Skills Boost:
Finding and Accessing Open Access Resources

26 November 2021

Session outline

- Overview
  - What is Open Access?
  - Why Open Access?
  - What is Open Research?

- How to Find and Access Open Access resources
  - Repositories and preprint servers
  - Open Access journals and articles
  - Open Access theses
  - Open Access books
  - Open Educational Resources (OER)

- Open Data
  - What is Open Data?
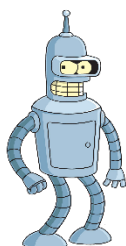 - Where can I find Open Data?

Learning outcomes

- Understand what 'Open Access', 'Open Data' and 'Open Research' mean and how these areas relate to each other

- Be aware of the different types of Open Access resources

- Be aware of evaluation models you can use to assess Open Access resources

- Understand what repositories and preprints are

- Be aware of a range of tools you can use to find different types of Open Access resources, including Open Data

What is Open Access?

- "Open Access (OA) literature is digital, online, free of charge, and free of most copyright and licensing restrictions" (Peter Suber, Director of the Harvard Office of Scholarly Communication, 2004 https://legacy.earlham.edu/~peters/fos/overview.htm)

- Open Access resources include journal articles, conference papers, ebooks, preprints, theses, Open Educational Resources
- The Open Access movement dates back to the early 2000s, although some disciplines developed earlier initiatives.
- One of the first formal declarations of the principles of the Open Access movement was the Budapest Open Access initiative (2002), which defined as a public good, the:

"world-wide electronic distribution of the peer-reviewed journal literature and completely free and unrestricted access to it by all scientists, scholars, teachers, students, and other curious minds."

Not all readers are human! – Open Access makes scholarly outputs accessible to machines, facilitating the application of powerful analytical techniques such as text and data mining
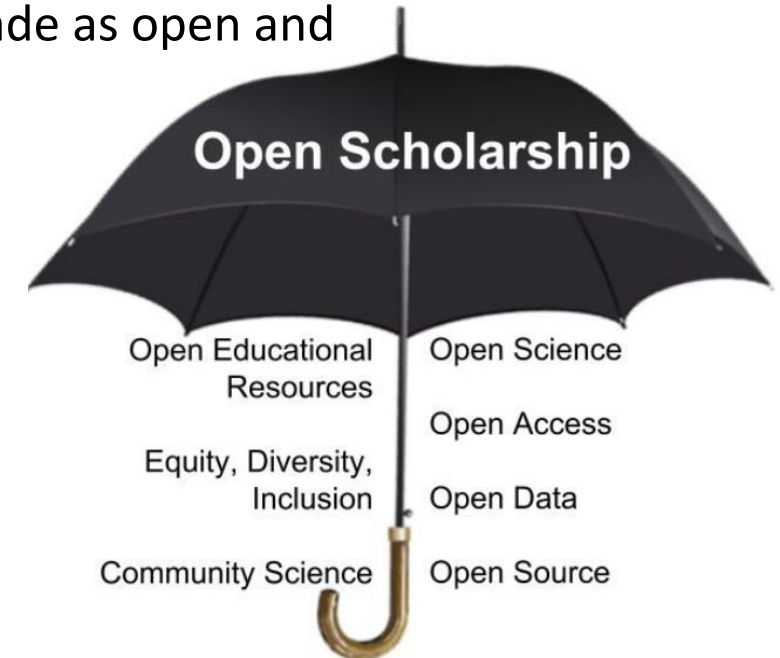
Why Open Access?

- Traditional systems of accessing research publications don't provide value for money. The costs to libraries for subscribing to journals has increased massively over the last 30 years. Library budgets can't keep up.

- There is a huge level of inequality of access to research publications, at both a national and international level.

- Open Access helps to speed up the creation of new knowledge. Opening up research outputs to scholars, as well as machines (via text and data mining), facilitates greater access to and analysis of research, leading to new discoveries and global collaborations.

- The University of Strathclyde has made a commitment to Open Access and Open Data as part of it's Vision 2025 Strategic Plan

What is Open Research?

- Open Access is part of a broader movement referred to as 'Open Research'. 'Open Research' is used interchangeably with the terms 'Open Science' or 'Open Scholarship'.

- Open Research refers to extending the principles of openness to all aspects of the research lifecycle

- The principles of Open Research apply across all subject areas. The key concept is that the underlying data, processes and outputs of research should be made as open and as transparent as possible.

- Open Research supports the reproducibility of research

- Open Research also helps scholars to boost the impact and visibility of their work.

Image: Robinson, D. and Champiueux, R. (2018) 'What is open?' Available at: https://osaos.codeforscience.org/what-is-open/ (Accessed 12 July 2021)

How can I tell whether Open Access research publications are suitable for me to use in my assignments?

- **Think** about the quality and reliability of Open Access publications. Reputable publishers of Open Access outputs will make clear the processes they use to ensure the quality of their work.
- **Check** publisher websites for information about the quality-control processes that they use, such as peer review.

- The CRAAP test (Currency, Relevance, Authority, Accuracy, Purpose) is a useful too you can use to evaluate the reliability of research publications.

- There are a number of other tools you can use to evaluate research resources. These include:
  - The CARS checklist (Credibility, Accuracy, Reasonableness, Support)
  - The 5 Ws of website evaluation (Who, What, When, Where, Why?)
  - The PROMPT checklist (Presentation, Relevance, Objectivity, Method, Provenance, Timeliness)

Sign up to the Academic Library Skills: Evaluation MyPlace module to learn more

What are repositories and where can I find them?

Subject Repositories
- Subject repositories are Open Access repositories for research outputs within a specific discipline or subject area, such as Physics or Social Sciences.

Institutional Repositories
- Institutional repositories are repositories for outputs produced by a particular research institution. Strathprints is the University of Strathclyde's Institutional Repository.

Where can I find subject and institutional repositories?
- Search via OpenDOAR (Directory of Open Access repositories). OpenDOAR is a quality-assured, global directory of Open Access repositories.
- Registry of Open Access Repositories (ROAR). ROAR lists and shows the growth of repositories around the world.
- Google Scholar. When you search via Google Scholar, the results will often include content contained in institutional repositories.

What are preprints?

What are preprints?
- Preprints are research reports that have not yet been peer reviewed and accepted for publication in a scientific journal.

Why do researchers publish in preprint servers?
- To get their work out quickly. Preprints facilitate rapid publication and wide dissemination. Publishing preprints also enables researchers to establish the priority of their work within the scientific record.

- The Covid-19 pandemic has seen a massive increase in researchers publishing their work via preprint servers and more people are using these servers. Publishing via preprint servers has allowed authors to share research about Covid-19 much more rapidly than would have been possible via traditional publication routes.

- Many research funders, like the Wellcome Trust, encourage researchers to post their work on preprint servers.

Benefits and limitations of preprints?

Benefits of preprints
- Preprints enable the rapid dissemination of research
- Sharing work via preprint servers can foster collaboration between researchers

Limitations of preprints
- Preprints can potentially lead to the spreading of 'bad science' as the papers have not undergone peer review. It's important to remember that these papers have not been through the same rigorous peer review process as those published via a traditional route.

- There are concerns that the speed of publication is being prioritised over the quality and reliability of evidence.

- The media and policy-makers can pick up preprints and present findings in the same way as they would a traditional paper. This can lead to the potential spreading of misinformation.

However...
Around 70% of preprints are eventually published in peer reviewed journals.

Where can I find preprints?

Preprint servers
There are a growing range of preprint servers, mostly based around subject areas. For example,

- arXiv.org – physics

- bioRxiv – biological science

- ChemRxiv – chemistry

- EarthArXiv – earth science and planetary science

- SocArXiv – social sciences

- SSRN – Social Sciences Research network – humanities and social sciences

Open Access Journals and Articles

Where can I find Open Access journals and articles?

- There are a variety of different resources you can use to find Open Access journals and articles.
- Some journals are completely Open Access, while others include a mix of Open Access and 'closed' access, subscription-only content (these are known as 'hybrid' journals).

- Here are some useful resources you can use to find fully Open Access journals and articles.
    - Directory of Open Access journals (DOAJ). DOAJ is a community-curated online directory that indexes and provides access to high quality, Open Access, peer-reviewed journals.

    - CORE. CORE hosts the world's largest collection of Open Access full texts.

    - Digital Commons Network. The Digital Commons network brings together free, full-text scholarly articles from hundreds of universities and colleges worldwide.

Finding Open Access articles via SuPrimo Library search

- You can use the University of Strathclyde's SuPrimo library search to search for Open Access articles.

Open Access Journals and Articles continued…

Open Access tools: browser plug-ins

- **Unpaywall.** This is a free browser extension tool that you can use to find Open Access versions of paywalled research papers. It is available for Chrome and Firefox. It helps you to source free, legal, full-text research papers, as you browse online.

- **Open Access Button (OA.Works).** The Open Access button has recently been re-branded as 'OA.Works.' Open Access button works when you want to find a specific article. It is available for Chrome and Firefox. Where available, the Open Access button browser extension will find free, legal copies of the articles and data that you need.

- **CORE Discovery.** Similar to Unpaywall and Open Access Button, CORE Discovery is a free browser plug-in that enables you to find free, legal access to full-text articles. CORE Discovery claims to have the best coverage of material available in Open Access repositories. If the paper you're looking for isn't openly available, then CORE will suggest other papers on the same topic that are available Open Access.

- **Open Access Helper for iOS.** If you are an iOS user, you can use OA Helper to search for Open Access articles across a range of devices (including iPad, iPod Touch, and iPhone) without hitting a paywall. You can download the OA Helper from the Apple Store.

Open Access Theses

What are Open Access Theses?

- The term 'thesis' refers to a piece of work undertaken for a research degree – e.g. MRes, Msci, PhD.

- Open Access theses are those which are openly available, and may allow for varying degrees of re-use.

- You can find out more information about making your own thesis available Open Access and find out more about copyright via the ['Copyright & Your Thesis' LibGuide.](#)

Open Access Theses continued…

How can I find Open Access theses?

- STAX. STAX is the new repository of Strathclyde theses and exam papers. You can search by subject area and filter results, e.g. by more recently deposited items.

- DART Europe. DART Europe provides access to over 1 million Open Access research theses from 569 universities across 29 European countries.

- EBSCO Open Dissertations. This is a free database with records for more than 1.4 million electronic theses and dissertations from more than 320 universities around the world.

- OAIster. Allows you to search a large catalogue of Open Access material, including theses.

- Open Access Theses and Dissertations. You can search for Open Access theses and dissertations from around the world. OATD currently includes records for nearly 6 million theses and dissertations from 1100 universities and research institutes.

Open Access Books

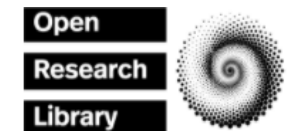**What are Open Access Books?**

- Open Access books are eBooks that are free to access, and which are also free of most copyright and licensing restrictions.

- Open Access books can include monographs (single-authored books) and multi-authored edited books.

Open Access Books continued…

Where can I find Open Access books?

- [Directory of Open Access Books.](#) The Directory of Open Access Books (DOAB) is a community-driven discovery service that indexes and provides access to scholarly, peer-reviewed Open Access books.

- [HathiTrust Digital Library.](#) The HathiTrust Digital Library is a partnership of academic and research institutions, offering a collection of millions of titles digitized from libraries around the world.

- [Open Research Library.](#) Open Research Library (ORL) is a collection of peer-reviewed, Open Access scholarly monographs. ORL offers access to more than 14,000 Open Access books.

- [OAPEN Library.](#) The OAPEN library contains a quality-controlled collections of hundreds of Open Access books.

Finding Open Access books via SuPrimo Library search
- You can use the [University of Strathclyde's SuPrimo library search](#) to search for Open Access books.

Open Educational Resources (OER)

What are Open Educational Resources?
- "Open Educational Resources (OER) are teaching and learning materials that you may freely use at no cost, and without needing to ask permission. Unlike copyrighted resources, OER have been authored or created by an individual or organization that chooses to retain few, if any ownership rights." (OER Commons).

- OERS include a wide range of education materials including etextbooks, lecture notes, assessment materials and online courses. OERs are commonly made available under one of the Creative Commons licences, which allow for varying degrees of re-use and adaptation, provided that the original source is acknowledged.

- In addition to Open Access resources such as journal articles, books, theses, there are specific places where you can find Open Educational Resources (OERs).

Open Educational Resources (OER) continued…

Where can I find Open Educational Resources? Teaching Resources

- OER Commons. A growing collection of Open Educational Resources that you can navigate by subject area, material type or curated collections. It currently contains over 50,000 high-quality Open Educational Resources.

- MIT Open Courseware. MIT OpenCourseWare (OCW) is a web-based publication of nearly all MIT course content. All OCW materials are openly available.

- OpenLearn. OpenLearn is the Open University's free learning site which includes over 650 courses across a range of disciplines.

- Open Yale Courses. Open Yale Courses (OYC) provides lectures and other materials from selected Yale courses to the public, free of charge. The courses range across disciplines including liberal arts, humanities, social sciences and physical and biological sciences.

Open Educational Resources (OER) continued…

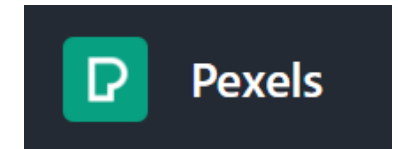**Where can I find Open Educational Resources? Open Textbooks**

- There are several platforms you can use specifically to find Open Access textbooks, including:

    - Open Textbook Library. Open textbooks are free to use and distribute and are licensed by authors and publishers to be freely adapted or changed with proper attribution. The Open Textbook Library currently contains over 880 Open textbooks.

    - Open Stax. Open Stax provides access to peer-reviewed, openly licensed free textbooks across a wide range of disciplines including mathematics, humanities, business and social sciences.
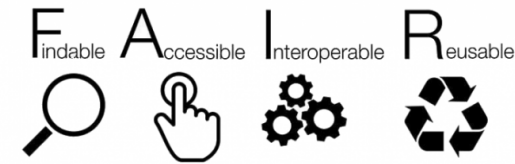
Open Educational Resources (OER) continued…

Where can I find Open Educational Resources? Images

- There are a number of different resources you can use to find images that are free to use. These include:

  - <u>Creative Commons Search. </u>Creative Commons (CC) search allows you to search content available under a CC licence across different service providers including Flickr, YouTube and Google Images.

  - <u>Pexels. </u>Pexels is a website that offers images and videos that are free to be downloaded and used. All materials is made available under the custom Pexels licence.

  - <u>Pixabay. </u>Pixabay is a website for sharing photos, illustrations, graphics, film footage and music. All material is shared under the custom Pixabay licence.

  - <u>Unsplash. </u>Unsplash is a website that offers images that are free to download and use. All images are made available under the custom Unsplash licence.

Open Data

- "**Open Data**" is simply data that is freely available for anyone to access, use, repurpose and share

- Significant differences from OA publication in the way open data is created, reviewed, hosted and distributed:
    - No standardisation – take what you're given
    - Little peer review or quality indicators (FAIR is coming!)
    - Additional processing required to fit research requirements

- Open data falls into three broad categories:
    - Purpose-built collections on a theme (Govt/Health/Heritage)
    - Output of academic research (often, but not always, in support of a publication or project. Data Availability Statements within publications)

- **Open Data sources**:
- Individual knowledge & research institutions (Govt/Universities/National Libraries/Art & Heritage)
- Funder repositories (UK Data Archive, NERC, BBSRC)
- General repositories (Zenodo, GitHub, Figshare, OSF…Re3data.org for an exhaustive list)

- **Issues**:
    - How trustworthy are open data resources? (metadata, licences, DOI available?)
    - Unlikely open data will be useable without additional work on your part

What have we learnt?

- What 'Open Access', 'Open Data' and 'Open Research' mean and how they relate to each other

- The different types of Open Access resources that are available

- Tools you can use to evaluate Open Access resources

- What repositories are

- What preprints are and their benefits and limitations

- Tools you can use to find different types of Open Access resources, including Open Data

More information

- Finding and Accessing Open Access Resources LibGuide: https://guides.lib.strath.ac.uk/OAresources/
- Handout with lots of useful links and resources on Open Access: https://strathprints.strath.ac.uk/78224/

- Strathclyde Open Access webpages: https://www.strath.ac.uk/professionalservices/openaccess/
- Strathclyde Research Data Management and Sharing webpages: https://www.strath.ac.uk/research/researchdatamanagementsharing/

- Contact us at:
    - openaccess@strath.ac.uk or researchdataproject@strath.ac.uk

    - **@StrathclydeOA** or **@StrathRDMS** on Twitter

Good luck for those of you preparing for exams and enjoy the festive break when it comes! Skills Boost sessions will start up again in the new year. Follow **@UniStrathLibIT** on Twitter for updates.