



Open Science and Open Educational Resources

TEACH – Talk about Education Across Communities in Helmholtz

December 7, 2021

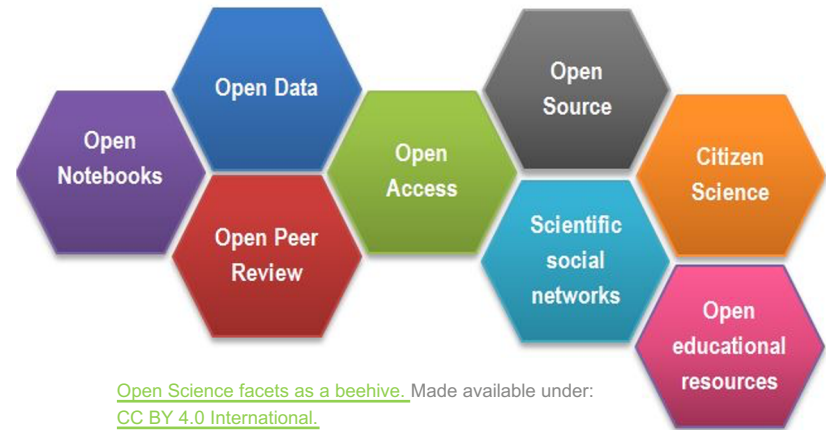
Helmholtz Open Science Office

Lea Maria Ferguson

Open Science

- “Open Science, the **unrestricted access to scientific publications and cultural heritage**, is an ongoing and future trend in the scientific landscape worldwide.”
[Helmholtz Open Science Office](#)
- “**Open Science** (...) make[s] multilingual scientific knowledge openly available, accessible and reusable for everyone, increase[s] scientific collaborations and sharing of information (...), and open[s] the processes of scientific knowledge creation (...) to societal actors beyond the traditional scientific community.”
[UNESCO Recommendation on Open Science](#)

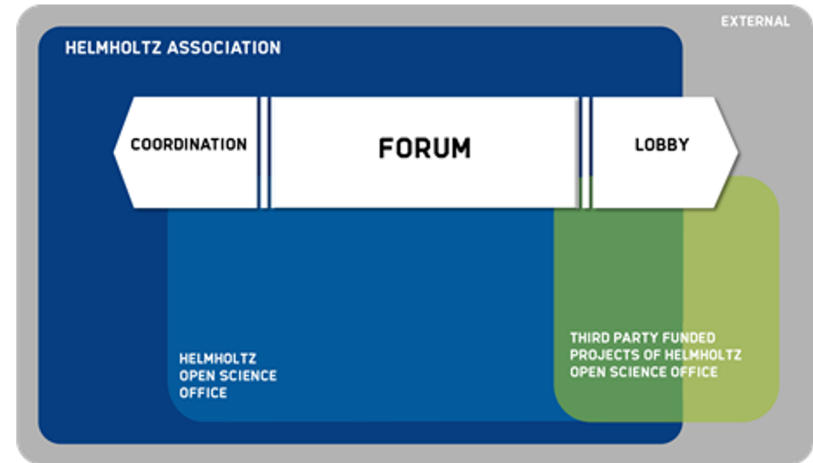
- **Key aspects** of Open Science
 - Open Access
 - Open Research Data
 - Open Research Software



[Open Science facets as a beehive.](#) Made available under:
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The Helmholtz Open Science Office

- Our Mission: Enabling Open Science practices in Helmholtz!
- The Helmholtz Open Science Office
 - Service provider for the Association for the cultural change “from closed to open”.
 - Promoting dialogue and providing impulses within the Association.
 - Offering training and support concerning all aspects of open science.
 - Delivering key contributions to the Helmholtz Digitization Strategy.
 - Representing Helmholtz positions on open science on a national and international level.



Fields of Action

Advantages

- There are manifold advantages resulting from Open Science, and some of the main benefits include →
- Important: Openness as “intelligent openness”, i.e., “as open as possible and as closed as necessary”.

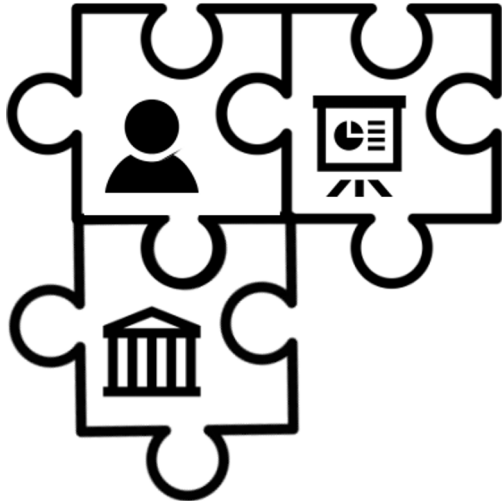


Boulton, G., Campbell, P., Collins, B., Elias, P., Hall, W., Laurie, G., O'Neill, O., Rawlins, M., Thornton, J., Vallance, P., & Walport, M. (2012). Science as an open enterprise. Royal Society.
<http://royalsociety.org/policy/projects/science-public-enterprise/report/>

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Open Science as the promoter of the digital transformation

- **Open Science** and **Digitization** go hand in hand
 - Adjustments of workflows and business processes → **change process**
 - Open Science → **cultural change** in the scientific way of working, organization, and communication



- Consistently employ **digitization** to make all components of the scientific process: open, comprehensible, reusable, and easily accessible to everyone
- **Transfer** need not be contradictory to **open science** – further discussion of interfaces and guidance for researchers

Helmholtz Open Science Briefings and Factsheets

- With the Helmholtz Open Science Briefings and Factsheets, the Helmholtz Open Science Office communicates important developments in the field of open science to the Association and the Centers.
- **Selection**
 - Factsheet No. 1: Open Access Publishing for Early Career Researchers at Helmholtz:
<https://doi.org/10.2312/os.helmholtz.013>
 - Factsheet No. 2: Practical Steps Towards Open and Reproducible Research:
<https://doi.org/10.48440/os.helmholtz.025>
 - Factsheet No. 4: Research Data Management – a biodiverse MOSAiC:
<https://doi.org/10.48440/os.helmholtz.029>
 - Factsheet No. 5: Preregistration – The panacea for trustworthy and useful science?
<https://doi.org/10.48440/os.helmholtz.033>

campusSOURCE Award 2022

- Prize for individuals or teams who make significant contributions to supporting scientifically active persons, who develop research software and thereby enable new and innovative research software solutions.
- In total, a prize money of 17,000 EUR is available.
- [Call for Application](#) > Submission until **December 15, 2021**
- The campusSOURCE Award 2022 is supported by [campusSOURCE e. V.](#), the Helmholtz Open Science Office, and [the Society for Research Software de-RSE e.V.](#)



Open Educational Resources (OER)

- “Open Educational Resources (OER) are teaching, learning and research materials in any medium – digital or otherwise – that reside in the public domain or have been released under an open license that permits no-cost access, use, adaptation and redistribution by others with no or limited restrictions.” UNESCO, [Recommendation on Open Educational Resources](#), 2019
- Related initiatives in Helmholtz
 - Transfer of research into teaching: [OER-Policy and further information](#) at the KIT
 - [Transfer](#) in Helmholtz
 - [Citizen Science](#) in Helmholtz

OERcamp.global 2021 - BarCamp on OER



- December 9 – 11, 2021
- The OERcamp is a BarCamp on Open Education and Open Educational Resources (OER). “BarCamp” means that everyone can contribute to the programme by submitting their sessions. It is a user-generated (un-)conference. A BarCamp is not only about sharing knowledge: Open issues, ongoing activities and joint reflection can take place in sessions, as well. It’s about sharing and co-creating knowledge, the open way!
- The event communication will be in English. Workshop sessions in other languages are also possible.
- Further information: <https://www.oercamp.de/global/>

How can we work together to further promote the “Open Science Culture” within the Association?

Food For Thought

1. What role does Open Science play in your own research? ► **Get involved!**
2. Which Open Science topics would you like to learn more about in the future? ► **Let us know!**
3. What do you experience as the greatest obstacles to Open Science in your daily work?
► **Engage in discussions!**
4. Do you have case studies or examples to share of your own engagement with Open Science practices that could be inspirational for other researchers? ► **Share your ideas!**
5. Which resources, events, or infrastructures could support your Open Science activities further?
► **Open Science Teaching and teaching Open Science!**

Contact

- Mail – open-science@helmholtz.de
- Website – <https://os.helmholtz.de>
- [Open Science Newsletter](#)
- Mailing list (only for members of Helmholtz) – [Helmholtz Open Science Professionals](#)
- Twitter – [@helmholtz_os](#)
- LinkedIn – [Helmholtz Open Science Office](#)

Thank you for your interest!

Lea Maria Ferguson

<https://orcid.org/0000-0002-7060-3670>

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