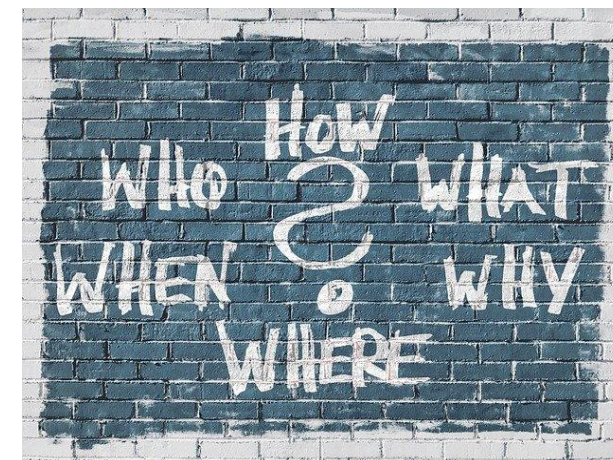
Checklist



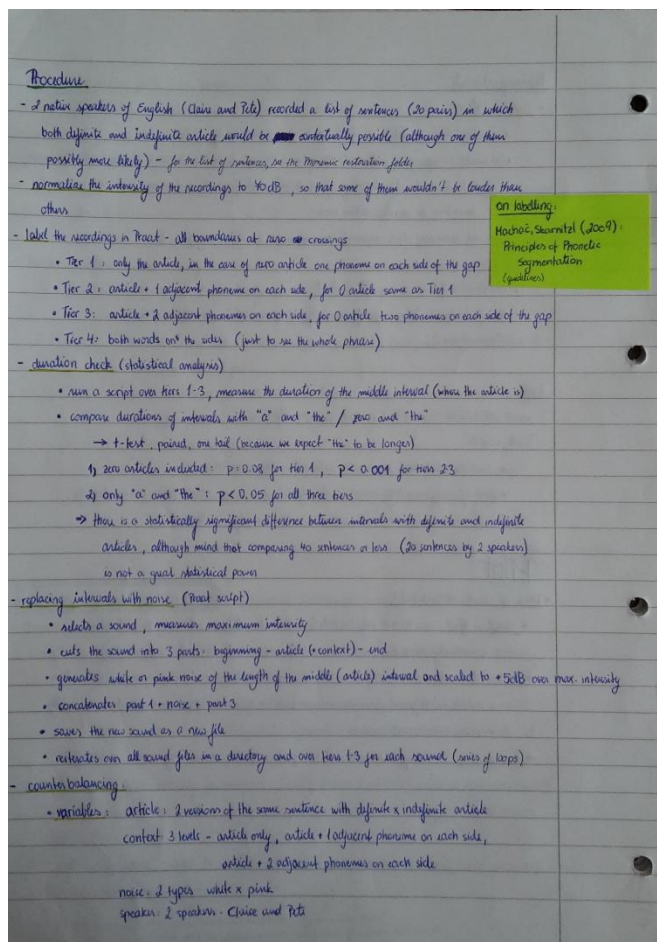
Data management plan (DMP)

= document that describes *what data will be created and how*, and outlines the *plans for data sharing and preservation*

- **Living document** that should be updated regularly
- Reflecting on data management during your research project
- Ensuring that the data are complete, accurate and reliable
- Helps you anticipate **potential issues**
- Ensuring **continuity** and **consistency** in long-term projects
- Helps with **data sharing**



How to create a DMP



Modelová grantová dohoda programu Horizont Evropa vyžaduje, aby byl vypracován a pravidelně aktualizován plán správy dat (Data Management Plan, DMP). Příjemcem podpory z programu Horizont Evropa se doporučuje používat tento vzor. Při vypracování sekiř tabulky je třeba zohlednit požadavky programu Horizont Evropa na správu výzkumných dat, jak jsou popsány v článku 17 a rozěrahách v Anotaci grantové dohody, článek 17.

1. Data Summary / Shrnutí dat

Will you re-use any existing data and what will you re-use it for? State the reasons if re-use of any existing data has been considered but discarded.

Použijete znovu některá stávající data? K čemu je znovu použijete? Uveďte důvody, pokud bylo opakované použití stávajících dat zvažováno, ale zamítnuto.

What types and formats of data will the project generate or re-use?
Jaké typy a formáty dat budou v rámci projektu generovány nebo znovu použity?

What is the purpose of the data generation or re-use and its relation to the objectives of the project?

Za jakým účelem se budou data generovat nebo opětovně používat ve vztahu k cílům projektu?

What is the expected size of the data that you intend to generate or re-use?
Jaká je předpokládaná velikost dat, které hodláte generovat nebo znovu použít?

What is the origin/provenance of the data, either generated or re-used?
Jaký je původ dat, ať už vytvořených nebo znovu použitých?

To whom might your data be useful ('data utility'), outside your project?
Pro koho mohou být vaše data užitečná ("užitečnost dat") kromě vašeho projektu?

A role of striatal M4 muscarinic acetylcholine receptors in learning of stereotypic motor sequences

Project Details

Plan overview

Write Plan

Share

Download

expand all | collapse all

13/13 answered

Data Collection (2 / 2)

What data will you collect or create?

B I

☰ ☲ ☱ ☴ ☵ ☶ ☷

🔗

Following kinds of data will be created:

- „master sheet“
 - contains the information about the experiment - which mouse is in which part of the experiment, dates of specific sessions
 - master sheet will be updated manually by researchers
 - master sheet will be stored in XSL (MS Excel) format
- operant conditioning box program
 - defines sequence of operations that is requested in respective parts of mice's training
 - the program will be written in device specific programming language (MedAssociates)
- operant conditioning box logs
 - logs are stored automatically by the operant box
 - all mouse's interactions with operant box are recorded into log as two values
 - timestamp
 - operation code (eg. correct press, wrong press, Issuing of reinforcement)

Guidance

Comments

DCC FAIRsFAIR

Questions to consider:

- What type, format and volume of data?
- Do your chosen formats and software enable sharing and long-term access to the data?
- Are there any existing data that you can reuse?

Guidance:

Give a brief description of the data, including any existing data or third-party sources that will be used, in each case noting its content, type and coverage. Outline and justify your choice of format and consider the implications of data format and data volumes in terms of

DMPonline





FAIR Wizard
Sdílet

DATA MANAGEMENT PLANNER

- Přehled
- Projekty
- Návod / How-to
- Podpora / Support
- Data Stewardi / Data Stewards
- AI Assistant

Dagmar Hanzlíková
Výzkumník

<< Sbalit panel

Zkouška sirén

Dotazník
 Metriky
 Náhled
 Dokumenty
 Nastavení

Zobrazit Import odpovědí
TODO Komentáře Historie verzí

Before Finishing the Pr...

Kapitoly

I. Administrative inf...	5
II. Re-using data	1
III. Creating and colle...	8
IV. Processing data	3
V. Interpreting data	✓
VI. Preserving data	3
VII. Giving access to d...	4

VII.3 Will you use temporary restrictions on the reuse of the data (embargo)?

Horizon Europe DMP

☒ Potřebné ve fázi: *Before Submitting the Proposal*

☐ a. No, all data will be opened immediately

☐ b. No, unrestricted data will be open immediately, restricted data will be indefinitely limited Openness

☐ c. No, all data will be opened as soon as legal restrictions are falling away Openness

☐ d. Yes, data without legal restrictions will be released openly after a fixed time period Openness

VII.4 Will metadata be available openly?

Horizon Europe DMP

Horizon Europe demands that metadata is completely open, e.g. provided under a CC0 license, and that any deviation from this is clarified.

☒ Potřebné ve fázi: *Before Submitting the DMP*

☐ a. No Reusability



How to create a DMP

 FAIR Wizard UK



FAIR Wizard CUNI je nástroj usnadňující tvorbu DMP, zprostředkovaný pro zaměstnance a studenty Univerzity Karlovy.

V případě dotazů se obraťte na [podporu](#) či konzultujte [pomocné materiály](#).

FAIR Wizard CUNI is a tool simplifying the DMP creation process made available to the staff and students of Charles University.

If you have any questions, please contact [support](#) or access [the help materials](#).

fair-wizard.cuni.cz



Log In

 Email

 Password

[Forgot your password?](#)

Log In

Or connect with

 Shibboleth



Přihlašujte se prosím pomocí systému Shibboleth.

Ochrana osobních údajů

Please log in using the Shibboleth system.

Privacy notice



Data preservation and sharing

- uložení výzkumných dat, zejména těch spjatých s vědeckou recenzovanou publikací, co nejdříve do důvěryhodného repozitáře dle Plánu správy dat;
- Depositing research data, in particular those related to publications, in a trusted repository as outlined in the data management plan

Data preservation and sharing

- zajištěním otevřeného přístupu k výzkumným datům uloženým v repozitáři, v souladu s Plánem správy dat, nejlépe za podmínek poslední dostupné verze veřejné licence Creative Commons Attribution International (CC BY 4.0) nebo jejího ekvivalentu, pokud je to potřeba. Otevřený přístup k datům se řídí zásadou „otevřené jak jen možno, uzavřené jen jak nutno“ s ohledem na soukromí, ochranu osobních údajů, důvěrnost, oprávněné obchodní zájmy a práva DV třetích stran, bezpečnost státu nebo jiné oprávněné zájmy a jiná oprávněná omezení. Pokud není poskytnut otevřený přístup (k některým nebo všem) datům, musí to být odůvodněno hlavním řešitelem v jeho Plánu správy dat a musí být zajištěn pravidelný přezkum tohoto zdůvodnění;



Data preservation and sharing

- Ensuring **open access** to research data deposited in a repository
- Using CC BY licences if possible
- As open as possible, as closed as necessary
- If access is not granted, to some or all of the data, it needs to be explained in the data management plan

Repositories

- „Trusted“ repository
 - Open access, identifiers, metadata, licensing, sustainability...
 - There are certifications (e.g., CTS), but for some types of repositories these might be difficult to achieve
- Choosing a repository
 1. Subject specific (re3data.org)
 2. Institutional (coming soon)
 3. General ([Zenodo](https://zenodo.org), [figshare](https://figshare.com))

Open access to research data

As **open** as possible...

- Underlying data to publications
- Independent datasets

...as **closed** as necessary

- Personal data protection
- State security
- Legitimate commercial interests, Intellectual property rights
- Against the beneficiary's legitimate interests, including regarding commercial exploitation



Data sharing: Why?

Benefits for the **researchers**

- Robust and replicable research
- Enhancing your reputation, increased impact
- Increased citation rates
- Combining data for new findings
- New collaboration

Benefits for the **society**

- Effective use of resources
- Speeding up research process
- Encouraging citizen science
- Reducing academic fraud
- Increasing trust in science

Data sharing: How? (FAIR!)

- Make sure that you can: IPR, co-authors, GDPR
- Anonymisation
- License your data using an appropriate (public) **license**, e.g., Creative Commons Attribution (CC-BY)
- Assign a **persistent identifier** to your data (e.g., DOI, handle)
- Recommended **citation format**
- Share **documentation** along with your data
- Links to related outputs (publication, script...)

Ways to share data

- ~~Supplementary material~~
- Data repository 
- Data journal
 - Description of a dataset
 - Data deposited in a repository
 - E.g., Journal of Open Humanities Data,
Research Data Journal for the Humanities
and Social Sciences



Related outputs

- poskytnutí informací (reference) o jakémkoli dalším výstupu výzkumu nebo nástrojích a instrumentech potřebných k opětovnému využití výzkumných dat nebo k jejich validaci jako součást záznamu (metadat) výzkumných dat v důvěryhodném repozitáři (pokud se neuplatní oprávněné důvody pro omezení těchto informací).

Provide references to related outputs

- Data repository will typically do this for you

Related works

Relation *	Identifier *	Scheme *	Resource type
Select relation...			

DOI:

DOI 10.5281/zenodo.3978090

Keyword(s):

pine wood nematode Bursaphelechus xylophilus
quarantine pest survey Finland

Subject(s):

Bursaphelenchus surveillance data

Related identifiers:

Supplement to
10.3897/neobiota.58.38313 (Journal article)
10.5281/zenodo.3842358 (Software)

Metadata

2. Metadata uložených výzkumných dat v repozitáři musí být v souladu s FAIR principy veřejně dostupná (v rozsahu, v jakém jsou chráněny legitimní zájmy nebo omezení) a strojově čitelná, aby byla v souladu s Obecným doporučením pro metadatový popis výsledků výzkumu (zejména publikací a dat).⁸

Metadata need to be openly accessible, machine readable and in accordance with the General recommendation on metadata

- Data repository will typically do this for you

General
recommendation





Open access





Open access

Open access (OA) is a publication model that seeks:

- Immediate
- Free
- Permanent
- Independent

online access to the results of publicly funded science and research

TRADITIONAL SUBSCRIPTION PUBLISHING

limited dissemination, economic efficiency & social impact



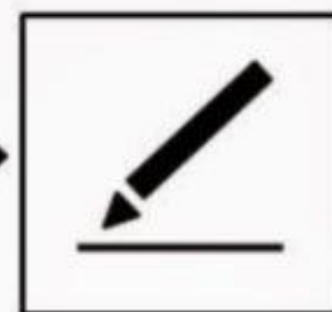
Publicly funded researchers conduct research and write up results.



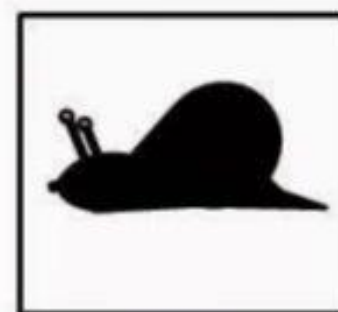
Manuscripts submitted to subscription journals & reviewed by peers.



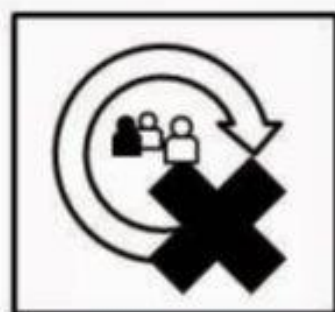
Manuscripts accepted for publication.



Authors transfer copyright to publishers. No rights retained by authors.



Slow scientific progress, poor return on public investment.



Even after paying for access, readers are granted little or no reuse rights beyond permissions to read.

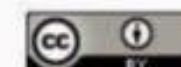


Libraries purchase subscription or public pays per article to view on publisher's website.



Published articles are locked behind paywalls.

Model and text adapted from Timothy Vollmer and Teresa Sempere Garcia "Research article cycles" http://wiki.creativecommons.org/File:Research_article_cycles.jpg





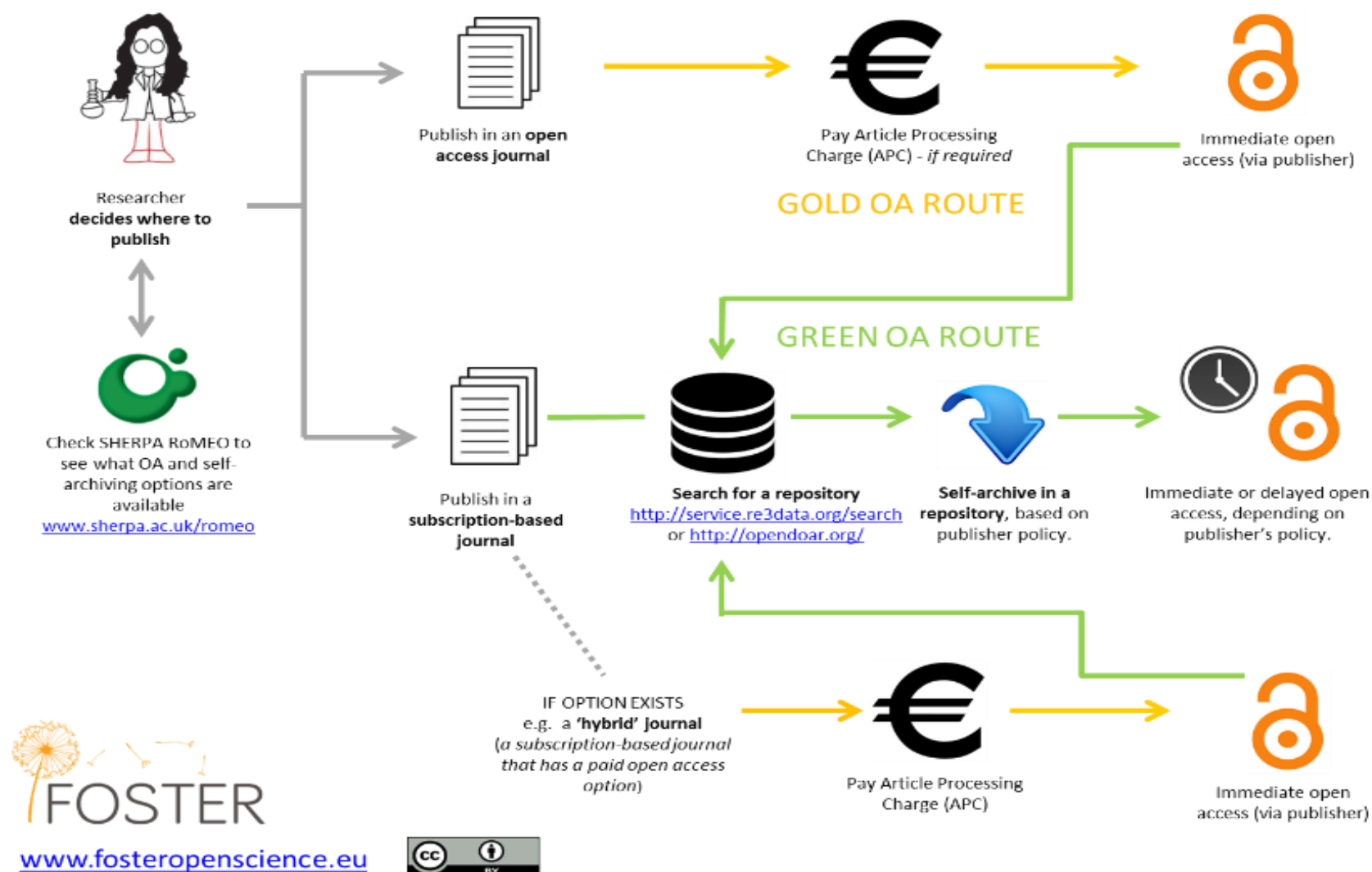
Open access in Návraty

- AAM or VOR
- Prompt open access (i.e., no embargo, free, permanent and independent access) to the publication stored in a trusted repository
- Licence CC BY 4.0 / Long-text formats CC BY + elements NC, ND
- Information about any other research output or any other tools needed to validate the conclusions
- FAIR metadata
- protecting copyrights to such an extent that it is possible to comply with the open access obligations

How to achieve Open Access

Green OA route

Gold OA route





Publishing in Open Access journals

When publishing in an Open Access journal, access to full-text is provided by the publisher

1. Find a suitable Open Access journal:
 - Pure Open Access journals
 - Paid Open Access journals
 - Hybrid Journals
2. Make sure that you have the funds to pay for the publishing charges in the chosen journal
3. Publish the article

How to choose an OA journal?



- Pure Open Access journals
 - Full content of the journal is openly accessible while publishing-related costs are borne by the publisher (e.g., a university publishing house, scientific community)
- Paid Open Access journals
 - Full content of the journal is openly available while publishing costs of the article are borne by the authors – they pay an article processing charge
- Hybrid Journals
 - The journal is available to subscribers by default, only selected articles are available in open access for a publication fee

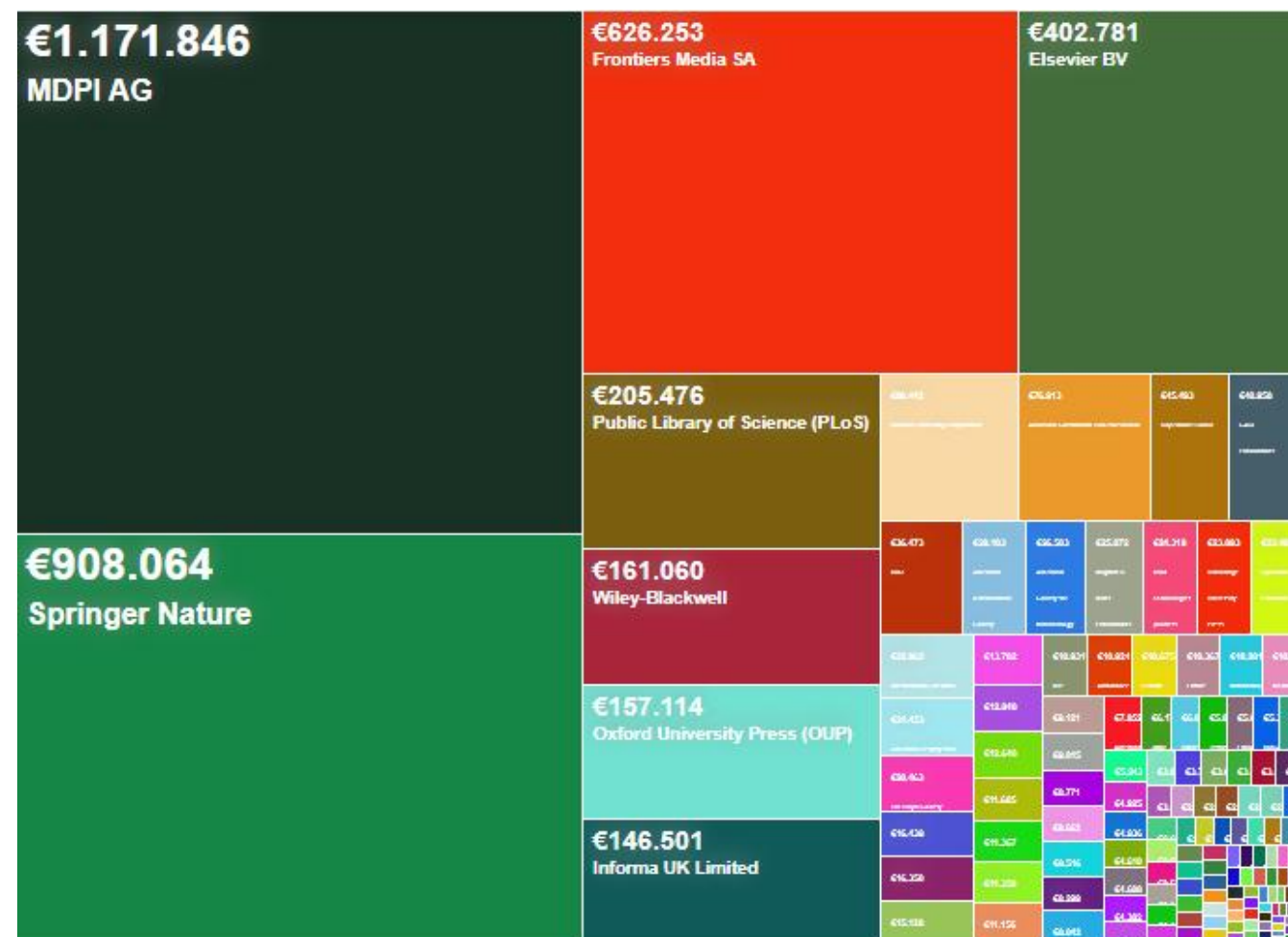
For new/unknown titles, we strongly advise you to check whether it is a predatory journal

Publication fees

Paid Open Access journals charge **APC** = Article processing charge

OP JAK Návraty has allocated funds to pay APC

Average APC: € 2,000–3,000
Nature: €10,290





Publication Fees Discounts x Návraty

UNIVERSITY OF XXXX

Your institution has a Read & Publish open access agreement with the Royal Society of Chemistry, which means that your institution will automatically cover the article processing charge (APC) allowing you to publish your article gold open access.

GOLD OPEN ACCESS PUBLICATION

Version of record is freely available to everyone

Open access is immediate upon publication (payment of article processing charge may be required before publication)

Author retains copyright

Others can share and reuse

Membership or institutional discounts may apply

FREE

No payment required

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- CU is a part of Read & Publish agreements negotiated by CzechElib => discounts and tokens for open access publishing
 - CU rules for token and discounts allocation
 - Grant holders on may not use **Lippincott Williams & Wilkins, Springer Nature, or Taylor & Francis** tokens
 - Unfortunately, **Springer and Taylor** will use your CU affiliation and will **automatically offer** you a token (default OA)
- 
- Please get in touch with the library (**openaccess@cuni.cz**) upon acceptance of your article => the library administrator will **decline your token**, and **you will pay for the APC** from the Návraty fund



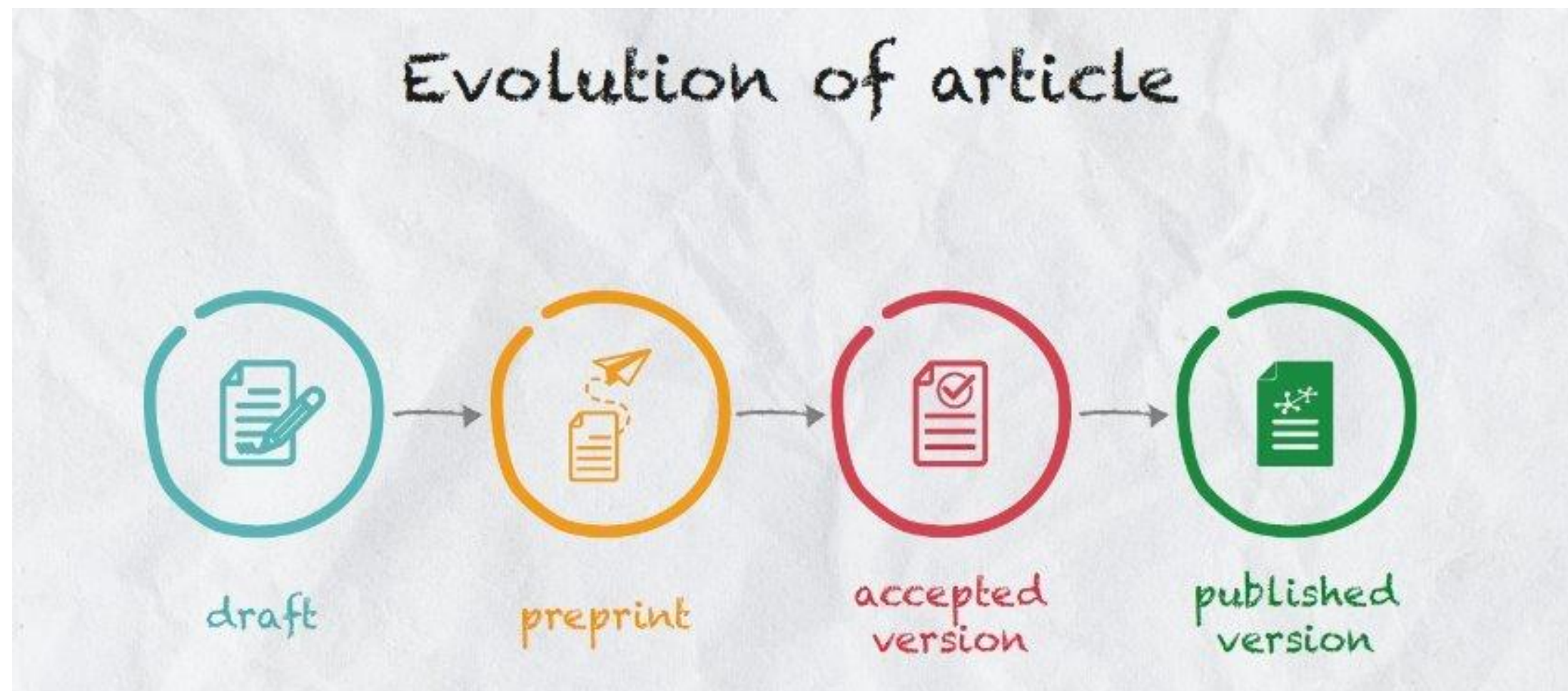
Green Open Access

= combines publishing in scientific journals and self-archiving of an article in an open repository

1. Check the journal's terms of self-archiving (embargo, licence, version of manuscript)
2. Publish your article in the selected journal
3. Deposit your article in an open repository according to the publisher's rules

Licence agreements amendments: European Commission website, SPARC

Manuscript version



AAM

VOR



Open policy finder (Sherpa Romeo)



Open policy finder
Formerly Sherpa services

Select your institution ▾

Menu ☰



Meet our new advisory board [See more about this update](#)

Welcome to open policy finder

Helping authors and institutions to make informed and confident decisions in open access publication and compliance.
Formerly Sherpa services.

Search across open policy finder

Search for a journal, publisher or funder. For open access book policies, search for a publisher below.

Search all ▾

Type the name or title of a journal, publisher or funder...



Search



[← Back to search](#)

[Report an error](#)

- Journal Policy
- Open Access Compliance
- Transitional Agreement Look-up
- Journal Details
- Record Information

Version:

- Show all
- Published
- Accepted
- Submitted

Published

Option with associated OA fees, no embargo & CC BY licence

Show

Published

Option with associated OA fees, no embargo & CC BY-NC-ND licence

Show

Accepted

Option with 6 months embargo & Publisher's Bespoke License licence

Show

Submitted

Option with no embargo

Show

 Published

Option with associated OA fees, no embargo & CC BY licence

 Hide

OA Fee

This option has an Open Access fee associated with it

OA Publishing

This option includes Open Access publishing

Embargo

No embargo

Licence

CC BY

Locations

Any Website

Journal Website

Conditions

Publisher source must be acknowledged with citation





CUNI Publications Repository

publications.cuni.cz

- Self-archiving for authors with CUNI affiliation
- Procedure through [IS Věda – OBD](#)
 - Evidence of the results of the creative activities coordinator (OBD module support)
 - Faculty OA coordinator (full-text uploading support)
 - University OA coordinator – OS Návraty specialist (author and methodological support)

The screenshot shows the header of the repository website. On the left is the 'Univerzita Karlova' logo. To its right, the text 'REPOZITÁŘ PUBLIKAČNÍ ČINNOSTI' is displayed in white on a dark blue background. Below this, a white bar contains the text 'Repozitář publikační činnosti UK'. The main content area has a dark blue background with white text. It starts with a welcome message, followed by statistics on publications, and ends with a search bar.

Univerzita Karlova

REPOZITÁŘ PUBLIKAČNÍ ČINNOSTI

Repozitář publikační činnosti UK

Vítejte v Repozitáři publikační činnosti UK

Aktuálně je v repozitáři uloženo **1574** výsledků, z toho **1462** přístupných v režimu **open access**

Hledat



CUNI Publications Repository

Research outputs:

- Publication types: journal article, chapter, book, abstract, poster
- Versions: draft, preprint, **postprint (AAM)**, **version of record (VOR)**

Accessibility:

- **Open access**
- Open access with embargo
- Restricted access

Methodological materials

- [More information about CUNI Repository](#)

*Please keep in mind
that reading publishers'
self-archiving policies
prevents issues when
archiving a publication
in the repository and
reporting it in any
project.*



Repository and Open Access to metadata

- Repository types:
 - Institutional (e.g., [CUNI Publication Repository](#))
 - Disciplinary (e.g., [SSOAR](#))
 - Multidisciplinary (e.g., [Zenodo](#))
- Publication metadata:
 - Title
 - Full names of authors and contributors
 - Publication date/ Availability date
 - Document type (article, book, etc.)
 - Publisher
 - Language
 - Licensing terms (embargo, license, etc.)



OpenDOAR



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The latest international version is 4.0

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- You cannot distribute your work freely
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..... without consent from the Publisher

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Beware the predator, my son

- Mind where you publish!
- How to spot a predator?
 - Ask your library
 - Ask your colleagues
 - Is this a journal you are familiar with?
 - Think. Check. Submit.

Predators

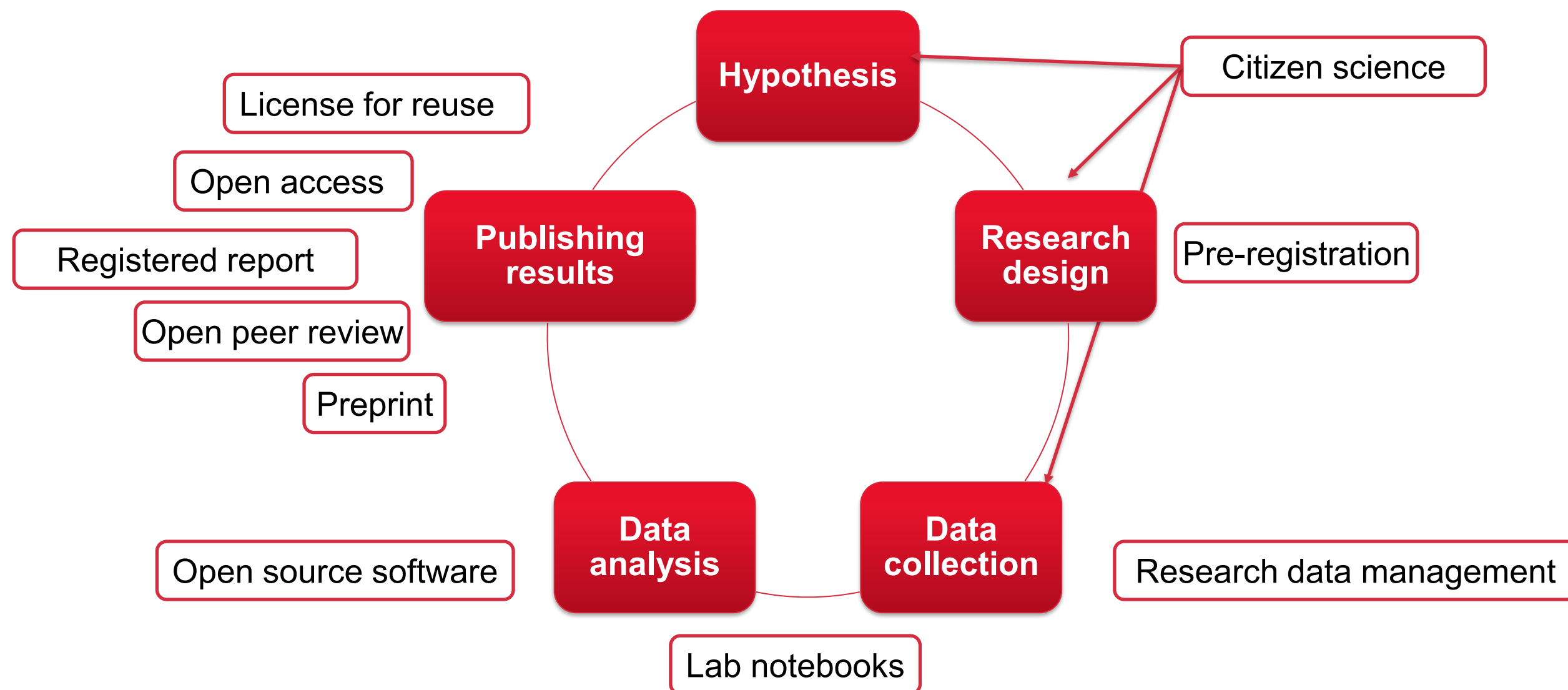




Additional open science practices



Open science in research





Early access to results

- **Preregistration** = specifying (and sharing) your research plan in advance of your study and submitting it to a registry
- **Registered report** = research article peer reviewed in two stages utilising preregistration
- **Preprint** = research articles shared prior to peer review (submitted version)

Citizen science

*= an approach to scientific research that actively involves the **public** in scientific projects*

- Volunteers, lay scientists, NGOs, local communities, end users
- Participating in different phases of a project
- Activities that may be involved
 - Co-design (hypothesis, methodology)
 - Co-creation (data collection, annotation, testing, design)
 - Co-assessment (data analysis, interpretation)



Other possibilities

- Open peer review
- Open educational resources
- Open lab notebooks
- Open laboratories
- Using open source software
- Using existing data
- And more

Opening research **one step at a time!** 😊



Available support at CUNI





Open science specialist

- Martin Ouřada
- E-mail: openscience@cuni.cz
- Tel: +420 777 453 059

- Contact person for support with OS related issues
- Consulting services available during the project:



- final checking of DMP

Open science support centre

- Website: openscience.cuni.cz
- Contact: openscience@cuni.cz
- Lectures, workshops, events
- Methodological and consulting services:
 - Choice of OA journal to publish with
 - Research data management, DMP
 - Authors' rights legislation and licences
 - Other open science practises
- E-mail conference: oa-l@cuni.cz



E-learning courses

Open Access at CU

Introduction



Sbalit vše

Welcome to the course Open Access at CU - How to publish Open Access?

By completing this course, you will gain **insight into the issue** of open publishing and basic information about the possibilities that the publishing model of open access offers you. You will be introduced to **useful tools** and **platforms** and you will find out who to turn to regarding open access at Charles University.

At the end of this course, you will know how to answer the following questions:

- What is open access?
- What does it mean to "publish open access"?
- What are the benefits of open access publishing?
- What is the difference between the green and the gold route to open access?
- What specific steps does an author need to take to publish in open access?
- What are the typical features of so-called predatory journals and publishers and how to avoid them?
- What does Charles University offer me as an author in the field of open publishing?

How does it work?

Each chapter introduces one topic of open access and offers basic **definitions** and **description**, supplemented by multimedia, **useful links** and an overview of **recommended literature**. At the end of each chapter, there is a short quiz to test your newly acquired knowledge. In order to be able to complete the quizzes, you need to enrol in the course (cogwheel in the top right corner > Enrol me in this course).

Research Data Management

Introduction



Sbalit vše

Welcome to the Research Data Management course!

Data-based research is becoming more and more common across a wide range of scientific disciplines. With the growing importance of research data, there is also a growing need to manage data properly throughout the research process. In this course, we will introduce the **basic concepts of research data management** as well as some specific **tools** that can help you with data management.

During this course you will learn

- What are research data
- What is research data management
- What are the benefits of research data management
- What is a data management plan and how to create one
- Useful tips for collecting and processing research data
- What are open research data and how to share your data
- ...and a lot more!



How does it work?

Each chapter introduces one topic of research data management and offers basic **definitions** and **description**, supplemented by multimedia, **useful links** and an overview of **recommended literature**. At the end of each chapter, there is a short **quiz** to test your newly acquired knowledge. In order to be able to complete the quizzes, you need to enrol in the course (cogwheel in the top right corner > Enrol me in this course).

Take home messages

Transparent and replicable science

- Open access to publications and other research outputs
- CC BY license
- Research data management adhering to FAIR principles
- Data management plan
- Data stored in repository
- Data sharing: As open as possible,
as closed as necessary



VÝZVA Č. 02_24_037

NÁVRATY



Thank you for your attention!



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Open Science Support Centre
Charles University

