Data alliances in Open Science for interoperable and multidisciplinary data usage

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The idea of Open Science combines the Open Data, Open Access and further more open principles and activities for an improved domain specific but also cross-domain and interoperable usage of scientific data and appropriate publications, methods, software, etc. Scientific collaboration according to the Open Science principles is also opening the chance to return to a holistic approach integrating science and humanities. In order to get the maximum benefit from the principles of Open Science a change of scientific and administrative culture is still necessary as well as a transparent and secure access to data, information and knowledge. Data scientists could play an important role in the management of the whole data life cycle but also the cross-domain integration of data and publication. Scientific libraries should assume the tasks of an institutional body for all activities around a sustainable management of scientific data and appropriate value added services in Open Science.
Beside the discussion of general topics of this concept, the results and challenges of an international project for the integration of proprietary data server via semantic mashup of data catalogs in the geoscience and space domain are addressed in this presentation.

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