# Open Science and the Arts, Humanities and Social Sciences

## Introduction

Open science (OS) is an umbrella term for a wide range of scholarly activities, which aim to provide transparency at all stages of the research process and unrestricted access to its outcomes.

## Keywords

Open access, scholarly communication, research data, transparency

## Summary

The contemporary open science (OS) movement is fuelled by the digital transformation, which provides unprecedented opportunities for the free exchange of scientific knowledge. The Budapest Open Access Initiative (BOAI), signed in 2002, posited unrestricted access to journals, paving the way for what would later be known as different "routes" of open access (OA): green (self-archiving of articles in repositories), gold (OA version is provided by a journal or publisher), and diamond (like gold but immediate and free of charge). However, open science goes beyond mere open access, advocating for open research, i.e. transparency of the research process and access to its products like research data, code, methodology and findings at all stages of the research workflow. A good example of such practices are open notebooks, i.e. blog-like websites chronicling the progress of the research project and providing early findings for discussion with interested audiences. Open science also engages with more transparent forms of quality assessment, like open peer review.

The arguments in support of OS, as categorised by Herb (2010), are science–related (improving scientific communication), financial (responding to the rise in article subscription prices), social (reducing the digital divide), democracy–related (facilitating participation), and socio–political (levelling disparities). Individual researchers may also note the better visibility of their outputs, as OA works tend to be cited more often and attract more social media attention. The publication of research data and other supplementary material from the study also allows for deeper audience engagement with the research in the form of results replication or data reuse.

The humanities disciplines differ from many other sciences in that they rarely think of their assets in terms of data. However, the ALLEA E-humanities working group report suggests that all primary and secondary sources could and should be treated as data, including "all materials and assets scholars collect, generate and use during all stages of the research cycle". This might include tables, objects like documents or iconography, and annotations referring to and contextualising these objects. Depositing and providing access to such data enables other researchers to use them in their own research and incorporate them into the source material they work on in other projects.



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The progress of open science is slowed down by the economic interests of big commercial companies who offer access to scholarly outputs at high prices, having low operational costs, as the work of scholars providing, reviewing and editing content is rarely remunerated. This economic factor is also closely linked with the prestige of publication, which currently rests with traditional forms and established venues. Moreover, there are still very little incentives for scholars engaging in open science activities.

However, there are numerous initiatives aimed at challenging the status quo and providing systemic solutions to boost the transition to open science. The European Commission have adopted a "holistic policy to Open Science," a series of top-down measures to support this process. Horizon Europe supports open data, FAIR principles and open publications (apart from hybrid journals). The EC also established Open Research Europe, an open access publishing platform for outputs stemming from EU projects, as well as the European Open Science Cloud (EOSC) to make various data available and accessible. Similarly, Plan S, adopted by a coalition of funding institutions, requests that all outputs for grants they award must be available in OA.

Researchers wishing to engage with open science may find numerous online resources dedicated to particular aspects of providing open access to texts, data, methodologies, and software (some ideas are provided in the resources section). Research infrastructures like DARIAH, CLARIN and OPERAS, e-infrastructures for scholarly communication like OpenAire, or associations like Research Data Alliance embrace open science and provide dedicated advice through workshops and tutorials. Trusted national or European repositories (like Zenodo) allow researchers to deposit various kinds of outputs.

## Further Resources


- Budroni P, Claude-Burgelman J, Schouppe M. 2019. Architectures of Knowledge: The European Open Science Cloud. ABI Technik. 39(2): 130–41.
- Eve, M.P. 2014. Open Access and the Humanities: Contexts, Controversies And The Future. Cambridge: Cambridge University Press.
- Fyfe A, Coate K, Curry S, et al. 2017. Untangling Academic Publishing: A History of the Relationship between Commercial Interests, Academic Prestige and the Circulation of Research.
- Harrower, Natalie, Maryl, Maciej, Biro, Timea, Immenhauser, Beat, & ALLEA Working Group E-Humanities. 2021. Sustainable and FAIR Data Sharing in the Humanities: Recommendations of the ALLEA Working Group E-Humanities.
- Herb, U. 2010. Sociological Implications of Scientific Publishing: Open Access, Science, Society, Democracy, and the Digital Divide. *First Monday*, **15**(2).
- Maryl M, Błaszczyńska M, Szulińska A and Rams P. 2020. The case for an inclusive scholarly communication infrastructure for social sciences and humanities. F1000Research, 9:1265
- Open Research Europe




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