
HR Excellence in Research: Open Science - A path towards transparent and high-quality research at CU

Open science

The objective of open science is to make research robust and as transparent as possible. While scholarly articles used to be the most important and often the only result of research work, in an era of significant advances in IT where large-scale research infrastructures are being developed, we can now consider many other types of output – science is no longer just an article in a physical journal. The focus is turning to the sharing of data (and other parts of the research process, such as workflows or software) their reuse, and even open sharing outside the academic community.

Open Science Support Centre

However, new opportunities also entail new requirements, and a certain change in the way we work (e.g., in the area of research data management) is often not without challenges. The goal of the [Open Science Support Centre](#), established at [Charles University's Central Library](#) as part of the HR Award project, is to make this transition as easy as possible for researchers. The Centre offers expertise and support in the area of research data management, open publishing of research results, and in the use of licences as a part of these processes.

Research data management

Although research data management is one of the most important activities in most types of research, it is still relatively undervalued in the Czech environment. It got more attention internationally: the principles that data must comply with have been defined ([FAIR Data Principles](#)), new infrastructure for storing and sharing data has been created (in the EU, consolidated under the overarching initiative [European Open Science Cloud](#); in the Czech Republic, [EOSC CZ](#)), and the requirements for creating a [Data Management Plan](#) (DMP) as a part of research projects have been standardized. Adaptation to the new environment naturally places demands on both university employees and the university itself. The university must create conditions for working with data, not only in the form of technical infrastructure, but also it must also provide direct support and training in these areas. A key document for these efforts at the university is the recently adopted [Charles University Research Data Policy](#).

Open access

Publishing in traditional journals (though often no longer in paper form) is also undergoing change. The [Open Access](#) requirement seeks to challenge the system where authors give the rights to their articles to commercial publishers free of charge, who then sell them back to (not only) their parent institutions at a high price. Publishers are resisting the efforts of research institutions to retain a degree of control over the articles they produce. The aim of Open Access is not only to allow wider access to publicly funded research, but also to reduce dependence on the whole commercial system that has emerged in the research publishing environment. This change, nevertheless, is not entirely easy and presents new challenges for authors. More emphasis is placed on the [legal aspects of open access](#), and authors are sometimes involved in the financing of open access (Article Processing Charge – APC). The Open Science Support Centre also offers infrastructure in this area (the [CU Research Publication Repository](#)), as well as support and training.

Open science (beyond) research projects

The implementation of open science principles in research is becoming one of the [requirements of most research funders](#). Hence, it is very likely that, sooner or later, practically everyone who is serious about modern research will encounter them. The Centre's goal is that, at the end of this encounter, there will be more satisfied researchers carrying out transparent and high-quality research. Because, as it is sometimes said – open science is just science done right.