Frequently Asked Questions (FAQ)

In this section you will find answers to frequently asked questions about <u>open science</u>, <u>open access</u> to scientific publications and <u>research data management and open data</u>.

Open Science

- 1. What is open science?
- 2. What does open science include?
- 3. What open science requirements are there in Horizon Europe?

What is open science?

According to <u>FOSTER</u>, Open Science is the practice of science in such a way that others can collaborate and contribute, where research data, lab notes and other research processes are freely available, under terms that enable reuse, redistribution and reproduction of the research and its underlying data and methods.

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What does open science include?

While open access and open research data / research data management might be the most familiar parts of open science, they are not the only ones. Open science includes other practices such as citizen science, open educational resources, open peer-review and a lot more. You can explore these branches of open science on the <u>FOSTER</u> website which provides the following <u>taxonomy of open science</u>.

What open science requirements are there in Horizon Europe?

Horizon Europe includes an obligation to ensure **open access** to scientific information – **peer-reviewed publications**, as well as **research data** and other research outputs. Beneficiaries are also required to prepare a <u>data management plan</u>. In Horizon Europe, open science is now also **included in the evaluation of proposals**.

You can find more information on the Centre's website .

Open Access

- 1. What does open access mean?
- 2. What is the difference between green and gold open access?
- 3. <u>Does Charles University have an open access policy?</u>
- 4. What are the funding options for publication fees (APC) at Charles University?
- 5. I have already published an article in a journal and now I would like to make it available in an open repository. What should I do?
- 6. Is there a list of untrustworthy journals and publishers (so-called predators)?
- 7. Which finance providers require open access to published results?
- 8. What is the difference between open repositories and scientific social networks such as ResearchGate and Academia.edu?
- 9. I find the idea of open access interesting, but I need advice on how to proceed. Who can I contact at Charles University?

1. What does open access mean?

Open access (OA) is a publication model that seeks to achieve immediate, free, permanent and independent online access to the results of publicly funded science and research.

For more information, visit Open Access section .

2. What is the difference between green and gold open access?

The green route to open access is a combination of publishing an article in a journal (open or traditional with content available for a fee / subscription) and storing the full-text of the article in an open repository by the author (so-called self-archiving).

The gold route to open access means publishing in an open (open access) journal, so that open access is not provided by the author, but by the publisher.

Both routes to open access are fully complementary (they are not excluded) and from the point of view of increasing the visibility of your work it is appropriate to combine them.

For more information, visit Open Access section.

3. Does Charles University have an open access policy?

Charles University does not have a mandatory open access policy. However, at its meeting on 15 December 2017, the Academic Senate of Charles University approved a draft of the <u>Declaration of Charles University Academic Senate and university management on open access policy at CU</u> (only in Czech), the aim of which is to set sufficient conditions for the subsequent determinat

4. What are the funding options for publication fees (APC) at Charles University?

Charles University currently does not have a central fund to cover the cost of open access fees. These fees are generally eligible costs in project budgets (it is therefore necessary to keep these costs in mind when designing a budget for new projects).

Corresponding authors from Charles University can also take advantage of discounts and vouchers on open access publication fees at <u>selected publishers</u>.

5. I have already published an article in a journal and now I would like to make it available in an open repository. What should I do?

An already published article can be make accessible through the green route to open access, i.e. by uploading the article to an open repository (self-archiving). A useful tool for finding a suitable repository is e.g. OpenDOAR or OpenDOAR or OpenDOAR or OpenAIRE database.

However, it is **always necessary to check in advance** whether the publisher with whom you published the article **allows self-archiving**. The terms of self-archiving are usually stated in the license agreement, which the publisher negotiates with the author's team before publishing. If neither you nor the corresponding author has a license agreement, we suggest to use the <u>SHERPA / RoMEO</u> service, which is only of a reference nature. If the publishing agreement does not allow for self-archiving, request an exception through the addendum to the license agreement before signing. For more information on self-archiving options, see the section <u>How to publish OA</u>.

6. Is there a list of untrustworthy journals and publishers (so-called predators)?

The most well-known list of untrustworthy publishers and journals was the so-called Beall's list, the operation of which was terminated in 2017 due to its controversy. The reasons for listing a journal are not always clear and may provoke a legal response from the accused publisher. For this reason, it is always necessary to assess the credibility of the journal or publisher with whom you want to publish. On the website of the Open Science Support Centre you will find characteristics of predatory journals/publishers and tips on how to avoid them. At the same time, the Centre prepared a clear factsheet for authors from CU containing basic information about predatory journals.

7. Which finance providers require open access to published results?

In the lead of finance providers that require open access is the European Commission, but the number of them is expected to increase in the future. The <u>Plan S initiative</u> will be particularly involved.

You can find more information about specific providers on the website of the Open Science Support Centre in a separate section .

8. What is the difference between open repositories and scientific social networks such as ResearchGate and Academia.edu?

Academia and ResearchGate are commercial academic social networks whose main purpose is to connect researchers. They often try to collect personal information and you often need to log in to access content. Thus, they do not meet the definition of open access, which should be immediate, free, permanent and independent.

Open repositories are non-commercial platforms that usually have wider options for storing articles (filling in metadata, etc.), at the same time they are interoperable with other tools and searchable by common search engines and aggregators of scientific content. Some repositories provide long-term archiving.

9. I find the idea of open access interesting, but I need advice on how to proceed. Who can I contact at Charles University?

Open Science Support Centre was established for this purpose at Charles University. More information in the field of open access can be found on the website in the section How to publish OA, or you can contact us.

Research Data

- 1. What are research data?
- 2. What are metadata?
- 3. What is a Data Management Plan (DMP)?
- 4. What DMP template should I use?

- 5. Are example DMPs available?
- 6. How can I create a DMP?
- 7. Who can I turn to if I need help completing a DMP?
- 8. Where can I find existing data on my subject?
- 9. I have found data related to my subject. How can I tell that the data are useful and I can use them?
- 10. How can I cite the data I used?
- 11. How can I assign a persistent identifier (e.g., DOI) to my dataset?
- 12. Where should I store my data during my research?
- 13. I am at the beginning of my research project and I know I would like to share my data when the project ends. What do I need to do?
- 14. I would like to share my data, but they contain personal data. What can I do about that?
- 15. I would like to share my research data. Where can I store them so that other scientists can access them?
- 16. Does Charles University have an institutional repository for storing data?
- 17. What does it mean that data are FAIR?
- 18. Which funders have any requirements regarding research data?
- 19. I am an academic publisher / a journal editor and I would like the authors to share underlying data for published research articles. What should I do?

1. What are research data?

Research data can take various forms and may be digital as well as non-digital. Apart from common forms such as spreadsheets, these can be, for example, photographs, audio and video recordings, questionnaires, test responses, interview transcripts, laboratory notebooks, field notes, codebooks, software, code, or samples and specimens.

2. What are metadata?

Metadata are a description of data. They include information about who the author is or how and when the data were collected. The Digital Curation Centre provides a list of examples of disciplinary metadata standards.

3. What is a 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. Some funders (e.g., <u>H2020: ORD Pilot</u>) require that a DMP is completed and submitted as part of the grant agreement. More information about DMPs can be found at the <u>OS Centre's website</u>.

4. What DMP template should I use?

Different institutions or funders may have different requirements regarding a DMP template, in which case you should use the template provided by the institution or the funder. If there are no specific requirements, we recommend using one of the existing templates, such as the <u>Digital Curation Centre template</u> or the <u>ERC data management plan template</u>. Charles University does not have any specific requirement for a DMP template.

5. Are example DMPs available?

You can find a list of completed DMPs on the <u>Digital Curation Centre's website</u> or at the DMPonline website in the Public DMPs section.

6. How can I create a DMP?

Data management plans can be created as a simple document in a text editor. However, there are several free web-based tools that can help you prepare a data management plan by providing you with a template, asking you specific questions about data management or providing you with further guidance on how to answer the questions. Two such tools are DMPonline and Data Stewardship Wizard.

7. Who can I turn to if I need help completing a DMP?

If you need help creating a DMP, you can contact the Open Science Support Centre at researchdata@cuni.cz

8. Where can I find existing data on my subject?

As an increasing number of academic journals require that underlying data are shared, you can find links to relevant datasets as part of published articles. You can also find existing datasets in research data repositories. These can be either general (such as Zenodo, Figshare, Dryad, OSF) or subject specific (you can use the Registry of Research Data Repositories to find subject specific repositories). A reliable source of existing datasets are data journals, which publish peer-reviewed papers that describe published datasets and so ensure that the datasets are well described and of high quality. In addition to these sources, you may also use dataset search engines such as Mendeley Data or Google Dataset Search . In your research, you can also use public administration data published as open data which you can find in the National Open Data Catalogue (NKOD).

9. I have found data related to my subject. How can I tell that the data are useful and I can use them?

Make sure that the data come from a trusted source, e.g., a certified repository, a well-known author, peer-reviewed data journal.

Make sure that the data are sufficiently described and indicate the context in which they were collected, e.g., who were the research participants, in what conditions were the data collected.

Make sure you are allowed to reuse the data and under what conditions, e.g., does the license specify the reuse conditions? Do you have the author's permission?

How long will the data be retained? Is there a risk that the data could be lost or deleted (e.g., if they are published on the author's personal website)?

If you use someone else's data in your research, don't forget to cite them properly:)

10. How can I cite the data I used?

As with citing publications, it is important to include enough information so that the data can be easily found and identified. Some repositories provide a recommended citation format for the datasets which you can use. If such recommendation is not provided, you should include at least the author's name, publication year, dataset title, publisher/repository, persistent identifier (if it is assigned to the data).

11. How can I assign a persistent identifier (e.g., DOI) to my dataset?

Assigning a persistent identifier requires a service which is authorised to assign them – for publications it is typically the publisher, for research data, some repositories may provide this service. When choosing an appropriate data repository, make sure that it assigns a persistent identifier to your data.

12. Where should I store my data during my research?

To store your data during your research, we recommend that you use data storage operated on the Charles University infrastructure, or data storage provided by CESNET. You may also use cloud storage provided as a part of the Microsoft Office 365 service for Charles University. In particular, this relates to the personal storage OneDrive and the document library service SharePoint and O365 Groups. The management of data as a part of this cloud service is secured through an agreement concluded between CU and Microsoft. To learn more about data security and data storage, check the guide created by the Computer Science Centre and the Data Protection Officer.

13. I am at the beginning of my research project and I know I would like to share my data when the project ends. What do I need to do?

If you are using someone else's data, make sure that their author allows data sharing (e.g., via a license).

If you work in a team, make sure your collaborators agree to share the data.

If you work with human subjects during your research, you need their informed consent with sharing their data. To ensure you can share your participants' data, you can have them sign an informed consent, or anonymise the data before sharing. You can find an example of an informed consent form at the <u>GDPR Sharepoint</u>.

14. I would like to share my data, but they contain personal data. What can I do about that?

If it is possible, remove any personal information from your data.

Anonymise your data before sharing. For example, use numbers instead of names to identify the participants, use age range instead of a specific age or date of birth, etc. To anonymise your data, you can also use anonymisation tools such as Amnesia.

If personal data cannot be removed or anonymised, you need an informed consent from the participants to share such data.

For more information regarding personal data protection, please contact the University Data Protection Officer at gdpr@cuni.cz

15. I would like to share my research data. Where can I store them so that other scientists can access them?

The best way to store and share your research data is to deposit them in a subject specific repository. Subject specific repositories are usually better equipped to meet the needs of a community, and can ensure that your data reaches the scientists in your field. You can find a suitable repository, e.g., at re3data.org. If you cannot find a suitable subject specific repository, you can deposit your data in a general-purpose repository, such as Zenodo, Figshare, or Dryad. More information regarding data sharing can be found at the OS Centre website.

16. Does Charles University have an institutional repository for storing data?

Charles University does not have its own data repository yet. For sharing data, we recommend using subject specific repositories, which you can find, e.g., at $\underline{\text{re3data.org}}$, or a general-purpose repository such as $\underline{\text{Zenodo}}$, $\underline{\text{Figshare}}$, $\underline{\text{Dryad}}$ or $\underline{\text{OSF}}$.

17. What does it mean that data are FAIR?

FAIR data are such data that are easily **F**indable, **A**ccessible, **I**nteroperable, and **R**eusable. You can read more about FAIR principles at the <u>GO FAIR</u> initiative website and you can use <u>this checklist</u> to see how FAIR your data are.

18. Which funders have any requirements regarding research data?

The European Commission is taking the initiative in including open science requirements in their funding programmes (e.g., <u>Horizon 2020</u> and <u>Horizon Europe</u>), however, other research funders are joining the effort, too, for example the <u>KAPPA Programme</u> of the TA CR, or the institutional funding programme <u>Primus</u>.

You can find more information about individual funder's policies in a separate section on Research funders' policies on the Centre's website.

19. I am an academic publisher / a journal editor and I would like the authors to share underlying data for published research articles. What should I do?

It is becoming increasingly common that academic publishers or journals have open data policies in place which specify the authors' responsibilities when it comes to underlying data, for example Nature Research. This study by Sturges et al. shares recommendations on what should a journal data policy include and presents a model policy. For further questions related to the issue of journal data policies, do not hesitate to contact the Open Science Support Centre.