F.O.R.M.

OPEN SCIENCE RESOURCES

MAXIMISING OPEN DATA

As the open access movement championed by funders, policymakers, researchers, and often open science advocates continues to grow, making your data open and accessible can significantly enhance the impact of your work. By understanding what Open Data is, following the FAIR principles and leveraging open repositories to make your research data available for use, you can make a significant impact, drive innovation, and support a more transparent and collaborative research environment.

BENEFITS OF OPEN DATA

Choosing to share your data openly has multiple benefits:

BOOST CREDIBILITY

Open data allows others to replicate and validate your findings, which can enhance the reliability and trustworthiness of your work.

Linking your data to your articles and using detailed metadata makes your research more discoverable and usable.

INCREASE VISIBILITY

ADVANCE YOUR CAREER

Sharing data openly can lead to more recognition and collaboration opportunities, which can be valuable for your career growth.

Open data provides a resource for others to learn from and teach with, which can enrich their educational experience.

SUPPORT LEARNING AND TEACHING

UNDERSTANDING FAIR DATA PRINCIPLES

As an author you can maximise the impact of your research data through open data practices, guided by the FAIR Data principles. These principles help ensure that your data is open and useful for future research:

FINDABLE

Your data should be easy to locate. This means using clear metadata and assigning persistent identifiers (PIDs), like DOI and ARKS, so people and indexing systems can easily find your data.

ACCESSIBLE

Once someone finds your data, they should be able to access it. For sensitive data, this might involve secure access protocols to protect privacy while still being open.

INTEROPERABLE

Your data should be able to work well with other datasets. This means using common formats and standards, making it easier to integrate and compare your data with others.

REUSABLE

For your data to be reused, it needs to be well-documented and meet specific standards. This will help others understand your work and build on it effectively.

GETTING STARTED WITH OPEN DATA

To make open data part of your research, start with a Data Management Plan (DMP). This plan should detail how you will handle, store, and share your data throughout your project. Regularly updating your DMP will help ensure your data remains accessible and useful. By planning ahead and following best practices for data sharing, you can improve the quality and impact of your research and contribute to a culture of openness and collaboration in science.

1 Prepare Your Data for Sharing
Make your data as open as possible while addressing any ethical or security concerns. Anonymize data if necessary, and ensure it meets relevant standards. Label files according to best practices and include any required software details.

2 Select a Repository
Deposit your data in a stable, recognized open repository, ideally under a Creative Commons Zero License (CC0 license) which allows others to use, modify, and share your data without any restrictions, maximising its potential for reuse and impact. Ensure you choose a repository that aligns with your research community or data type.

3 Add a Data Availability Statement
Include a detailed data availability statement in your article to guide reviewers and readers of how to access your data.

4 Link Your Datasets to Your Article
After publication, update the repository with the article's DOI. This linkage will ensure your data and article are connected, making it easier for others to cite your work.

THE POWER OF DATA REPOSITORIES

Storing your data in a public repository can amplify its impact. Here's why:

Increased Discoverability. Repositories like Dryad, Figshare, and Zenodo make your data easier to find with detailed metadata and links to related research.

Enhanced Reusability. Machine-readable formats in repositories make it simpler for others to use your data in new analyses or reviews.

Better Citations. Datasets in repositories get their own DOIs, leading to increased citations. Research has shown that articles linked to such datasets often have a higher citation rate.

RESOURCES

Learn more about how you can maximise Open Data through these selected Open Access resources:

F1000 Research: Understanding open data: Everything you need to know about making your research data open and FAIR

Open Data Watch: Maximizing access to public data: Striking the balance between "open by default" and targeted data sharing.

International Science Council: Open data in a big data world.

Forum for Open Research in MENA. (2024). Data Everywhere: Improving Transparency & Trust in the Research Community Through PIDs

ABOUT FORM:

The Forum for Open Research in MENA (FORM) is a non-profit membership organisation supporting the advancement of Open Science policies and practices in research communities and institutions across the Arab region.

Learn more by visiting us at **www.forumforopen.org**