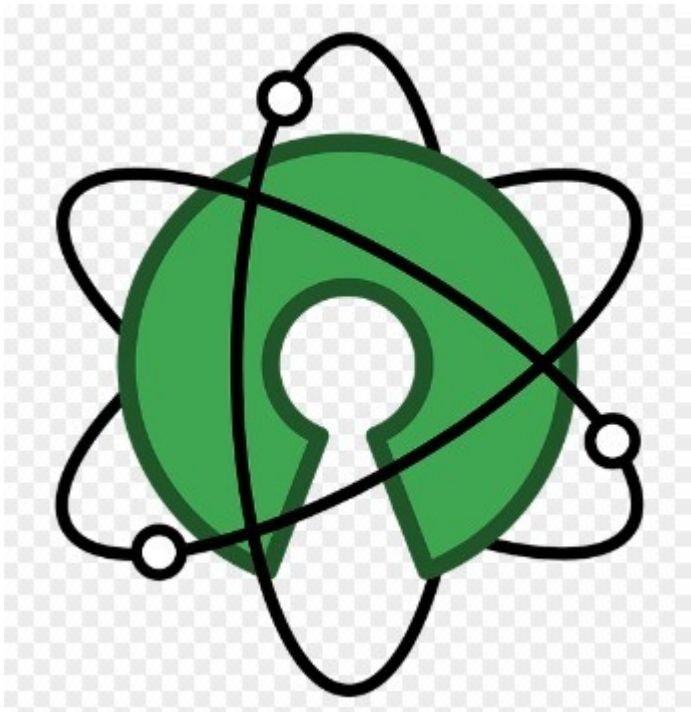


OPEN SCIENCE (OPEN ACCESS)



What is open access?



Open Access is a concept providing open, common and immediate access for scientific and educational materials. This idea refers to share scientific publications, which have been financed from public funds, without financial, technological or legal barriers. The aim is to enable their use by scientists, didacticians, students, entrepreneurs and the whole society.

Open Access Movement was born as a response to the growing problems connected with limited access to research results. There were, in particular, the high costs of subscriptions of scientific journals and the technological and legal barriers, which hampered the wide dissemination of knowledge. Key moments in the genesis of this movement are:

1. Rising subscription costs: in the 1980s and 1990s, the cost of subscriptions of scientific journals began to rise dramatically, what hampered access to scientific literature even for well financed academic institutions.

2. Development of digital technologies: Advance in informational and communicational technology enabled easier and cheaper dissemination of information. There appeared new possibilities of publication and distribution of scientific content in a digital form.

3. Budapest's Declaration (2002): One of the groundbreaking moments for the Open Access movement was the Budapest's Declaration, which appealed for free and open access to scientific literature on the Internet. It was the first International initiative, which defined the rules of the open access.

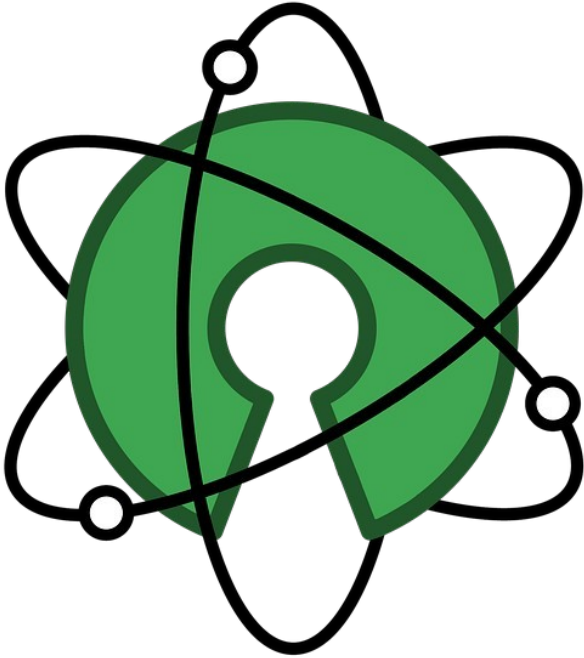
4. Berlin's Declaration (2003) : The Berlin's Declaration on Open Access to Knowledge in the Sciences and Humanities was another important step towards promotion of the open access. This document was signed by many scientific and research institutions in the whole world.

5. Support of the agencies financing the research: More and more agencies financing the research, in particular in Europe and North America, have begun to require that the results of the research financed from the public funds be made available in the open access.

6. The first open publications (scientific journals) started to appear on the Internet already in the second half of the 1980s. However, it was not until institutionalised Initiatives in the early 21st century, such as the Open Archives Initiative and the Open Access Initiative (OAI), popularised the concept of open access to scientific content, and more broadly - the idea of open science.

7. The dynamic development of open access (OA) has brought numerous positive changes. Many research institutions and agencies financing research in the whole world, have implemented open access policies. Numerous open repositories are being created, and doctoral theses are becoming more widely available. More and more scientific journals switch to open models. What is more, there are organised numerous informational campaigns promoting the idea of open access.

Open science



Open science assumes the adoption of the rule of openness at all stages of scientific work and communication. This approach includes not only open access to scientific publications through the agency of open journals and repositories, but also broadening access to other scientific contents. In practice, it means creating open repositories of research data, organising open Laboratories, conferences, courses, trainings and making educational contents available. Moreover, open science uses new forms of network communication, such as blogs and scientific services, defined as Science 2.0.

Nowadays, the Open Access (OA) movement is perceived as an organised, social action, which aims at making resources as widely open as possible. The term "open access" refers to different aspects connected with openness, including:

- Generally understood open resources including primarily, open scientific publications, and more and more often also research data, educational resources and civil science content;
- Legal and economic models connected with OA;
- Channels of distribution of information and scientific knowledge, which most often concern repositories and scientific journals, but they also include scientific conferences;
- Open laboratories;
- Science 2.0 tools, such as scientific servers and blogs.



Open Access (OA) is important for a few key reasons:

1. Increased access to knowledge: OA enables free access to results of research for everyone, regardless of place of residence or financial possibilities.

It is particularly important for scientists from developing countries, which often have limited access to subscribed journals.

2. Acceleration of scientific advancement : Free access to the latest research enables faster exchange of information and ideas, which may accelerate advancement in different fields of science. Scientists can quickly build on the results of others, which encourages innovations.

3. Increased visibility and impact of research: Publications available in the OA mode are more visible and more often cited, which increases their impact on the science development. It is beneficial for the authors, who gain greater appreciation for their work.

4. Justice and equality: OA promotes justice in the access to information. Knowledge, in particular that financed from the public funds, should be available for Everyone who can use it, regardless of their financial or institutional status.







5. Support of education: Open educational resources, such as coursebooks, online courses and teaching materials, support education at all levels. Students, teachers and self-educated people have access to high quality educational materials without the necessity to incur costs.

6. Intersectoral cooperation: OA enables cooperation between scientists, entrepreneurs, decision-makers and civil society. Open access to research may inspire innovations in the private sector and inform public policies.

7. Effective use of public funds: Research financed from the public funding should be available for the society, which financed them. OA guarantees that results of such research are available for everyone, which increases clarity and productivity of using public funds.

8. Decrease of legal and technological barriers : OA eliminates legal and technological barriers, which often hamper access to research. It facilitates both reading and re-use of the research results.

CC Open licences

<p>1. CC BY (Attribution): Allows others to copy, remix, adapt and create derivative works, even commercially, on condition that there is attribution of the original creator. It is the most open licence.</p>		<p>4. CC BY-NC (Attribution – Non-commercial use): allows remixing, adapting and creating derivative works only for non-commercial purposes, on condition that there is attribution. The new works do not have to be licenced under the same conditions.</p>	
<p>2. CC BY-SA (Attribution – under the same conditions): It allows remixing, adapting and creating derivative works, even for commercial purposes, on condition that the new works will be licenced on the same conditions (SA). It is a "copyleft" licence.</p>		<p>5. CC BY-NC-SA (Attribution- Non-commercial use- under the same conditions): allows adapting, remixing and creating derivative works only for non-commercial purposes, on condition that the new works will be licenced under the same conditions. It is a "copyleft" licence for non-commercial works.</p>	
<p>3. CC BY-ND (Attribution- Without derivative works): It allows distribution, commercial and non-commercial, on condition that there is attribution and a prohibition of creating derivative works.</p>		<p>6. CC BY-NC-ND (attribution- non-commercial use - without derivative works): The most restrictive licence, allows others to download works and share them, on condition that there is attribution, but without the possibility of modification and commercial use.</p>	

OA also uses the **Creative Commons Zero (CC0)** mechanism, which allows the renouncement of copyright to the maximum extent allowable by applicable law. Signifying a work with CC0 by the author signals that the work has been transferred to the public domain.



Advantages of the Creative Commons licence:

- **Flexibility:** Creators can choose the licence, which best meets their needs and intentions for the way of sharing their works.
- **Simplicity:** CC licences are simple and comprehensible, which makes them easier for creators and users to understand and respect the licence terms.
- **Global use:** CC licences are recognised and applied all over the world, which fosters the international cooperation and content sharing.
- **Promotion of openness :** CC licences support the idea of open access, enabling the broad dissemination and use of knowledge and work.

How to use the Creative Commons licence:

- Choosing a licence: The creator chooses the appropriate Creative Commons licence, which best suits their intentions.
- Marking the licence: The work is marked with the chosen CC licence, which is a clear signal to other users, how they can use the given work.
- Respecting the terms: Users have to respect the licence terms, such as attribution, lack of modifications or commercial use, if the licence forbids it.

Gratis open access

"Gratis open access" refers to the model of sharing scientific content without charges for end users, i.e. readers. In the context of Open Access (OA), there exist two main models: "gratis" and "libre".

Gratis Open Access:

- It focuses on removing financial barriers.
- Content is available for free, but copyright may be fully or partly retained.

Libre Open Access:

- Except for free access, it also removes some legal barriers.
- There are usually applied licences, such as Creative Commons, which allow for broader use of the content (e.g. modification, remixing) on certain conditions.

Open access communication models

Green Open Access

* Repositories: Scientists archive their publications in open institutional or field repositories on their own
Examples: arXiv (physics, mathematics, IT), PubMed, Central (biomedicine).

* Manuscripts: Authors can deposit different versions of their Works, including preprints (versions before review) and postprints (versions after review).

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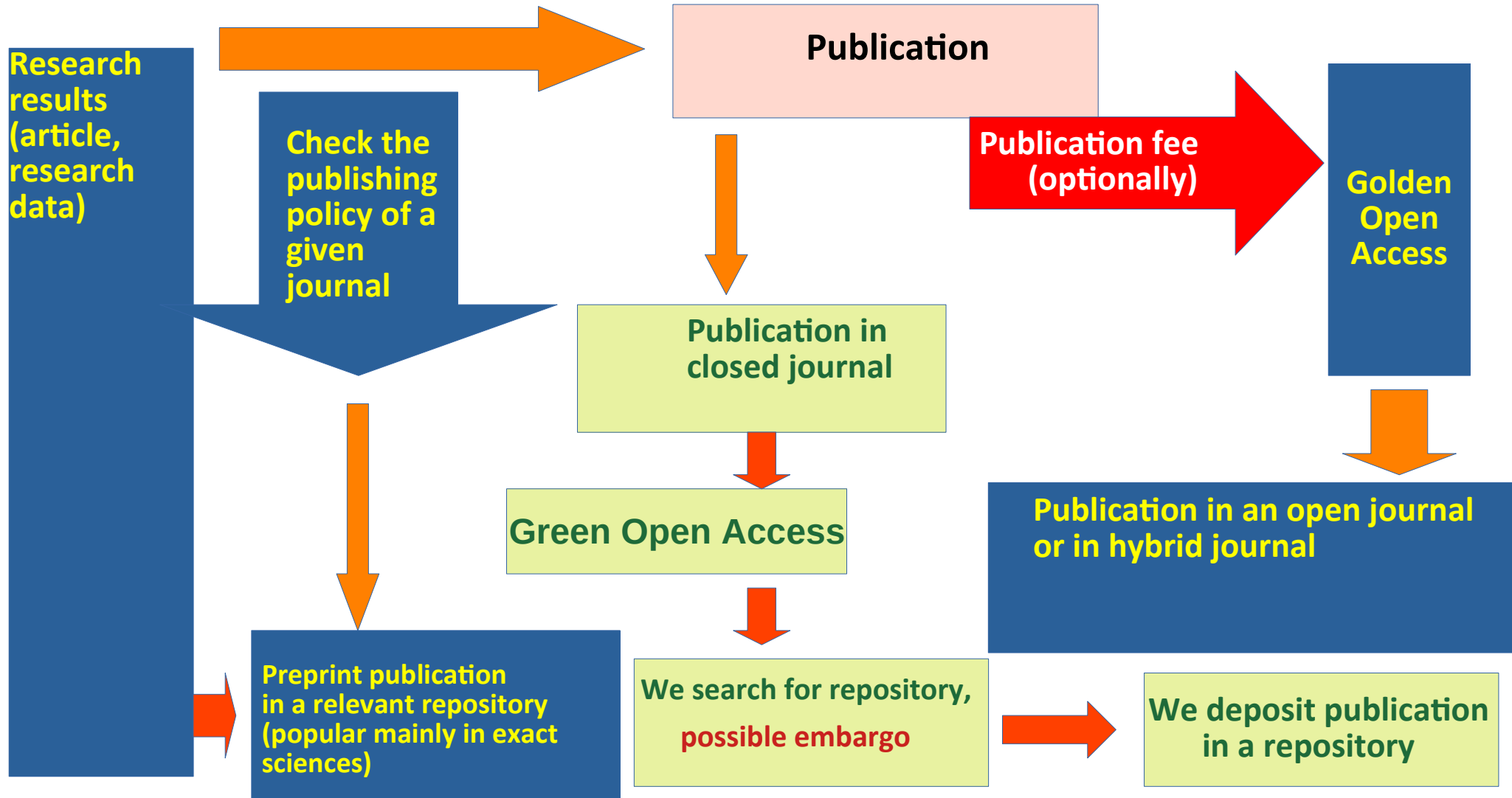
* OA Journals: Publications are available free of costs for readers from the moment of publication. Publication costs are often covered by authorial fees (Article Processing Charges, APC) or by external funding.
Examples: PLOS ONE, BioMed Central.

Hybrid Open Access

* Hybrid journals: Traditional subscription journals offering open access option for an additional fee (APC). Authors can choose whether they want their articles to be available in open access.

Diamond Open Access

* Free journals: Journals offering free of costs open access both for authors and readers.
The costs are covered by academic institutions, non-profit organisations or foundations.
Examples: Scielo, Redalyc.



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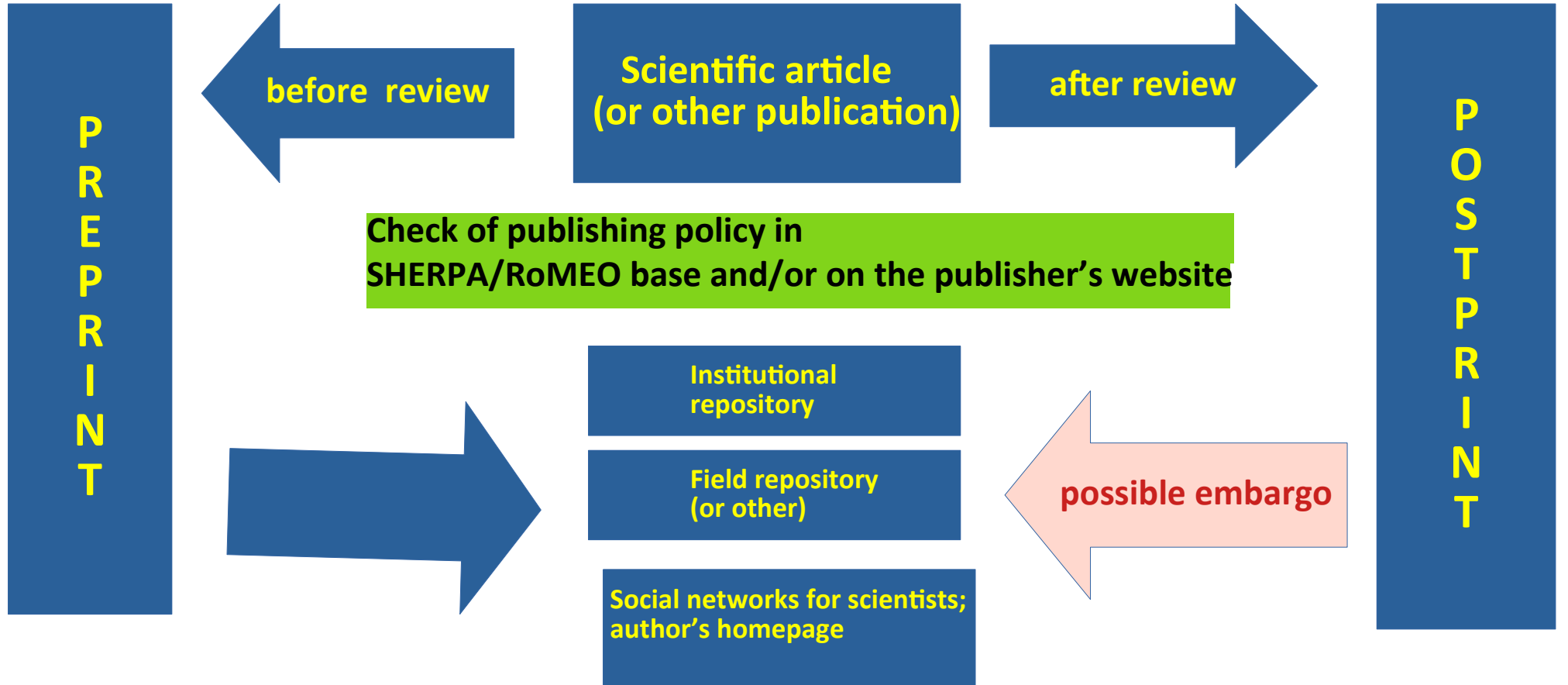
Open journals
(no publication fees)

Hybrid journals
(possible publication fee or use
of open publishing
programmes)

They provide the option to
publish in an open model in an
indicated licence

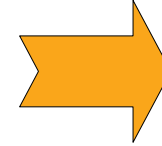
In Gold open access the publisher provides readers with immediate access to the article (almost the next minute after it is accepted for printing – in the online first version), **without an embargo**

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PREPRINT

Is an initial version of work (formerly called typescript or manuscript, which has not yet gone through the review and publication procedures of publishers

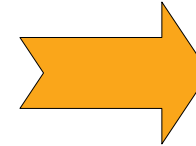


usually it is possible to publish in repositories

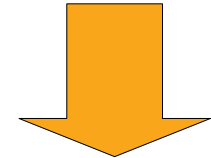
POSTPRINT

Is a scientific article after reviews and adjustments published in a scientific journal, book or other collection;

It is the final version of the text



the policy of a particular publisher (contract) determines the possibility of placing a postprint in repositories



check publisher's policy on Sherpa or on homepages of the journal's publisher

Publishers' openness policy - Sherpa

New Sherpa website combines Sherpa services (Romeo, Juliet, Fact and OpenDOAR) into one useful tool and includes information on open access policy, compliance and interim agreements.

Sherpa Romeo: Publishers' policy database concerning open access

It includes information on authorial policies and rights for archiving scientific articles ; it allows authors to check what versions of their works they can share and under what conditions.

Sherpa Juliet: Database of funders' open access policies

It provides information on deposit requirements for publications and research data ; it helps authors and research institutions understand requirements for compliance with funders' policies.

Sherpa Fact: A tool supporting checking of publications' compliance with funders' open access policies

It allows authors to check whether the journal selected by them meets requirements of their funder.

Sherpa OpenDOAR: Catalogue of open academic repositories from all over the world

It provides information on repositories, their contents, and policies ; it enables searching for repositories according to different criteria, such as country, institution or resource type.

Sherpa Romeo


<https://v2.sherpa.ac.uk>

Jisc Digital Resources > Open Access

Try the new-look Sherpa

Our new site consolidates Sherpa Services (Romeo, Juliet, Fact and OpenDOAR) in to one handy tool, and brings you Open Access policy, compliance and Transitional Agreement information.

[Go to the new website >](#)



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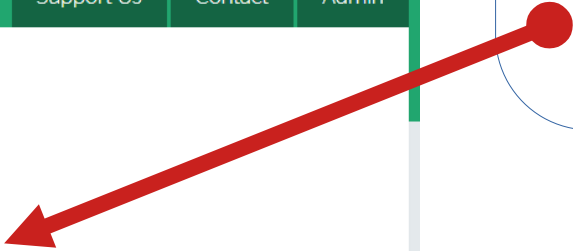
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bioRxiv	https://www.biorxiv.org/	biology, biochemistry, biophysics, ecology, genetics, microbiology, pharmacology and toxicology, physiology, zoology
PsyDok	http://psydok.psycharchives.de	scientific texts repository in the field of psychology (in English or German)
PhilSci Archive	http://philsci-archive.pitt.edu/	texts repositories on philosophy of science
RePec	http://repec.org/	economics
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Scientific Information Department of the University Library of the John Paul II Catholic University of Lublin

<http://www.bu.kul.pl/oddzial-informacji-naukowej,11935.html>

We offer trainings and consultations from the range on the use of modern sources of information, both for Employees and the Students of the John Paul II Catholic University of Lublin

In the training programme there can be found such issues as:

- * Basic rules of using the University Library of the John Paul II Catholic University of Lublin (creating an account, searching library catalogues, search strategies, virtual library card)
- * Fast and complex searching for the Library resources
- * Electronic sources of information – databases currently available for the John Paul II Catholic University of Lublin, repositories, e-journals and e-books
- * Ranked journals- search engines of ranked journals, rankings and journals scorings and bibliometric indicators (IF, H-index), Journal Citation Reports with the value of Impact Factor indicators
- * Bibliometric databases – citations, bibliometric indicators
- * Bibliography managers- using the Zotero in details;
- * Open science; research data
- * Seminar trainings in the range of information searching (informational heuristics)



Consultations are provided:

- **Personally at the Scientific Information Department (room 560) and at the Informatory room 504,**
- **The Main Library of the John Paul II Catholic University of Lublin, 27 Chopin Street, Lublin**
- **by phone: (81) 45 45 275**
- **by e-mail: inf nauk@kul.pl**