ROSKILDE UNIVERSITY LIBRARY

RE:ERUA - OPEN SCIENCE MEET-UP

RESEARCH DATA MANAGEMENT & OPEN SCIENCE

SACHA ZURCHER – SPECIAL ADVISER

FEBRUARY 2024

Where are we located

http://www.clker.com/cliparts/n/g/s/R/8/e/danmarks-kort.svg

About us

- Founded in 1972
- 7,500 students and 950 employees (FTE)
- 819 million DKK in annual turnover
- PPL – Problem-oriented Project-based Learning
- Interdisciplinary approach

Read more at https://ruc.dk/en

Open Science characteristics

- Applies to all disciplines
- Implies public open access to scientific information
  - ✓ For other researchers as well as corporate and private users
  - ✓ **Free of charge**
- Includes principles and practices
  - ✓ Transparency, reuse, participation, cooperation, accountability and reproducibility for research
  - ✓ Data sharing, open notebooks, open access to publications, transparency in research evaluation, open source code, software and infrastructure, citizen science, open educational resources

Strategy

RUC 2030: Interconnected

Mission

Roskilde University moves society forward through cutting-edge interdisciplinary research, teaching and learning.

Vision

Roskilde University will be a European front-runner in interdisciplinary knowledge creation that is locally embedded and globally connected, and will be known for its contribution to research-based sustainable change.

Cutting-edge interdisciplinary research

- We conduct cutting-edge research at the highest international level, and our aim is to develop a distinct interdisciplinary profile based on the social sciences and humanities combined with key contributions from natural, technical and health science.
- Our research is excellent, challenge-driven, and contributes to sustainable development in close interaction with the surrounding community: locally,
- The societal impact of our research always builds on fundamental principles of freedom of research, research integrity and open science.
- We aim to be an international hub for critical interdisciplinary research.
- Our aim is to offer coherent time for research, well-functioning research organisation and robust administrative research support.

Problem-oriented and problem-led programs

- Our programs provide students with broad interdisciplinary knowledge and methodological competencies within our main academic areas, with particular focus on digital, ethical and democratic citizenship.
- Our aim is that all programs stimulate intense interdisciplinary engagement; students and researchers work together to put the research and its methods into play.
- Our aim is to attract committed Danish and international students, motivated by developing af sustainable future. All supervisors master and develop RUC's pedagogical model, Problem-oriented Project Learning (PPL), so that students can apply this approach in their studies and professional academic work.
- Our aim is to offer continuing and further education in collaboration with labour market partners.

Environmental, economic and social sustainability

- We strive to be a pioneering university for sustainable institutional and campus operations: economic, social and environmental considerations are always part of the university's long-term priorities.
- Our campus is a vibrant research, study and work environment where students, employees, alumni and external partners thrive and can combine their academic strengths and interests.
- We are dedicated to equality and diversity, in recruitment and retention of both staff and students, and in interaction and cooperation.

Co-creators of societal change

- Our researchers and research communities contribute to address current and future societal challenges. They develop the role of universities in society through research dissemination, open innovation and citizen science.
- Our graduates are academically sound agents of change and competent project managers who are capable of applying their knowledge and competences in their jobs, and as entrepreneurs and opinion leaders
- Our community of faculty and staff foster collaboration in research and education, international alliances and in local and regional partnerships.

Roskilde University

Focus Areas:

Citizen Science

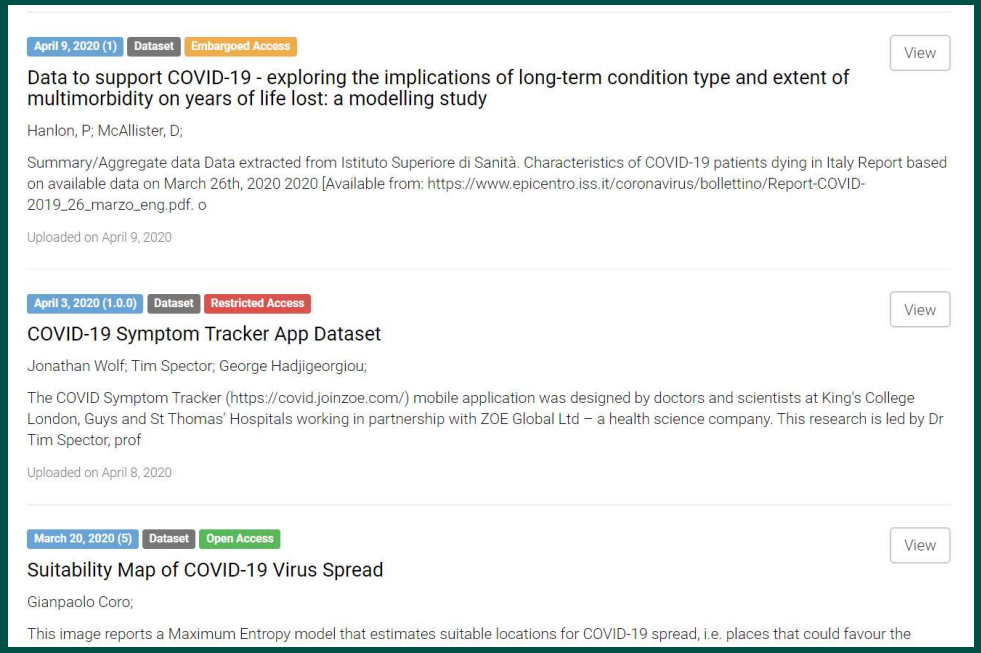
Open Access

Rewards & Incentives / Responsible Metrics

FAIR data

Open data vs. FAIR data

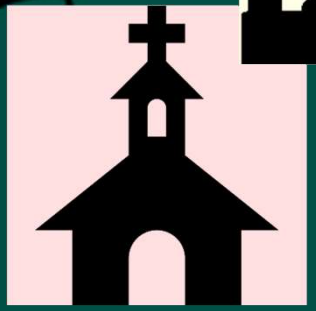
Source: *"The FAIR Guiding Principles for scientific data management and stewardship"*, Mark D. Wilkinson et al., Scientific Data 3, 160018 (2016) - http://doi.org/10.1038/sdata.2016.18



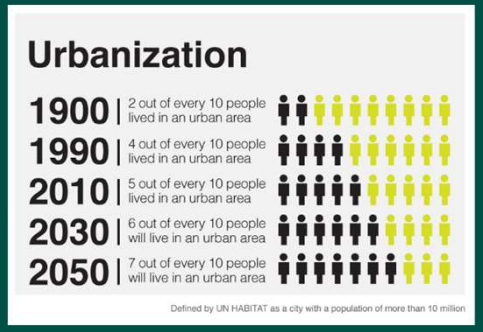
Source: zenodo.org

What can be defined as research data?

Qualitative
Observational
Irreproducible



Reference or canonical
data
Reproducible



Quantitative
Observational/ simulations / experimental
Irreproducible/ reproducible

Different data formats

Tabular

See also: Template:2019–20 coronavirus pandemic data/international medical cases

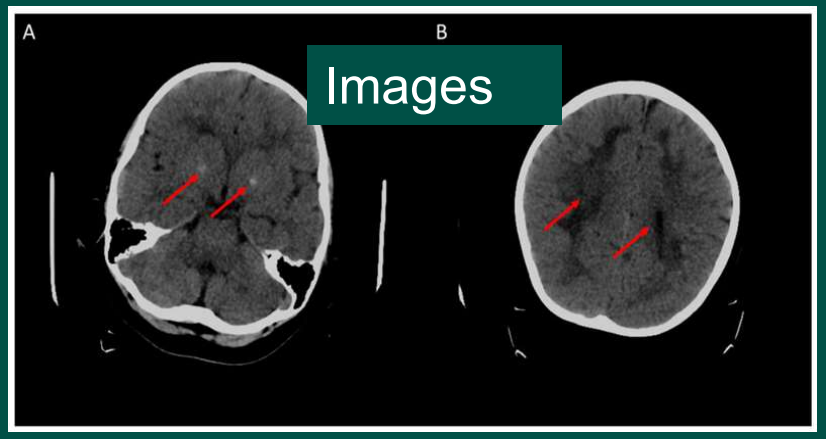
[show all]

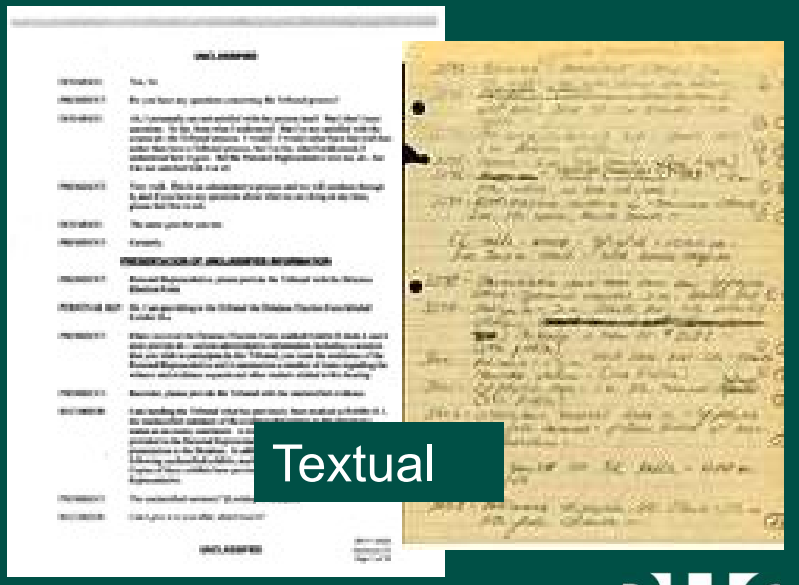
2019–20 coronavirus pandemic by country and territor

Location[a]	Cases[b]	Deaths	Recov.[c]	
152	215,565	8,893	84,402	
China (mainla			614	
Italy[e]			025	
Iran	17,361	1,135	5,710	
Spain	14,746	638	1,081	
Germany	12,327	28	105	
France[f]	9,134	264	602	
South Korea	8,413	84	1,540	
United States[g]	8,034	124	106	
Switzerland[h]	3,070	27	15	
United Kingdom[i]	2,630	104	65	[11][
Netherlands[j][k]	2,059	58	..	[1][
Austria	1,646	4	9	
Norway[l]	1,557	6	1	
Belgium	1,486	14	31	
Sweden[m]	1,279	10	1	

Documentation[create]

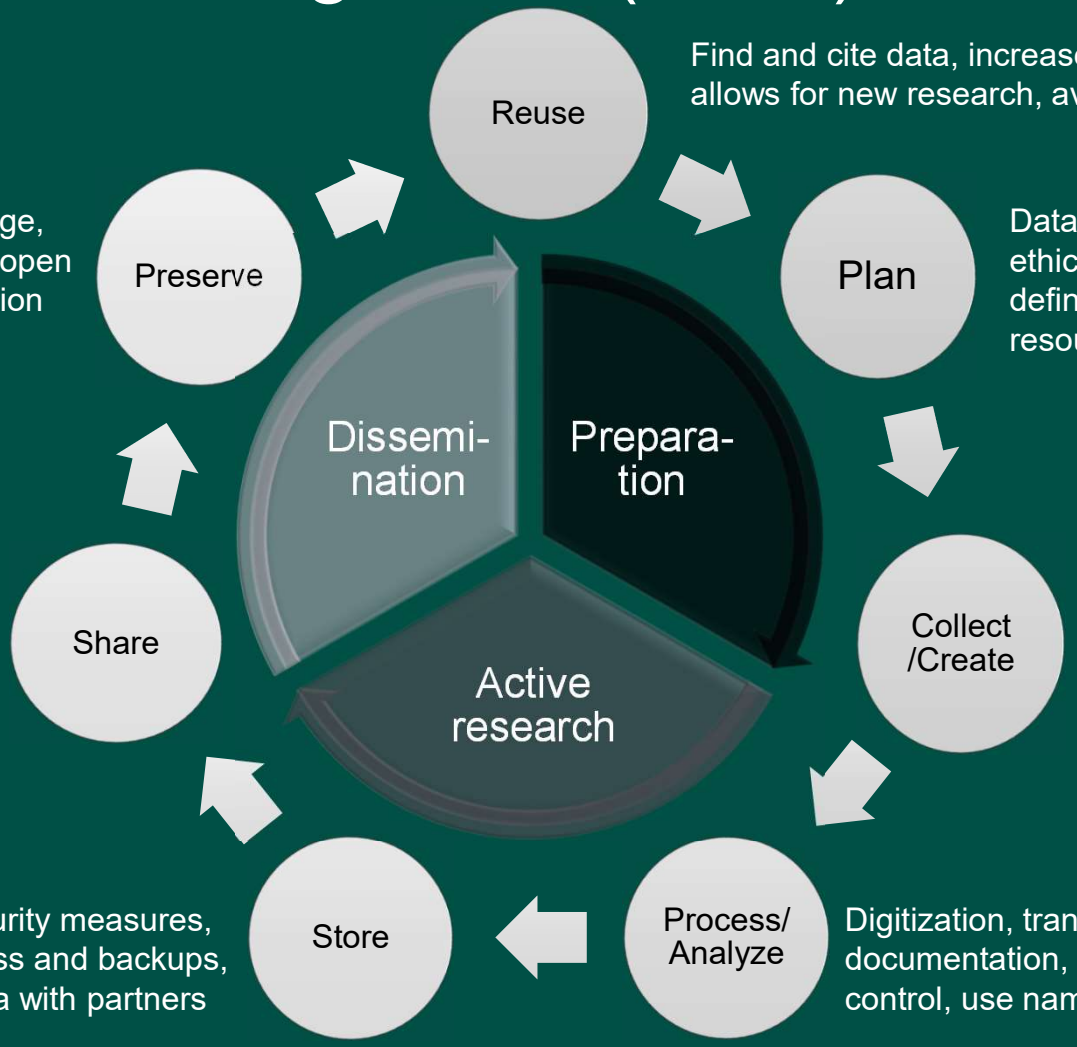
Editors can experiment in this template's sandbox (create | mirror) and testcases





Research data life cycle

Research data management (RDM)



Find and cite data, increase the impact of research, allows for new research, avoids duplication

Data management plan, obtain ethical and legal approvals, GDPR, define responsibilities, allocate resources

Record, observe, measure, simulate, merge, include metadata, perform quality control

Digitization, transcription, prepare documentation, create version control, use naming conventions

Establish security measures, manage access and backups, exchange data with partners

Anonymize, delete data, place data in public repositories, add keywords, attach DOI's and licenses

Prepare for long-term storage, convert to long-lasting and open formats, link to documentation

RDM & FAIR data

FAIR data

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FAIR data

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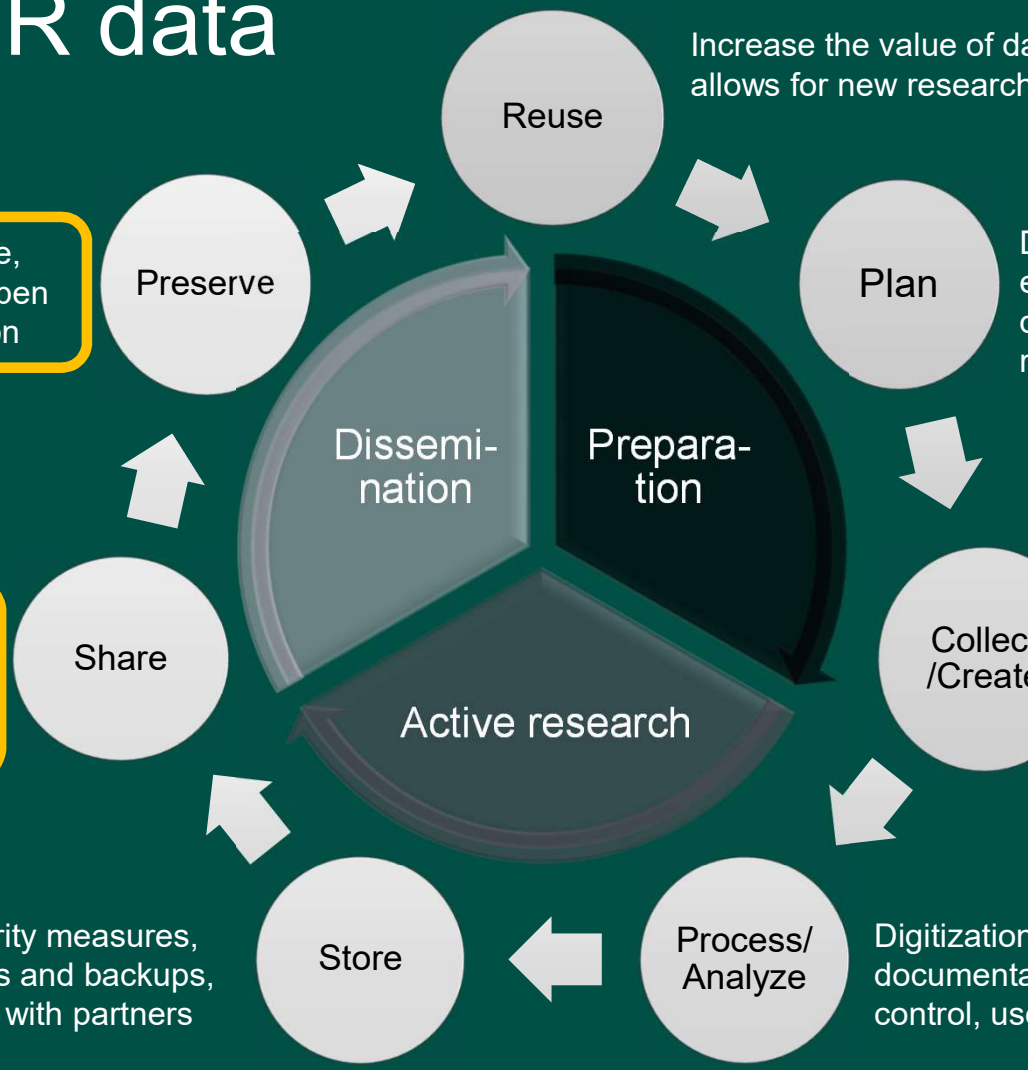

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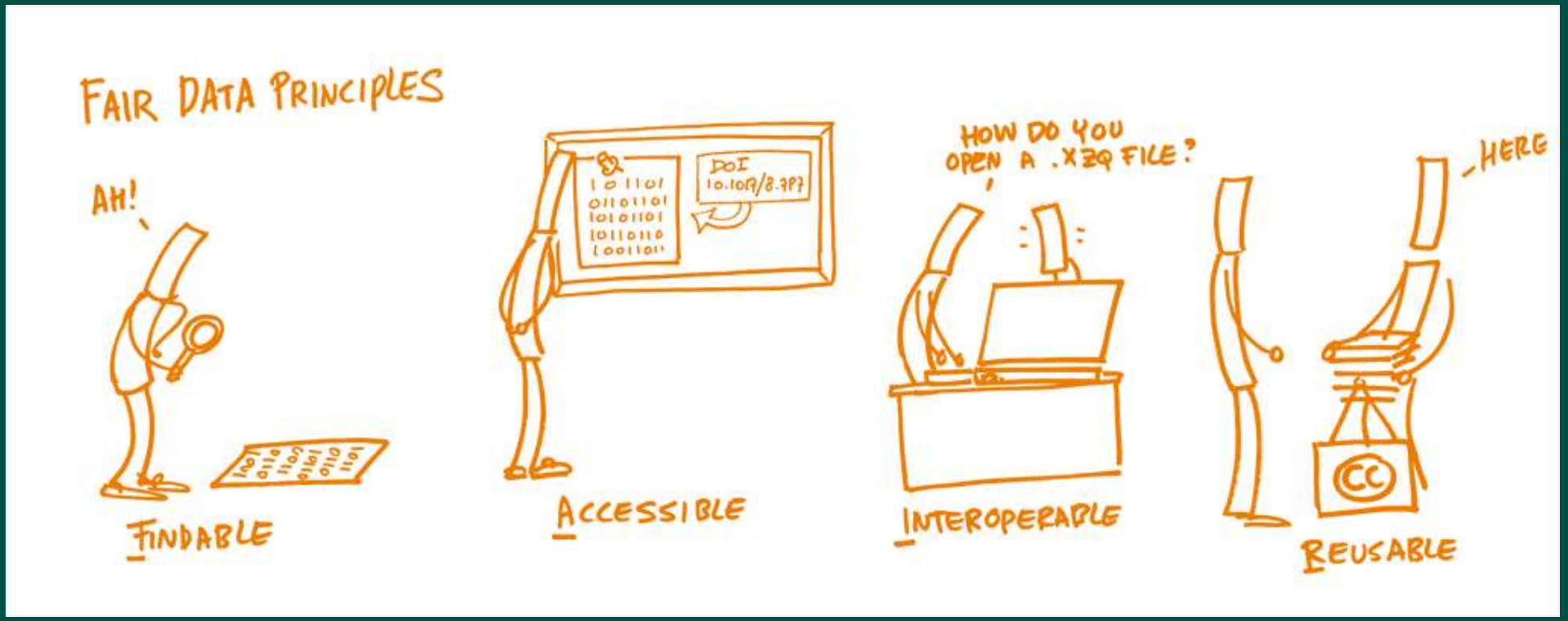

Source: https://book.fosteropenscience.eu/

- ✓ Publish searchable information online in a repository
- ✓ Link and cite published datasets
- ✓ Manage access to files in published datasets
- ✓ Define rights for reuse of your data
- ✓ Describe your research data
- ✓ Use open file formats

FAIR – *as open as possible, as closed as necessary*

Copyright?

Personal data?

Commercial value?

Resources?

Costs?

THANK YOU – QUESTIONS?