

Abstract for a Poster Presentation and Short Talk

Open Science Conference 2020

Harald von Waldow <harald.vonwaldow@eawag.ch>

Eawag: Swiss Federal Institute of Aquatic Science and Technology

A decentralized high-intensity approach to foster data management best-practices and publication of open research data

Even though many researchers are aware of the popularity of Open Science best practices with funders and with the scientific community in general, the fraction of research data that is brought into shape for future re-use and openly shared is still disappointingly low. Recent surveys indicate that providing suitable infrastructure, information about available infrastructure and basic support within the realm of research data management (RDM) could be among the most effective measures to remedy this situation (Goben & Griffin, 2019; von der Heyde, 2019; Kim, 2017).

We hypothesize that small-scale distributed data repositories together with support and training offers at the institutional or departmental level are necessary to initiate a cultural change that will result in a wide adoption of sharing and re-using research data. Furthermore, by integrating the technical system into the local IT infrastructure and by providing RDM support and technical expertise close to the researchers, many advantages over larger systems run in remote locations can be realized.

We present a simple solution for an institutional or departmental research data archival and publishing system. It is built from off-the-shelf open source components but highly customizable. We show the system in use at our institution and how the workload required by researchers to submit their research data for archival and publication can be minimized through suitable adaptations. We demonstrate that such a local repository, which adheres to the FAIR principles, serves to generate exposure for research data as well as much larger nation-scale general data repositories or global scale discipline-specific ones.

References

- Goben, A., Griffin, T. (2019). In Aggregate: Trends, Needs, and Opportunities from Research Data Management Surveys. *College & Research Libraries*, 80(7) 903-924. <https://doi.org/10.5860/crl.80.7.903>
- von der Heyde, M. (2019). Open Research Data: Landscape and cost analysis of data repositories currently used by the Swiss research community, and requirements for the future. *Zenodo*. <http://doi.org/10.5281/zenodo.2643460>
- Kim, Y. (2017). Fostering scientists' data sharing behaviors via data repositories, journal supplements, and personal communication methods. *Information Processing and Management*, 53(4) 871-885. <https://doi.org/10.1016/j.ipm.2017.03.003>