WILEY

How and why researchers share data

Liz Ferguson

November 2015

Credits

Laura Fedoryk

Previously Strategic Market Analyst at Wiley. Now Corporate Social Responsibility Manager at Marsh & McLennan Companies

Wen Zhang

Product Manager, Digital Product Management, Wiley

Cathy Giffi

Director, Strategic Market Analysis, Wiley

DataONE
Data Observation Network for Earth

WILEY

Objectives

Better understand researcher perceptions of data sharing

Inform policy development and communication more widely

Develop services that support researchers wishing to or having to share data

Picture credit: Pen Waggener; flickr.com http://bit.ly/1Sz2HCO CCBY 2.0

DataONE
Data Observation Network for Earth

WILEY

Focus group outputs

‘Data’ is an ambiguous term

Most were unaware of funder or other policies relating to data

Generational differences impact attitudes and approaches to sharing data

Peer review is the most challenging part of the publishing process

The survey

Survey was deployed by email 7-21 March 2014

Sent to 90,000 individuals who had at least one article published in a Wiley-published journal during 2013

5x $100 Amazon vouchers as an incentive

Have you worked on a research project that produced data in the last 2 years?

DataONE
Data Observation Network for Earth

WILEY

1. DEMOGRAPHICS, DATA PRODUCTION AND KNOWLEDGE OF DATA SHARING

DataONE
Data Observation Network for Earth

WILEY

DataONE
Data Observation Network for Earth

WILEY

75%

University or college

11%

Research institute

3% each

Industrial/commercial

Government agency

Medical institute

2% each

Hospital

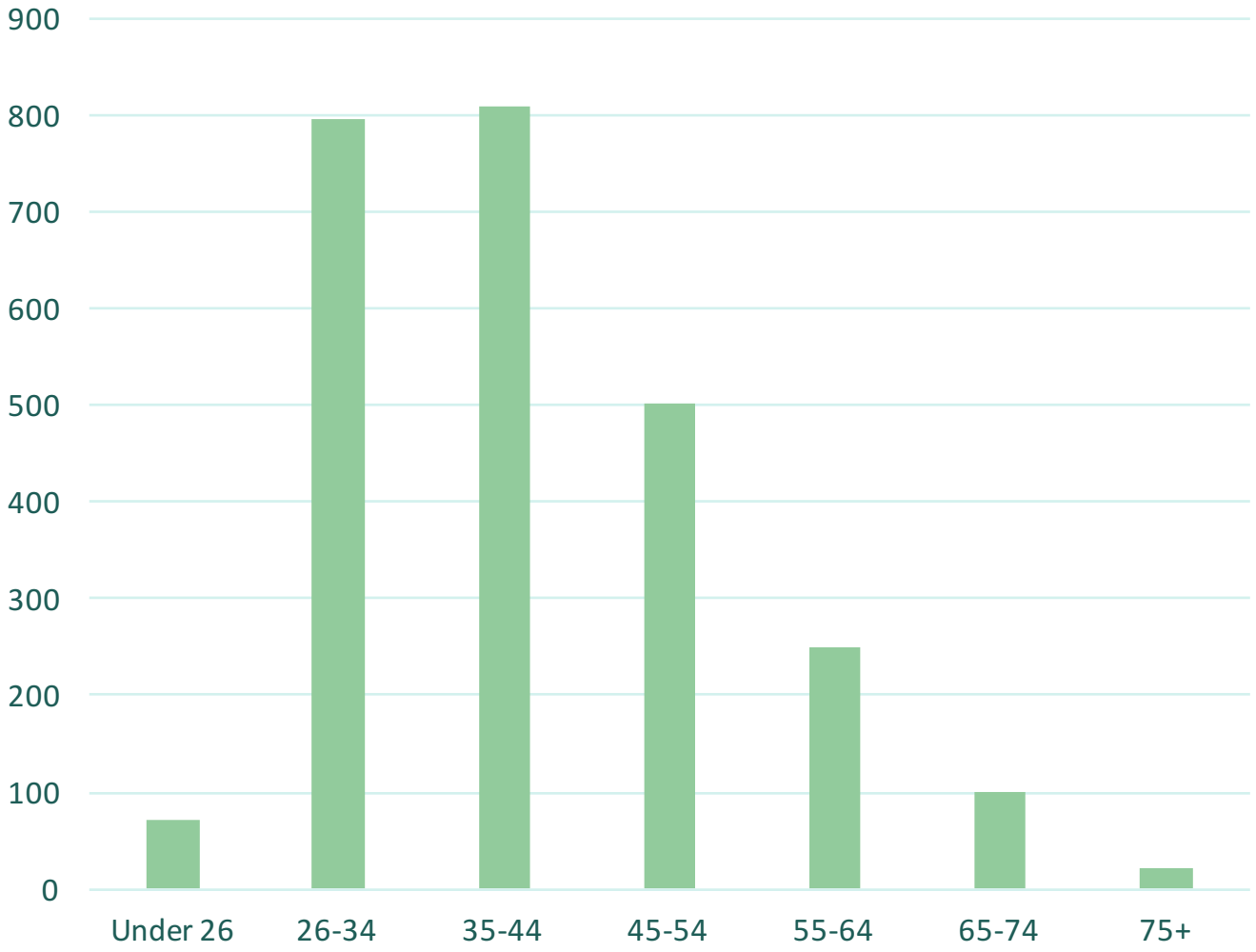
Other (NGO, non-profit research org, private researcher, consultancy)

DataONE
Data Observation Network for Earth

WILEY

Age profile

(before qualifying question)



DataONE
Data Observation Network for Earth

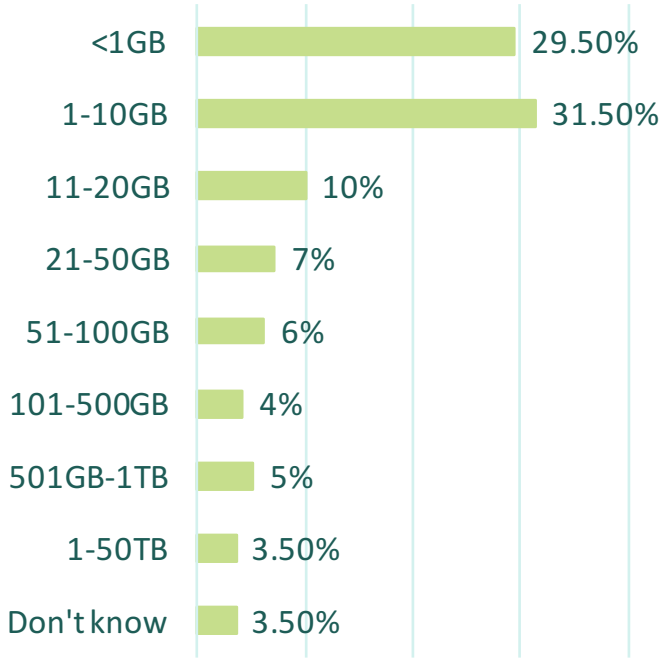
WILEY

Data production

File type	*n*
Tabular data (e.g. .csv, .xls, .txt)	1,767
2-dimensional images	807
Code and models	460
Interview transcripts	298
Relational databases	254
3-dimensional images	254
Video/audio	228
Other*	227

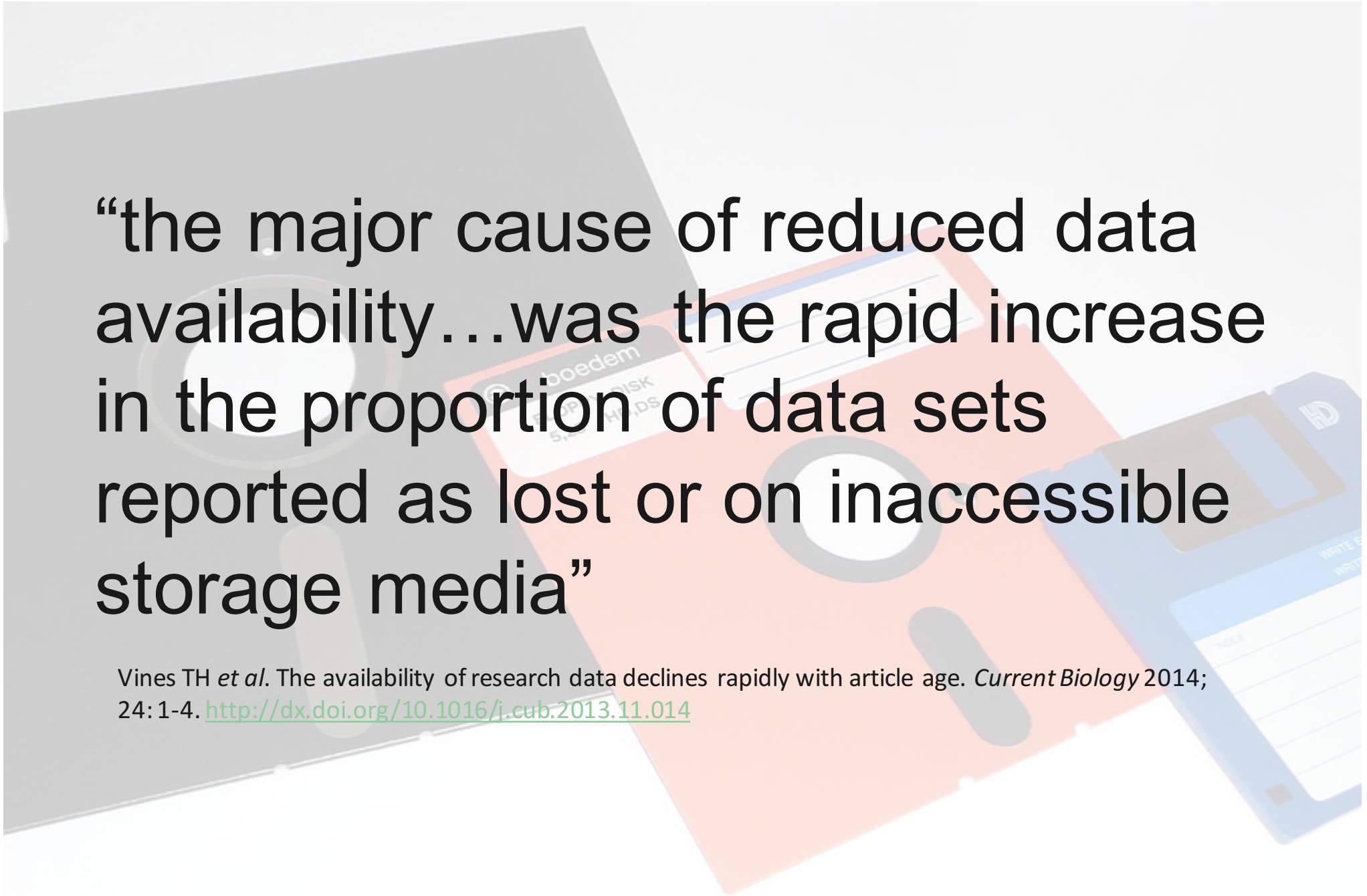
*genomic and spectroscopic data were frequent answers among 'other'

File size



DataONE
Data Observation Network for Earth

WILEY



"the major cause of reduced data availability…was the rapid increase in the proportion of data sets reported as lost or on inaccessible storage media"

Vines TH *et al*. The availability of research data declines rapidly with article age. *Current Biology* 2014; 24: 1-4. http://dx.doi.org/10.1016/j.cub.2013.11.014

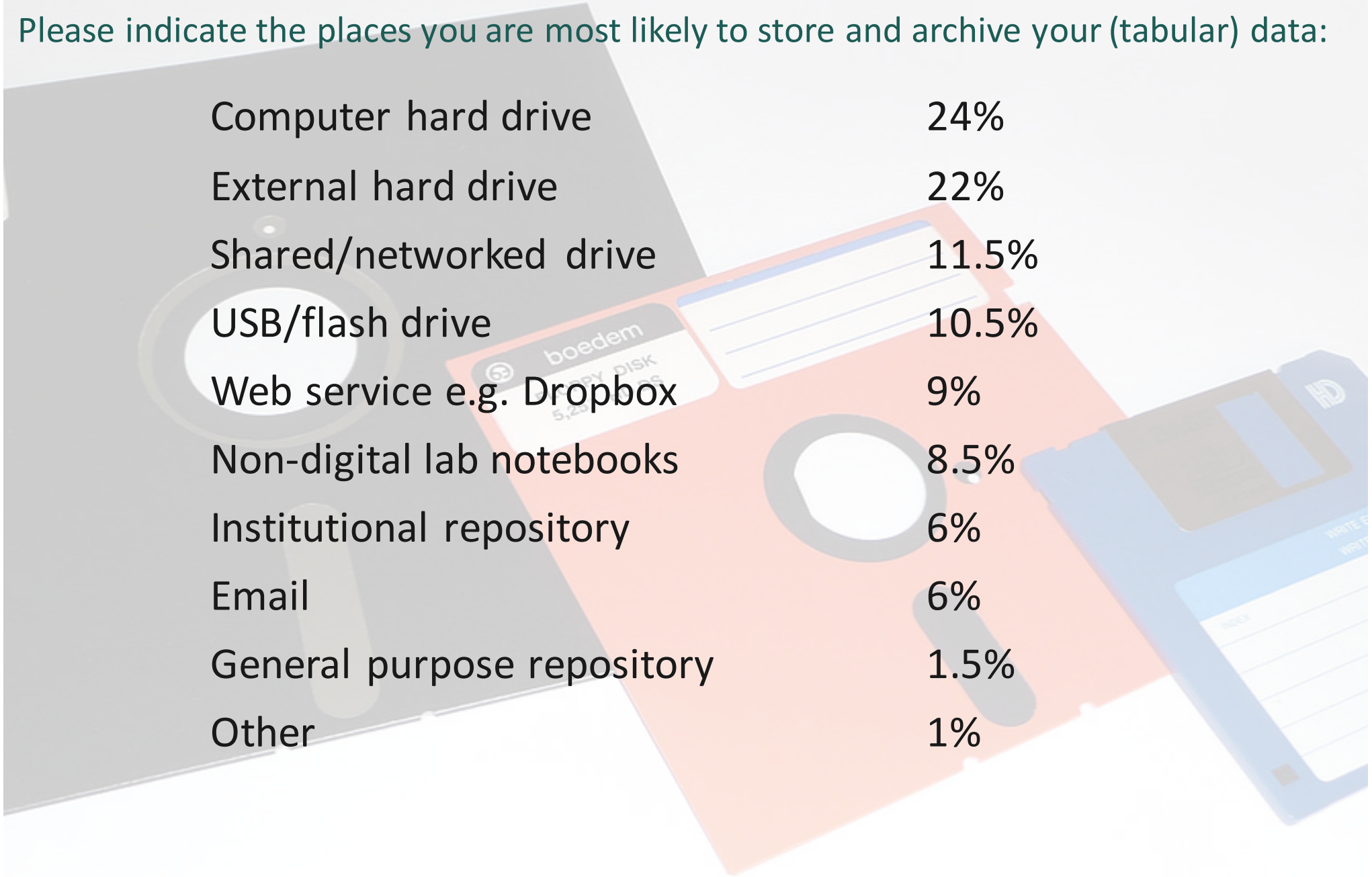
Picture credit: George Chernilevsky/Wikipedia

DataONE
Data Observation Network for Earth

WILEY

Please indicate the places you are most likely to store and archive your (tabular) data:

Computer hard drive	24%
External hard drive	22%
Shared/networked drive	11.5%
USB/flash drive	10.5%
Web service e.g. Dropbox	9%
Non-digital lab notebooks	8.5%
Institutional repository	6%
Email	6%
General purpose repository	1.5%
Other	1%



Picture credit: George Chernilevsky/Wikipedia

2. FUNDING AND FUNDERS

- Is your research currently funded?
- Does your funder require a data management plan?
- Does your funder require you to share data publicly?

Daniel Kulinski/Getty Images

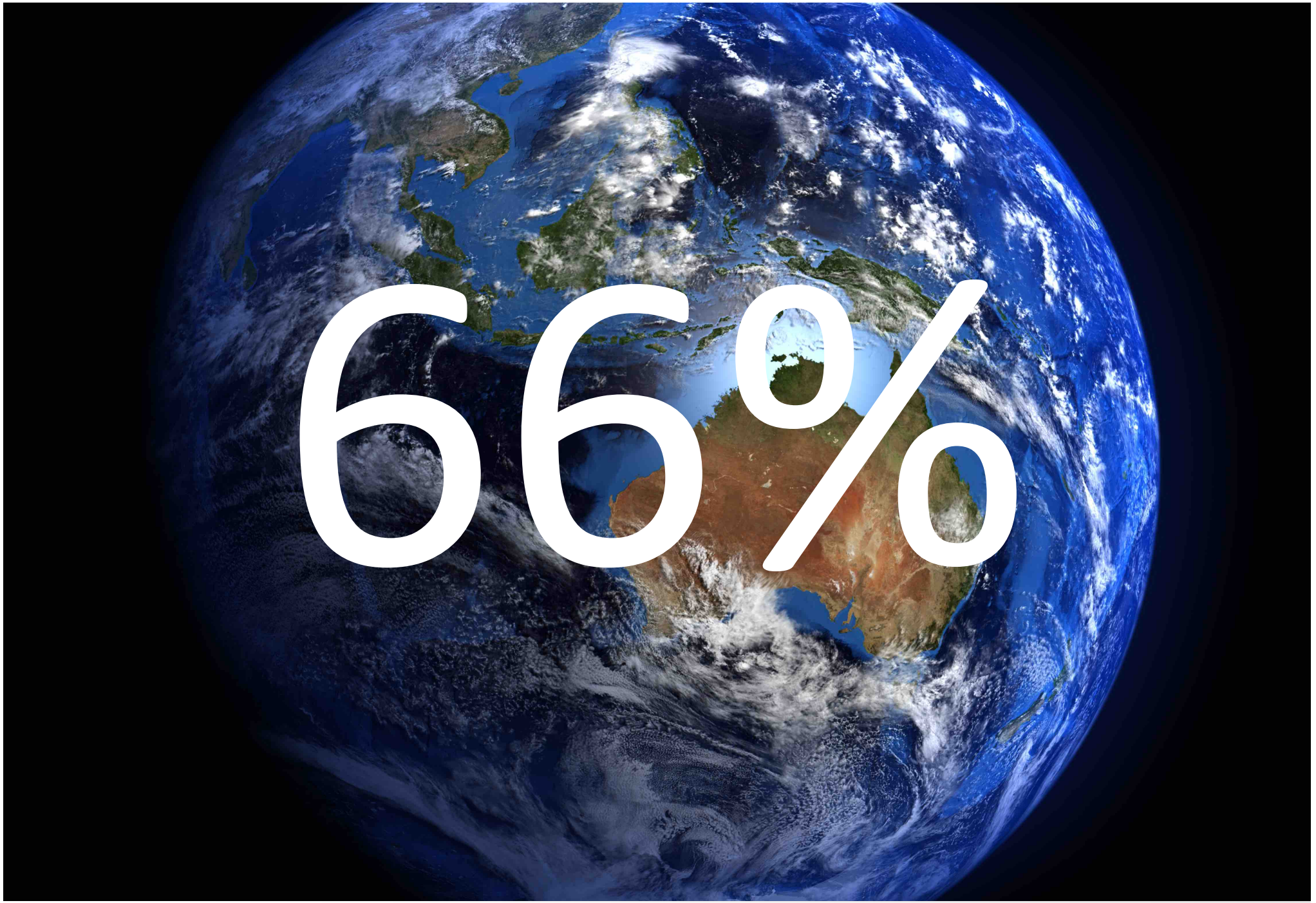
DataONE
Data Observation Network for Earth

WILEY

3. CURRENT PRACTICES AND ATTITUDES TO DATA SHARING

DataONE
Data Observation Network for Earth

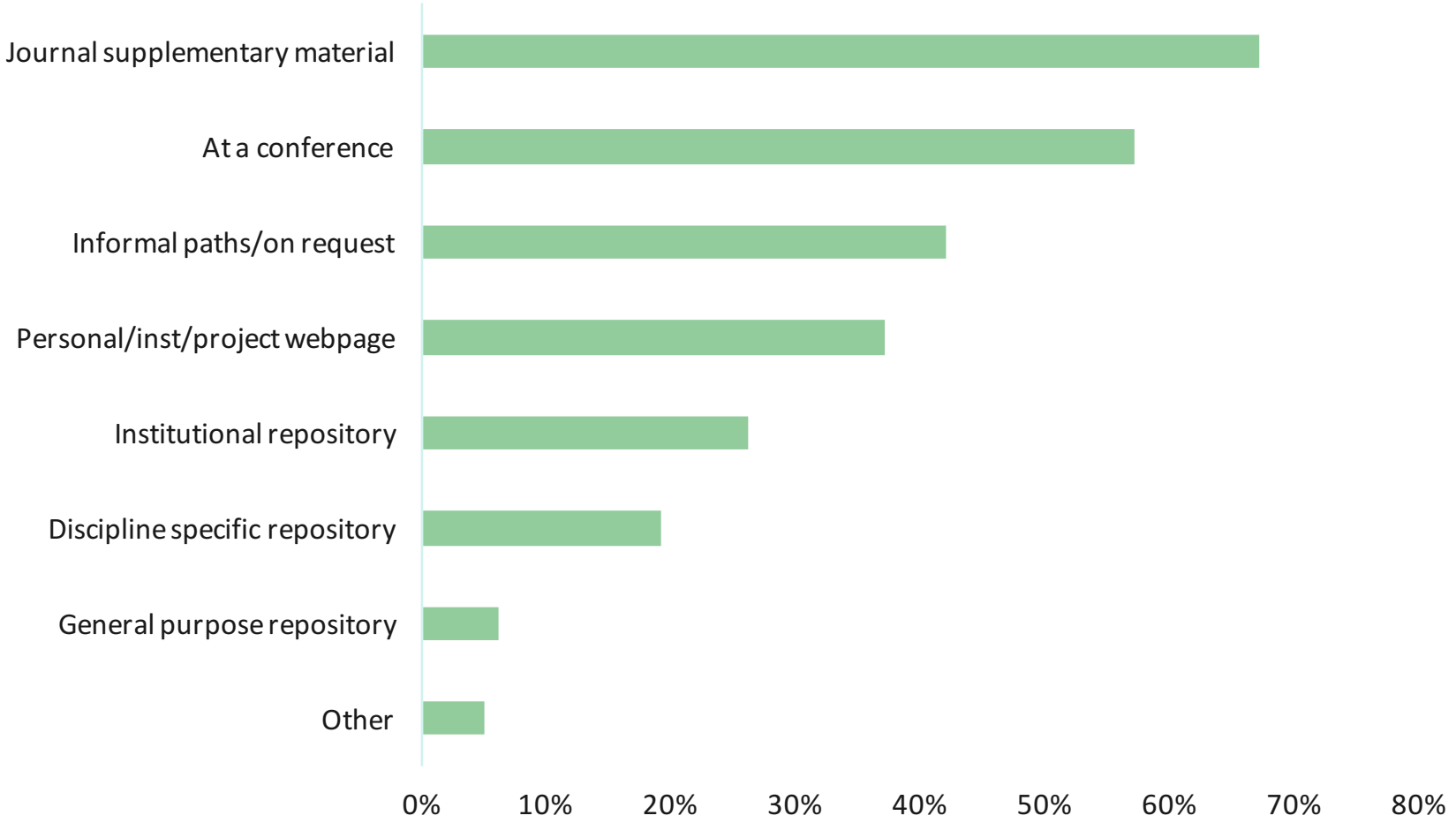
WILEY



DataONE
Data Observation Network for Earth

WILEY

Where sharing takes place



DataONE
Data Observation Network for Earth

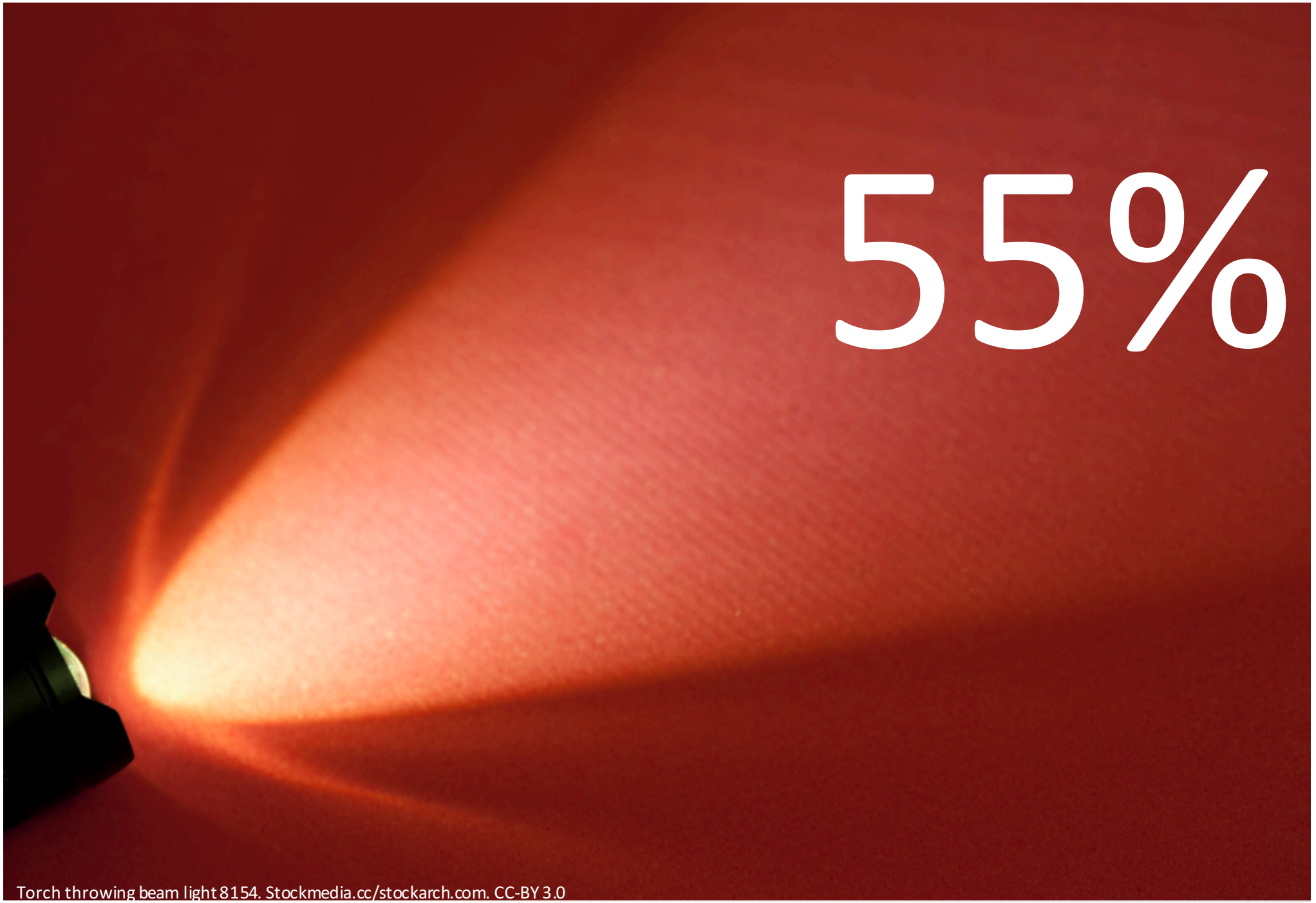
WILEY

57%

DataONE
Data Observation Network for Earth

Picture credit: Robert Churchill/Stockphoto

WILEY



Torch throwing beam light 8154. Stockmedia.cc/stockarch.com. CC-BY 3.0

DataONE
Data Observation Network for Earth

WILEY

DRYAD

About For researchers For organizations Contact us Log in Sign up

Joint Data Archiving Policy (JDAP)

The Joint Data Archiving Policy (JDAP) describes a requirement that data supporting publications be publicly available. This policy was adopted in a joint and coordinated fashion by many leading journals in the field of evolution in 2011, and JDAP has since been adopted by additional journals across various disciplines. Other journals are welcome to endorse and implement JDAP, or use it as a model.

Journals that adopt JDAP often recommend Dryad as an appropriate data repository, however, the JDAP initiative is distinct from Dryad.

JDAP consists of the following text:

> [Journal] requires, as a condition for publication, that data supporting the results in the paper should be archived in an appropriate public archive, such as [list approved archives here]. Data are important products of the scientific enterprise, and they should be preserved and usable for decades in the future. Authors may elect to have the data publicly available at time of publication, or, if the technology of the archive allows, may opt to embargo access to the data for a period up to a year after publication. Exceptions may be granted at the discretion of the editor, especially for sensitive information such as human subject data or the location of endangered species.

View recommended elements and examples of journal data policies.

Representative editorials from Dryad Partner journals

- Coulson, T. and B. Sheldon. 2014. Archive your data!. *Animal Ecology In Focus.* https://journalofanimalecology.wordpress.com/2014/11/21/archive-your-data/
- Fox, C. W., Irschick, D. J., Knapp, A. K., Thompson, K., Baker, I., and Meyer, J. 2014

Submit data now

How and why?

Search for data

Enter keyword, DOI, etc. Go

Advanced search

Be part of Dryad

We encourage organizations to:

Become a member

Sponsor data publishing fees

Integrate your journal(s), or

All of the above

42%

DataONE Data Observation Network for Earth

WILEY

Other motivating factors

Transparency and re-use – 37%

Personal trust in requestor – 30%

Discoverability and accessibility – 25%

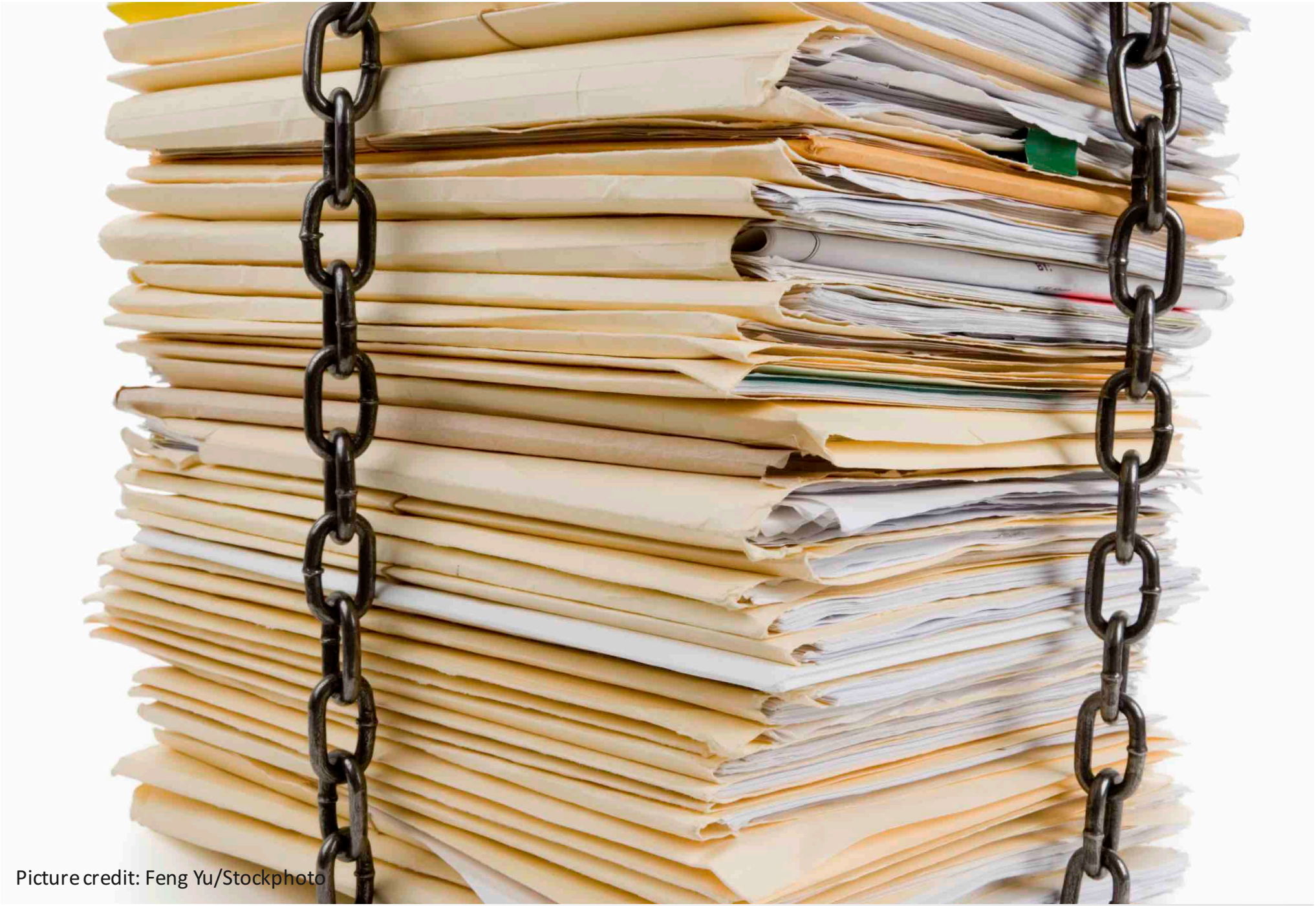
Funder requirement – 23%

Institutional requirement – 18%

Preservation of data – 13%

Freedom of information request – 13%

Other – 2%



Picture credit: Feng Yu/Stockphoto

DataONE
Data Observation Network for Earth

WILEY

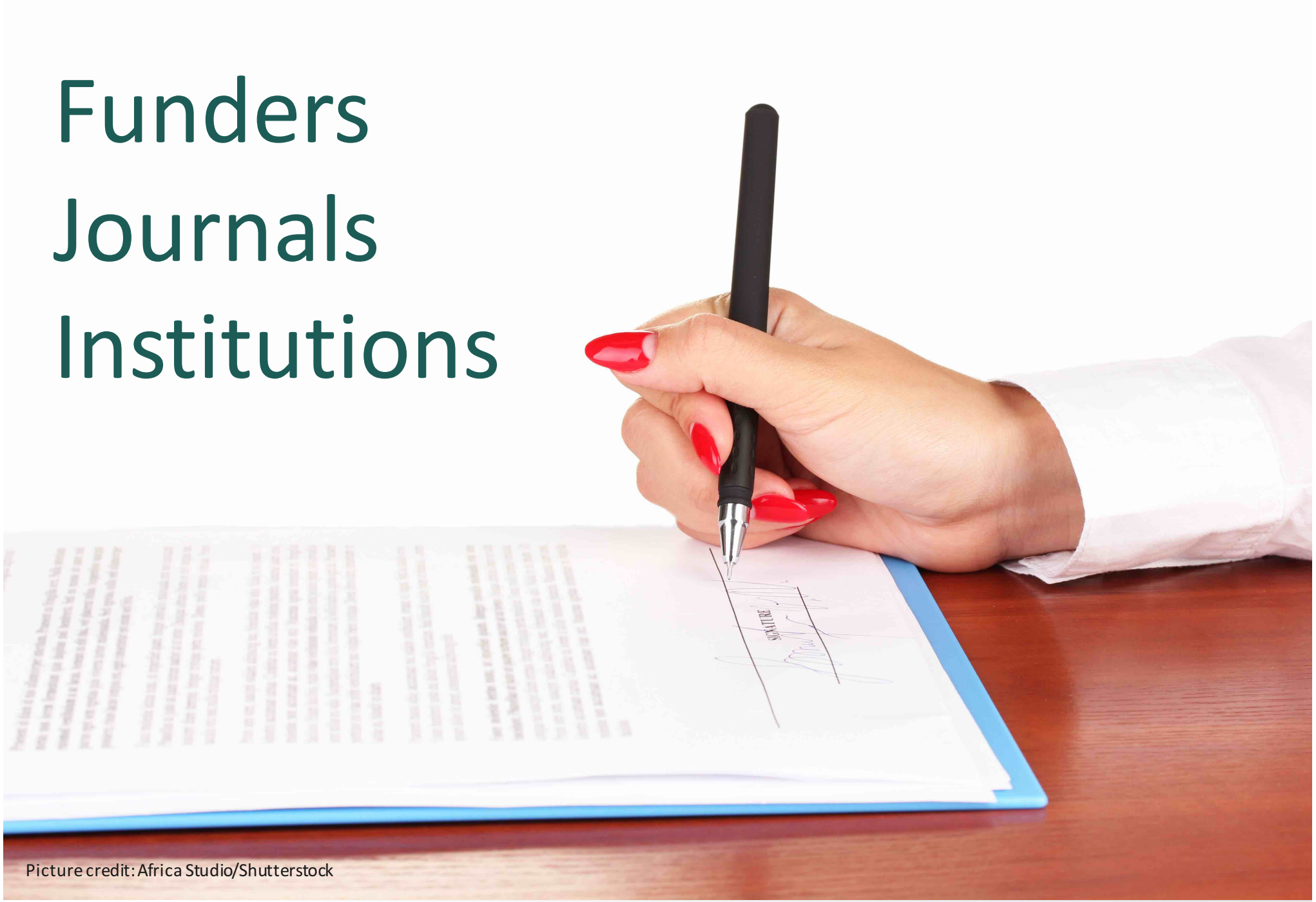
Other barriers to sharing

Never shared		Has shared
2	Funder/institution doesn't require sharing	7=
3	Concerned my research will be scooped	2
4	Concerned about mis-representation or mis-use	3
5	Ethical concerns	5
6	I am concerned about being given proper credit/attrib	4
7	I did not know where to share my data	11
8	Insufficient time or resources	6
9	I did not know how to share my data	12
10	I did not consider the data to be relevant	7=
11	I did not consider it to be my responsibility	10
12	Lack of funding	7=
13	Other	13

DataONE
Data Observation Network for Earth

WILEY

Funders
Journals
Institutions



Picture credit: Africa Studio/Shutterstock

DataONE
Data Observation Network for Earth

WILEY

Impact of this survey

- Significantly larger number of journals requiring data sharing (within weeks)
- New service (partnered with figshare) integrates data upload with peer review
- Data accessibility statement automated
- With more to come

DataONE
Data Observation Network for Earth

WILEY

Thank you

liz.ferguson@wiley.com
@lfliz

DataONE
Data Observation Network for Earth