

Open Access is an important movement, led by researchers, research institutions and funding agencies striving for a more open, accessible and sharing approach to research knowledge dissemination. Scientists, unlike most authors, are not reliant on income from their copyrighted published works. This puts them in a unique position, writing for scientific impact rather than for money. Furthermore, it is in the scientific community's and in society's best interest that research work be as impactful and as accessible as possible.

For several decades prices of scholarly journals have risen steadily while library budgets have not, leading to significant "access gaps" which are particularly striking in less affluent research institutions. Paradoxically, time, labour and public money are put into creating new knowledge, which is then controlled by businesses that believe that their revenue and survival depend on limiting access to that knowledge¹.

The Open Access movement initially led by scholars has gained great support from funding agencies, with the ultimate goal of making research results widely available.

WHAT IS OPEN ACCESS?

Open access is **the practice of providing on-line access to scientific information that is free of charge to the end-user**. Although it can apply to scientific publications and underlying data (curated or raw), currently the **main practical implications are on scientific publications**.

It is important to clarify a few, often confusing, issues about Open Access, namely **Open Access is not a requirement to publish**, as researchers are free to choose whether to publish or not. Also, **Open Access does not affect patenting in any way**, since the decision to patent occurs before publication.

Currently there are two main ways to guarantee open access to your publications:

1. **Self-archiving ('green' open access)** means that the published article or the final peer-reviewed manuscript is deposited, at no added cost, by the author (or a representative) in an online repository, making it publicly available free of charge. Note that **most journals will only allow the authors to make their article publicly available after a certain period of time** (the embargo period²).
2. **Open access publishing ('gold' open access)** means that an article is provided in open access mode as it is published. Currently there are journals that are 100% Open Access (such as PLoS), while others may offer an Open Access option. Importantly, when journals are not 100% Open Access, **publishers may charge higher prices for open access publishing** to compensate for lost income from article sales and subscriptions. Fees range between \$500 and \$5,000 depending on the journal.

¹ Peter Suber, "Open Access", The MIT Press Essential Knowledge Series, 2012

² The embargo period starts on the day of publication

WHAT ARE THE FUNDING AGENCIES' OPEN ACCESS POLICIES?

Funding agencies' (such as the Wellcome Trust or the NIH) support for the researcher-led Open Access initiative has been mounting in recent years. This has led to the introduction of Open Access requirements on publications financed through their grants and fellowships. These Open Access requirements were adopted by the Horizon 2020 program and, more recently, by Fundação para a Ciência e Tecnologia (FCT). As such, under **Horizon 2020, as well as FCT grants and fellowships resulting from calls open after May 5, 2014**, each beneficiary must ensure open access to all peer-reviewed scientific publications relating to its results.

This involves two separate steps:

1. **Deposit a machine-readable electronic copy of the published version or final peer-reviewed manuscript accepted for publication³ in a repository** for scientific publications, at the latest upon publication. This should be done even when papers are published under gold open access. Depositing the article in a repository does not automatically grant public access; this can be done at a later date (i.e. after the embargo period).
2. **Grant public access to the publication.** This can be done by allowing the public access to the article through the repository (green open access) within 6 months of publication, or through open access publication (gold open access).

FCT has recently developed a digital network of national research repositories, called the RCAAP network (<http://www.rcaap.pt>). FCT requires that articles be published in repositories that are a part of RCAAP. At this time CF researchers should use the *RCAAP Comum* (<http://comum.rcaap.pt>), a repository shared by several institutions, although in the future CF may develop its own repository. Deposits can be made in *RCAAP Comum* after registering at <http://comum.rcaap.pt/password-login> and informing the Office for Sponsored Programmes (sponsored.programmes@fundacaochampalimaud.pt), who will contact the repository to confirm your registration.

In addition, the author may also choose to deposit his/her publication in any other repository.

This applies to other peer-reviewed publications, such as conference abstracts, books and book chapters, and PhD theses. Embargo periods of up to 18 months are accepted for books and up to 36 months for PhD theses.

HOW CAN OUR SCIENTIFIC COMMUNITY CONTRIBUTE TO THE OPEN ACCESS MOVEMENT?

The benefits of Open Access to the scientific community and society at large are easy to understand and stand behind. However, since Open Access is still not fully widespread, it is essential to find the best, simplest possible way to implement it in thriving scientific communities while minimizing inconveniences. The following proposal outlines a simple, one-size-fits-all procedure for ensuring Open Access and compliance with funding agencies' requirements, in three steps:

³Publishers differ as to which version of the article they allow the author to deposit.

- 1. Authors (PIs) check the self-archiving policies for the journal in which they plan to publish**, including the embargo period and restrictions on different versions. Policies for the main journals of interest can be found on the Sherpa/Romeo website at <http://www.sherpa.ac.uk/romeo/>.
For embargo periods of Elsevier publications, see the list on the publisher's website at http://www.elsevier.com/_data/assets/pdf_file/0018/121293/external-embargo-list.pdf.
- 2. If embargo period for journal is longer than 6 months, a shorter embargo period should be requested from publisher** (these are usually granted). Alternatively, author may consider gold access.
- 3. Before publication date, authors (PIs) deposit the authorized version of the article, as well as any conference abstracts, books or book chapters, and PhD theses in *RCAAP Comum*.**
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