THE LONDON SCHOOL OF ECONOMICS AND POLITICAL SCIENCE

Introduction to Open Access, Open Data and Research Impact

LSE Library

European Initiatives

European Commission

- Open Data: FAIR (Findable, Accessible, Interoperable and Re-usable data) and open data sharing should become the default for the results of EU-funded scientific research.
- European Open Science Cloud (EOSC): a 'federated ecosystem of research data infrastructures' will allow the scientific community to share and process publicly funded research results and data across borders and scientific domains.
- New Generation Metrics: New indicators must be developed to complement the conventional indicators for research quality and impact, so as to do justice to open science practices.
- Future of scholarly communication: all peer-reviewed scientific publications should be freely accessible, and the early sharing of different kinds of research outputs should be encouraged.
- Rewards: research career evaluation systems should fully acknowledge open science activities.
- Research integrity: all publicly funded research in the EU should adhere to commonly agreed standards of research integrity.
- Education and skills: all scientists in Europe should have the necessary skills and support to apply open science research routines and practices.
- Citizen science: the general public should be able to make significant contributions and be recognised as valid European science knowledge producers.

LIBER Open Science Roadmap: https://libereurope.eu/document/liber-open-science-roadmap/

The EU Open Science Policy: https://research-and-innovation.ec.europa.eu/strategy/strategy-2020-2024/our-digital-future/open-science_en

CIVICA Research Open Science Events

CIVICA RESEARCH

Book on one of our Upcoming Events

Università Bocconi MILANO	CEU CENTRAL EUROPEAN UNIVERSITY	EUI EUROPEAN UNIVERSITY INSTITUTE	Hertie School	ie UNIVERSITY
Italy	Austria	Intergovernmental	Germany	Spain
				new member as of October 2022
SNSPA	SciencesPo	SGH Warsaw School of Economics	STOCKHOLM SCHOOL OF ECONOMICS	LSE THE LONDON SCHOOL OF ECONOMICS AND POLITICAL SCIENCE
Romania	France	Poland	Sweden	United Kingdom
		new member as of October 2022		

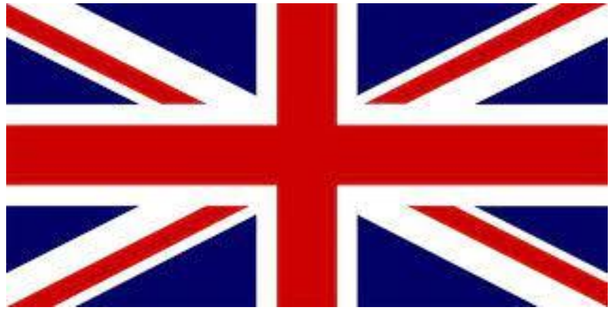
Introduction to open access

Helen Porter,
Research Support Manager, LSE

Open access: the UK landscape

- UKRI (Includes our national research councils that are major funders of UK research)
  - Immediate open access to journal articles
  - All articles published with a CC-BY Licence
  - From 2024 open access requirements expanded to all books, book chapters and edited books will

REF (Research Excellence Framework)
- Requirements apply to all academics employed on research contracts at UK Universities
- All journal articles to be made Open Access no later than 12 or 24 months after first publication
- Books expected to be included in next REF (probably 2028)



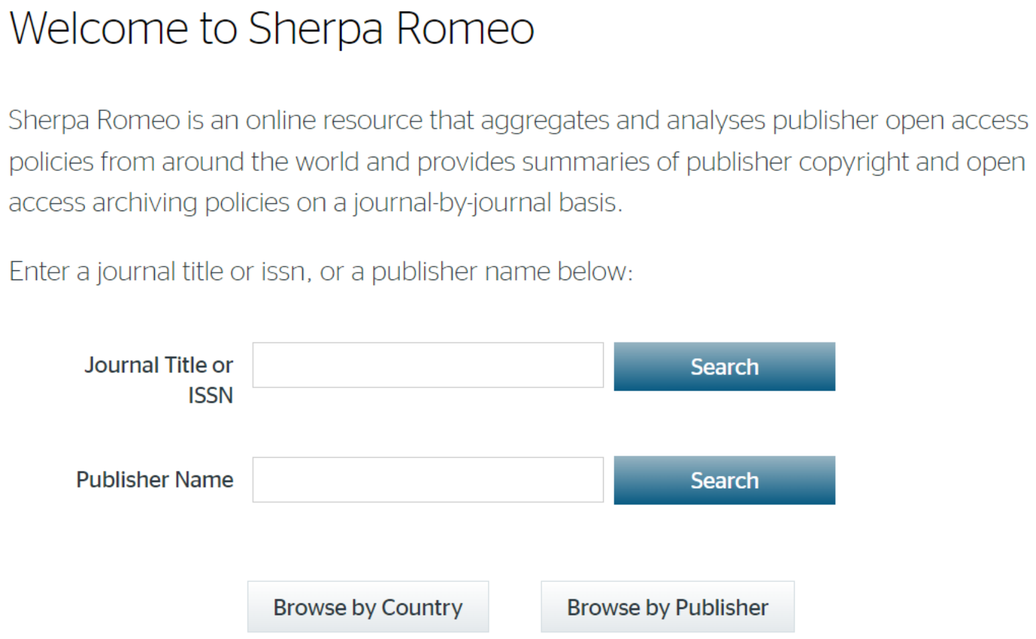
What does Open Access really mean?

Open Access is the free, immediate, online availability of research articles coupled with the rights to use these articles fully in the digital environment.

Open Access ensures that anyone can access and use these results—to turn ideas into industries and breakthroughs into better lives.

Share your outputs as early as possible

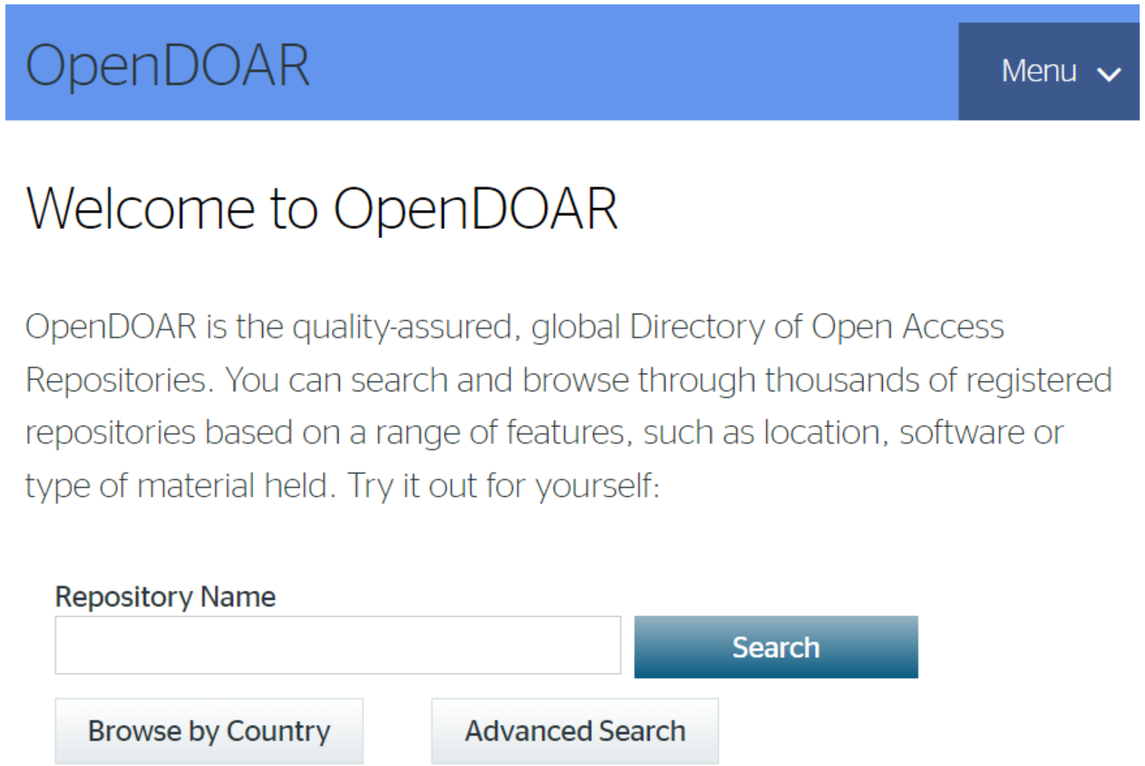
- Can you share your pre-print?
- Can you share your final accepted manuscript?
- Don’t forget about book content



Use Recognised Repositories

- A good first option is your institutional repository
- Does your funder recommend or require deposit in a particular repository?
- What are the most common subject repositories used in your research field?

- A website is not a repository
- Repositories have archiving and back up procedures
- Repositories are connected with other systems that can increase visibility of your research



Speak to Your Library or Research Office

- Many libraries have publishing deals which enable Open Access publication without a fee. Check if this is an option?
- Libraries have both an understanding of any funder requirements and can tell you which Open Access route is best for you
- Institutions may have an institutional or funder budget to pay for Open Access fees
- We can help understand your copyright in the publishing process and the rights you assign to a publisher

Jisc News

Jisc and American Psychological Association sign agreement to support open access publishing of UK research

Make use of funder policies and funds

- Think about open access when you apply for funding or are part of funded projects
- Funders will be impressed if you demonstrate a commitment to and knowledge of open practices
- Cost open access in your project proposals (many funders allow you to budget for open access costs)
- Find out if your funder has specific funds to pay for Open Access

wellcome

erc
European Research Council
Established by the European Commission

UKRI
Economic and Social Research Council

Future Directions and Going Further

- Many funders and institutions are supporting researchers to use rights retention statements in their submitted articles
- Although Open Access is a complicated landscape just now it feels like we are moving to Open Access as standard

- Can you reference open access versions in your own reference lists or bibliographies?

For the purpose of open access, the author has applied a Creative Commons Attribution (CC BY) licence (where permitted by UKRI, 'Open Government Licence' or 'Creative Commons Attribution Noderivatives (CC BY-ND) licence' may be stated instead) to any Author Accepted Manuscript version arising'

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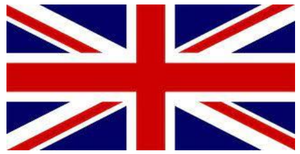
Introduction to open data

Hannah Boroudjou, Research Data Librarian, LSE

What is open data?

- Open data refers to the principle of making research data freely available online for anyone to download and reuse.
  - It is in the public interest that data produced by publicly funded research grants be made freely available.
  - Makes your data discoverable and usable by other researchers. Growing body of research shows that publications which share data have higher citations.
  - Research data will be stored safely and securely in the long term.
  - Enhances validity of your research by allowing others to replicate results (does not apply to all research!)
  - Major funders now unanimous that research data needs to be made open and shareable at the end of a project

Open data: the UK landscape

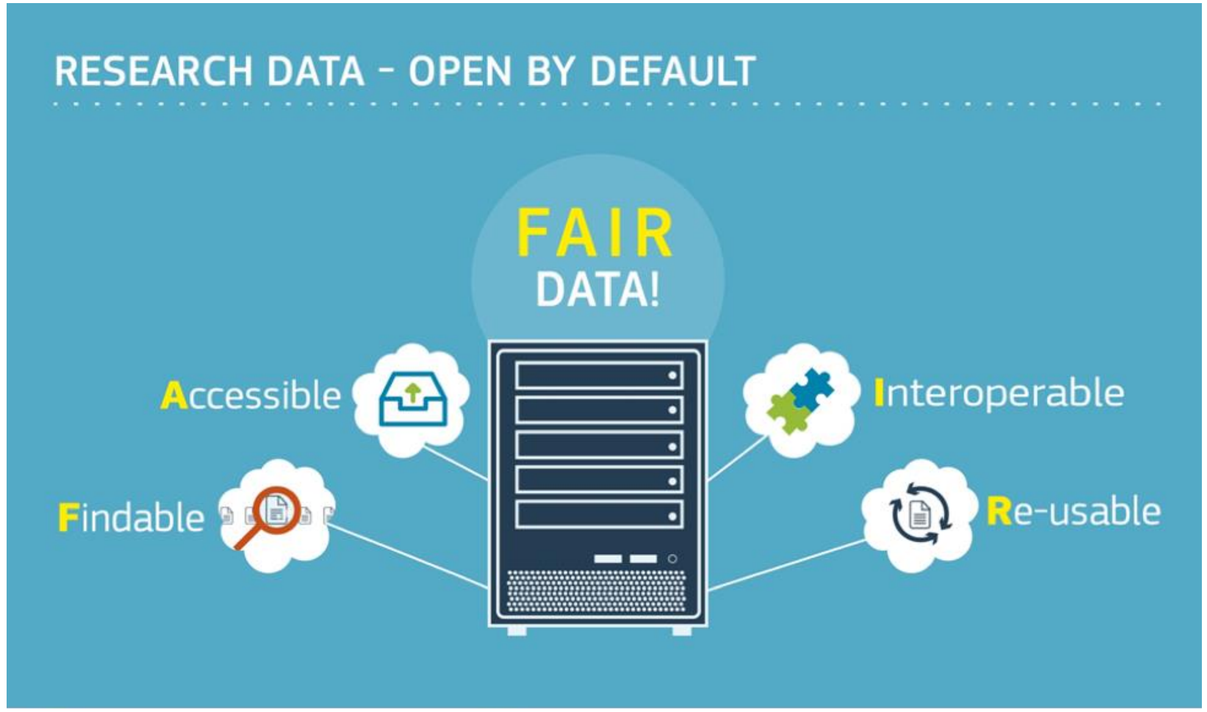


- UKRI is the main governing body for key LSE funders, including the ESRC.
- Encourage you to check policy of your individual funder but all UKRI funders subscribe to seven common principles on research data.
  - Publicly funded research data are a public good and must be shared with as few restrictions as possible in a timely and responsible manner
  - Metadata should be made available and discoverable to other researchers
  - Must also consider the legal, ethical, disciplinary and commercial requirements for the release of research data.
  - May be entitled to a limited period of privileged use of the data - see individual funders and requirements
  - Appropriate to use public funds to support sharing research data e.g. incorporate costs of open data into your proposal/ data management plan.
- UKRI 2021 Open Access Policy – Data Access Statements now mandatory on all UKRI funded publications, even where the data that underpins the publication has not been shared

Open data: EU landscape

- The European Commission have stated that open science is a policy priority, in practice this means supporting open access publishing and requiring the data that underpins those articles to also be made open access.
- Open Research Europe: Data should be deposited under the principle 'as open as possible, as closed as necessary.' Support depositing data in alignment with FAIR (more about that in a minute).
- The European Research Council (ERC) supports the principles of open science and sees sharing research data (where possible) as obvious next step.
- They recognise that not all research data can be made fully open. Privacy and security concerns are acceptable reasons to limit data sharing.
- Encourages researchers to outline any limits on data sharing in their data management plan (mandatory to be submitted six months after start of the project)
- ERC embraces the FAIR research data principles. The ERC data management plan is really formulated around these principles so it's important to understand them if you're applying for ERC funding.

FAIR data



According to **FAIR** principles data must be:

Findable: first step is for data to be findable – no point sharing it if nobody can find it!

Accessible: Once data has been found it must be clear how to access it

Interoperable: data needs to be integrated with other data, also needs to be compatible with other applications and software.

Re-usable: data must be well described so it can be replicated and/ or combined in different settings

FAIR Principles outlined at go-fair.org

Choosing a repository

re3data.org
REGISTRY OF RESEARCH DATA REPOSITORIES

UK Data Service
ReShare

HARVARD
Dataverse

zenodo

figshare

Open Science Framework

- There are a lot of data repositories! The key is that data must be in sustainable storage (i.e. no blogs or websites, even on university webpages!) and you must have a DOI and citation for your data.
- Some funders specify a repository, but most are flexible as long as it's meets criteria above
- Consider subject specialisms – is there a key data repository in your subject area? Where are other researchers depositing their data
- Some institutions have their own data repositories so that's also an option (not at LSE though)
- LSE – usually recommend UKDA for most data, also Zenodo for European projects

Data access restrictions

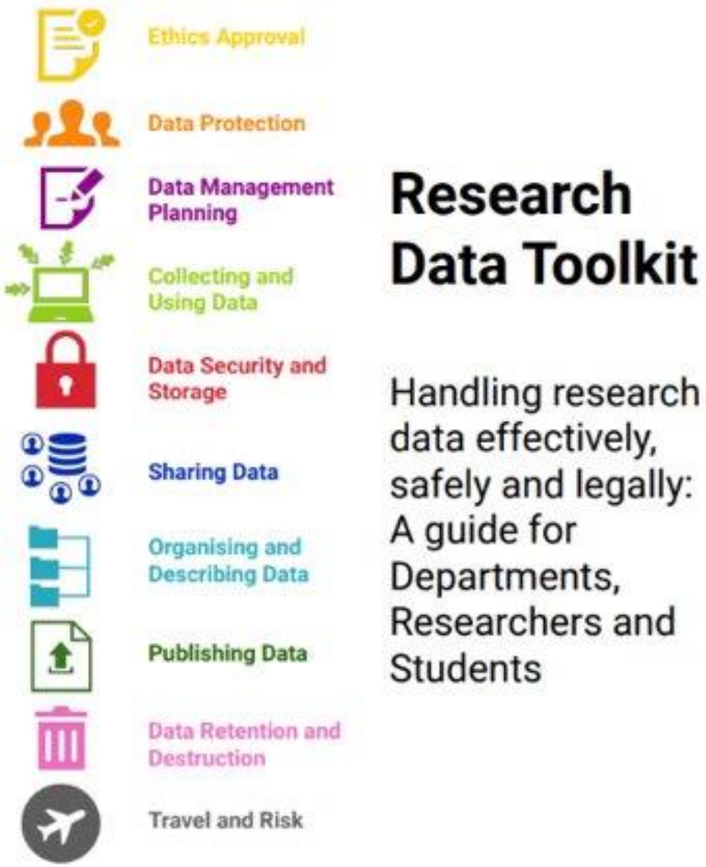
Open
- Available to all without registration
- Suitable for fully anonymised and non-sensitive data
- Licensed through Creative Commons or Open Data Commons

Safeguarded
- Available to registered users of a data service or repository
- Data downloaded and used according to specific terms of End User Licence

Controlled
- Available on request from you - users must complete an application form
- Suitable for sensitive data

Embargoed
- data is locked down for a pre-set amount of time.
- With many repositories it will be a maximum of 12 months with extensions requiring separate applications to the repository owner.

Further help (LSE only)



- Research Data Toolkit – one stop shop for all your data management needs. Advice compiled by Data Library, Research Ethics, Cyber Security and the Data protection Officer
- Data drop ins – every Thursday during term time between 4-5. Places bookable via LSE TDS system. Face to face chat with Research Data Librarian, Research Ethics, Law & Copyright Librarian and Data Protection Officer.
- LSE Library Research Data Management & Open Data Webpage

Introduction to Research Visibility

Helen Porter
Research Support Manager

Get credit for your contributions

- Understand and discuss your rights within co-authorship agreements or research projects
- What will be the order of authorship?
- Will there be an Author Contributions statement in the final output
- Can you make use of CREDIT contributor roles?

Evolution of interdisciplinarity in biodiversity science

Dylan Craven[1,2] | Marten Winter[2] | Konstantin Hotzel[3] | Jitendra Gaikwad[2,4] | Nico Eisenhauer[2,5] | Martin Hohmuth[2,4] | Birgitta König-Ries[2,4] | Christian Wirth[2,5,6]

AUTHOR CONTRIBUTIONS

DC, MW, and CW conceived the project; JG and MH compiled and prepared the data; KH wrote the Java code for the LDA-cDTM; DC analyzed the results of the LDA-cDTM; DC and MW wrote the first draft of the manuscript; and all coauthors contributed substantially to revisions.

Term	Definition
Conceptualization	Ideas; formulation or evolution of overarching research goals and aims.
Methodology	Development or design of methodology; creation of models.
Software	Programming, software development; designing computer programs; implementation of the computer code and supporting algorithms; testing of existing code components.
Validation	Verification, whether as a part of the activity or separate, of the overall replication/reproducibility of results/experiments and other research outputs.
Formal Analysis	Application of statistical, mathematical, computational, or other formal techniques to analyse or synthesize study data.
Investigation	Conducting a research and investigation process, specifically performing the experiments, or data/evidence collection.
Resources	Provision of study materials, reagents, materials, patients, laboratory samples, animals, instrumentation, computing resources, or other analysis tools.
Data Curation	Management activities to annotate (produce metadata), scrub data and maintain research data (including software code, where it is necessary for interpreting the data itself) for initial use and later re-use.
Writing – Original Draft	Preparation, creation and/or presentation of the published work, specifically writing the initial draft (including substantive translation).
Writing – Review & Editing	Preparation, creation and/or presentation of the published work by those from the original research group, specifically critical review, commentary or revision – including pre- or post-publication stages.
Visualization	Preparation, creation and/or presentation of the published work, specifically visualization/data presentation.
Supervision	Oversight and leadership responsibility for the research activity planning and execution, including mentorship external to the core team.
Project Administration	Management and coordination responsibility for the research activity planning and execution.
Funding Acquisition	Acquisition of the financial support for the project leading to this publication.

Research Identifies / Academic Profiles

- Identifies are an important part of the open science landscape
- Registering for them allows you to distinguish yourself easily from author authors (particularly with the same name)
- They link to other identifiers and systems to update your publication list automatically
- ORCID is a very good place to start
- Some will allow you to track and visualize the use of your research

ORCID

stands for

Open Researcher and Contributor ID

Google Scholar

Scopus®

Research Identifies / Academic Profiles

	ORCiD	Google Scholar	Scopus
Introduced	2012	2012	2006
Automatically assigned	No	No	yes
Non-proprietary	yes	no	no
Type of contents	Any scholarly works	Any scholarly works	Limited
Metrics	None	Yes (+PoP)	yes

Academic Social Networks

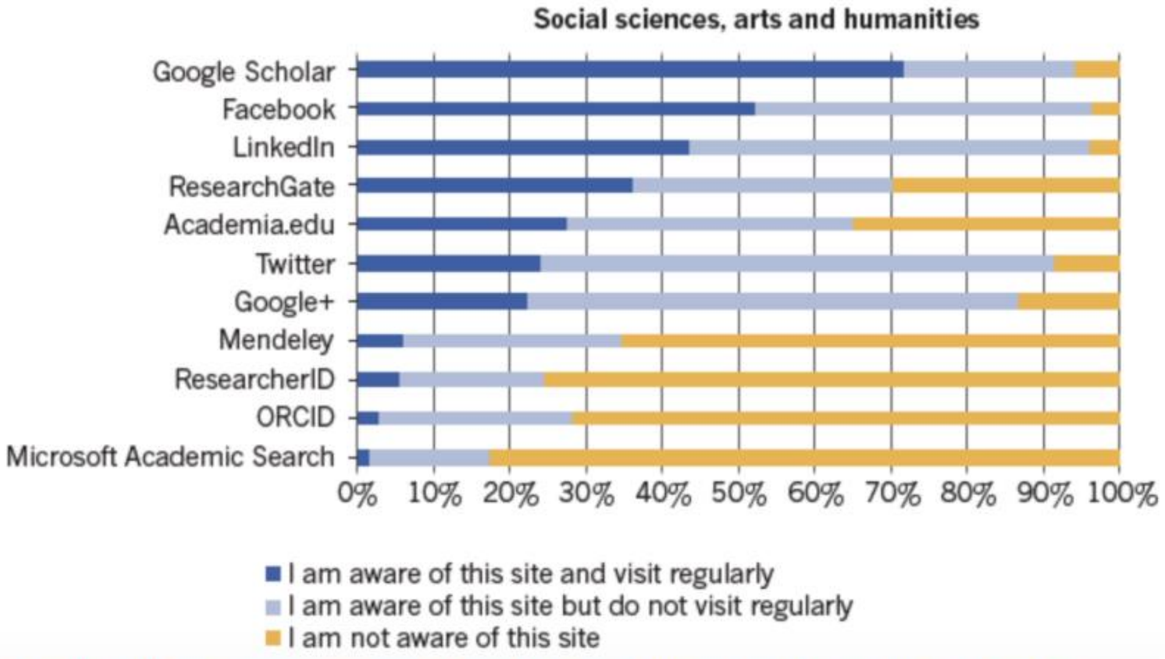
- Can be an important part of a researchers' online presence
- They have large membership
- Have option to follow and contact other researchers
- The more you have the harder they may be to keep up to date
- Remember some are for profit organisations? Have you read the terms and conditions?
- They should not be used instead of open access repositories

Where are researchers looking?

REMARKABLE REACH

More than 3,000 scientists and engineers told Nature about their awareness of various giant social networks and research-profiling sites. Just under half said that they visit ResearchGate regularly. Another 480 respondents in the humanities, arts and social sciences were less keen on ResearchGate.

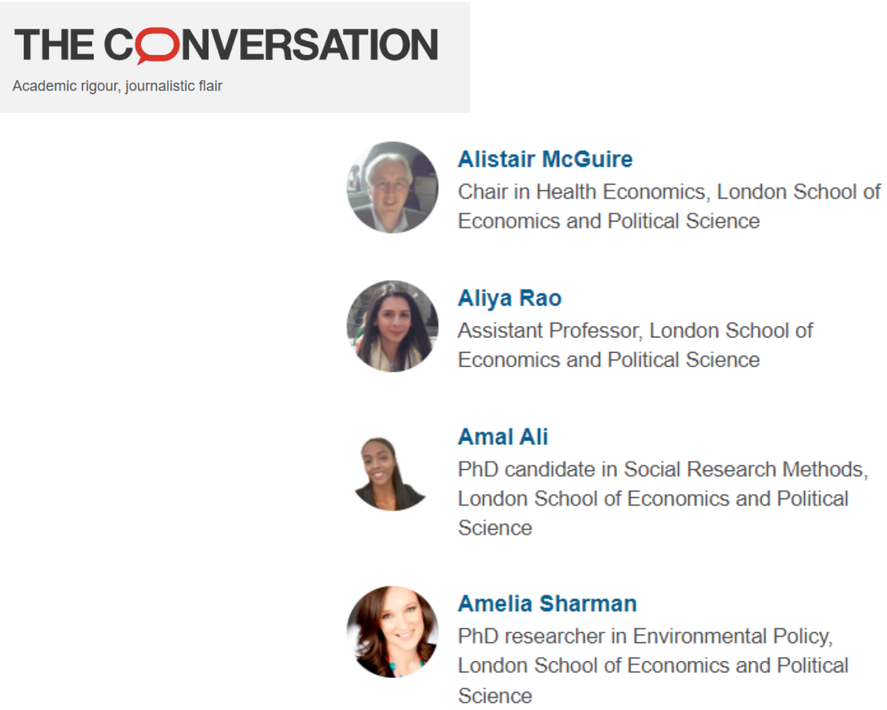
- I am aware of this site and visit regularly
- I am aware of this site but do not visit regularly
- I am not aware of this site



Van Noorden, R. 2014, "Online collaboration: scientists and the social network", Nature, vol. 512, no. 7513, pp. 126-129

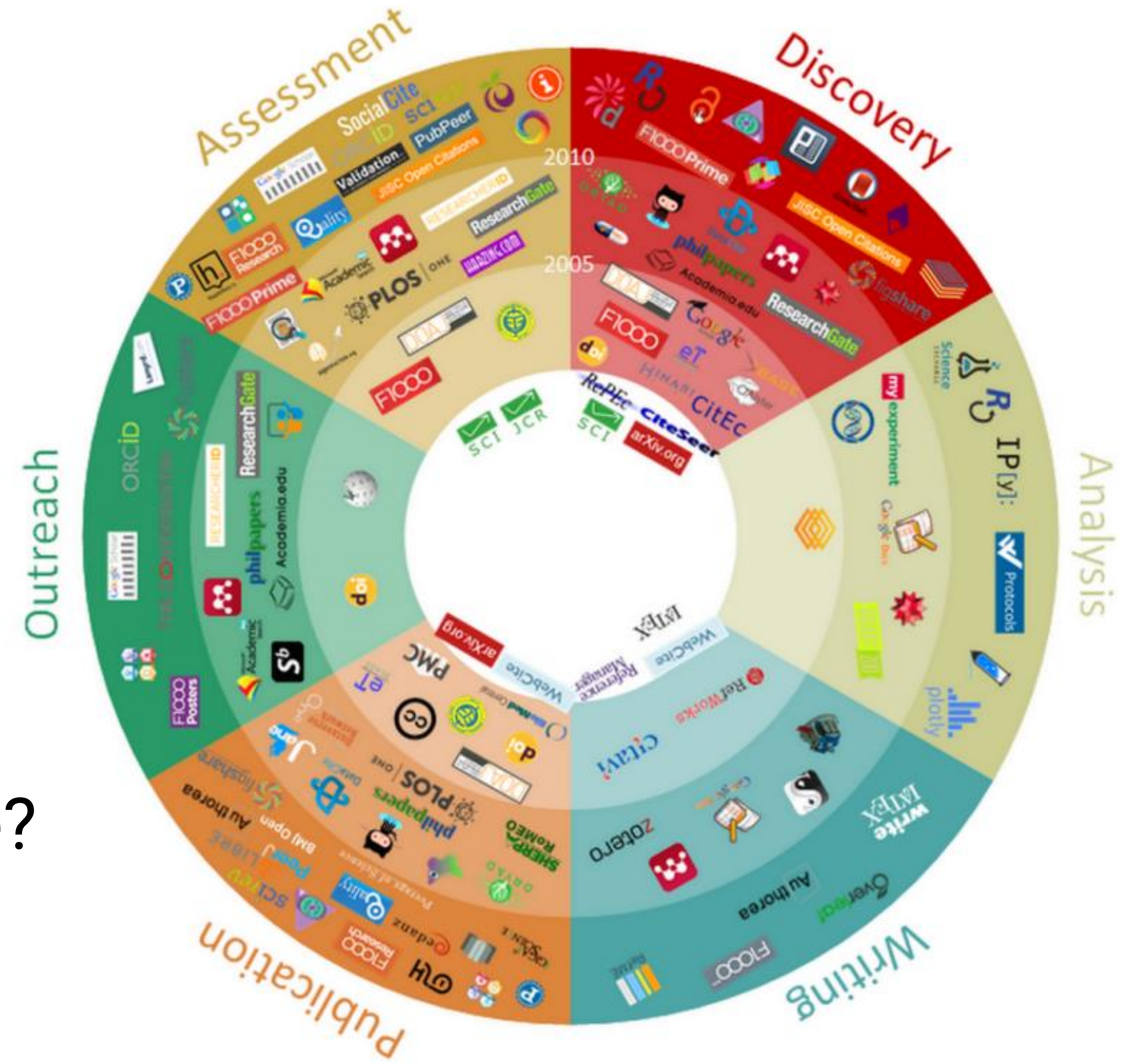
Blogging for Research Visibility

- Many researchers will transform their article into a blog piece
- Some blogging platforms enable potential authors to set up a profile. This will enable to share your areas of expertise
- Can you write about wider topics relevant to your PhD, methodology or scholarly communication?
- Speak to communications experts in your institution



Some Final Thoughts

- With so many tools available to support open access, open data and research visibility. Thinking about:
  - What are you required to do by your institution or funder?
  - What are the most popular or appropriate tools in your research field?
  - What are you yourself trying to achieve?



From: https://101innovations.wordpress.com/

Who is talking about your research?

- Good practices in open access, open data and research visibility will make it easier for you to:
  - Find out who is reading and citing your research
  - Identify and attract potential collaborators
  - Track who has mentioned your research outside academia e.g. news outlets, social media and policy documents

WEB OF SCIENCE

Overton

Altmetric

THE LONDON SCHOOL OF ECONOMICS AND POLITICAL SCIENCE

More information and links at:

https://www.lse.ac.uk/library/research-support

Any Questions?