

How to open your data responsibly

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Research Data
Management



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Member of the Open Science Expert Group

AGENDA

- The need – and promise - of more open data
- What is data?
- Repositories – the platforms for open data
- FAIR – a framework to evaluate (more than) open data
- What to share?
- Facilitating reuse through a license
- A complete guide for irresponsibility
- Exploring further options
- Data go live



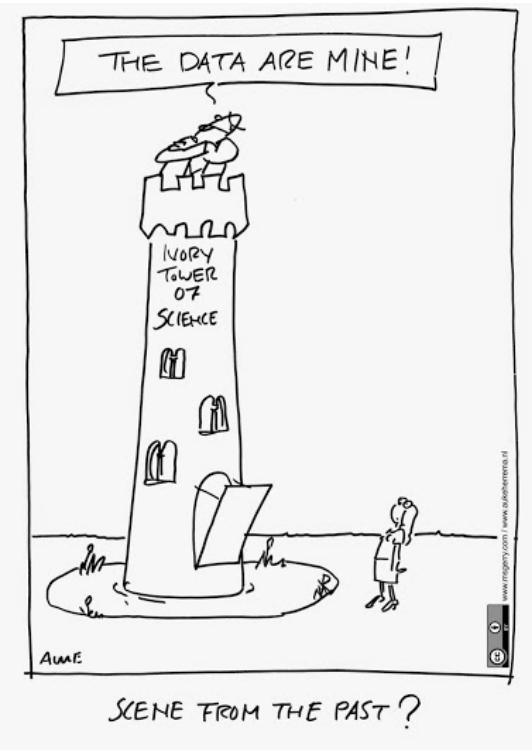
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THE OPEN DATA AGENDA

"As open as possible,
as restricted as
necessary"



#PLEASEDONTSTEALMYWORK

DIRECTIVE (EU) 2019/1024 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL
of 20 June 2019
on open data and the re-use of public sector information
(recast)

THE EUROPEAN PARLIAMENT AND THE COUNCIL OF THE EUROPEAN UNION,

Having regard to the Treaty on the Functioning of the European Union, and in particular Article 114 thereof,

Having regard to the proposal from the European Commission,

on the draft legisla-

to the opinion of the

the Committee of



National strategy for data management
based on the FAIR principles



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Research data

Research data policies

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Data policy types

Data availability statements

Data policy FAQs

Data repository guidance

Research Data Helpdesk

At Springer Nature we want to enable all of our authors and which includes achieving community best practices in the We also aim to facilitate compliance with research funder data.

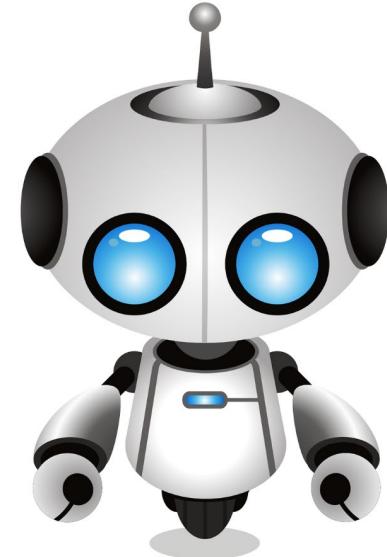
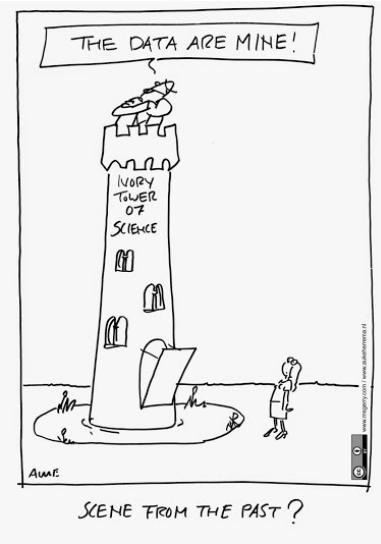
To help accomplish this we provide a set of standardised research data policies that can be easily adopted by journals.

These policies:

version 2.0
11 April 2022

Horizon Europe (HORIZON)
Programme Guide

THE OPEN DATA AGENDA



Equipment

Citations

Protocol

Person

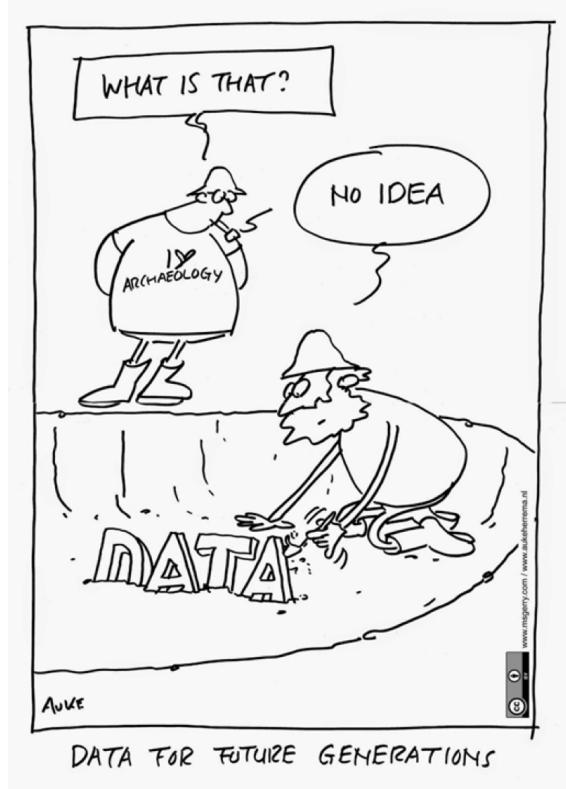
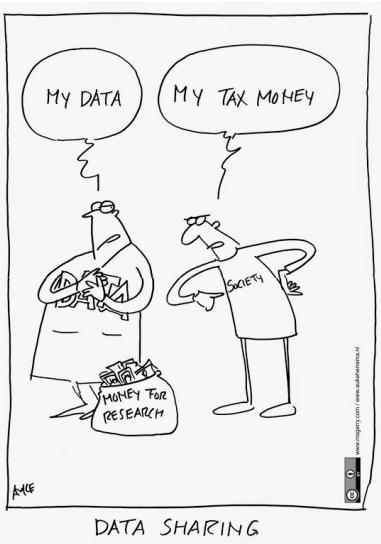
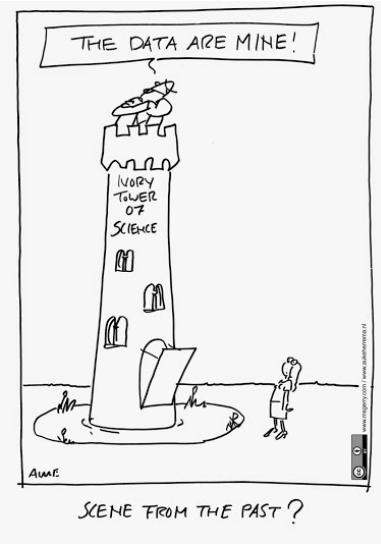
Dataset

Project

Institution

Grant

THE OPEN DATA AGENDA



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WHAT IS DATA?

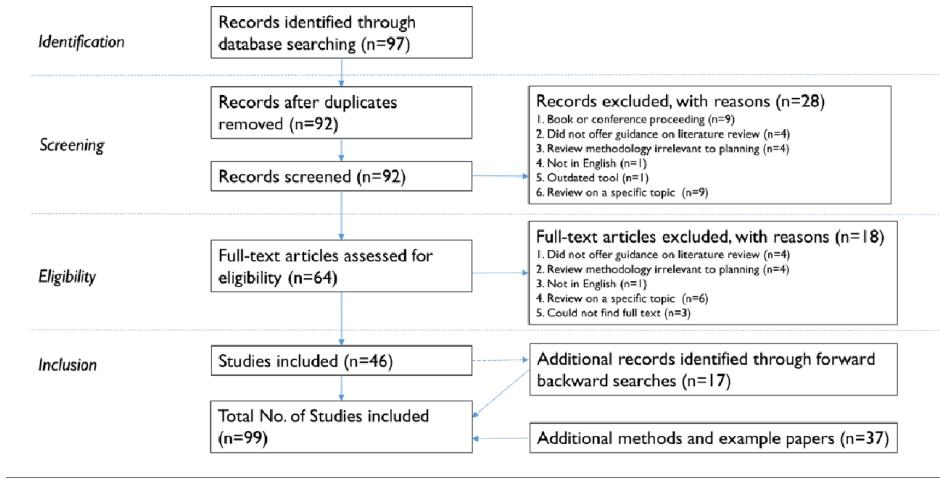
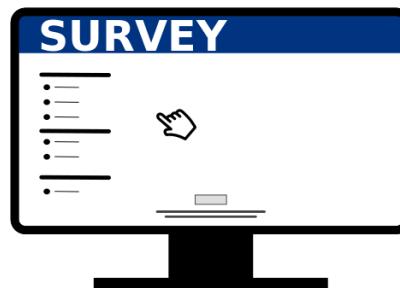


Figure from: Xiao, Y., & Watson, M. (2019). Guidance on Conducting a Systematic Literature Review. *Journal of Planning Education and Research*, 39(1), 93–112. <https://doi.org/10.1177/0739456X17723971>



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WE WANT DATA IN REPOSITORIES

Generic

They don't

Domain specific

They care



MENDELEY DATA



WE WANT DATA IN REPOSITORIES

Generic



Domain specific



re3data.org
REGISTRY OF RESEARCH DATA REPOSITORIES

Search...

Search

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... WITH CERTAIN CHARACTERISTICS



FAIR does not
equal open!

PLAN AND INVESTIGATE ON METADATA

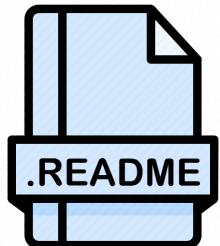


PLAN AND INVESTIGATE ON METADATA

Collect

Analyze

Publish



JSON
XML

FAIRsharing.org
standards, databases, policies

AALBORG
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FAIR learning.pptx Properties

General Summary Statistics Contents Custom

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Basic Camera Data
Origin
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Audio Data
Video Data
Photoshop
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Raw Data

Camera Information
Make: Canon
Model: Canon EOS 500D; S/N: 530120093
Owner: Karsten Kryger Hansen
Lens: EF-S18-55mm f/3.5-5.6 IS

Shot Information
Focal Length: 20.00 mm
Exposure: 1/60 sec; f/5.0; ISO 400; Normal program; Pattern metering
Image Size: 3168 x 4752
Orientation:

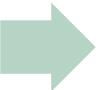
employee_id	first_name	last_name	nin	department_id
44	Simon	Martinez	HH 45 09 73 D	1
45	Thomas	Goldstein	SA 75 35 42 B	2
46	Eugene	Comelsen	NE 22 63 82	2
47	Andrew	Petculescu	XY 29 87 61 A	1
48	Ruth	Stadick	MA 12 89 36 A	15
49	Barry	Scardelis	AT 20 73 18	2
50	Sidney	Hunter	HW 12 94 21 C	6
51	Jeffrey	Evans	LX 13 26 39 B	6
52	Doris	Bemdt	YA 49 88 11 A	3
53	Diane	Eaton	BE 08 74 68 A	1
54	Bonnie	Hall	WW 53 77 68 A	15
55	Taylor	Li	ZE 55 22 80 B	1

Data

Column	Data Type	Description
employee_id	int	Primary key of a table
first_name	nvarchar(50)	Employee first name
last_name	nvarchar(50)	Employee last name
nin	nvarchar(15)	National Identification Number
position	nvarchar(50)	Current position title, e.g. Secretary
department_id	int	Employee department. Ref: Department
gender	char(1)	M = Male, F = Female, Null = unknown
employment_start_date	date	Start date of employment in organization.
employment_end_date	date	Employment end date. Null if employee st

PLAN AND INVESTIGATE ON METADATA

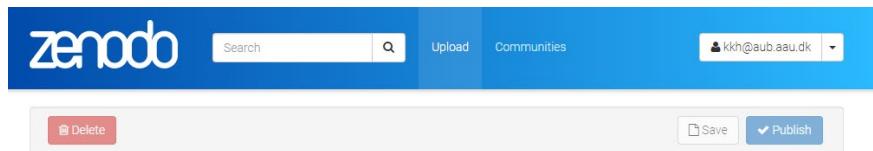
Collect



Analyze



Publish



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Authors Optional.

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Description

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ARE WE SHARING THE RIGHT THINGS?

The screenshot shows the Zenodo digital library interface. At the top, there's a search bar, an upload button, and a communities section. A user account is logged in. Below the header, the date 'December 13, 2018' is displayed. The main content is a digital book titled 'A FAIRy tale'. The book cover features a colorful illustration of a castle on a hill with a rainbow and clouds. The book is marked as 'Open Access'. Key statistics are shown: 4,601 views and 2,650 downloads. The book is indexed in 'OpenAIRE'. Detailed publication information includes the date (December 13, 2018), DOI (10.5281/zenodo.2248200), and keywords (FAIR guide, Research Data Management). The license is Creative Commons Attribution Share Alike 4.0 International. A file list at the bottom shows a single PDF file (3.1 MB) named 'A FAIRy tale book digital.pdf'.

Request ...

"We would like to make a translation to German"

Response ...

"Great, go ahead. It's CC-BY 4.0, but ..."



= reusable



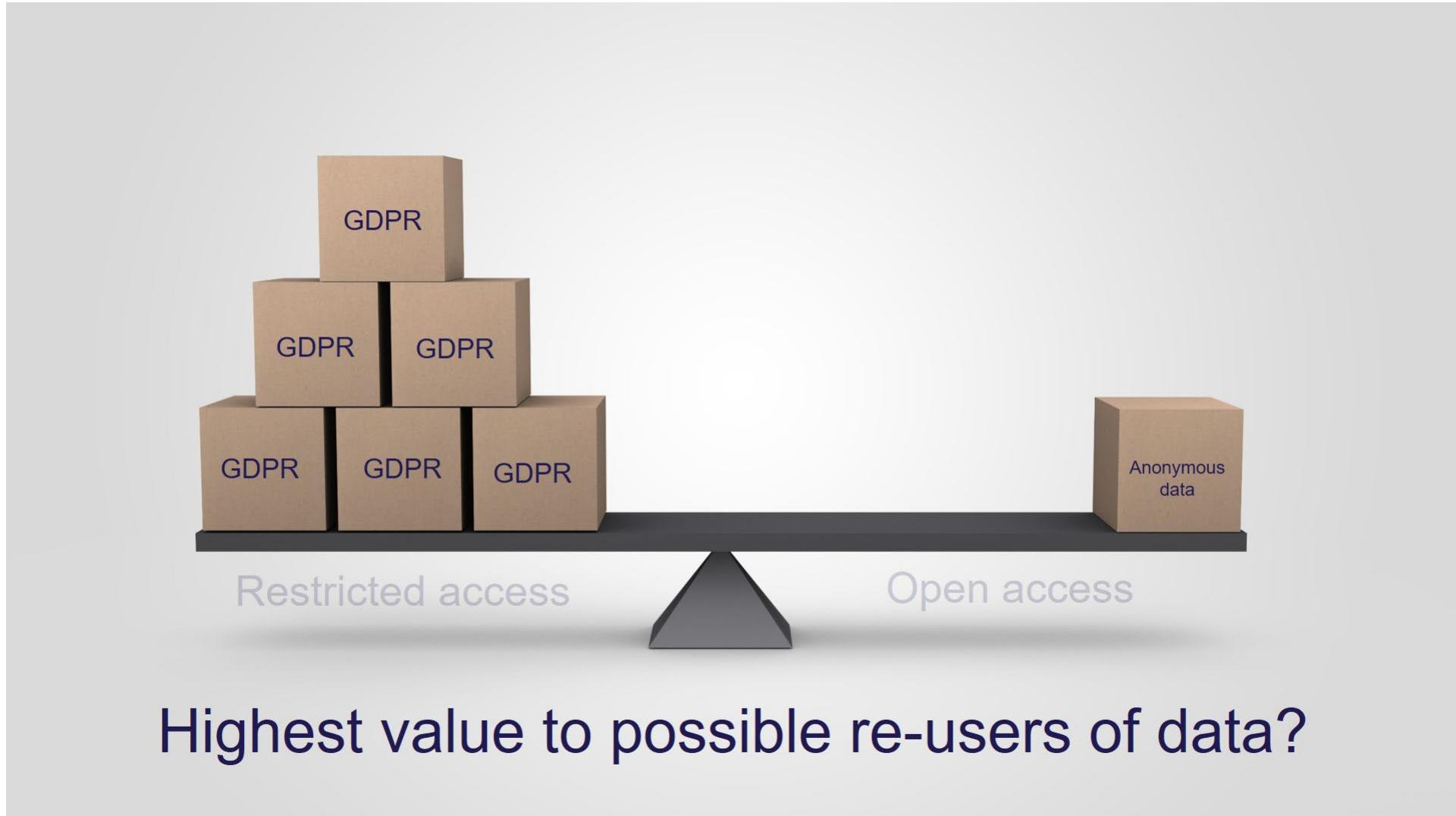
ARE WE SHARING THE RIGHT THINGS?



ARE WE SHARING THE RIGHT THINGS?



ARE WE SHARING THE RIGHT THINGS?



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FACILITATE REUSE BY ASSIGNING A LICENSE TO OPEN DATA

Data with undeclared usage rights is useless

- Reduce friction of reuse
- Declare usage rights
- Get credit for your work

Access right *

-  Open Access
-  Embargoed Access
-  Restricted Access
-  Closed Access

Required. Open access uploads have considerably higher visibility on Zenodo.

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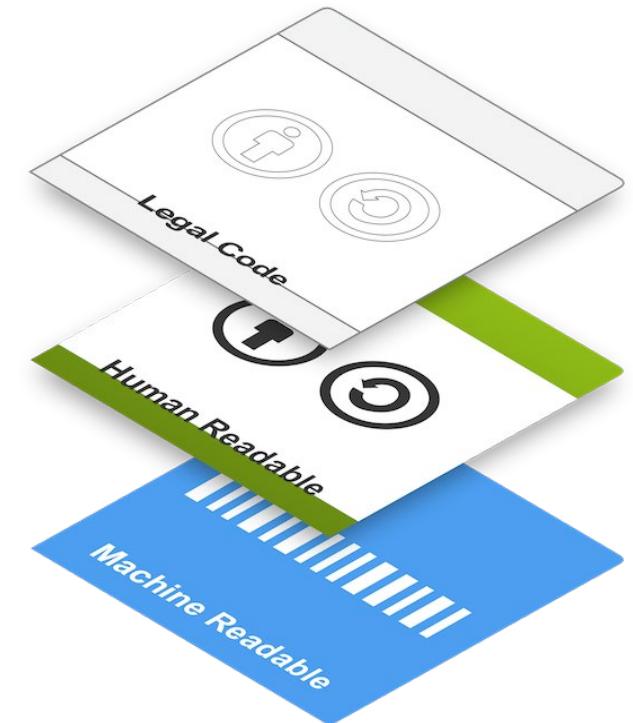
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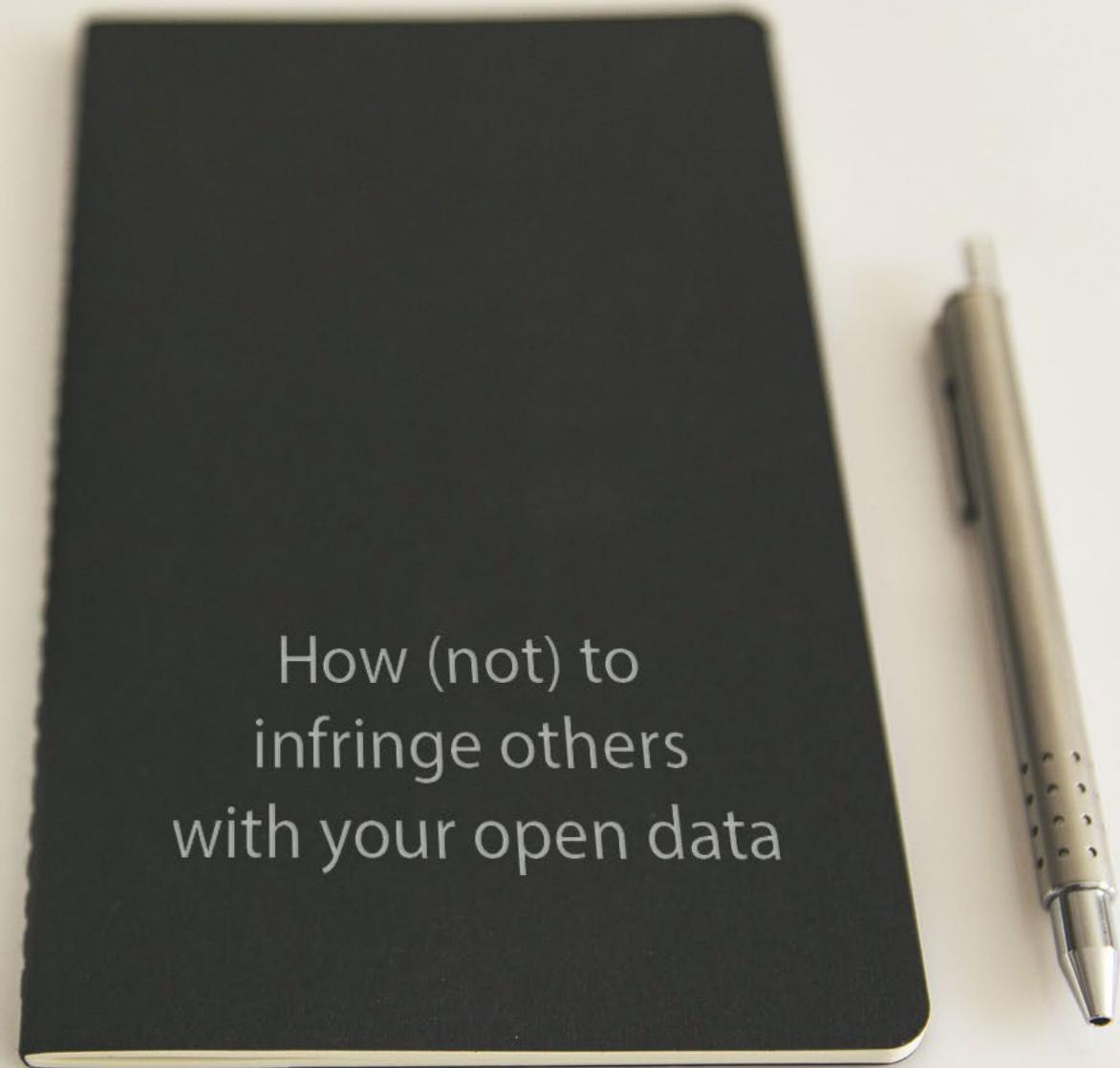
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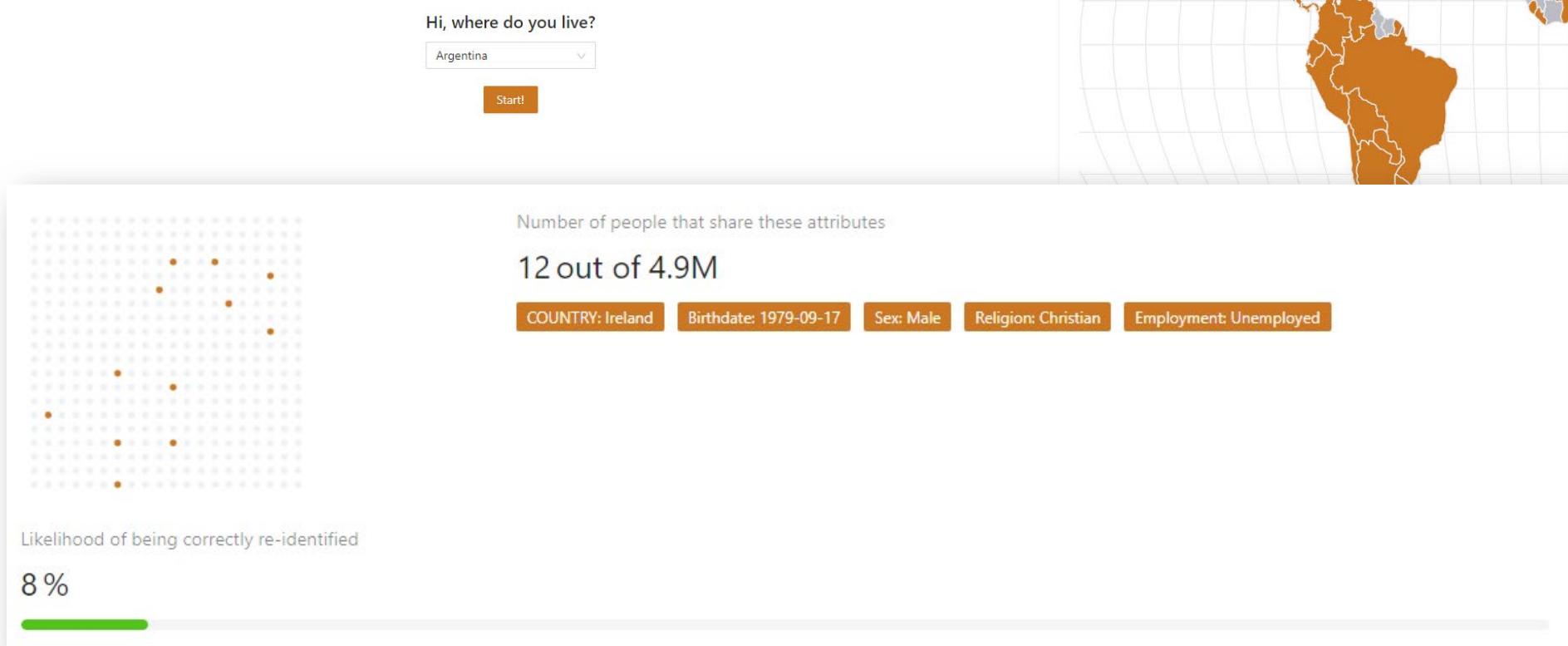
BUT ...



CONSIDERATIONS FOR AVAILABILITY AND LICENSABILITY OF DATA

- News worthiness
- Funding
- Collaboration partners
- Nondisclosure agreements
- Intellectual contributions from others
- Personal information
- Copyrighted material embedded
- Patentable results
- Software descriptions
- Dual use
- Classified information (NATO, EU and/or national)
- Critical infrastructure
- Ethical considerations

**"As restricted as possible,
as open as necessary"?**



THE CASE OF RESTRICTED ACCESS – THE 404 OF EMAILS?

License required

Access right *

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- Embargoed Access
 Restricted Access- Closed Access

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Conditions *

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RESTRICTED ACCESS

- No, you cannot just put restricted data out there, marked as restricted.
Eg. no sharing of confidential data with restricted access on platforms trusted for open data

- Take action: Discuss with your institution how to keep restricted data accessible
- Declare impartial reuse options if possible.
- Put restricted data in repos where fulfillment of restrictions is possible

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DATA WITHOUT CODE?

Building the social and technical bridges to enable open sharing and re-use of data

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FAIR Principles for Research Software (FAIR4RS Principles)

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 **16**
Mar 2022

FAIR Principles for Research Software (FAIR4RS Principles)

By [Neil Chue Hong](#)

[FAIR for Research Software \(FAIR4RS\) WG](#)

Group co-chairs: Michelle Barker, Paula Andrea Martinez, Leyla Garcia, Daniel S. Katz, Neil Chue Hong, Jennifer Harrow, Fotis Psomopoulos, Carlos Martinez-Ortiz, Morane Gruenpeter

Recommendation Title: FAIR Principles for Research Software (FAIR4RS Principles)

FAIR for Research Software (FAIR4RS) WG

Status: Recognised & Endorsed
Chair(s): Michelle Barker, Paula Andrea Martinez, Leyla Jael Castro, Daniel S. Katz, Neil Chue Hong, Jennifer Harrow, Fotis Psomopoulos, Carlos Martinez-Ortiz, Morane Gruenpeter

Secretariat Liaison: Bridget Walker
TAB Liaison: Rob Quick

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Tao Xiong, ... Chen-Ti Chen

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- Institutional Review Board Statement
- Informed Consent Statement
- Data Availability Statement
- Acknowledgments
- Conflicts of Interest
- References

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Academic Editor: Francisco Guijarro

Data 2022, 7(10), 137; <https://doi.org/10.3390/data7100137>

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Huynh, T.L.D.; Rieger, M.O.; Wang, M.; Berens, D.; Bui, D.-L.; Chen, H.-L.; Emerging, T.P.; Geng, S.; Liu-Gerhards, Y.; Neumann, T.; Nguyen, T.D.; Nguyen, T.T.; Peng, D.; Phan, T.C.; Reinhardt, D.; Shen, J.; Takahashi, H.; Vogt, B. Cheating, Trust and Social Norms: Data from Germany, Vietnam, China, Taiwan, and Japan. *Data* **2022**, *7*, 137. <https://doi.org/10.3390/data7100137>

 Mendeley Data

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Cheating, trust and social norms: data from Germany, Vietnam, China, Taiwan, and Japan

Published: 16 May 2022 | Version 1 | DOI: 10.17632/fpp33zgds7.1

Contributors: Toan Luu Duc Huynh, Marc Oliver Rieger, Mei Wang, David Berens, Duy Linh Bui, Hung-Ling Chen, Tobias Peter Emering, Sen Geng, Yang Liu Gerhards, Thomas Neumann, Dac Thanh Nguyen, Thong Nguyen, Diefeng Peng, Thuy Chung Phan, Denis Reinhardt, Junyi Shen, Hiromasa Takahashi, Bodo Vogt

Description

The data presented here contains information on cheating behaviour from experiments and general self-reported attitudes related to honesty-related social norms and trust, together with individual-level demographic variables. Our sample includes 493 university students in five countries, namely Germany, Vietnam, Taiwan, China, and Japan. The experiment was monetary incentivized based on performance on a matrix task. The participants also answered a survey questionnaire. Supplemental material contains the full text, codes and numerical values of survey and experiment instruments. The dataset is valuable to academic researchers in sociology, psychology and economics who are interested in honesty, norms and cultural differences.

Download All 107 KB ⓘ

Files

Dataset.xlsx 115 KB ⓘ

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	
1	ID	DIV	Y	Magnitude	Underreport	Magnor	Yrobust	Magrob	Age	Gender	Major	Income	Member	Fairness	Politeness	Honesty	Courage	Responsibility
2	B1	1	0	0	0	0	0	0	21	1	1	4000	4	5	4	1	2	3
3	B2	1	0	0	0	0	0	0	22	1	1	10000	4	4	3	5	1	2
4	B3	1	0	0	0	0	0	0	26	1	0	10000	4	3	1	2	5	4
5	B4	1	0	0	0	0	0	0	21	0	1	600	1	5	1	4	3	2
6	B5	1	0	0	0	0	0	0	25	1	0	2500	2	4	1	2	3	5
7	B6	1	0	0	0	0	0	0	25	0	1	1700	1	1	1	1	3	3
8	B7	1	1	14	0	2,70805	1	2,70805	27	0	1	6000	7	2	5	1	3	4
9	B8	1	0	0	0	0	0	0	25	1	1	800	3	4	1	5	2	3
10	B9	1	0	0	0	0	0	0	24	1	1	2550	2	1	3	5	2	4
11	B10	1	0	0	0	0	0	0	24	1	1	6000	4	4	5	1	2	3
12	B11	1	0	0	0	0	0	0	24	0	1	1450	2	3	4	1	5	2
13	B12	1	1	14	0	2,70805	1	2,70805	33	0	1	1600	2	5	5	5	5	5
14	B13	1	0	0	0	0	0	0	22	1	1	800	4	2	5	1	3	4
15	B14	1	1	11	0	2,484907	1	2,484907	21	0	1	3000	2	5	4	3	1	2
16	B15	1	0	0	0	0	0	0	22	0	1	530	4	2	2	1	3	2
17	B16	1	0	0	0	0	0	0	20	1	1	1125	1	2	1	1	3	2
18	B17	1	1	3	0	1,386294	1	1,386294	25	1	0	650	1	4	1	3	2	5
19	B18	1	1	6	0	1,94591	1	1,94591	29	1	0	1000	2	5	3	4	3	4
20	B19	1	0	0	0	0	0	0	23	1	1	12500	4	3	5	4	1	2
21	B20	1	1	11	0	2,484907	1	2,484907	21	0	1	800	0	4	3	5	1	2
22	B21	1	1	11	0	2,484907	1	2,484907	21	0	1	750	2	5	5	5	4	4
23	B22	1	1	9	0	2,302585	1	2,302585	21	1	1	2000	2	5	5	5	4	5
24	B23	1	0	0	0	0	0	0	22	0	1	500	1	5	5	5	2	4
25	B24	1	1	9	0	2,302585	1	2,302585	24	0	1	3000	5	4	3	5	1	2
26	B25	1	1	1	0	0	0	0	21	1	1	600	1	1	3	5	2	4
27	B26	1	1	5	0	1,791759	1	1,791759	20	1	1	400	1	2	3	1	5	4
28	B27	1	1	18	0	2,944439	1	2,944439	22	0	1	4000	5	5	5	5	5	5
29	B28	1	1	18	0	2,944439	1	2,944439	22	0	1	3500	5	2	3	5	1	4
30	B29	1	0	0	0	0	0	0	21	1	0	0	4	2	5	3	4	1
31	B30	1	0	0	0	0	0	0	29	1	0	8100	1	5	2	1	3	4
32	B31	1	1	16	0	2,833213	1	2,833213	21	0	1	2000	2	3	1	4	2	5
33	B32	1	0	0	0	0	0	0	20	1	0	1000	6	3	1	4	2	5
34	B33	1	0	0	0	0	0	0	22	0	1	500	3	5	1	4	2	3
35	B34	1	1	18	0	2,944439	1	2,944439	27	1	1	750	1	2	4	5	1	3
36	B35	1	0	0	0	0	0	0	28	1	0	3700	2	5	1	4	2	3
37	B36	2	0	0	0	0	0	0	24	0	1	1000	1	5	1	4	2	3
38	B37	2	0	0	0	0	0	0	29	1	0	450	6	5	3	4	1	2
39	B38	2	0	0	0	0	0	0	19	0	0	5500	6	2	4	5	1	3

SUMMARY

- Try publishing *some* data
- Clarify on the possibility of making data:
 - Accessible
 - Licensed
- Ask and talk about data
 - ... a data management plan can help, but less can do.

AGENDA

- The need – and promise - of more open data
- What is data?
- Repositories – the platforms for open data
- FAIR – a framework to evaluate (more than) open data
- What to share?
- Facilitating reuse through a license
- A complete guide for irresponsibility
- Exploring further options
- **Data go live**



LET's TAKE A LOOK AT DATA GOING LIVE

- ▶ <https://sandbox.zenodo.org/>

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