Open Science Hub

From Open Access to Open Scholarship

'Open scholarship' is often used synonymously with 'open science', but extends to **all disciplines**, drawing in those which might not **traditionally identify as science-based**. It reflects the idea that **knowledge of all kinds** should be openly shared, transparent, rigorous, reproducible, replicable, accumulative, and inclusive (**allowing for all knowledge systems**). Open scholarship includes **all scholarly activities** that are not solely limited to research such as teaching and pedagogy.

➤ Do not limit openness to the issue of access to scientific documentation

➤ Do not limit openness to strictly scientific matters, but to the entire university community and scholarly practices

➤ Collaborate and cultivate synergies with other services and other approaches to openness

What's on at ULiège Library?

How are we organised and what do we do about Open Science and Open Sholarship?

Open Scholarship topics

Open access to publications – Open Access
Open Access allows open access to scientific publications, facilitating the dissemination of knowledge.

Sharing research data – Open Data
Open Data promotes the sharing of research data, encouraging transparency and collaboration.

Open access to educational resources – OER
Open Education promotes open access to educational resources, making learning accessible to all.

Open publications – ENO
Open Edition is about the free publication of content, allowing for wider and more accessible distribution.

Open access to software – OS
Open source focuses on open access to software, fostering innovation and collaboration.

Open Access: the green way at ULiège

To scientific publication

- ORBi (Open Archive and Bibliography) is the institutional archive of the University of Liège. Created in 2008, this open archive underlines the University of Liège's willingness to make its scientific work available to everyone, without financial or technical constraint and emphasises its support for the Open Science and Open Access movement.

To master thesis

- MatheO (Master Thesis Online) is the access portal for master's theses at the University of Liège. This project aims not only to provide a solution to the problem of "paper" archiving and long-term preservation, but also to provide much broader accessibility and visibility to these student works, many of which are of high quality. Theses, while not truly scientific publications, represent considerable work and scientific effort on the part of final-year master's students, who often devote many months to them. They deserve not to remain locked away on dark shelves.

To scientific and cultural heritage

- DONum aims to be a virtual library allowing everybody to access the digitized collections of the departments and services from the University. Each service with heritage collections can load in the DONum the digital version of the originals, to make them available to the general public.

Open Access: the gold way at ULiège

Institution, funder… assumes the cost of the serial
67% of DOAJ titles

Reader
Freemium
Cf OpenEdition…

Author

Membership
Cf PeerJ
$399 à $499
just once!

APC
-700$ +700$
->10 k$

Fair gold

Predatory

Unfair

Hybrid

open aPC

Open Access: the gold way at ULiège

APC ULiège 2024 : 481 761 € for 204 articles
(https://treemaps.openapc.net/apcdata/liege-u/#standard/period=2024)

Open Access: and Diamond?

Circular Materials and Chemistry

- CMC publishes papers on Circular Chemistry, Circularity and Life cycle of materials. It focuses on research aimed at designing materials that respect ecological, environmental and social principles, and on the relationship between these materials and the economy and society.

Open (Digital) Publishing:

Portail Publication Périodique Scientifique

- PoPuPS, as a journal incubator, enables existing journals to switch easily to open electronic distribution, or to free themselves from commercial publishers whose interests do not coincide with those of the scientific community. PoPuPS also enables the emergence of new, natively digital journals.

E-publish with Pressbook

- E-publish s a writing, co-writing, editing, and publishing tool that complies with the latest structured publishing standards. It allows you to write about science as it is being written. With Pressbooks, e-publish offers an open digital publishing chain based on a WordPress platform, HTML and CSS files, and Prince software.

Open, Managed and Fair Data

DMP & DMP Online

• DMPonline.be offers common DMP templates (e.g. for external research funders relevant to the Belgian context) alongside institutional templates and guidance. Through a collaborative approach, a duplication of efforts can be avoided, costs can be saved and expertise can be shared for the maintenance and further development of the tool (e.g. processing of new releases, development of new features).

Dataverse

• The ULiège Dataverse is the institutional open research data sharing repository, that is used by ULiège researchers to share datasets according to the FAIR data principles.

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DMP ONLINE .BE

DATA MANAGEMENT (incl. OPEN DATA) > Data Management Plan

A DMP is a **document** made up of a **list of questions** organised in sections.

- It help you **describe** how data will be handled before and after the project.
- It acts as a **checklist** for you to **navigate** the challenges and difficulties you may encounter regarding data
- It **saves time** for the future of the project as it will minimize the **risk** of having to re-organize, re-format data at a later stage, or even to lose or **delete** some of the data collected because of legal, ethical or technical issues that were not anticipated.
- It helps you consider the necessary resources and **costs** for data management, so you can include these in your grant applications.

It is considered **good practice** for any research project
→ first step towards proper research data management

Usual breakdown of a DMP :

- ❑ Project abstract and administrative info
- ❑ Data description/Data summary
- ❑ Documentation and metadata
- ❑ Ethical and legal issues
- ❑ Data Storage and backup (during the project)
- ❑ Data selection and preservation (after the project)
- ❑ **Data sharing** and reuse
- ❑ Responsibilities and resources

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DATA MANAGEMENT (incl. OPEN DATA) > Data Management Plan

Institutional support

ULiège is a member of the DMPonline.be consortium.

ACCESS
• ULiège credentials
• access can be shared (including with external collaborators via ORCID ID)
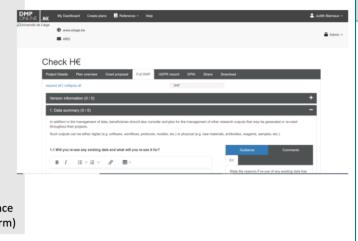
TEMPLATES
• Compliant with your funding
• Generic, applicable to all ULiège researchers
• Comprising a GDPR add-on

GUIDANCE
Each template comes with thematic guidance + on-demand support (collaborative platform)

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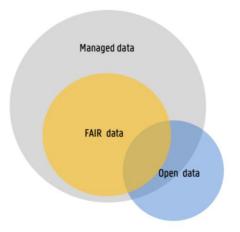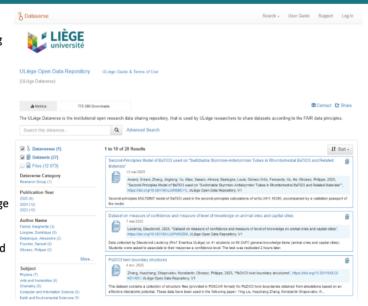
Open data is the destination...

Increasing pressure to make research data available for re-use

Most EU funding programmes refer to the « **as open as possible, as closed as necessary** » principle.

The aim is therefore to practice as much **open data** as possible.

However, there is a right way to practice open data

➢ Only if no applicable regulations or contractual obligations prevent the publication

➢ According to the **FAIR principles**, so that it is of added value to the scientific community

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...FAIR data is the journey

Findable

The first step in (re)using data is to find them. Metadata and data should be easy to find for both humans and computers. Machine-readable metadata are essential for automatic discovery of datasets.

Metadata, PID such as a DOI, keywords, abstract, author, date, versions...

Accessible

Once the user finds the required data, they need to access it. The protocol is open, free, and allows for an authentication and authorisation procedure, where necessary

Metadata are accessible, even when the data are no longer available

Interoperable

The data usually need to be integrated with other data. It needs to interoperate with different workflows, systems, software, applications, languages, institutions, countries, ...

Reusable

The ultimate goal of FAIR is to optimise the reuse of data. To achieve this :
- The format is non proprietary
- The documentation is sufficient
- There is an appropriate license
- The provenance of the data is clear
- The (meta)data meets community standards

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Open Educational Resources

Open Library for Interactive and Virtual Educational Resources

- OLIVER is an open institutional repository for collecting and sharing open educational resources produced at the University of Liège. OLIVER allows users to upload various educational objects (course materials, chapters, documents, including special formats) and make them accessible under a Creative Commons license or for access reserved for ULiège.

Open Software

Open Source Academy

- Launched at the end of 2023, the Open Source Academy is in line with ULiège's Open Science roadmap. Its ambition is to unite a dynamic community around the Open Source ecosystem within ULiège and the University Hospital.

Lugul

- This group is dedicated to repurposing old computers by installing Linux on them. It is currently working to ensure Linux's compatibility with ULiège's research environment, integrating office tools and educational applications. A practical guide for researchers wishing to adopt Linux is also currently being developed.

Project to install Linux Mint on all workstations and computers used by library users.
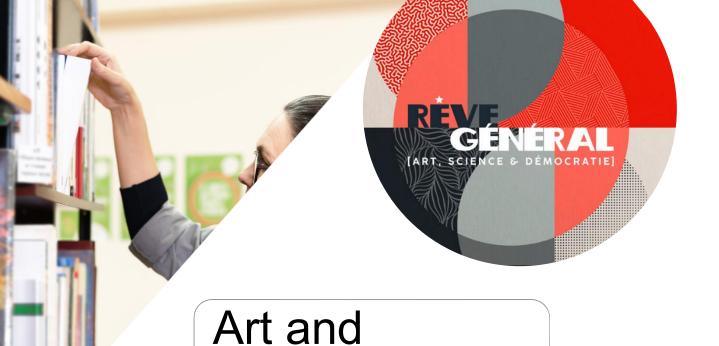
Opening to Humanities and Art

How do libraries open up the sciences to the humanities and the arts?

toire des œuvres de Giacomo Casanova

conservées au château

es.bnf.fr

An Open Science project in Humanities

Freely and easily accessible online, the electronic Duxionary is a consultation interface that makes available to all the long-term work carried out by Marco Leeflang (1933-2022) to help researchers prepare their work on Casanova's manuscripts and papers, most of which come from Dux and are kept in the Prague Archives (Státní oblastní archiv v Praze).

Opening Science to Festivals

Art and Democracy

Open Science and Literature
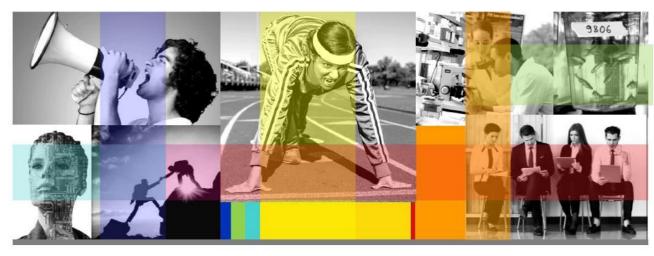
Opening scientist to openess

How does the library educate and inform to create a true open scholarship culture?

Training doctoral students in open science

CATALOGUE DE FORMATIONS
TRANSVERSALES POUR LES CHERCHEURS
TRAINING GUIDE FOR RESEARCHERS

2024-2025

www.recherche.uliege.be/listing-formations

HR EXCELLENCE IN RESEARCH

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Three pillars:
Open access & open science ;
Open data ; Open source

Open Science	Basics of Open Access/Les bases de l'Open Access	Droits d'auteur, publication scientifique et Open access	ORBi, déposer une publication	Comment contribuer à Wikipédia dans le cadre d'un doctorat ?
Open Data	DMPonline.be : A tool to help you draw up a data management plan (DMP)	Zen-Thesis : Responsible research data management		
Open Source	Git: A hands-on tutorial	Open Source business models : become rich with free software!	Open-Sources licenses, from zero to hero	Software Development Best Practices: A minimal toolbox

Participation rate

For all training, including OS
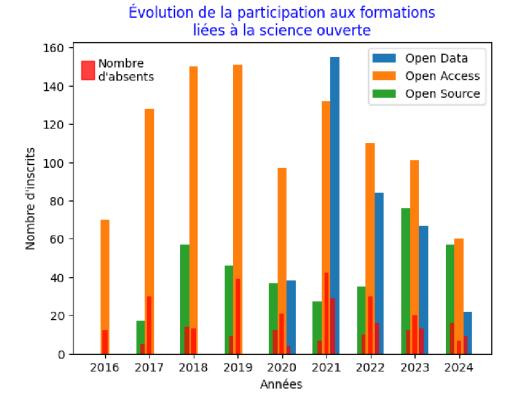
Évolution de la participation aux formations liées à la science ouverte

For OS training

And more: events, seminar, and tools

Let's stard a phd

OSDay

Open Science Lunchtime

Integrity day

ORBI training

Let's start a thesis

Finding and producing scientific information : how ULiège Library can help you, every step of the way
The ULiège library network is a true resource for researchers, supporting you from documentary research to publication of results and data sharing. Open Access, copyright, the publication process and how to choose a publisher, choosing bibliographic software, how to submit to the ORBi institutional repository... find out all it has to offer - *Stéphanie Simon, ULiège Library*

Research misconduct: a focus on scientific publications
Scientific publications are a building block of scientific research but the Publish or Perish environment of the current research landscape can lead to and encourage research misconduct and fraud. Learn about common types of misconduct and manipulation in academic publishing to better recognize them and promote research integrity - *Marjorie Bardiau et Christophe Dony, ULiège Library*

Open science and Scientific integrity
The evolution of scientific communication and the development of open science raise a number of ethical questions that we need to be aware of. Here are just a few: Who can access quality information, and at what cost? Who can really do research? How do researchers get ripped off? Why publish? What are our publishing ethics? - *Adrien Mathy, ULiège Library*

Research data management : FAIR principles and available tools
Research data management demands may seem contradictory as funders, editors, and institutions promote transparency and open data, while legal, ethical, or strategic considerations may call for less openness. Navigating these conflicting demands can be challenging. Nevertheless, help is available ! In this workshop we will review the FAIR principles and will overview different digital tools available at ULiège to help you manage your research data, from its beginning towards publication. We will oversee tools like DMP Online, DoX, OneDrive, Teams, Belnet FileSender, RSpace, Gitlab, CÉCI servers, and Dataverse - *Lyne Van de Vyvere, RISE*

Take off in research!

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#Let'sStartAPhD#ResearchProject#Tools&Network

Integrity Day

Ethics and Open Science / Paul Thirion

Ethical foundations of Open Science (research and societal aspects) and a focus on certain excesses and dangers (publication accessibility, predatory journals, APC, etc.).

Copyright and Scientific Publications / Catherine Thiry

The 2030 Global Agenda: its origins, the 17 goals, and the challenges for its achievement on a global and local scale, and for our university.

Publication Ethics / Marjorie Bardiau and Christophe Dony

Scientific publications are at the heart of research. But the race to publish can lead to ethical breaches or questionable practices. What are the different types of scientific misconduct and manipulation in publishing, how can they be recognized, and what can be done to encourage scientific integrity?

FAIR Data and Scientific Reproducibility / Judith Biernaux

Scientific reproducibility requires open and responsible management of research data. What tools are available at ULiège for the storage, documentation, traceability, archiving, and sharing of datasets? How can we comply with the FAIR principles, often required by funders and scientific publishers?

Open Science Day

Open Science Lunchtime

- Started in 2024
- Objective: Meet researchers in their labs to discuss aspects of Open Science that directly concern them
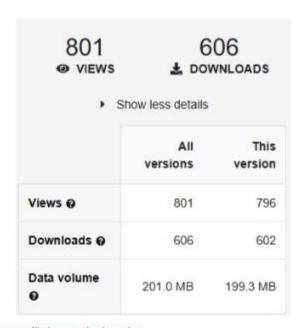- Method: 1 hour over lunch, sandwiches provided

At the request of research units

- 4 sessions in 2024-2025 (Giga, UR Cité, Biostats, MolSys)
- Participants: 20-30 per session. Mainly young researchers (PhD students) but also some more advanced researchers and PIs
- Observations:
  - Meets a need
  - A huge number of BIG gray areas, even among PIs

Serious game: OpenScientometer

The Openscientometer is a serious, fun game that lets you discover a little more about Open Science - a movement that aims to make the design, production, dissemination and evaluation of scientific research more transparent, ethical and collaborative.

With the help of a few figures, the Openscientometer offers a perspective on the state of Open Science and its challenges.

Participate in the creation of an institutional framework

How can libraries collaborate to push institutional policies and boost their institution?

University's Roadmap

The University of Liège has played a decisive and structuring role in this movement for a very long time. It is recognised as a benchmark at international level, thanks, in particular, to both ORBi and its strong institutional policy which have served as a model for many institutions around the world. In recent years, it has extended its activities by developing specific tools dedicated to Open Education and Open Electronic Publishing, for example. Finally, in many scientific disciplines, its researchers are involved in concrete actions relating to the sharing of research data, the creation and management of open source software and the implementation of Citizen Science projects.

As a public institution that has long been concerned about the quality of its research, and one which is strongly attached to its values in the service of the common good, the University of Liège intends to consolidate its commitment to Open Science by defining an ambitious roadmap. Structured around a series of actions, organised according to the different strands of Open Science, it aims to affirm the University's commitment in these areas and help its researchers to position themselves in the international context, by providing them with the necessary tools and support.

What's next ?

Funding

- Develop a funding policy for open infrastructure and publishers

Training

- Develop a comprehensive training program covering all aspects of Open Science, aimed at the entire academic community

Thank you for your attention