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Copyright, Open Science and Open Licenses

Carsten Elsner, Matthias Kissler – University Library Braunschweig

Agenda

Why Copyright?

Open Science

Open License Models

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Why Copyright?

Definition:

Copyright **protects** and **preserves** the rights of an authorship. It gives authors and/or creators **control** over rights to use their original work. It includes the right to determine the conditions under which a work can be used by others. They can also grant a third party the right to distribute or re-use the work.

Is every work protected by copyright automatically?

No, a work is protected by copyright only from a **certain level of creation or originality**. In case of doubt, the courts have to decide...

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Why Copyright?

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Are works copyrighted forever?

No, in Germany the copyright ends 70 years after the death of the author. After that, the work is copyright-free and becomes part of the public domain.

Before using material from other authors, the usage rights must be clarified!

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Open Science Commitments and Recommendations

UNESCO Recommendation on Open Science (November 2021)

*"Open scientific knowledge refers to open access to scientific publications, research data, metadata, open educational resources, **software**, and **source code** and hardware that are available in the public domain or under copyright and licensed under an **open licence** that allows access, re-use, repurpose, adaptation and distribution under specific conditions, **provided to all actors** immediately or as quickly as possible regardless of location, nationality, race, age, gender, income, socio-economic circumstances, career stage, discipline, language, religion, disability, ethnicity or migratory status or any other grounds, and free of charge. It also refers to the possibility of opening research methodologies and evaluation processes. (…)"*

UNESCO Recommendation on Open Science, Page 9.

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Open Science Commitments and Recommendations

UNESCO Recommendation on Open Science (November 2021)

*"(…) Users therefore gain **free access** to the following:"*

- Scientific Publications
- Open Research Data
- Open Educational Resources
- Open Source Software
- Open Hardware

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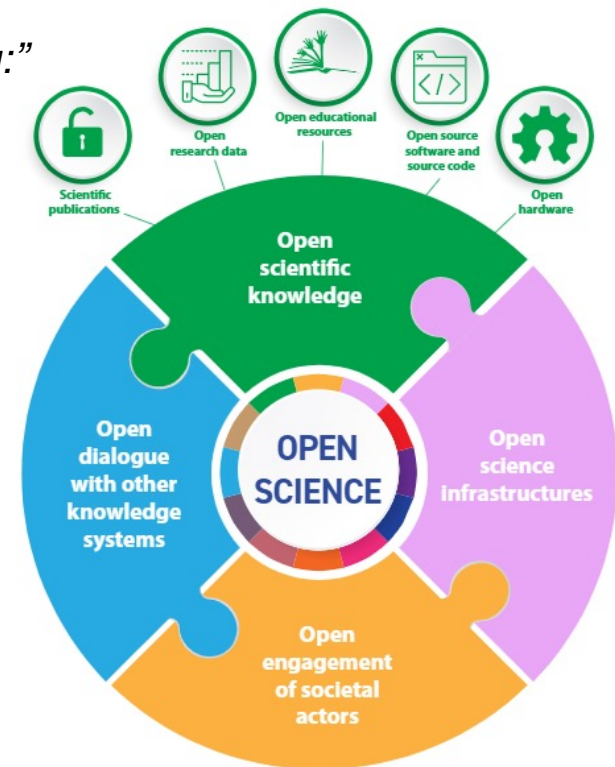
Open Science Commitments and Recommendations

German federal government's commitment to Open Access and
Open Science in its coalition agreement

*"Science is not a closed system, but thrives on
exchange and communication with society.
with society. We want to systematically integrate
science communication at all scientific career
stages and in the approval of funding. (…)
We want to strengthen open access and open
science."*

German Government Coalition Agreement (2021), Page 24, translated.

**MEHR
FORTSCHRITT
WAGEN**

**BÜNDNIS FÜR
FREIHEIT, GERECHTIGKEIT
UND NACHHALTIGKEIT**

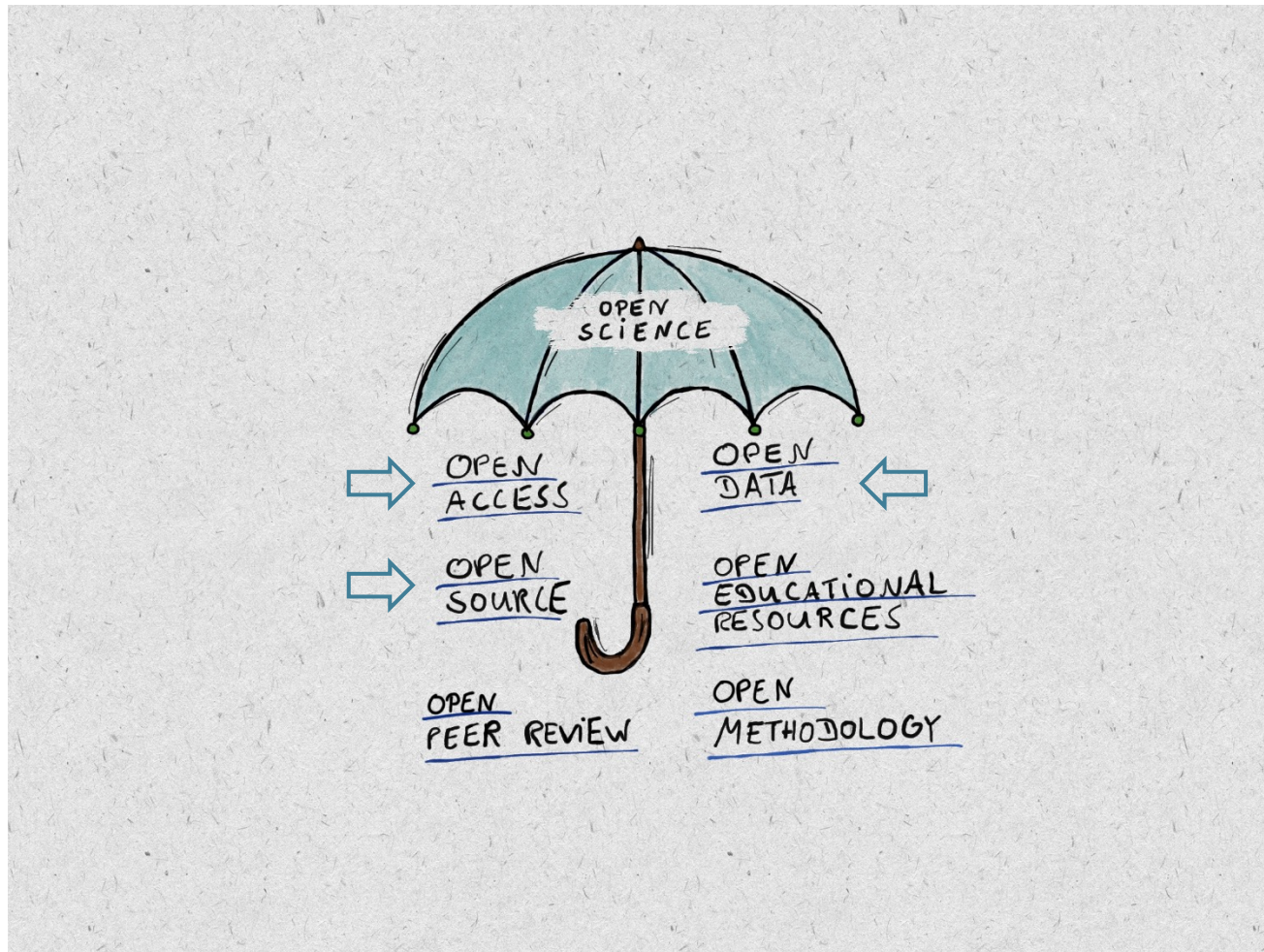Technische
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Melanie Imming, & Jon Tennant. (2018). Sticker open science: just science done right (ENG). Zenodo. https://doi.org/10.5281/zenodo.1285575 is licensed under a Creative Commons Attribution 4.0 International License.

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The Meaning of Open Science

FAIR Principles

WR

Recommendations on
the Transformation of
Academic Publishing:
Towards Open Access

*"(…) it makes sense to aim for an orientation along the **FAIR** Guiding Principles for scientific data management and stewardship. According to these principles, good data management is achieved when people and computers can find, access, link and reuse data (findability, accessibility, interoperability and reuse)."*

Wissenschaftsrat, Recommendation on the Transforming of Academic Publishing: Towards Open Access, Page 40.

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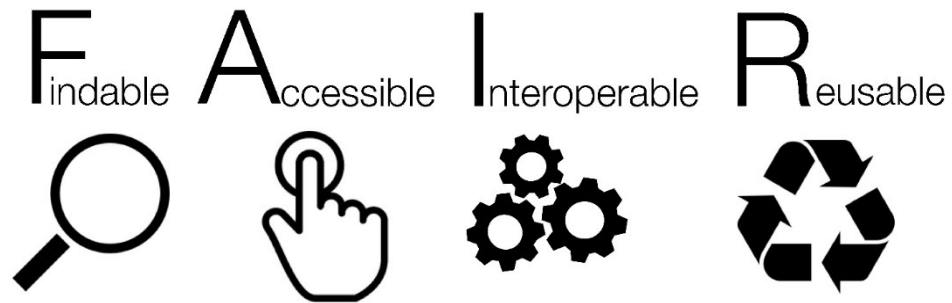
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FAIR Principles for Research Software (FAIR4RS)

F   Software, and its associated metadata, is easy for both humans and machines to **find**.

A   Software, and its metadata, is **retrievable** via standardized protocols.

I   Software **interoperates** with other software by exchanging data and/or metadata, and/or through interaction via application programming interfaces (APIs), described through standards.

R   Software is both usable (can be executed) and **reusable** (can be understood, modified, built upon, or incorporated into other software).

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The Open Source Definition

1. Free Redistribution
2. Source Code
3. Derived Works
4. Integrity of The Author's Source Code
5. No Discrimination Against Persons or Groups
6. No Discrimination Against Fields of Endeavor
7. Distribution of License
8. License Must Not Be Specific to a Product
9. License Must Not Restrict Other Software
10. License Must Be Technology-Neutral

Open Source Initiative

Open Source Initiative: The Open Source Definition

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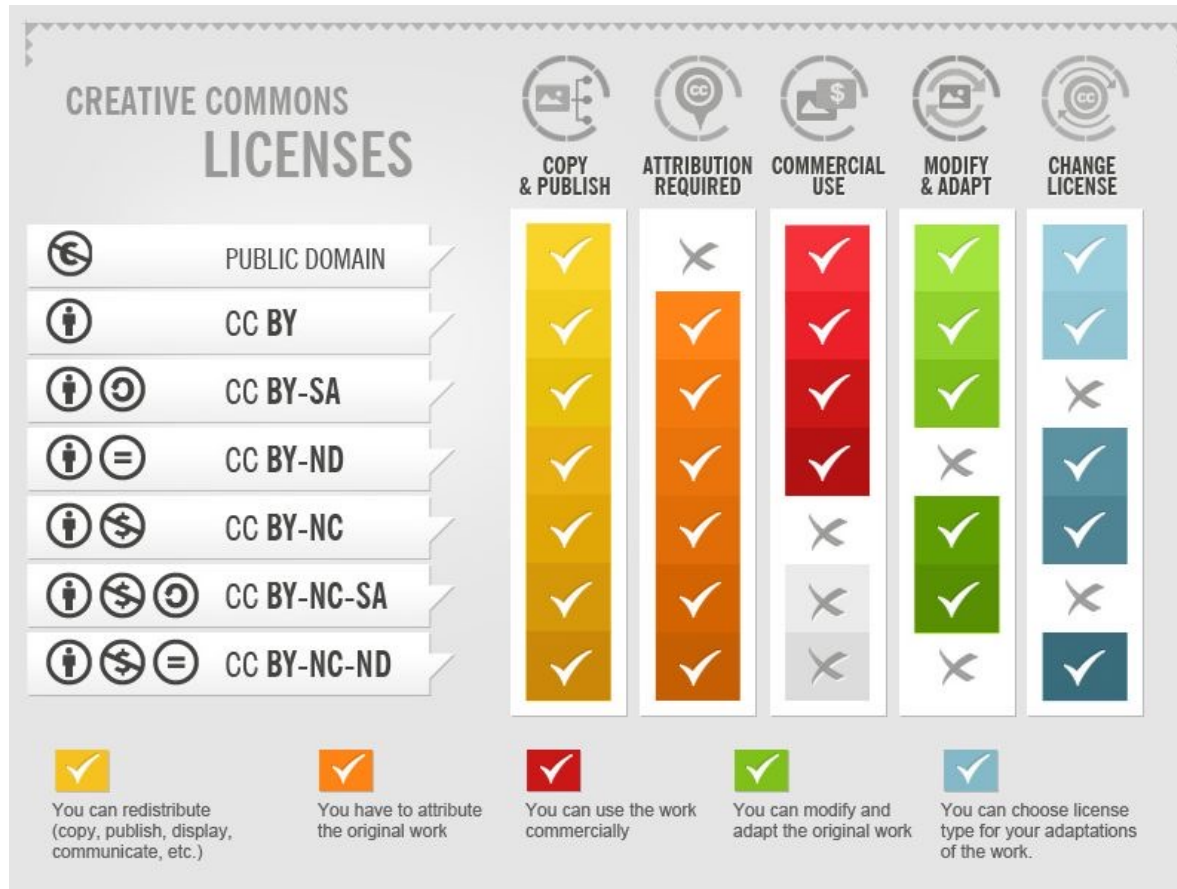
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Structure and Meaning of CC licenses

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6 Licenses

most open

least open

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Open Source Licenses

Open source licenses dictate the terms and conditions that come with the use of open source software (OSS). Open source licenses serve as a legal agreement between open source author and user: authors make OSS available for free, but with certain requirements the user must follow.

Types of Open Source Licenses

Permissive Licenses

Permissive licenses generally allow for use of the licensed code with few restrictions. Users can take the permissive-licensed software, make it their own through changes or additions, and distribute that modified program with only a handful of conditions.

Copyleft Licenses

In contrast to permissive licenses, copyleft licenses generally require that any derivative work of the copyleft-licensed software be released under the same license as the original. In other words, the modified code has to be exactly as "open" as the original.

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Examples

Permissive Licenses

- MIT License

- Apache License 2.0

- BSD License

Copyleft Licenses

- GPL License

- Mozilla Public License 2.0

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How to choose the right Open Source License

https://choosealicense.com/

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Conclusion

According to the goal determined in recommendations and commitments of governmental and research funding organizations to achieve scientific research towards transparency and open science, it is unevitable to take the appropriate steps into openness.

Beside the first steps already taken into Open Access to Publications and Research Data, opening up Research Software by using free (open) source licenses whereever possible is the next necessary step to make.

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More information

- [UNESCO Recommendation on Open Science](#)
- [Coalition Agreement of the German Federal Government](#)
- [Wissenschaftsrat: Empfehlungen zur Transformation des wissenschaftlichen Publizierens zu Open Access](#)
- [Wissenschaftsrat: Recommendations on the Transforming of Academic Publishing: Towards Open Access](#)
- [Open innovation, open science, open to the world – A vision for Europe](#)
- [FAIR Principles for Research Software: FAIR4RS](#)
- [Comparism of Free and Open Source Software Licenses](#)
- [GNU OS: Various Licenses and Comments about Them](#)
- [Open Source Initiative: alphabetical List of Approved Licenses by the OSI](#)
- [Can I apply a Creative Commons License to software?](#)
- [The Open Source Definition](#)
- [All about Open Source Licenses](#)
- [Open Source License Chooser](#)

All Hyperlinks from 15.05.2022

Thank you for your attention!

Questions and comments:

openaccess@tu-braunschweig.de

More information:

https://www.tu-braunschweig.de/ub/publizieren-open-access

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