AccessEARTH: Using Big Data in Earth and Environmental Sciences

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Although its significant, researchers do often not value the importance of open-access research data. Most of the researchers consider preparing their research data to be deposited in open-access repositories as a time-consuming process, neglecting the needs of the scientific community to re-use these data. The AccessEARTH as a pilot project aims to measure the success rate of constructing a cloud platform that allows researchers to upload, handle, recalculate, and plot their research data (i.e., a tool to handle the data during the active phase of a research project). The research data will be uploaded to the AccessEARTH as raw data, and the researchers will get the benefits of using the online tool to analyze their data and prepare it for publication. The research data can then easily be transferred to an open-access repository. Consequently, the researchers will no longer consider uploading their research data to open-access repositories as a time-consuming and useless process.

The AccessEARTH (during the pilot phase) will be tested using research data from the Solid Earth Science (i.e., geochemistry, mineral chemistry and geochronology data), nevertheless, the platform can be potentially extended to cover other disciplines. In this context, a simple set of data will be used to test the possibility of extending the AccessEARTH to cover environmental/climate research data. The AccessEARTH is hosted at the UiT The Arctic University of Norway & Technical University of Varna.

In this contribution, we present the AccessEARTH in order to map the need for competence building and support services for researchers who will use such a tool, propose a management model for research data.