

gesis

Leibniz Institute
for the Social Sciences



Research Data Management

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Dr. Sebastian Netscher

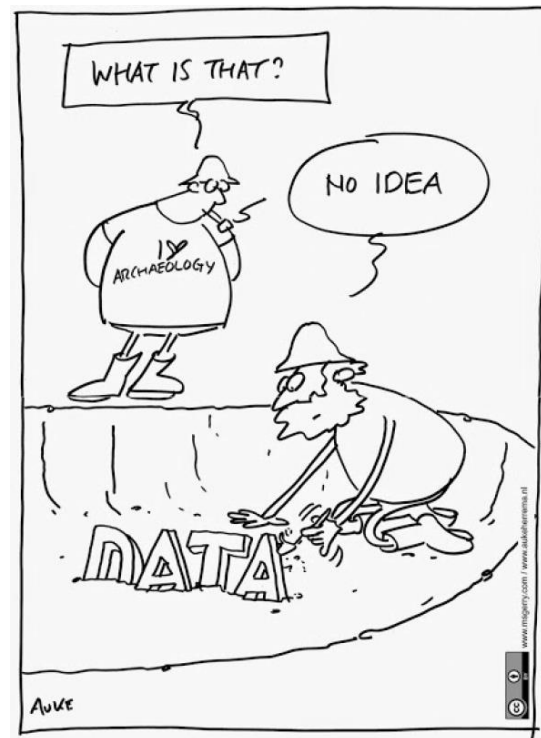
- background in social sciences
- since 2006 at
GESIS - Leibniz-Institute for the Social Sciences
- since 2009 involved in research data
management (RDM)
- consultation and training on RDM
- research on various topics of RDM,
e.g. efforts of RDM, standardization etc.

About the presenter

GESIS – Leibniz-Institute for the Social Sciences

- Germany's largest infrastructure institute for
the social sciences
- located in Cologne and
Mannheim (headquarter)
- providing research-based services and
consulting along the data life cycle

Research Data Management (RDM)

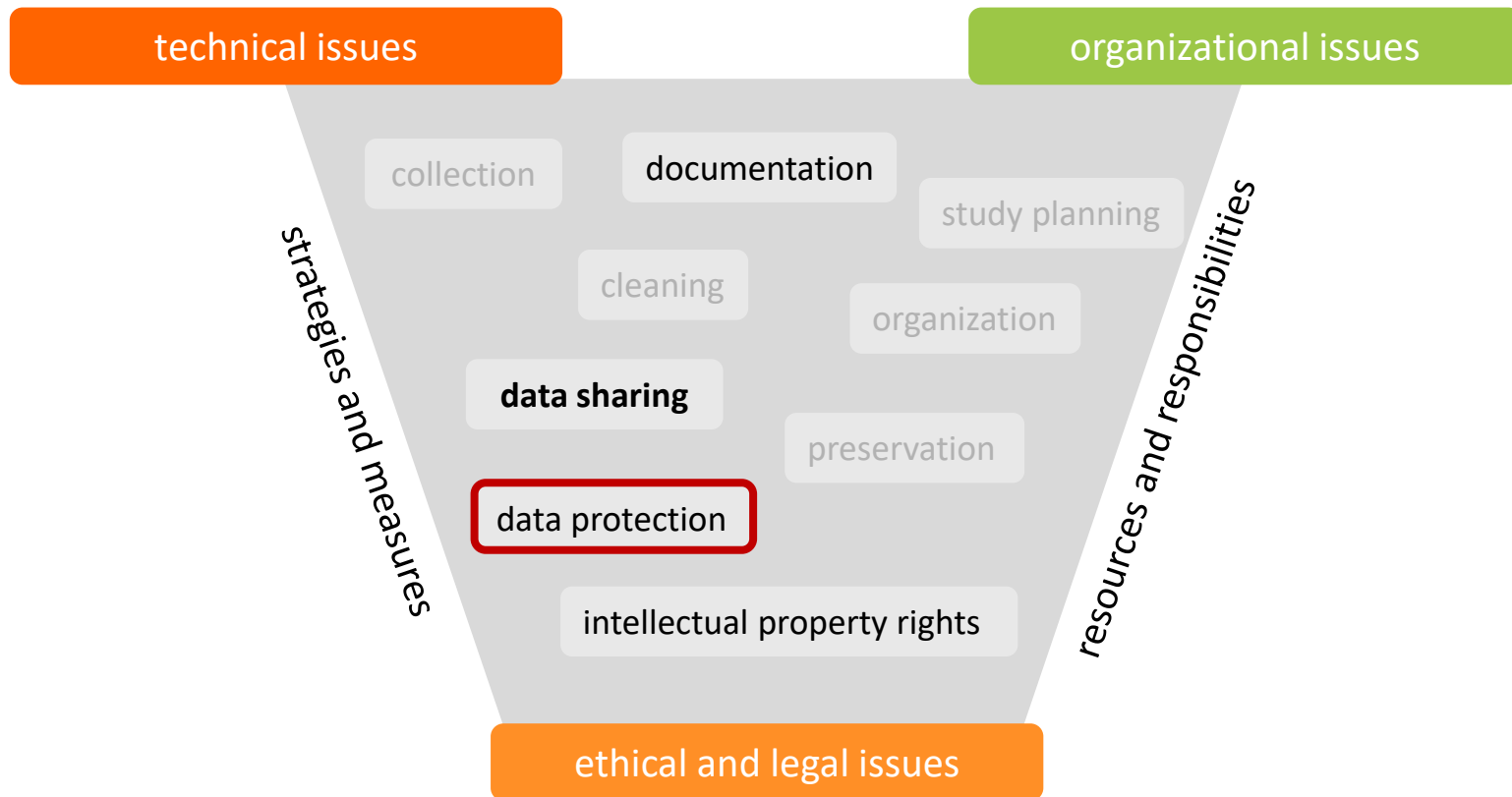


Research data management (RDM)

- all strategies, processes and measures to maintain
 - data quality
 - interpretability of research results
 - (re-)usability of research data
- ⇒ specifically addresses legal and ethical issues



Key aspects of RDM



Research ethics and data protection

- safe all stakeholders from harm
- protect personal data
 - ⇒ *EU General Data Protection Regulation (GDPR)*
 - *“any information relating to an identified or identifiable natural person (...) an identifiable natural person is one who can be identified, directly or indirectly” (Art. 4.1 GDPR)*
 - *“personal data revealing racial or ethnic origin, political opinions, religious or philosophical beliefs, or trade union membership, and the processing of genetic data (...), data concerning health or data concerning a natural person’s sex life or sexual orientation” (Art. 9.1 GDPR)*

two types of identifier

direct

name,
address,
picture etc.



indirect

university



institute



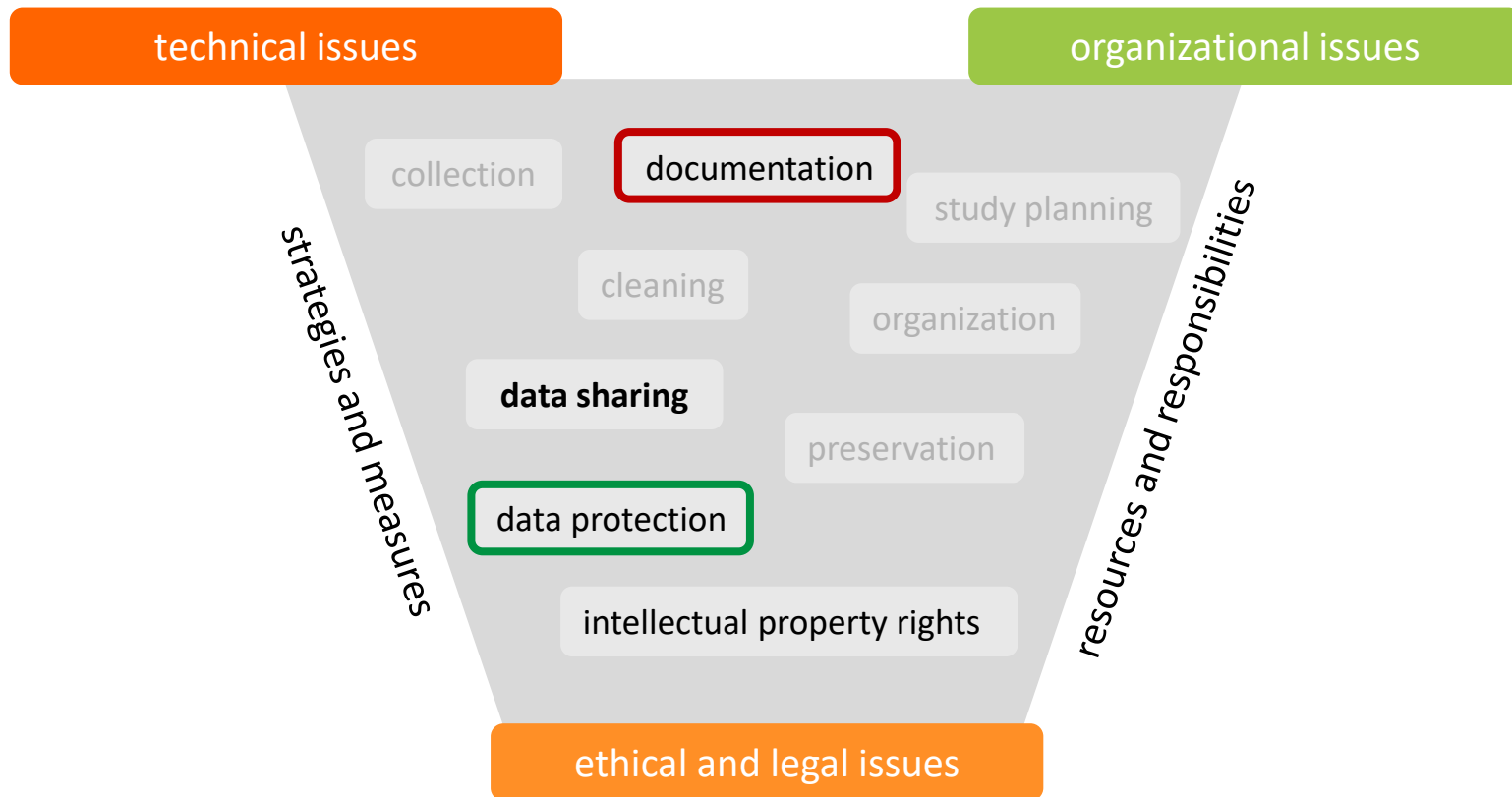
position



Data protection: Informed consent and secure data processing

- legal basis for processing personal data, i.e. informed consent
 - *“any freely given, specific, informed and unambiguous indication of the data subject’s wishes by which he or she, by a statement or by a clear affirmative action, signifies agreement to the processing of personal data relating to him or her”* (Art. 4.11 GDPR)
 - ⇒ respect participants’ rights (Art. 12ff. GDPR)
- process personal data securely, i.e.
 - “implement appropriate technical and organisational measures to ensure a level of security appropriate to the risk”* (Art. 32 GDPR, TOMs), such as
 - access control and password protection
 - data encryption
 - pseudonymization
 - data destruction

Key aspects of RDM

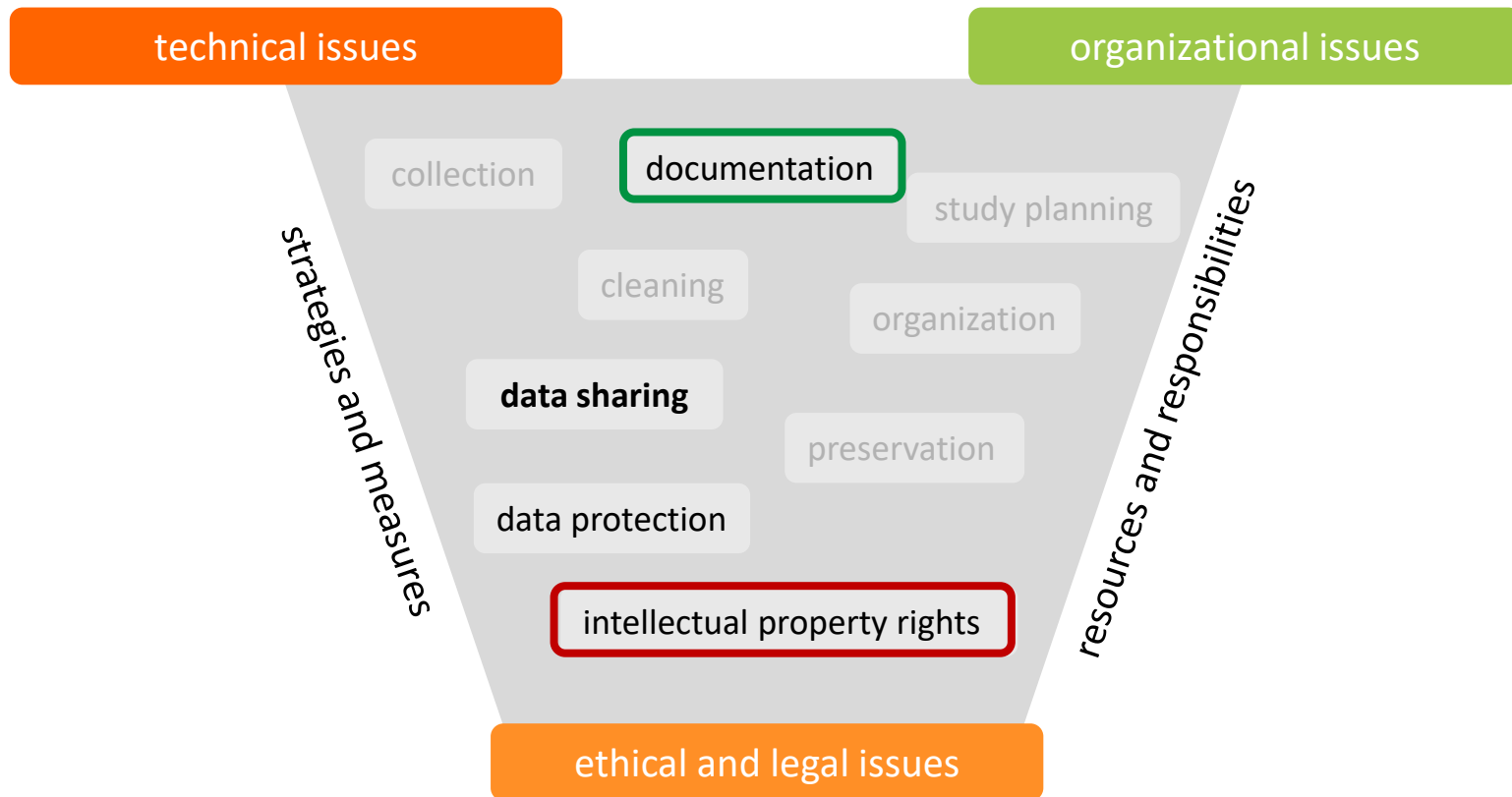


Data documentation

- ensure understandability, interpretability and (re-)usability of your data
- document your work
 - background and study objectives
 - research design, field work and data collection mode
 - data processing
 - informed consent and pseudonymization
 - measurement instrument (questions and variables)

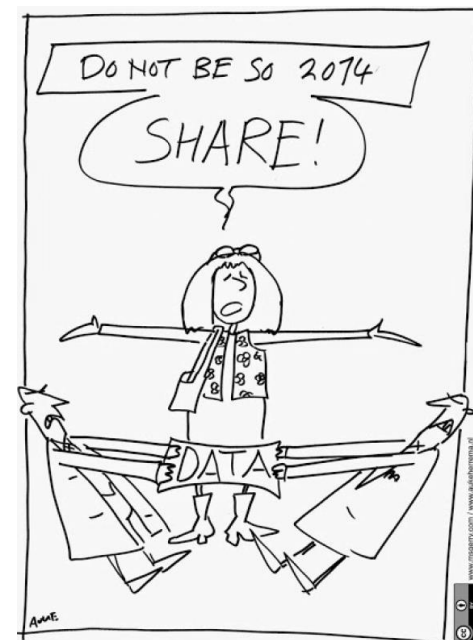


Key aspects of RDM

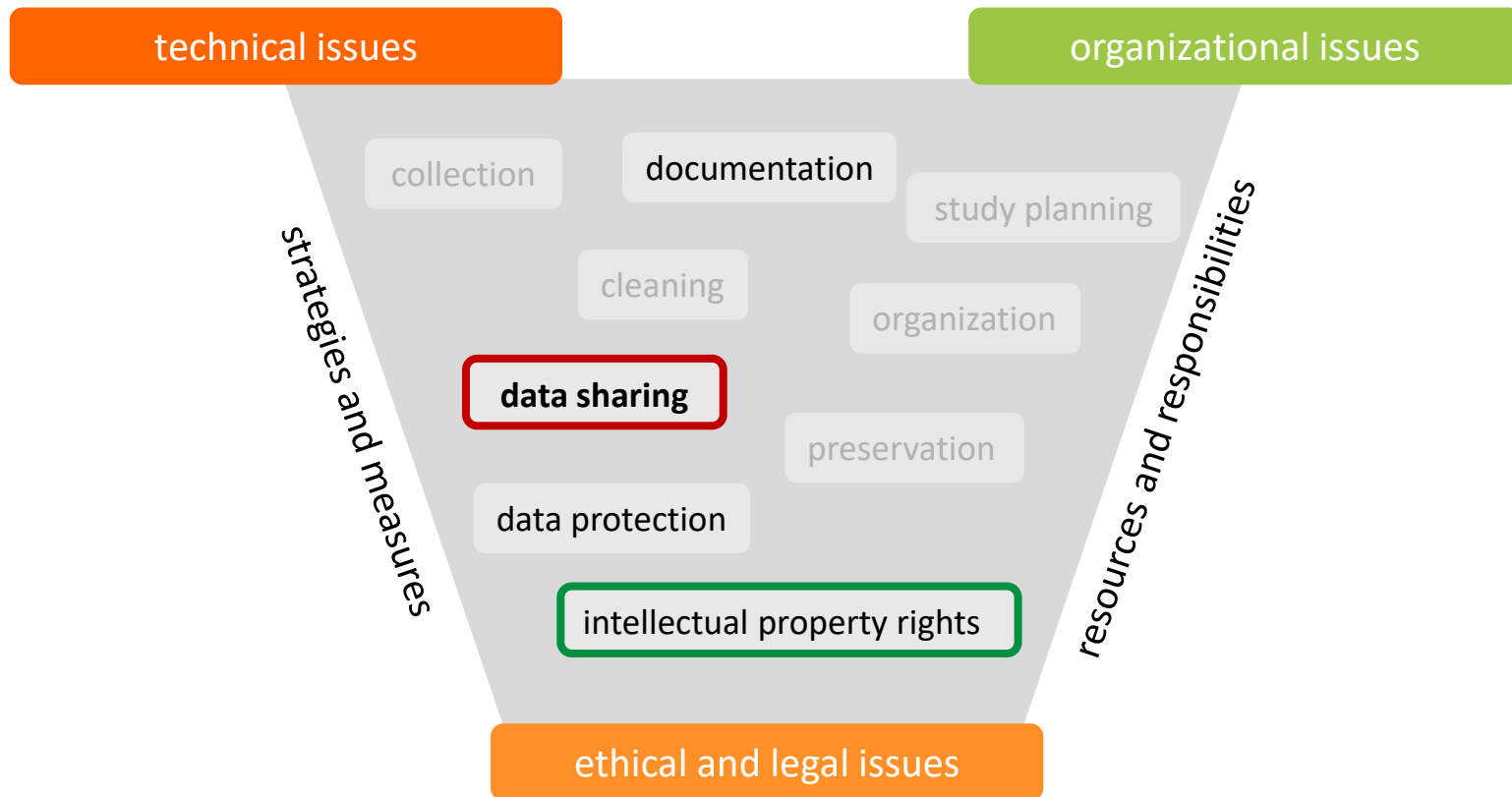


Intellectual property rights

- cover scientific work, as long as it
 - is an intellectual creation
 - has an individual character
- are territorial rights
⇒ Urheberrechtsgesetz, Directive 2001/29/EC
- no intellectual property rights on single piece(s) of information



Key aspects of RDM

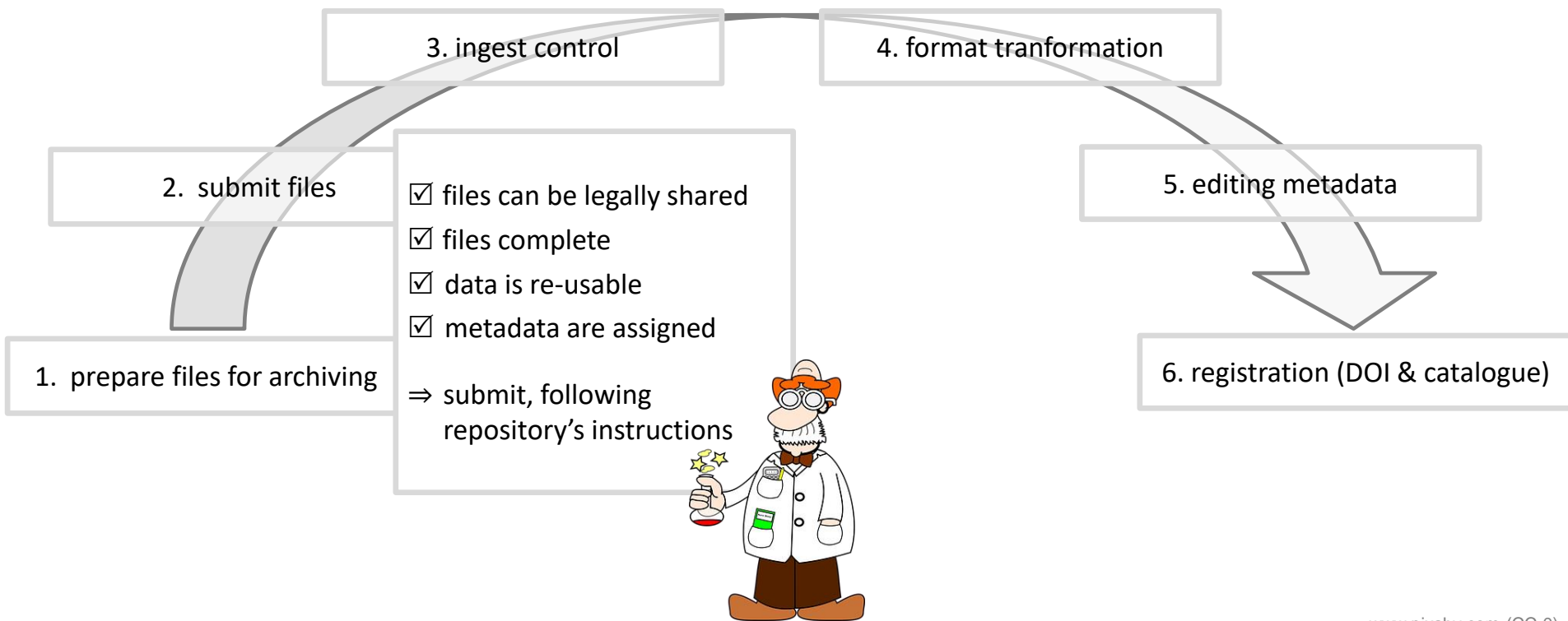


Data sharing: Data repositories

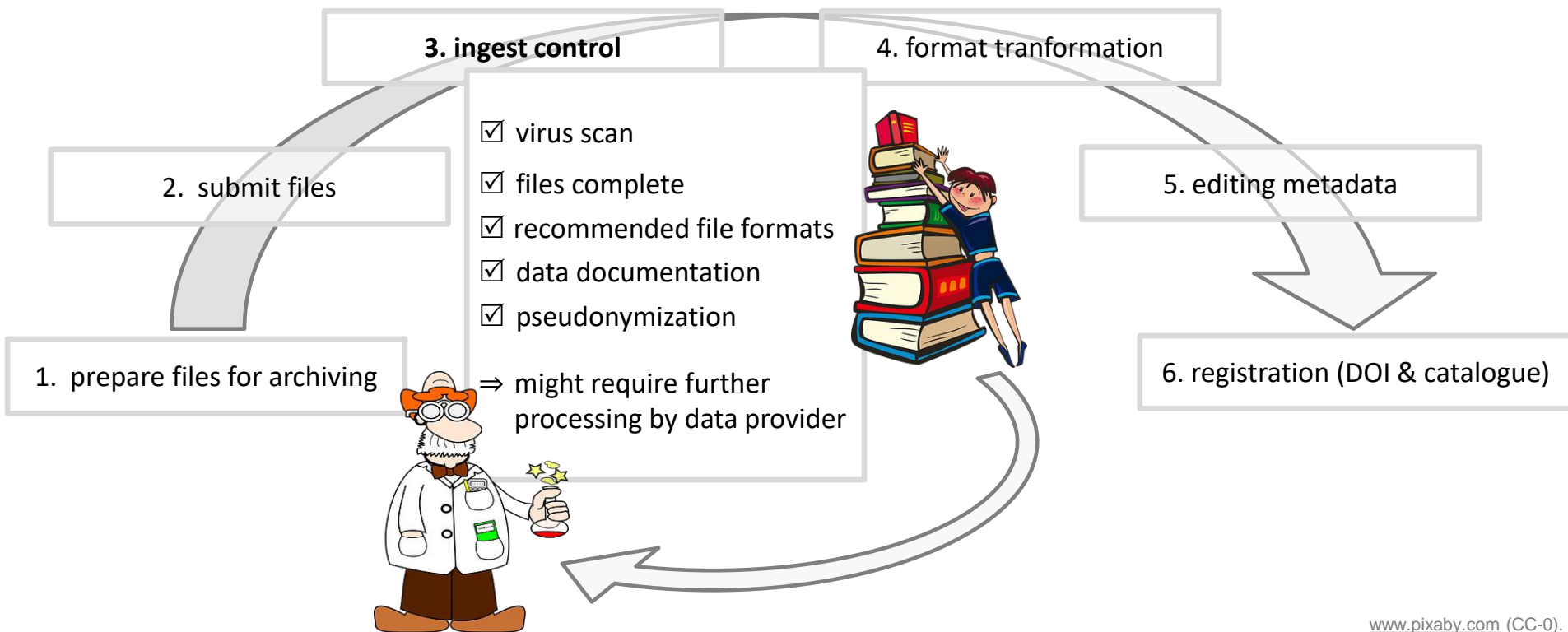
- enable others to re-use data in new contexts
- data repositories / archives
 - keep data safe
 - make it findable and accessible (FAIR)
 - offer support
- find a suitable repository
 - research discipline(s)
 - data type & format
 - funding agency
 - services and certification
 - access control



Data sharing: The archiving process



Data sharing: The archiving process



Know your resources

FIND THE BEST SUBJECT REPOSITORY

CAN I DEPOSIT MY REEF
FISHES OF THE *EAST*
INDIES DATA?

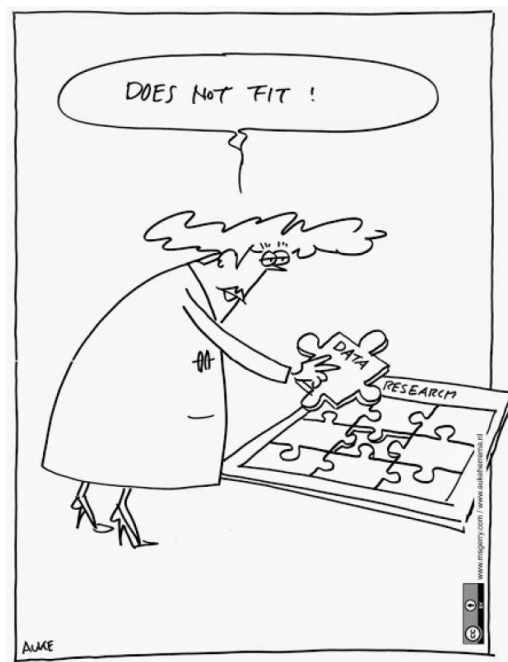
NO, YOU NEED MY
COLLEAGUE IN THE
NEXT WINDOW



cc-by <http://hochstenbach.wordpress.com>

Know your resources: Data management plan (DMP)

- data management plan
 - defines strategies, measures, processes
 - considers responsibilities and resources
- ⇒ a *living* tool for planning, implementing and documenting RDM



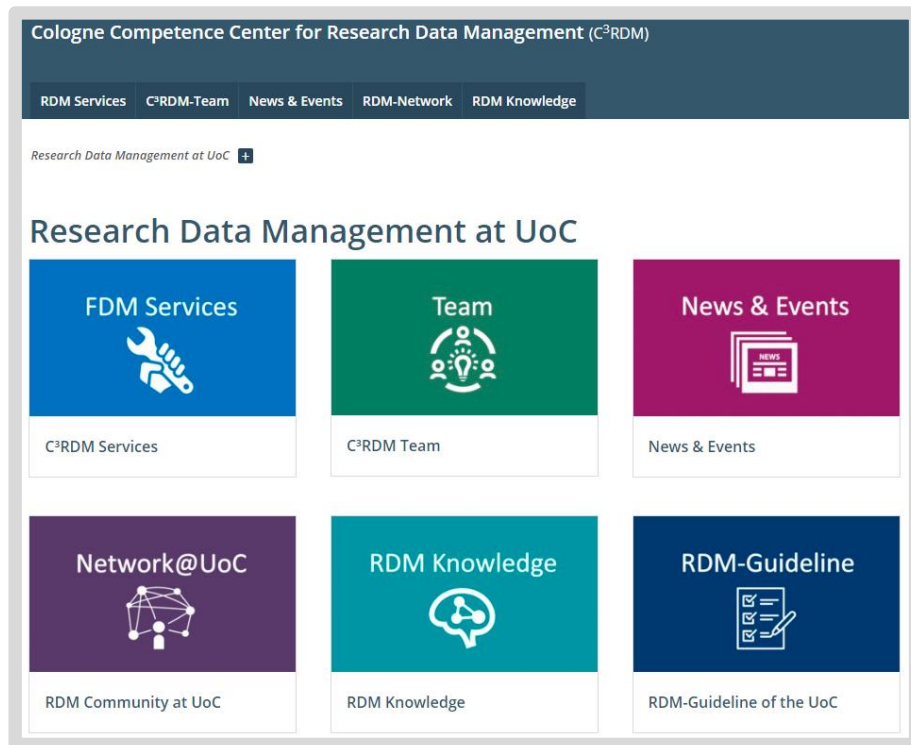
Know your resources: C3RDM at the University of Cologne

Cologne Competence Center
for Research Data Management (C3RDM)

<https://fdm.uni-koeln.de/en/home>

DMP template (engl.):

https://fdm.uni-koeln.de/sites/FDM-UzK/Templates/DMP_UoC_20190211.docx



Know your resources: CESSDA – Data Management Expert Guide



Data Management Expert Guide

This guide is designed by European experts to help social science researchers make their research data Findable, Accessible, Interoperable and Reusable (FAIR).

You will be guided by different European experts who are - on a daily basis - busy ensuring long-term access to valuable social science datasets, available for discovery and reuse at one of the [CESSDA social science data archives](#).

You can [download](#) the full DMEG for your personal study offline. PDFs for every [single chapter](#) are also available for being printed as handouts for training.

<https://www.CESSDA.eu/Training/Training-Resources/Library/Data-Management-Expert-Guide>

Know your resources: Verbund Forschungsdaten Bildung

**VerbundFDB**
forschungsdaten-bildung.de

[Gebärdensprache](#) | [Leichte Sprache](#) | [Kontakt](#) | [FAQ](#) | [Q](#) | [DE](#) | [EN](#)

[Daten finden](#) | [Daten teilen](#) | [Daten managen](#) | [Über den Verbund](#)

[Planen](#) | [Organisieren](#) | [Dokumentieren](#) | [Recht & Ethik](#) | [Beratung & Schulung](#) | [Handreichungen](#)

Stamp nutzen – Standardisierter Datenmanagementplan für die Bildungsforschung

Der Standardisierte Datenmanagementplan für die Bildungsforschung (Stamp) liefert konkrete Handlungsanweisungen zu Planung, Umsetzung und Dokumentation von Maßnahmen des Datenmanagements. Der Stamp besteht aus einem [Basismodul und acht inhaltlichen Modulen](#). Im Basismodul werden allgemeine Angaben zum Forschungsvorhaben, den Daten und den zu managenden Dateien erfasst. Das [Basismodul](#) strukturiert das Datenmanagement und liefert wesentliche Informationen z. B. für Anträge, Berichte oder Begutachtungen. Die acht [inhaltlichen Module](#) liefern konkrete Handlungsanweisungen zum Datenmanagement rund um Forschungsethik, Datenschutz, Urheberrecht, Nachvollziehbarkeit, Verfügbarkeit, Langfristsicherung und Verantwortlichkeiten und Aufwände.

Wie hilft der Stamp?

- Der Stamp liefert konkrete, standardisierte Handlungsanweisungen zur Planung und Umsetzung von Maßnahmen des Datenmanagements.
- Der Stamp ist ein „lebendes Dokument, das geplante (Planungsinstrument) ebenso wie bereits durchgeführte Maßnahmen (Dokumentationsinstrument) dokumentiert.

Information:

Der Stamp ersetzt die bisherige [Checkliste zur Erstellung eines Datenmanagementplans des VerbundFDB \(2017\)](#).

Best Practices:

Um für die Forschung hilfreich sein zu können, sollten Datenmanagementpläne (DMP) [frühzeitig](#) erstellt werden, d. h. am besten bereits bei Projektplanung und Antragstellung. DMP sind keine statischen, sondern [dynamische](#) Dokumente, die an den laufenden Forschungsprozess anzupassen sind. Ein DMP sollte möglichst [umfassend](#) sein, da sein Vorteil darin liegt, die verschiedenen datenrelevanten Tätigkeiten im Datenlebenszyklus in ihren Wechselwirkungen zu erfassen.

<https://www.forschungsdaten-bildung.de/>

<https://www.forschungsdaten-bildung.de/stamp-nutzen>

Thank you for your attention!

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References, websites and images

References

- Bundesdatenschutzgesetz (BDSG). https://www.gesetze-im-internet.de/bdsg_2018/.
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Websites

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Images

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