Open Access

Having started in 2000 Open Access (OA) is a relatively new publication model in the long history of scientific journals. In recent years there has been vast growth in the number of articles published open access, the number of fully open access journals, subscription titles offering OA options and funder mandates.

Here we hope to give you an overview of OA and dispell some of the myths regarding the publication model. By the end of this tutorial you should:

* Understand the difference between Gold and Green OA
* Be familiar with the benefits of publishing OA
* Know the difference between subscription and Open Access title and how to avoid predatory journals.

You will also have the opportunity to test your learning by completing a quiz at the end

What is Open Access?

At it’s most fundamental Open Access is when publications are freely availble online to all at no cost and with limited restrictions with regards reuse. The unrestricted distribution of research is especially important for **authors**(as their work gets seen by more people), **readers**(as they can access and build on the most recent work in the field) and **funders**(as the work they fund has broader impact by being able to reach a wider audience).

There are two routes to open access:

* **Gold open access -** Gold OA makes the final version of an article freely and permanently accessible for everyone, immediately after publication. Copyright for the article is retained by the authors and most of the permission barriers are removed. Gold OA articles can be published either in fully OA journals (where all the content is published OA) or hybrid journals (a subscription-based journal that offers an OA option which authors can chose if they wish). An overview of fully OA journals can be found in the [Directory of Open Access Journals (DOAJ)](http://doaj.org/).

*TIP: just because a journal offers free access to content this does not mean is it Open Access. As described above Gold OA also allows the re-use of the work as long as the authors are acknowledged and cited as they retain the copyright. Simply allowing everyone with an internet connection to read the content does not constitute gold OA.*

* **Green open access** - Green OA, also referred to as self-archiving, is the practice of placing a version of an author’s manuscript into a repository, making it freely accessible for everyone. The version that can be deposited into a repository is dependent on the funder or publisher. Unlike Gold OA the copyright for these articles usually sits with the publisher of, or the society affiliated with, the title and there are restrictions as to how the work can be reused. There are individual self-archiving policies by journal or publisher that determine the terms and conditions e.g. which article version may be used and when the article can be made openly accessible in the repository (also called an embargo period). A list of publishers’ self-archiving policies can be found on the [SHERPA/RoMEO](http://www.sherpa.ac.uk/romeo/index.php?la=en&fIDnum=|&mode=advanced) database.

Benefits of Gold Open Access

* **Increased citation and usage.** As articles are freely and permanently available online immediately upon publication they have a broader distribution and increased visibility over subscription content. [Research](http://link.springer.com/article/10.1007/s11192-015-1547-0)has shown that articles published open access receive higher citations, downloads and views. Download figures are also sustained over a longer period in articles published OA that those with restricted access.
* **Easy compliance with institutional and funder mandates.** Content published under a Creative Commons licence can be archived anywhere and made immediately available on publication, allowing authors to easily comply with funder requirements.
* **Retention of copyright** by authors.
* **Faster impact.** As work is available to all as soon as it is published research that builds on the paper can be carried out and published quicker. This is especially important in fast moving or time sensitive fields and topics (e.g. current epidemics).
* **Greater public engagement** as those without intuitional subscriptions can access latest research. Especially valuable for especially when content affects the general public (e.g. patient groups).

# Article Processing Charges

Publishing is not without costs. Subscription journals recoup the costs of publication by charging a fee to access the content. As Gold Open Access content is freely available the costs are defrayed through article-processing charges (APCs).

APCs are levied after article acceptance prior to publication and vary depending on the respective publisher, journal and discipline. There are also journals whose processing and publication costs are covered by other sources, for example a sponsoring party like a society, and so do not charge an APC.

### **What does an APC cover?**

As well as permanent, immediate, and worldwide access to the full article text the APC covers:

* **Editorial work:** peer review, administrative support, commissioning content, journal development.
* **Technical infrastructure and innovation:** development, maintenance and operation of online journal system and websites.
* **Production of articles:** formatting and mark-up of articles and inclusion in indexing services
* **Marketing of journal and content:** making sure readers and authors know about the work published in the title
* **Customer service:** responding to authors and readers

### **Who is responsible for paying the APC?**

Although the authors are responsible for making or arranging payment of the APC in most cases they can rely on their institutions and funders for financial support. These bodies can cover APCs in a variety of ways for example; by establishing an OA fund, making it part of their general funding or by paying the fees as part of a membership model.

# Copyright and license

### **Who retains the copyright?**

Generally with Gold OA the author retains copyright however it is wise to check the individual policy of the publisher.

When articles are published in subscription titles in most cases the copyright is transferred to the publisher or society who publishes the title, although authors retain the right to place a version of the manuscript in a repository after an embargo period. Again check the publisher’s website for specific policies regarding Green OA.

### **What is a Creative Commons license?**

[Creative Commons (CC)](http://creativecommons.org/) provides free and easy-to-use copyright licenses giving the public the right to share, use, and even build upon an author’s creative work. The non-profit organization CC also protects the people who use an author’s work, so they don’t have to worry about copyright infringement as long as they abide by the specified conditions. Licensing OA articles under a Creative Commons license has evolved as the standard for OA publishing. One of the most liberal CC licenses for publishing scientific articles is the [Creative Commons Attribution (CC BY)](http://creativecommons.org/licenses/by/2.0/) license, as it allows the public to adapt and share an author’s work, even for commercial use, as long as the author is properly cited. Several [other licenses](http://creativecommons.org/licenses/) exist and you should check with the publisher what license the paper is published under; some publishers give you a choice when you are publishing in a hybrid title.

# Mandates and funding

Institutions, funders, societies and organizations all over the world have adopted OA mandates, encouraging or even obligating their affiliated authors to make their research and data freely available.

Some OA mandates focus on either the Green or the Gold model; others give their authors the option to choose between the two routes. [ROARMAP](http://roarmap.eprints.org/), the Registry of Open Access Repositories Mandatory Archiving Policies, lists the open access mandates and policies of funders and research institutes in a searchable database.

To support the benefits of OA, a large number of funders and institutions have made OA part of their general funding or have created central funds dedicated to covering APCs for their researchers, faculty, or members. There are now more than 100 funds available to authors and the number continues to grow. There are also membership programs that institutions can join to financially support their affiliated researchers.

# OA vs. subscription journals

### **Are there any differences between OA and subscription publications?**

The short answer is no, apart from the business model. OA journals are subject to the same peer review, production and publishing standards that apply for journals published under the subscription-based model, so there is no question about the quality and reliability of the work.

OA journals are tracked for impact factors just as subscription-based journals and are deposited into bibliographic databases and any full text repositories without any embargo period. Authors can also deposit the final version of their OA articles in any institutional repository immediately upon publication. OA journals can also be members of [COPE](http://www.publicationethics.org/)(Committee on Publication Ethics) and other standards and affiliations just like subscription titles

### **Avoiding predatory journals**

In recent years there has been an increase in the number of predatory journals. These are publications that do not uphold the standards of peer review that are usually expected of reputable journals. Before you submit to a journal we recommend that you take some time to assess if it can be trusted. The [Think, Check, Submit](http://thinkchecksubmit.org/) campaign provides further information on what to look out for when assessing a journal.

You should check that:

* You recognise the journal. Have you come across the title in your reading of the subject are? Do your colleagues know the title and have submitted there?
* You can easily see who published the title and can contact them via email and telephone. Do they clearly state where their offices are based?
* The journal is indexed in databases that you regularly use to find papers.
* The journal is a member of standard and affiliations
* You recognise members of the editorial board or recently published authors
* They make the peer review policy of the journal clear
* Any charges or costs are clearly displayed on the journal site

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