Data Publishing

J.S. Love
Data Steward, Industrial Design Engineering
TU Delft

'Six types of press: cheese, wine (two), printing, clothes, and rolling. Engraving.' Credit: Wellcome Collection, CC BY
Why publish/share your data?
Why Share Data?

• Ensure data accuracy and integrity
• Security & peace of mind that your data will be available in future
• Efficiency – you and others will be able to interpret it
• Can be built on by others (& you can get some credit)
  • Contribution credits in ICOS: https://meta.icos-cp.eu/objects/8-QdAS3v4wdRS3pGz_CG3JI
• Sometimes you’ll have to (grant requirements, policies)
• Current practices need improvement: ‘Data Sharing and Management Snafu’: https://www.youtube.com/watch?v=N2zK3sAtr-4
What to share & where to put it

✓ Finished data (well-documented, follows standard[s])

✓ FAIR data (‘as open as possible, as closed as necessary’)

✓ Trusted repositories
What is **FAIR** data?
What is FAIR?

A set of principles to ensure that data are shared in a way that enables & enhances reuse, by humans and machines.

Image CC-BY-SA by SangyaPundir

https://www.force11.org/group/fairgroup/fairprinciples
Persistent Identifiers

A persistent identifier is a long-lasting reference to a digital resource

→ avoid 404 Not found

Digital Object Identifier (DOI)
- e.g., 4TU Repository

Handle
- e.g., Dataverse

Open Researcher and Contributor ID (ORCiD)

Slide credit: Heather Andrews & Jasmin Böhmer, TU Delft
Trusted Repositories – would you use data from these sources?

GBIF: https://www.gbif.org/

DIP: https://dip.doe-mbi.ucla.edu/dip/Main.cgi

DataOne: https://search.dataone.org/data
Trusted Repositories

Certifications

• Check documentation
• Assess & Ask Colleagues (tips for publishing your own: CESSDA ERIC’s ‘Data Publishing Routes’:
Research Data Repositories

Institutional

4TU. CENTRE FOR RESEARCH DATA

General purpose

re3data.org

http://www.re3data.org/

Discipline-specific

DRYAD
zenodo
figshare

UK Data Service
RCSB PDB

PDB PROTEIN DATA BANK

The Digital Archaeological Record
tDAR A SERVICE OF DIGITAL ANTIQUITY

Image credit: Marta Teperek (CC-BY)
Creative Commons Licenses

https://creativecommons.org/share-your-work/licensing-types-examples/

Examples:

Volcanic Ash & Food Safety:
http://doi.org/10.5281/zenodo.438936

Biogeography of Jellyfish:
https://doi.org/10.1594/PANGAEA.835732

- **Attribution (by)**
  All CC licenses require that others who use your work in any way must give you credit the way you request, but not in a way that suggests you endorse them or their use. If they want to use your work without giving you credit or for endorsement purposes, they must get your permission first.

- **ShareAlike (sa)**
  You let others copy, distribute, display, perform, and modify your work, as long as they distribute any modified work on the same terms. If they want to distribute modified works under other terms, they must get your permission first.

- **NonCommercial (nc)**
  You let others copy, distribute, display, perform, and (unless you have chosen NoDerivatives) modify and use your work for any purpose other than commercially unless they get your permission first.

- **NoDerivatives (nd)**
  You let others copy, distribute, display and perform only original copies of your work. If they want to modify your work, they must get your permission first.
Licenses: Software & Code

MIT License
- Permissive (use, copy, modify, merge, publish, distribute)
- Allows commercial use
- Copyright notice in all copies
- The software is provided "as is" (no warranty)

Apache Licence 2
- Permissive (use, copy, modify, merge, publish, distribute)
- Allows commercial use
- Copyright notice in all copies
- The software is provided "as is" (no warranty)
- Express grant of patent rights
- Licensed work and modifications may be distributed under different terms and without source code
- The person who redistributes the work, acts on their own behalf (not on behalf of any other contributor)

GNU General Public Licence 3 (GNU GPLv3)
- Permissive (use, copy, modify, merge, publish, distribute)
- Allows commercial use
- Copyright notice in all copies
- The software is provided "as is" (no warranty)
- Express grant of patent rights
- Licensed work and modifications may be distributed under the same terms and with the source code
- The person who redistributes the work, acts on their own behalf (not on behalf of any other contributor)

See more details in https://choosealicense.com/

Slide credit: Heather Andrews & Jasmin Böhmer, TU Delft
What Can you do with these?

https://commons.wikimedia.org/wiki/File:Leonardo_Da_Vinci_-_Annunciazione.jpeg (image)

https://doi.org/10.15468/24cumk (dataset)

https://youtu.be/pxYoFlnJLoE (YouTube video)
Licensing Resources


4TU Licensing information: https://researchdata.4tu.nl/en/publishing-research/licensing/

Creative Commons Search: https://search.creativecommons.org/
Again:

Make your data as open as possible, but as closed as necessary

Questions?