

Open Research Glossary

Jon Tennant and Ross Mounce

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This resource based on the original created by Jon Tennant and Ross Mounce.

This glossary is designed to be a resource to inform people about the culture of “open research”. It was written by the community, for the community, and depends on the community to stay current. To update this resource please make any changes here.

Core Definitions underlying Open Research

- **Open Access (OA)** - Making peer reviewed scholarly manuscripts freely available via the Internet, permitting any user to read, download, copy, distribute, print, search, or link to the full text of these articles, crawl them for indexing, pass them as data to software, or use them for any lawful purpose, without financial, legal or technical barriers other than those inseparable from gaining access to the internet itself. The only constraint on reproduction and distribution, and the only role for copyright in this domain, should be to give authors control over the integrity of their work and the right to be properly acknowledged and cited. May also refer to theses, books, book chapters, monographs and other content; Source.
- **Open Data (OD)** - Making data freely available on the public internet permitting any user to download, copy, analyse, re-process, pass them to software or use them for any other purpose without financial, legal, or technical barriers other than those inseparable from gaining access to the internet itself; Source.
- **Open Educational Resources (OER)** - Making high quality, openly licensed, online educational materials available for sharing, use, and reuse. They act as a mechanism for instructional innovation as networks of teachers and learners share best practices; Source.
- **Open Source Software (OSS)** - Availability of source code for a piece of software, along with an Open Source license permitting reuse, adaptation, and further distribution; Source.
- **Citizen Science** -
- **Open Peer Review (OPR)** -
- **Open Lab Notebooks** - A concept of blogging about research on a regular basis, such that research notes and data are accumulated and published online as soon as they are obtained; Source.
- **Open Materials** -

Scholarly publishing

- **Article Processing Charge (APC)** - A fee charged to the author, creator, or institution to cover the cost of publishing an article, rather than charging the potential reader of the article. APCs may apply to both subscription-based and Open Access publications. APCs are sometimes charged to authors in order to cover the cost of publishing and disseminating an article in an Open Access scholarly journal; Source.
- **Embargo period** - A length of time imposed on a research output for users who have not paid for access, or do not have institutional access, before it is made freely available. Typically refers to peer-reviewed versions of manuscripts.
- **Legacy publisher** - A publisher that historically has operated primarily on a paywall-based business model.

- **Library-based publishing** - Many academic libraries are now beginning to act as publishers for scholarly works produced in their institutions and elsewhere. In some cases, the library works with the university scholarly press to publish works. In other cases, the library publishes works independently or separately from the academic press. Library-based publishers are often strongly in favor of Open Access; Source.
- **Loginwall** - A barrier that prevents access by requiring users to register and login to a service, without asking for money to unlock access.
- **Open Access publisher** - A publisher that publishes all research articles as Open Access articles. Most legacy publishers have options to make journals at least partially Open Access (i.e., the ‘hybrid’ model).
- **Paywall** - Restriction via a financial barrier to access research, often implemented by legacy publishers. Can be removed by personal or institutional subscriptions.
- **Publisher** - A company whose purpose is to make the outputs of research publicly available, via digital or analogue methods.
- **Publishing** - To make a research output available to the public. Commonly refers to the release of works by publishers, irrespective of whether public access is granted or not.
- **Repository, general** - An online archive to deposit manuscripts. These can be personal websites, or include platforms such as ResearchGate or edu.
- **Repository, institutional** - An online database designed to collect the intellectual output of a particular institution or university, including digital collections such as electronic theses and dissertations (ETDs), preprints, or faculty scholarship, and presents associated metadata regarding the these items; (Source).
- **Repository, software** - An online collection of files managed with version control software (e.g., bzr, hg, git, csv, svn, etc.). Can be hosted by third-party (e.g., GitHub, Bitbucket, SourceForge), by an institution, or self-hosted locally.
- **Repository, subject-based** - A thematic repository based around research disciplines, geographic regions, or languages, such as arXiv.
- **Self-archiving** - Making a copy of a manuscript available through a personal website, institutional repository, or other repository. This often happens in parallel with publication at a journal.
- **Subscription** - A form of business model whereby a fee is paid in order to gain access to a product or service - in this case, the outputs of scholarly research in journals.
- **Toll access** - A system whereby a fee is required to pass a paywall to access research.

Journal or publication Types

- **Book** -
- **Epub** - A free and open e-book standard by the International Digital publishing Forum.
- **Hybrid journal** - Some traditional journals offer an option for authors to make their individual articles freely accessible to anyone worldwide, for an additional fee. All other articles in the journal remain accessible only through subscription; Source.
- **Journal** - An aggregation of published research articles, either digital or printed or both. Historically divided into volumes and issues.
- **Megajournal** - A journal with editorial criteria based on scientific soundness instead of a priori estimated newsworthiness or “impact”. They typically cover all research disciplines.
- **Monograph** -

- **Open Access journal** - A journal that exclusively comprises Open Access articles.
- **Overlay journals** - An OA journal that does not produce its own content, but selects and curates groups of articles that are already freely available online. An example of this is Discrete Analysis; Source.

Types of work often made Open Access

- **Accepted author manuscript (AAM)** - The version of a manuscript that has been formally accepted by a publisher for publication.
- **Eprint** - A digital version of a research document available online within a repository.
- **Postprint** - A manuscript draft after it has been peer reviewed.
- **Preprint** - A manuscript draft that has not yet been subject to formal peer review, distributed to receive early feedback on research from peers.
- **Pre-registration-**
- **Registered Reports** - A type of publication in which peer review of the suggested methods and protocol is completed prior to data collection and analysis. Accepted papers then are guaranteed publication in the journal if the authors follow through with the registered methodology; Source.
- **Version of Record (VOR)** - The final published version of a manuscript in a journal, after peer review and processing by a publisher.

‘Flavours’ or ‘types’ of Open Access

- **Black** -
- **Bronze** -
- **Diamond** - A form of “Gold” OA in which there is no author-facing fee (APC). Sometimes also called ‘Platinum’ OA.
- **Gold** - Making the final version of manuscript (VOR) freely available immediately upon publication by the publisher.
- **Green** - Making a version of the manuscript freely available in a repository. Often referred to as ‘self-archiving’, and happens in parallel with publication in a journal.
- **Gratis** - A paper is available to read free-of-charge, though its reuse is still restricted, for example by “All Rights Reserved” or " copyright; Source.
- **Libre** - A paper is made available under an open licence, allowing it to be shared and reused, depending on which licence is used; Source). Both ‘Libre’ and ‘Gratis’ refer to copyright and licensing restrictions. The difference is often alluded to with the slogan, “Free as in beer, not as in speech.”

Declarations And Principles

- **1964** - Declaration of Helsinki
- **2001** - Declaration of Havana Towards Equitable Access to Health Information
- **2002** - Budapest Open Access Initiative (BOAI)
- **2003** - Bethesda Statement on Open Access Publishing
- **2003** - Declaration of Berlin on Open Access to Knowledge in the Sciences and Humanities
- **2007** - Kronberg Declaration on the Future of Knowledge Acquisition and Sharing
- **2007** - Declaration of Brisbane

- **2009** - Panton Principles for Open Data
- **2012** - Cost of Knowledge Manifesto
- **2013** - The San Francisco Declaration on Research Assessment (DORA)
- Vienna Principles
- OCSD Net Principles
- Panama Declaration

Licensing and copyright

- **Apache License** - A free software license by the Apache Software Foundation; Source.
- **Author addendum** - An author addendum is a supplemental or added agreement to a publishing contract that defines or changes the terms of the contract, often focusing on the transfer of copyright ownership. For authors of scholarly works, an author addendum to a publisher's standard publication contract may be necessary to help ensure that authors protect important rights, such as the right to post their articles online to a personal website or in a digital repository; the right to use their works within a classroom setting; or the right to use their works as the foundation for future research; Source.
- **Berkeley Software Distribution (BSD)** - A family of UNIX-like operating systems; Source.
- **Copyleft** - A form of licensing that makes a creative work freely available to be modified, and requiring all modified and extended versions of the creative work to be free as well. OA does not require works to be copyleft, nor does it necessarily exclude copyleft works from being OA. The recommended licence (CC BY) for academic publishing is not copyleft.
- **Copyright** - The aspect of Intellectual Property that gives creators the right to permit (or not permit) what happens to their creations, as opposed to trademark rights or moral rights.
- **Creative Commons (CC)** - A popular suite of licences that sets out the rights of authors and users, providing alternatives to the standard copyright. CC licences are widely used, simple to state, machine readable and have been created by legal experts. There are a variety of CC licences, each of which use one or more clauses, examples of which are given below. Some licences are compatible with OA in the 'Budapest sense', and some are not; Source).
- **CC Zero (CC 0)** - Waiver of copyright, with no rights reserved. Places content as openly as possible in the public domain; Source.
- **CC Attribution (CC BY)** - A licence clause that allows the reuse, sharing, and remixing of materials providing the original author is appropriately attributed. Aside from attribution the CC BY licence has no other restrictions on copying or reuse. Compatible with free cultural works.
- **CC NonCommercial (CC NC)** - A licence clause allowing the reuse, sharing, and remixing of materials providing that it is for non-commercial purposes. Not compatible with free cultural works.
- **CC No Derivatives (CC ND)** - A licence clause requiring that derivatives are not made of the original works. Not compatible with free cultural works.
- **CC ShareAlike (CC SA)** - A licence clause requiring that derivative works have the same licence as the original. Compatible with free cultural works.
- **Creative work** - An original, identifiable piece of content, such as an academic paper, a diagram, a photograph, or a video clip. Owners of creative works have rights, such as copyright, that they might reserve to keep control of the content, or relinquish to allow others to share and reuse that content.
- **GNU GPL (General Public License)** - A free copyleft license for software and other kinds of works; Source.

- **Intellectual property (IP)** - A legal term that refers to creations of the mind. Examples of intellectual property include music, literature, and other artistic works; discoveries and inventions; and phrases, symbols, and designs.
- **Intellectual Property Rights (IPR)** - The rights given to the owners of intellectual property. IPR is protected either automatically (e.g., via copyright or design rights) or by registering or applying for it (e.g., trademarks, patents). Protecting your IP makes it easier to take legal action against anyone who steals or copies it. IPR can be legally sold, assigned or licenced by the creator to other parties, or jointly-owned.
- **MIT License** - A popular open and permissive software license; Source.
- **Rehost** -
- **Redistribute** -
- **Reuse** -

Peer Review

- **Annotations** -
- **Comments** -
- **Double-blind peer review** - When the reviewers do not know who the authors are, and vice versa.
- **Open review reports** - When individual reviews are made openly available, typically alongside the article after it is published.
- **Peer review** - A formal process by which a research article is vetted by experts in community before publication; Source.
- **Portable peer review** - Independent peer review that travels with a manuscript that is submitted to subsequent different journals, designed to combat redundancy in the peer review process.
- **Post-publication peer review** - Standard peer review, but after a research article has been formally published. Can also be performed on preprints (e.g., through an Overlay Journal).
- **Signed peer review** - When individual reviews are publicly signed by those who conducted them.
- **Single-blind peer review** -
- **Transferable peer review** - Reviews that travel with a paper if it is rejected from a journal.
- **Triple-blind peer review** -

Assessment And Metrics

- **Altmetrics** - Altmetrics are “alternative” ways of recording and measuring the use and impact of scholarship. Rather than solely counting the number of times a work is cited in scholarly literature, alternative metrics also measure and analyze social media (e.g., Facebook, Twitter, blogs, wikis, etc.), document downloads, links to publishing and unpublished research, and other uses of research literature, in order to provide a more comprehensive measurement of scholarships reach and impact; Source.
- **Article-level metrics** - All types of article-level metrics including download and usage statistics, citations, and article-level altmetrics; Source.
- **Bibliometrics** - Bibliometrics is the branch of library and information science concerned with the application of mathematical and statistical analysis to bibliography. Bibliometrics involves the statistical analysis of books, articles, or other publications.
- **H-index** - A personal metric that relates the number of citations to the number of published papers for an academic. It measures the number of papers (n) that have been cited n times; Source.

- **Impact factor** - A numerical measure that indicates the average number of citations to articles published over the previous two years in a journal, and frequently used as a proxy for a journal's relative importance. It is frequently mis-used to evaluate articles and individuals.
- **Journal-level metrics** - Metrics that apply to all papers published within a journal. A common example is the journal Impact Factor.
- **Leiden Manifesto** -
- **Metrics** -
- **San Francisco Declaration on Research Assessment (DORA)** -
- **Scientometrics** -
- **Source-Normalised Impact Per-Paper (SNIP)** -

Organisations

Funders And Policy-Related

- **AmeliCA** -
- **Coalition S** -
- **DARIAH** -
- **FOSTER** -
- **Gates Foundation** - A funding body co-ordinated by Melinda and Bill Gates, with a strong Open Access policy.
- **Jisc** - An educational charity based in the UK Provides expertise to universities, colleges and cultural institutions on the use of technology to support research, including publication models, repositories, licensing, and infrastructure; Source.
- **Max Planck Society** - A German research organisation with 82 Institutes worldwide and a strong Open Access policy.
- **National Institute of Health (NIH)** - The national medical research agency in the USA, with a PublicAccess policy.
- **National Science Foundation (NSF)** - An independent federal agency in the USA for the funding of research, with a Public Access policy.
- **OpenUP** -
- **Public Knowledge Project (PKP)** - A multi-university initiative developing free, Open Source software and conducting research to improve the quality and reach of scholarly publishing; Source.
- **Plan S** -
- **Projekt DEAL** -
- **Research Councils UK (RCUK)** - The primary government research funding body in the UK. (Open Access policy) - NEEDS UPDATING
- **Research Excellence Framework (REF)** - An initiative to assess the quality of research undertaken in UK higher education institutions. Coordinated by HEFCE.
- **Wellcome Trust** - A life sciences charity and funding body in the UK (Open Access policy)

Open Research Infrastructure

- **Connecting Repositories (CORE)** - A collection of OA repositories; Source.
- **Confederation of Open Access Repositories (COAR)** -
- **Directory of Open Access Repositories (OpenDOAR)** - A directory of academic OA repositories. Also has a search function for repositories and repository contents; Source.
- **Directory of Open Access Journals (DOAJ)** - A directory indexing OA peer-reviewed journals; Source.
- **Directory of Open Access Books (DOAB)** - A directory indexing open access peer-reviewed books; Source.
- **Europe PubMed Central (EuroPMC)** - Based on PubMed Central, and part of a network of repositories supported by funders of life sciences and biomedical research; Source.
- **Registry of Open Access Repositories (ROAR)** - A registry for OA repositories, hosted by the University of Southampton, UK; Source.
- **PubMed** - A repository comprising more than 24 million citations for the biomedical literature; Source.
- **PubMed Central (PMC)** - A free full-text archive of biomedical and life sciences journal literature at the US National Institutes of Health's Library of Medicine; Source.
- **Repository 66** - A mashup of data from ROAR and OpenDOAR overlayed onto Google maps; Source.
- **OpenAIRE** - A pan-European infrastructure that supports the EC's Open Access Mandate in Horizon2020. All publications funded by the EC should be made available in Open Access and OpenAIRE harvests from a range of data sources namely repositories, OA publishers. (Source)
- **OPERAS** -
- **REDALYC** -
- **Scientific Electronic Library Online (SciELO)** - A programme started in Brazil in 1998 which has now expanded to 15 other countries, developed by FAPESP (Fundação de Amparo à Pesquisa do Estado de São Paulo) and BIREME (Centro Latino-americano e do Caribe em Informação em Ciências da Saúde). The objectives are to develop a common methodology for the preparation, storage and dissemination of scientific literature, including standardised evaluation and quality control processes. This comprises a model for cooperative electronic publication of scientific periodicals on the internet using organised bibliographic databases with full text access; Source, in Portuguese and in English.
- **Securing a Hybrid Environment for Research Preservation and Access - Rights of Meta-data for Open archiving (SHERPA-RoMEO)** - A tool to check what the self-archiving policies for individual journals are; Source.

Advocacy organisations

- **Open Access Scholarly Publishers Association (OASPA)** - Represents the interests of OA journal and book publishers in all scientific, technical, and scholarly disciplines; Source.
- **Right to Research Coalition (R2RC)** -
- **Scholarly Publishing and Academic Resources Coalition (SPARC)** - An international alliance of academic and research libraries working to create a more open system of scholarly communication. Primarily based in the USA, but now with branches in Europe, South Africa, and Japan.

Tools and platforms

Formats, identifiers and standards

- **Comma-Separated Values, or Character-Separated Values (CSV)** - A plain-text (non-binary) format for tabular data.
- **Digital Object Identifier (DOI)** - A unique text string that is used to identify digital objects such as journal articles or OSS releases; Source.
- **Extensible Markup Language (XML)** - A language that defines a set of rules for encoding documents in a format that is readable by both machines and humans; Source.
- **Hypertext Markup Language (HTML)** - The set of markup symbols or codes inserted in a file intended for display on a browser page; Source.
- **Journal Article Tag Suite (JATS)** - A common XML format in which publishers and archives can exchange journal content; Source.
- **LaTeX** - A markup language for typesetting documents, particularly common in mathematics and the sciences. Many academic journals accept submissions in LaTeX; Source.
- **Machine readable** - Data or metadata in a format that can be understood by a computer.
- **Machine Readable Cataloguing (MARC)** - A set of digital formats for the description of items catalogued by libraries; Source.
- **Markdown** - A syntax for adding formatting to documents allowing correctly formatted articles to be written in plain text; Source.
- **Open Archives Initiative (OAI)** - Develops and promotes interoperability standards that aim to facilitate the efficient dissemination of content; Source.
- **ORCID** - A persistent digital identifier that distinguishes individual researchers. Also supports integration in research workflows; Source.
- **ResearcherID** - Assigns a unique identifier for researchers to manager publication ists, track citations, and avoid author mis-identification; Source.
- **Scalable Vector Graphics (SVG)** - A format for images that is open rather than tied to particular software, resolution-independent (unlike GIF, PNG and JPG), and structured so that with appropriate software it is relatively easy, for example, to translate labels into different languages.
- **Uniform Resource Identifier (URI)** - A string of characters used to identify a name of a resource to enable its digital and networked representation and interaction; Source.

Services and service providers

- **AnnotatorJS / Hypothes.is** - A framework and application for annotating resources online according to an emerging W3C standard for web annotations. Focus is on scholarly applications; Source Annotator and Source Hypothes.is.
- **Bitbucket** - Free source code hosting site; Source.
- Clarivate Analytics
- COS
- **CrossRef** - An association of scholarly publishers that develops shared infrastructure to support more effective scholarly communication; Source.
- Digital science
- **Dissem.in** - An online tool that detects papers behind paywalls and invites their authors to upload them in one click to an open repository; Source.

- **DSpace** - Software for digital open repositories launched by The Massachusetts Institute of Technology (MIT) in 2002; Source.
- Elsevier
- **Eprints** - Software for open digital repositories to self-archiving launched by Southampton University in 2000; Source.
- **Etherpad** - An online, OSS collaborative writing/editing tool operating in real time; Source.
- **Flexible Extensible Digital Object and Repository Architecture (FEDORA)** - Software for digital repositories launched by The Cornell and Virginia Universities in 2003; Source.
- GetTheResearch
- **Git** - An OSS distributed revision control system; Source.
- **GitHub** - A web-based service that provides a source code repository that works exclusively with the Git command-line tool; Source.
- **Google Scholar** - A freely accessible search engine for indexing the scholarly literature across an array of publishing formats and disciplines; Source.
- **IPython notebook** - A web-based interactive computational environment where you can combine code execution, text, mathematics, plots and rich media into a single document; Source.
- **OAI Media Importer Bot** - A computer program, run by Daniel Mitchen, that takes figures and video clips from OA articles in PubMed, and copies them to Wikimedia Commons with full attribution of the original paper. This facilitates the reuse of those files in educational materials or Wikipedia articles.
- **Open Access Button** - Tracks global encounters with paywalls, and helps provide access to papers through a 'wishlist'; Source.
- **Open Archives Initiative** - Supplies a common framework to web communities that allows them to gain access to content in a standard manner by means of metadata harvesting; Source.
- **Open Conference Systems (OCS)** - A free Web publishing tool that will create a complete Web presence for scholarly conferences; Source.
- **Open Harvester Systems** - A free metadata indexing system; Source.
- **Open Journal Systems (OJS)** - A journal management and publishing system; Source.
- **Open Monograph Press** - An OSS platform for managing the editorial workflow required to see monographs, edited volumes, and scholarly editions through internal and external review, editing, cataloguing, production and publication; Source.
- **Paperity** - A multidisciplinary aggregator of OA journals and papers, Gold and Hybrid. Aims to include ultimately 100% of OA literature; Source.
- **Protocols.IO** - Up-to-date crowdsourced protocol repository; Source.
- **Publish or Perish** - Software for retrieving and analysing academic citations; Source.
- **ScienceOpen** -
- **Stack Overflow** - A Question and Answer site for programming issues; Source.

Data Repositories

- **** Dryad -**** a curated resource that makes the data underlying scientific publications discoverable, freely reusable, and citable. (Source)
- **** Global Biodiversity Information Facility (GBIF) -**** contains data about all types of life on Earth, published according to common data standards. (Source)

- **** Knowledge Network for Biocomplexity (KNB) -**** a network for the discoverability, access, and interpretation of complex ecological data. (Source)
- **** DataONE -**** a framework and infrastructure for Earth observational data. (Source)
- **** figshare -**** a repository where users can make all of their research outputs available in a citable, shareable, and discoverable manner. (Source)
- **** Morphbank -**** an image database documenting a range of specimen-based research, including comparative anatomy and taxonomy. Funded by the National Science Foundation. (Source)
- **** Morphobank -**** a web application for collaborative evolutionary research, specifically phylogenetic systematics or cladistics, involving morphology. (Source)
- **** Genbank -**** the NIH sequence database comprising an annotated collection of all publicly available DNA sequences. Part of the International Nucleotide Sequence Database Collaboration. (Source)
- **** UniProt -**** Central repository of protein sequence and annotation data. (Source)
- **** Worldwide Protein Data Bank (****wwPDB)**** - Publicly available repository of macromolecular structural data. (Source)
- A list of data repositories approved by F1000Research.
- A list of data repositories approved by Scientific Data.
- **** Map of Open Educational Resource Repositories -**** Map containing locations for items in the directory of Open Educational Resource Repositories. (Source)
- **** Zenodo ****-**** An all-purpose free to use repository for all research outputs. DOIs and flexible licensing. (Source)
- **** Open Science Framework ****-**** A tool created by the Center for Open Science for scientists. It is both a research and workflow management tool and open repository. Their goal is to link up the entire research ecosystem, from conception through publication. They give the user full control over the openness of their work and allow for the creation of registrations, which can be used when submitting registered reports. (Source)
- **** re3data.org ****-**** a global registry of research data repositories from different academic disciplines. (Source)
- **** Databib ****-**** a searchable registry of research data repositories (Source) [Note that the Databib and re3data.org registries will merge by the end of 2015]
- **** Open Access Directory Data Repositories -**** a list of repositories or databases relating to open data. Organised by field subject. (Source)
- **Registry of Research Data Repositories** - An open science tool that serves as a global registry of research data repositories; (Source)

Miscellaneous

- **** Open Access Movement (OAM) -**** a global movement started in the late 1990s and early 2000s fuelled by the widespread public access to the World Wide Web. Its prime objective is the free and unrestricted access and reuse of the world's knowledge.
- **** Openwashing -**** having an appearance of open-source and open-licensing for marketing purposes, while continuing proprietary practices. Coined by Audrey Watters.
- **** Open Access Directory Events -**** conferences and workshop archive related to open access (Source)
- **** Curation -**** the selection, preservation, maintenance, collection and archiving of [digital] assets. Curation establishes, maintains, and adds value to repositories of digital data for present and future use. (Wikipedia)
- **** Typesetting -**** the composition of text by arranging physical pieces of type or by using software to prepare a version of the text suitable for printing. Stored letters and other symbols are retrieved and ordered according to a language's orthography (conventional spelling system of a language) for visual display.
- **** Copy editing -**** a type of editing designed to improve the formatting, style, and accuracy of text. It usually does not involve changing the content of the original text.
- **** Annotation -**** a comment with specific location and context, either inline or in the margin of a text

document, or within a region of an image or video, or located within a specific row or cell of data in a data set.

- **Citation** - a reference to a published or unpublished source embedded in content, for the purposes of acknowledging the work and relevance of others to the topic of discussion where the citation appears.
- **References** - defines a relationship between one object, a designator, and a second object, a source. Usually takes the form of a bibliography of academic papers at the end of a research manuscript.
- **Submission fee** - a fee levied by some publishers for submitting a manuscript to their journals.
- **Accessibility** - refers to the degree of access. Defined by an end-user basis, depending on their ability to understand or reuse content.
- **Mixed citation** - a textual, bibliographic description of a work that is cited within text.
- **Data archiving** - the process of moving data to a storage device for long-term preservation. (Wikipedia)
- **Computational reproducibility** - when publishing computational findings, include details and access to the underlying code, data, and implementation.
- **Empirical reproducibility** - the reproduction of results to obtain ‘verifiable facts’, through improving existing communication standards and reporting.
- **Statistical reproducibility** - validating the statistical results, errors, and confidence measures in research. Also the statistical assessment of repeated results for validation purposes. (post from Victoria Stodden)
- **Loginwall** - the requirement to log in to a system in order to access content.
- **Shibboleth** - a single sign-in system for computer networks and services on the open Internet. (Wikipedia)
- **Athens** - A sign-in system that provides access to library resources. (Source)
- **Symplectic** - A world-leading products and services company specialised in research information management. Their flagship system Elements, is used by a number of the world’s research institutions. (Source)
- **Journal to Wiki publication (J2W)** - Copying text from a published paper to a wiki (such as Wikipedia or Wikibooks), with attribution: legally possible if the licence of the paper is less restrictive than the licence of the wiki.
- **Wiki to Journal publication (W2J)** - Creating a paper on a wiki, using its features for collaboration and informal review, for submission to a journal for formal peer review. Might involve a public wiki such as Wikipedia or Wikiversity, or a specially-created wiki.
- **Fee waiver** - If an institution, research funder or author cannot pay for an Article Processing Charge, many publishers or journals will offer partial or total waiving for fees. (Source)
- **Derivative work** - A work based upon one or more pre-existing works, such as a translation, musical arrangement, dramatization, fictionalization, motion picture version, sound recording, art reproduction, abridgment, condensation, or any other form in which a work may be recast, transformed, or adapted. (Source)
- **Double-dipping** - In the context of Open Access, double-dipping occurs when a journal has an article processing charge (APC) for publishing an author’s work, as well as requiring payment (usually through a subscription fee) by the potential user of the work. This model makes the institution or author pay twice to access the work. (Source))
- **Scraping** - a computing technique to extract information from websites. (Wikipedia)

- **Publicly funded research** - refers to research which is, at least in part, funded by Governments, often through Research Councils.
- **Content mining** - large-scale extraction of information from content (e.g., photographs, videos, audio, metadata), usually involving thousands of items. (The ContentMine)
- **Data mining** - an analytic process designed to explore data in search of consistent patterns and/or systematic relationships between variables, and then to transform this information into content for future use.
- **Impact** - the scale of use of research outputs both inside and outside of academia.
- **Scholarly Communication** - The creation, transformation, dissemination, and preservation of knowledge related to teaching, research, and scholarly endeavors; the process of academics, scholars and researchers sharing and publishing their research findings so that they are available to the wider academic community. The creation, transformation, dissemination, and preservation of knowledge related to teaching, research, and scholarly endeavors; the process of academics, scholars and researchers sharing and publishing their research findings so that they are available to the wider academic community. (Sources: Wikipedia, University of Pittsburgh)
- **Funder** - an institute, corporation or government body that provides financial assistance for research.
- **Sharing** - the joint use of a resource or space. A fundamental aspect of collaborative research. As most research is digitally-authored & digitally-published, the resulting digital content is non-rivalrous and can be shared without any loss to the original creator.
- **Reproducibility** - the similarity between results of a study or experiment and independent results obtained with the same methods but under different conditions (i.e., pertains to results).
- **Repeatability** - the similarity between results of a study or experiment and independent results obtained with the same methods and under identical conditions (i.e., pertains to methods and analysis).
- **Mandate** - an authority to carry out a policy. In this context, largely to conform to open access policies.

Additional Resources

- The Open Science MOOC resource pages
- IRIDIUM, the international research data management glossary
- List of data repositories, from the Open Access Directory
- The Registry of Research data Repositories
- List of declarations in support of OA, from the Open Access Directory