



Transforming Open Responsible Research
and Innovation through CHARM



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CHARM-EU Open Science Day

Balázs Aczél
June 9, 2023



Trinity College Dublin
Coláiste na Tríonóide, Baile Átha Cliath
The University of Dublin



Utrecht
University



EÖTVÖS LORÁND
UNIVERSITY | BUDAPEST



UNIVERSITÉ DE
MONTPELLIER

Why Open Science?



~~Trust me~~
Show me

prove (v.) from Old French
„show; convince; put to test”

evidence (n.) from Latin „vivid
presentation”



1657



Commentary | Published: 30 April 1992

The growing inaccessibility of science

Donald P. Hayes

Nature 356, 739–740(1992) | [Cite this article](#)

1036 Accesses | 44 Citations | 29 Altmetric | [Metrics](#)

That science has become more difficult for nonspecialists to understand is a truth universally acknowledged. Here is a measure of the extent of the process.

Access options

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access on ReadCube.

from **\$8.99**

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Why Open Science?

Open Access

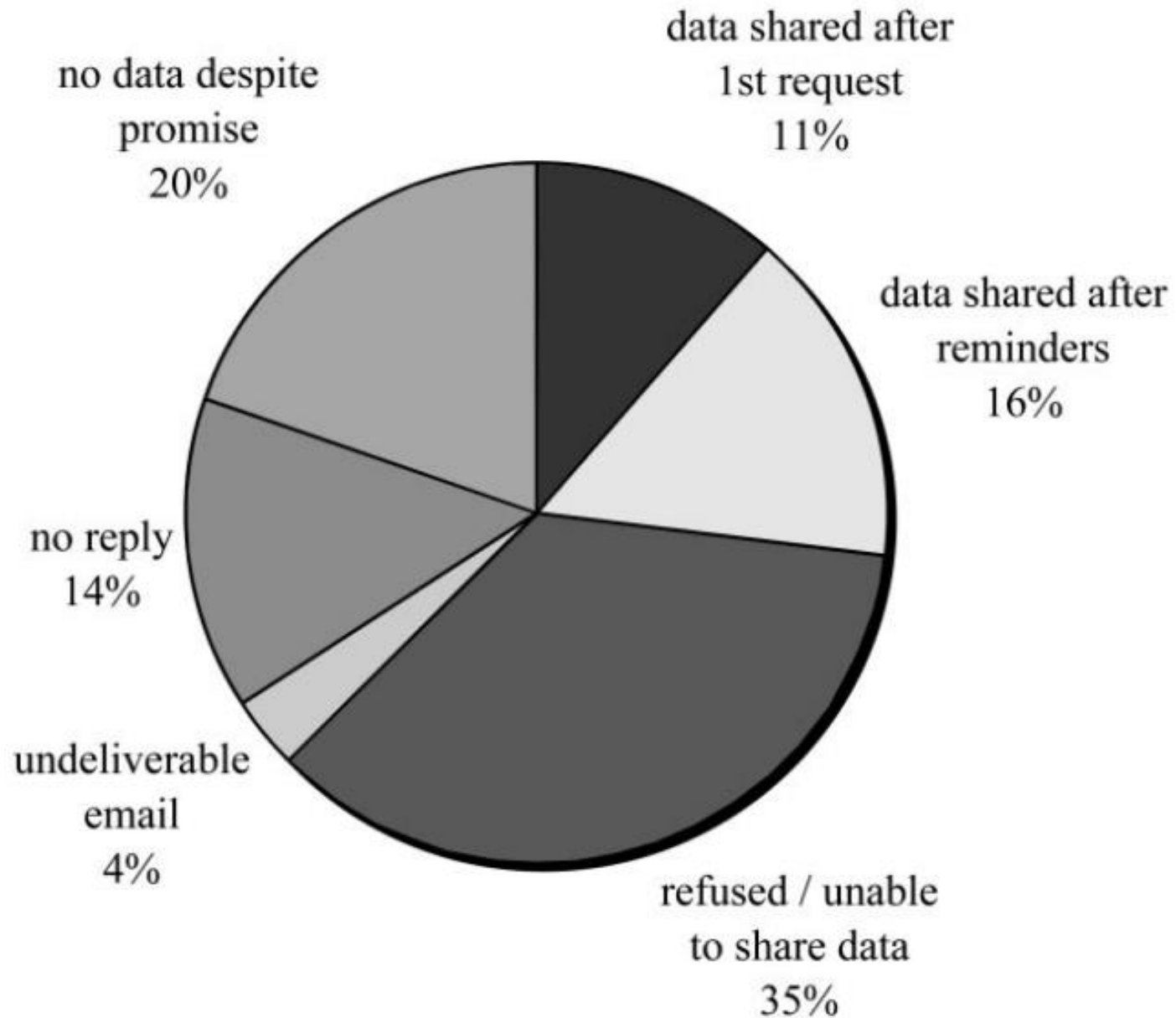
no more than 28% of the scholarly literature is open access (Piwowar et al., 2018)

Open Access Fees

In 2018, no fee was more than US\$913 (Crawford, 2019)

Today: PNAS US\$4,975, Nature US\$11,390

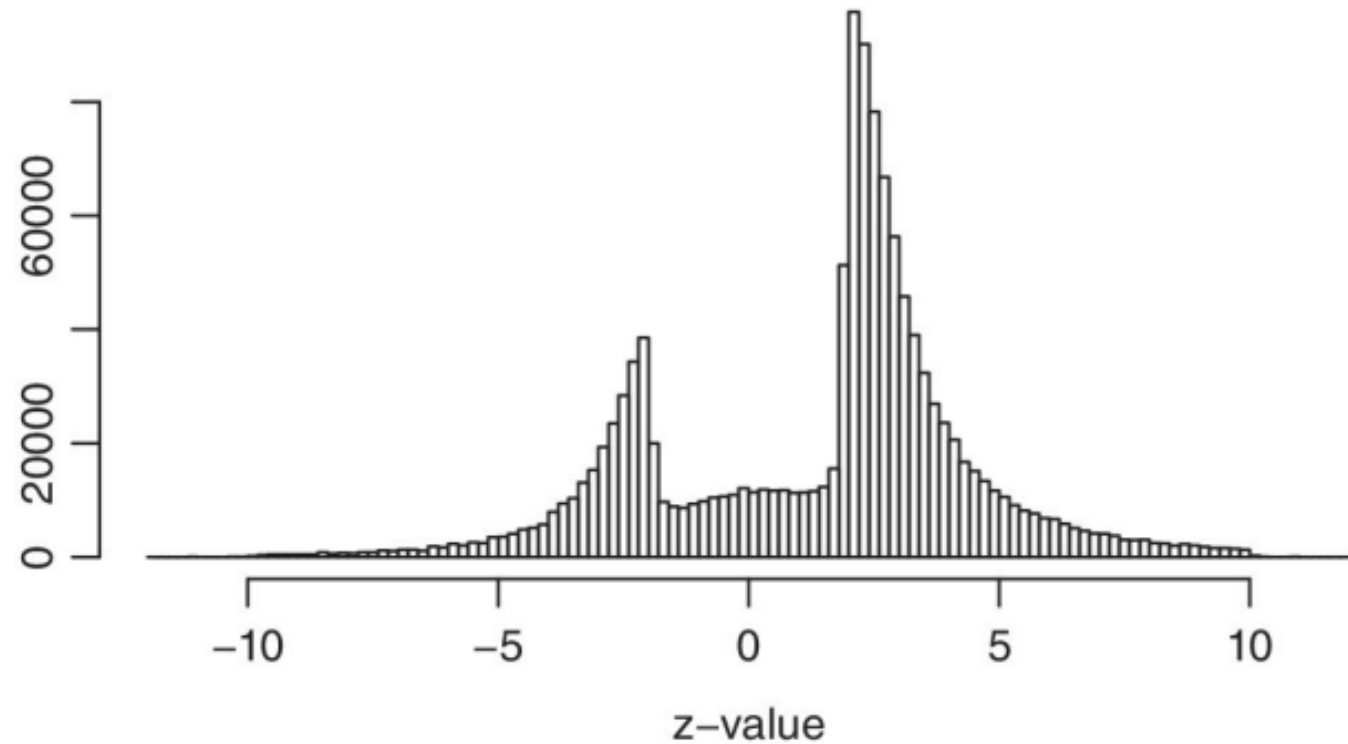




Wicherts, J. M., Borsboom, D., Kats, J., & Molenaar, D. (2006). The poor availability of psychological research data for reanalysis. *American psychologist*, 61(7), 726-728.

Why Open Science?

Research Integrity



The distribution of more than one million z-values from Medline (1976–2019). The figure demonstrates the relatively low frequency of non-significant z-values compared to the significant ones. Adopted from van Zwet & Cator (2021). License: CC BY-NC-ND 4.0



WP6.1 - Open Science Scope Survey

8 pillars of Open Science

- FAIR Data,
- Research Integrity,
- Next Generation Metrics,
- Future of Scholarly Communication,
- Citizen Science,
- Education and Skills,
- Rewards and Initiatives,
- Infrastructure.



WP6.1 - Open Science Scope Survey

Survey section	Content	Survey items
Cultural change/ Leadership	Exploring whether and how the university developed a programme of cultural change to support the changes in principle and practice towards Open Science.	4-18
The future of scholarly publishing	Surveying the planning, advocacy, and policies of the university towards fully Open Access academic publishing.	19-32
FAIR data	Exploring the institutional policies, institutional support, infrastructure, and assessment aspects of research practices to make scientific data Findable, Accessible, Interoperable, and Reusable.	33-41
The European Open Science Cloud (Infrastructure and support services)	Surveying the universities' involvement in the EOSC association and the usage of data repositories and support services.	42-45
Education and skills	Questions concentrating on training, incentivisation, and assessment of Open Science skills and practices.	46-51
Recognition and rewards	Exploring the recognition and rewarding of Open Science practices in recruitment, performance evaluation, and career advancement policies.	52-55
Next-generation metrics	Exploring whether the university uses or developed alternative metrics to citation and journal impact counts whenever assessing researchers' performance.	56-61
Research integrity	Surveying whether the university adopted the European Charter for Researchers and whether the institution entails Open Science practices to help researchers acting honestly, reliably, respectfully and are accountable for their actions.	62-63
Public participation in research (Citizen Science)	Policies, communications, and assessment of the role that the public has in scientific research.	64-74
Resourcing/ Benchmarking	Collecting data on institutional resources in staff support towards implementing Open Science practices.	75-95
Limitations	Identifying the factors that prevent the transition to Open Science.	96



WP6.1 – Gap Analysis

		Trinity College Dublin	University of Barcelona	University of Montpellier	Utrecht University	Eötvös Loránd University
Cultural change/ Leadership						
Leadership	Has your university appointed a senior manager to lead Open Science approaches across all eight pillars of the Open Science?	Green	Green	Yellow	Green	Red
HR	Has your university developed a programme of cultural change, which is necessary to support the changes in principle and practice which Open Science brings?	Yellow	Red	Green	Green	Red
	Does the strategy of the university contain the philosophy of Open Science?	Green	Red	Green	Green	Yellow
Policy	Is there a National Plan/Strategy in your country?	Green	Yellow	Green	Green	Yellow
Policy	Is there an Open Science policy in your university or there are several policies (Open Access, Research Data Management etc.)?	Yellow	Yellow	Green	Green	Yellow
Advocacy	Does your university have advocacy programmes to identify the benefits of Open Science approaches, whilst being realistic about the challenges?	Yellow	Red	Yellow	Green	Yellow
Advocacy	Does your university communicate extensively on the 'why' of Open Science?	Yellow	Red	Yellow	Green	Yellow
Advocacy	Does your university promote the creation and use of Open Educational Resources?	Yellow	Green	Red	Green	Yellow
Communication	Does your university have communication strategies which enable the whole university body to become familiar with Open Science practices?	Yellow	Green	Yellow	Green	Red
	Is there an Open Science Community to boost the Open Science movement?	Red	Yellow	Yellow	Green	Yellow
	Do the formal bodies (executive Board, deans, directors) within the university act as role models for Open Science?	Red	Yellow	Yellow	Green	Yellow
	Are there funding sources used in your institution for supporting the following open science areas?	Red	Green	Green	Green	Yellow
	How would you assess the level of embeddedness of open science and its different areas in your institution?	Yellow	Green	Green	Green	Green

Action list

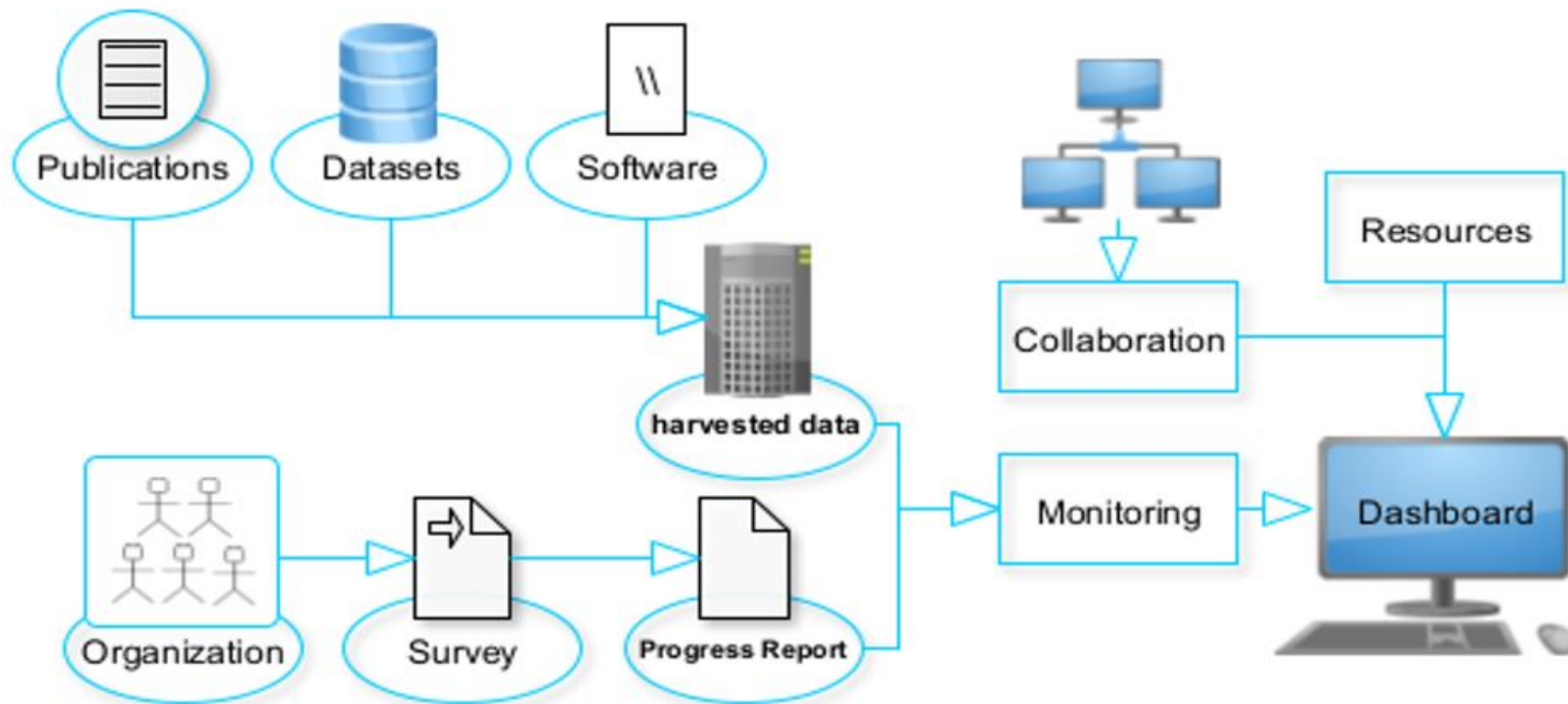
Where missing, universities should

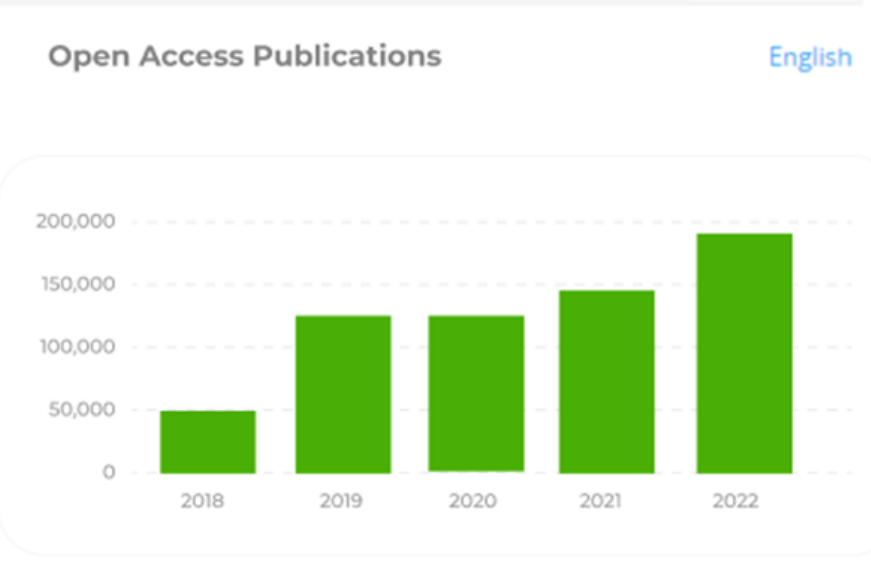
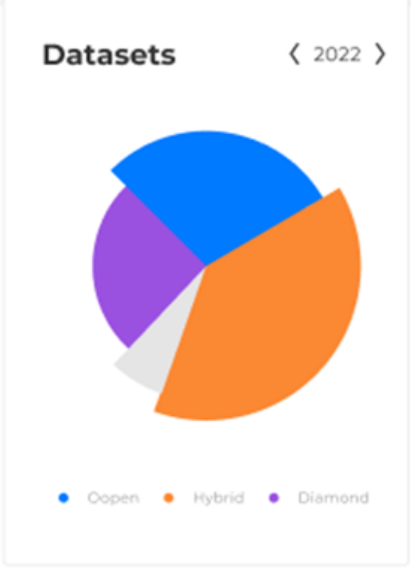
- make full open access part of the university's strategy
- establish a monitoring system for compliance with open access
- facilitate interaction among the stakeholders to work together in supporting open access mandates
- widely advocate the share of research manuscripts as preprints
- develop a system to monitor the publications published in open access or deposited in the institutes repository
- prepare your institute for the implementation of Plan S by adjusting article licensing, training staff in webinars, training sessions and through information materials
- provide support to researchers in order to make their research publications available in open access: institutional repositories, trainings on open access publishing, assistance campaigns, free university journals, and customer service
- advocate the sharing of research data, code, and materials and provide guidance for their implementation.



WP6.2 - Deliverables

Open Science Dashboard





< October > < 2022 >

S	M	T	W	T	F	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

Cancel Filter

Monday, Oct 21

ELTE - Open Science workshop
10:00 - Introduction lecture
12:30 - Lunch
16:00 - Data managing workshop
19:00 - Round table, Hall 2

Wednesday, Oct 24

Barcelona - Open Code Webinar
10:00 - Hands-on training
12:30 - Lunch
14:00 - Advanced code workshop

- Data Repositories
- Citizen Science
- Open Access
- Open Science Practices
- Open Education Materials
- EU Documents
- Research Integrity
- Networking
- External resources



WP9 Action Plans & Pilots

Open Science Training

This alliance-level training is based on results of WP6 Open Science Scoping Report that identified the gaps and good practices present in the members of the Alliance.

Open Science Rewards and Recognition Toolbox

The Toolbox will be built on the realities of current institutional reporting capacities across the partnership. Additional indicators for Open Education Resources (OERs) and Open Education Practices (OEP) will be considered.



TORCH

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**MOLTES GRÀCIES
MUCHAS GRACIAS
FÒRÇA GRÀCIAS
MANY THANKS
GO RAIBH MAITH AGAT
HEEL ERG BEDANKT
MERCİ BEAUCOUP
NAGYON KÖSZÖNÖM
DANKE SCHÖN!**