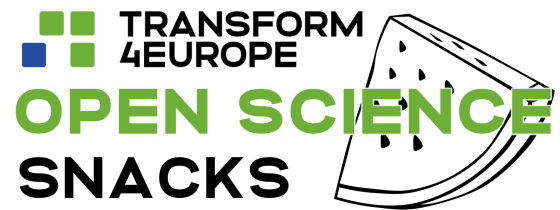


## T4EU Open Science Snack 03: Open Access

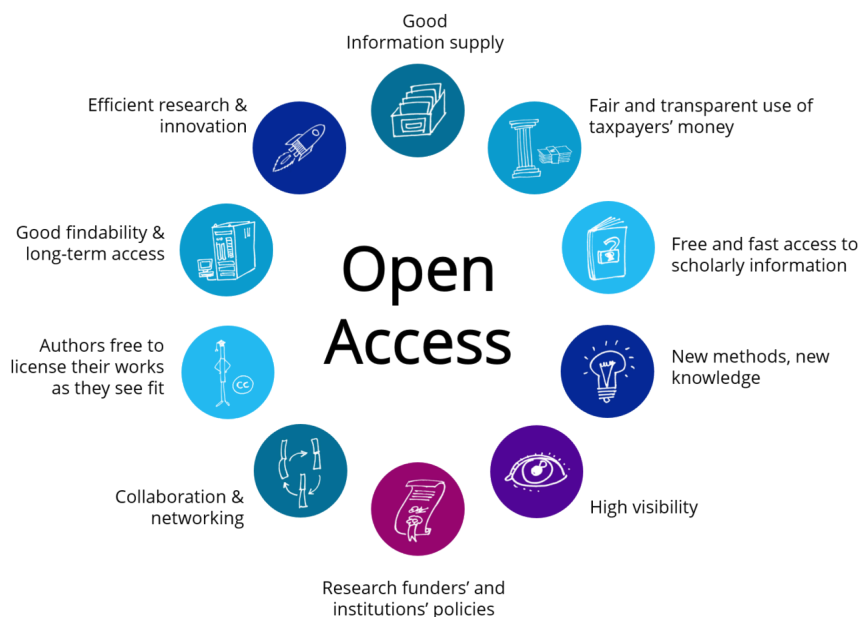


Dear Open Science Snackers,

Welcome to our third Snack on the possibly most prominent aspect under the Open Science umbrella: Open Access.

In this snack, we define Open Access in line with the [Budapest Open Access Initiative](#) (BOAI) as “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.”<sup>1</sup> According to the BOAI, there is only one constraint and one role for copyright, and this is “to give authors control over the integrity of their work and the right to be properly acknowledged and cited.”<sup>1</sup>

Sounds good, doesn't it? And if you remember [our first Snack](#), Open Access brings about more benefits for you as an author. For instance, Open Access can increase your visibility, because Open Access publications are disseminated more widely, cited more and downloaded and referenced more often.<sup>2, 3</sup>



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If we were to live in an ideal world, perhaps that would be all that there was to say about Open Access. Since we do not, there are a few “buts” to consider; most of them have to do with money.

Let us take a look at the most common routes to publish Open Access: the green route, the Gold Open Access route, and Diamond Open Access. We will discuss the “buts” along the way:

The first route to publish open access is to take the “green route” and self-archive your article in a publicly accessible repository. Depending on the policies of the journal you published your article

in, you may deposit the final and typeset article, the unformatted accepted manuscript, or only the not yet peer-reviewed initially submitted manuscript. You do not know which repository to choose or if the policy of a certain journal allows it? Take a look at the [Sherpa Services](#) for guidance (and at the publishers' homepages, of course). Taking the green route to Open Access is free of charge.

#### Short detour: **What is a preprint?**

[According to FORRT](#), a preprint is “a publicly available version of any type of scientific manuscript/research output preceding formal publication, considered a form of Green Open Access.” Preprints are usually hosted in a repository and given a persistent identifier (e.g. DOI) and can be published at any point in the research cycle. Most commonly, a preprint describes the submitted, un-reviewed version of a manuscript. Unformatted versions of published and peer-reviewed articles, often also published in these repositories, are called postprints.

The second route to Open Access is to choose a journal that offers so-called Gold Open Access. This means that your article is Open Access immediately on publication. Sounds good. A downside is that although access is free for readers, journals often make the authors pay to publish Gold Open Access. This means that in many cases the taxpayer pays twice: Tax money is used to conduct the research, it is peer-reviewed for free by other scientists, and then tax money is again needed to publish it (just as in traditional, non-Open Access publishing models in which readers have to pay to access the journal).

Some journals, so-called hybrid journals, offer the traditional subscription model (= the readers pay) and additional Open Access publication options for individual articles (= the authors pay). In this way, publishers charge double for tax money: Institutions/readers pay for journal subscriptions and authors additionally pay if they choose to make their work openly accessible. Some funding bodies such as the [European Research Council](#) or the [Bill and Melinda Gates Foundation](#) do not allow the use of their funding to pay for any kind of publication fees in subscription or hybrid journals. Yet, they do allow you to pay for publication in Gold Open Access journals that do not charge extra for journal subscriptions.

In recent years, some countries have negotiated so-called [transformative agreements](#) with publishers to change the traditional business model to one where Open Access publishing is the norm and a fair price is paid for publishing services (e.g. [DEAL](#) in Germany).

Another option for Open Access publishing is to publish in Diamond Open Access outlets (also known as Platinum). In these journals, publications are made Open Access immediately after acceptance of a manuscript and without payment of a fee. Authors also retain the copyright for their articles. Almost all Diamond Open Access journals have always followed this publication route, they tend to be small in size and face challenges concerning indexation and content visibility.<sup>4</sup> As publication in highly visible, high-impact journals is still an important evaluation criterion for scientists, this may be a deterrent to publishing in Diamond Open Access journals for the time being. In the long run, there is hope that more recent journals will build their reputation and that established journals will jump on the bandwagon, too. Recent developments also suggest that, hopefully, in the future, researchers will increasingly be judged on the quality of their work, rather than predominantly on quantitative rankings and indices of the journals in which they publish.<sup>5, 6</sup>

In the next snack, we will cover one more research output that profits from openness and FAIRness: Data.

Best regards,  
The Science4All Initiative

### Upcoming Snacks

- Open and FAIR Data
- Preregistration 101
- The value of replications

You can find all the Snacks also on our website: <https://transform4europe.eu/t4eri/science4all/>

### References

- (1) <https://www.budapestopenaccessinitiative.org/read/>
- (2) McKiernan, E. C., Bourne, P. E., Brown, C. T., Buck, S., Kenall, A., Lin, J., McDougall, D., Nosek, B. A., Ram, K., Soderberg, C. K., Spies, J. R., Thaney, K., Updegrave, A., Woo, K. H., & Yarkoni, T. (2016). How open science helps researchers succeed. *eLife*, 5, e16800. <https://doi.org/10.7554/eLife.16800>
- (3) Colavizza, G., Hrynaszkiewicz, I., Staden, I., Whitaker, K., & McGillivray, B. (2020). The citation advantage of linking publications to research data. *PLOS ONE*, 15(4), e0230416. <https://doi.org/10.1371/journal.pone.0230416>
- (4) <https://doi.org/10.5281/zenodo.4558704>
- (5) <https://sfdora.org/read/>
- (6) <https://coara.eu/>

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