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Open Data: Benefits and Challenges

Level 1, presentation 1

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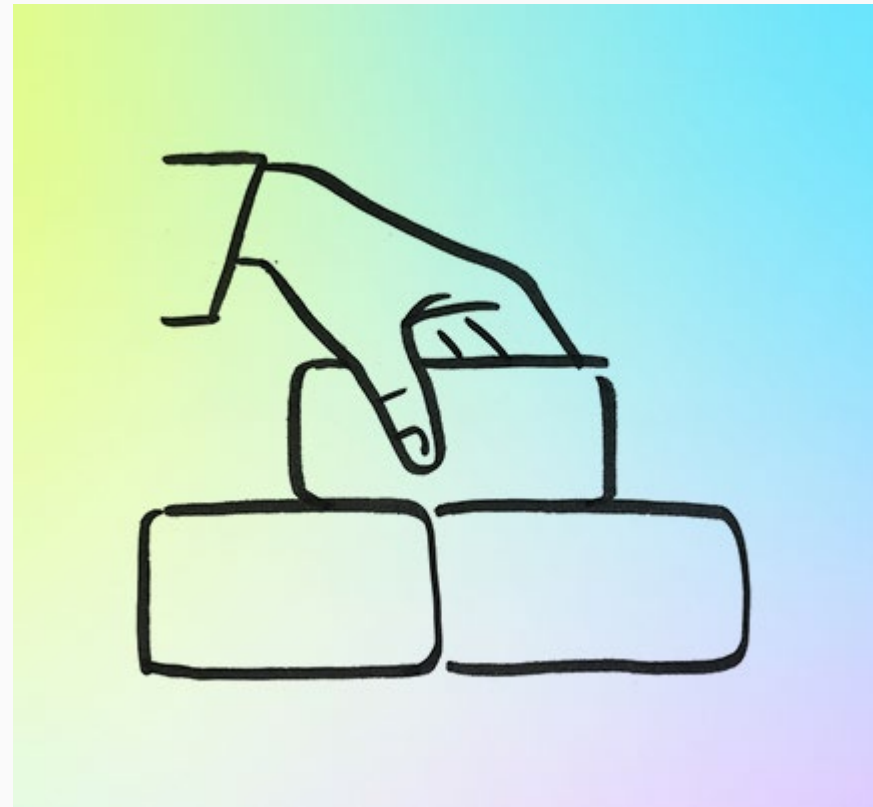
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TRAINERS

Agenda

- Introduction Open Data
- Exercises based on prereadings
- African initiatives & Open Data
- Future Trends



OPEN DATA

Open Data Handbook

Open data is data that can be freely used, re-used and redistributed by anyone - subject only, at most, to the requirement to attribute and share-alike.

Access

Available (on the internet) to all on demand

Participation

Everyone must be able to use, reuse and redistribute

Transparency

Providing information about data generation/collection

Reuse/distribution

Provided under terms that permit reuse and redistribution

Interoperability

Interoperability with other data, machine readable formats

~~OPEN DATA~~

- Data availability decreases by 17% per year
- Chance of email address working decreases by 7% per year

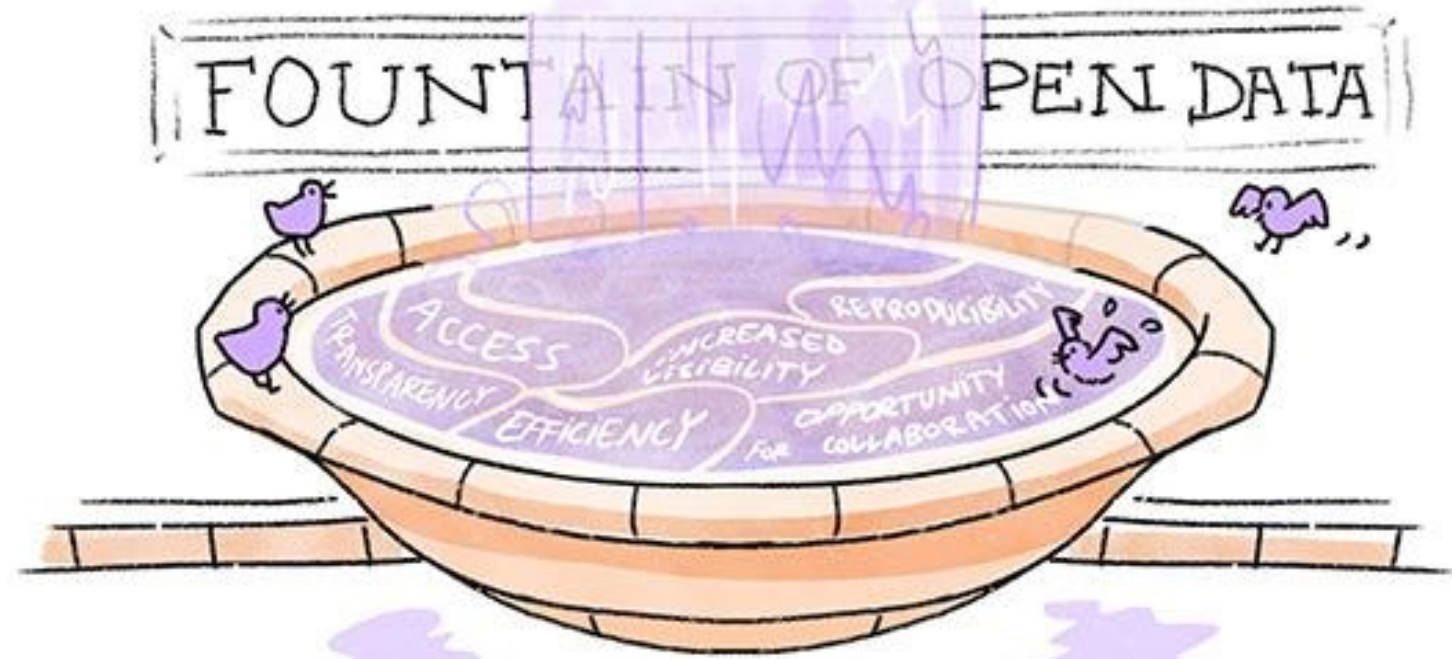
'research data cannot be reliably preserved by individual researchers' [Vines et al. 2014](#)

"We received no response to 41.3% of our data requests" - [Tedersoo et al. 2021](#)

[More %](#)



<https://knowyourmeme.com/memes/agnes-harkness-winking>



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Scriberia

BENEFITS OF OPEN DATA

- Prevent data loss/unfindable files (promotes institutional memories)
- Increased citations ([Colavizza et al. 2020](#); [Christensen et al. 2019](#); [Piwowar et al. 2007](#); [Piwowar and Vision 2013](#), [Leitner et al. 2016](#))
- Facilitates collaboration
- Increases quality of scientific practice by increasing reproducibility and transparency of research
- Cost/time efficient (see [Cost of not having FAIR research data](#))
- Prevents retractions
- Reduces duplication efforts and facilitates data reuse ([Martin et al. 2022](#))
- Provides resources for training and education
- Meeting institutional/funder/industrial requirements
- Encourages innovation through reuse of data

PRE-READING

Challenges

Hidden concerns of sharing research data by
low/middle-income country scientists

<https://doi.org/10.1080/11287462.2018.1441780>



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Benefits

Five selfish reasons to work reproducibly

<https://doi.org/10.1186/s13059-015-0850-7>

Exercise 1

What is a **challenge** from the readings that you relate to?

What is still a **remaining challenge** for you after reading the readings?



Exercise 2

What is a **benefit** of Open Data from the literature that you relate to?

What are **other benefits** you see for Open Data?





African initiatives & Open Data

See slides by Lamis & Emmanuel
for all other initiatives!!



As an African researcher and as a non-African researcher working on African topics you can submit your preprint manuscript, postprint, poster, data set, presentation or other research output.

To enable the rapid sharing,
discovery, use and reuse of African
research to the benefit of all.

Trans-African Hydro-
Meteorological
Observatory (TAHMO)



- [Morroco open data portal](#)
- [Kenya open data portal](#)
- [Nigeria open data portal](#)
- [Sierra Leon open data portal](#)
- [Burkina Faso open data portal](#)
- [Senegal open data portal](#)
- [Ghana open data portal](#)
- [Budgit \(Nigeria\)](#)

African Open Government Data Initiatives



Continental Platform

In this model, diamond open access is a community-based publishing alternative model that disrupts the commercial publishing system.

<https://lib.uct.ac.za/openaccess/services/continental-platform>

[Raju and de Lillie 2024](#), [Claassen 2024](#)



IMPORTANCE OF OPEN DATA TO AFRICAN RESEARCHERS

Increase research impact - Until now, most research data ends on a local hard disk once the researcher publishes a paper on it. Open data increases the visibility and recognition within the global research community

Foster inclusivity and equity- It breaks barriers to information and allow researchers from the region to participate in global research

Promotes trust, integrity, transparency and transparency- It allows other researchers to scrutinize results and reproduce them. This increase trust and integrity for the researcher.

Endears evidence based decision making - it helps in decision making in for policy makers

TRENDS AND FUTURE

Before - The norms had always been secrecy when it comes to research data outputs to prevent research work being stolen by others.

Now - Awareness about open data is getting tractions with national and institutional open data policy at various stages in the continent

Future - FAIR and CARE principles of open data would be institutionalized with open data policy and framework to improved collaborations, data reuse, improved funding, and innovation

RESOURCES

- [“How can you make research data accessible?”](#) by Esther Plomp
- [The Turing Way](#) – Open Research/Reproducible Research
- [Open Data](#) by OpenScience

NEXT SESSION

- Open Data: Principles & Tools (29 May)
 - CARE
 - FAIR
 - Data Management Plans

THANK YOU! QUESTIONS?



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CREDITS

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HAPPY DESIGNING!
