

The Role of Research Information Systems in Open Science

Project "Hessian Open Science Portals"

Abstract

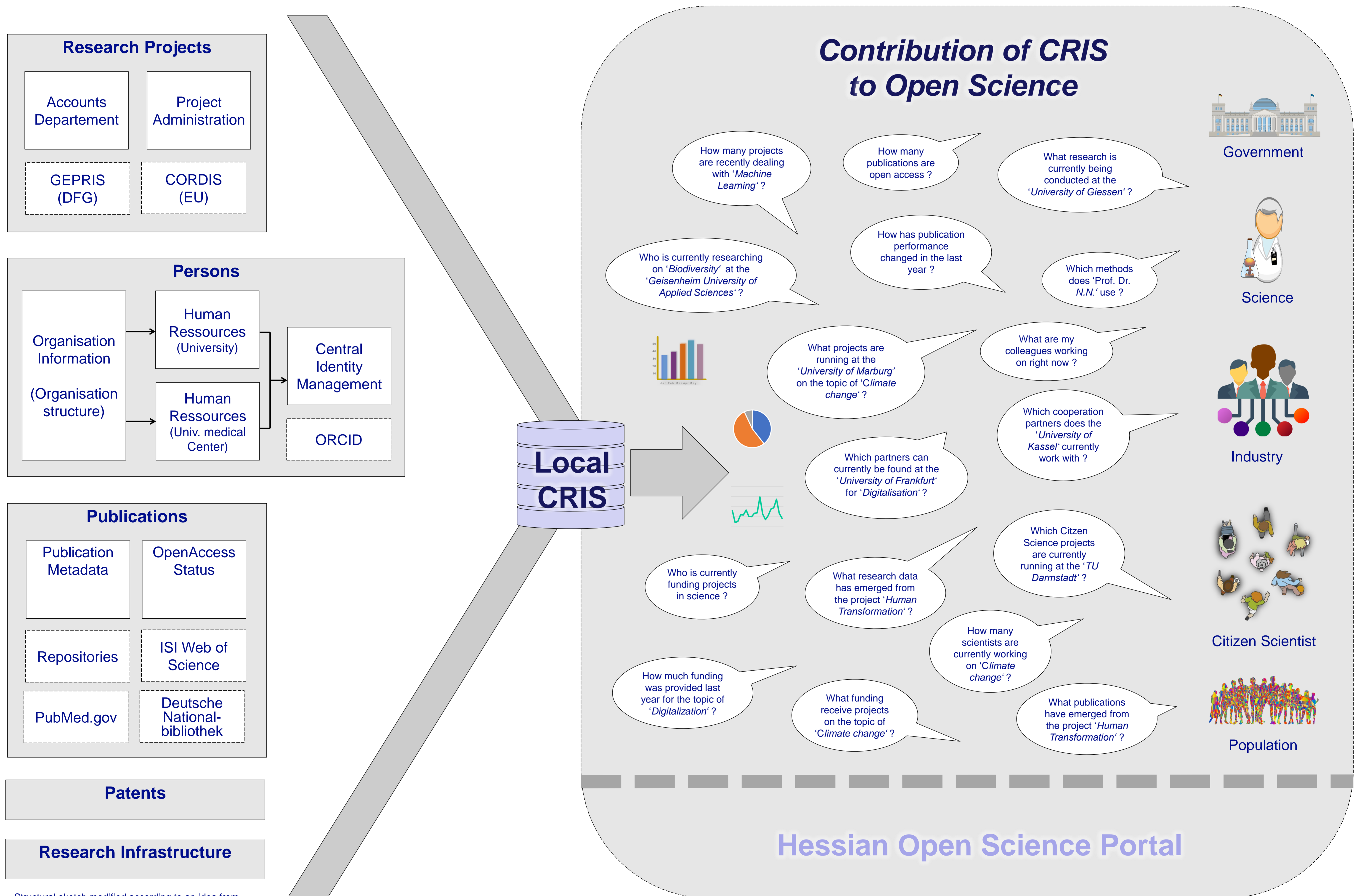
The project "Hessian Open Science Portals" (HeOSP) brings together Current Research Information Systems (CRIS) and Open Science. As one of several projects within the Hessian Digital Pact, HeOSP aims to improve the interoperability of CRIS and their openness to the public in the spirit of Open Science. CRIS provide profound knowledge about researchers, their research topics and results. For this purpose, CRIS operate nodes to OpenAccess and OpenData. HeOSP will build upon these systems to facilitate public access to local Open Science information. The project is based on the cooperation of six hessian universities: Justus Liebig University Giessen, Technical University of Darmstadt, Goethe University Frankfurt, Technical University Mittelhessen, University of Kassel, Philipps-University of Marburg.

HeOSP and CRIS

HeOSP has been funded by the Hessian Ministry of Science and the Arts since 2021 through the Hessian Digital Pact for Higher Education (HDPH). HeOSP builds on local CRIS and pursues the goal of making research information of Hessen's universities available to scientists, university administrations and political decision-makers as well as potential cooperation partners from industry and the general public. To this end, barrier-free and data protection-compliant portals will be set up in a joint effort between the universities in Hessen. Information will be individually selectable - from funding to publication and application of scientific achievements, e.g. for university spin-offs. Research information systems are therefore core to Open Science. They make an essential contribution to implementing Open Science at universities.

Services to Open Science

CRIS is a central data infrastructure within the universities, linking a wide range of information sources and administrative processes related to research management. These systems make meta-information such as publications and patents, doctoral and post-doctoral theses, prizes and awards, research priorities and collaborations, searchable. For this purpose, CRIS provide an interface for researchers and administrators to enter data and maintain nodes to OpenAccess and OpenData. The transparency thus created for internal workflows and application procedures, and the standardised and sustainable documentation of diverse research activities and research results, represent key expectations of Open Science in the areas of infrastructure and measurability.



Structural sketch modified according to an idea from M.X. Haupt (CRIS.NRW)

Outlook and Challenges

The status at the Hessian universities regarding the implementation of CRIS is very heterogeneous. Nevertheless, efforts are well underway to synchronise the data that universities are required to report under the Hessian Higher Education Act. The Research Core Dataset (KDSF) is almost suitable for this purpose. For research results, the application of standardised identification codes is a major challenge [1]. These identifiers are necessary for compliance with the FAIR principles, but are not yet well established.

Further efforts are needed in the area of evaluating research performance (e.g. Open Access reporting). Although CRIS contain the potential to gather new metrics, there is a lack of information objects and higher-level systematics that go beyond publications [1]. A need for further work is indicated by the still

incomplete development of new criteria catalogues for the evaluation of research results in the sense of Open Science.

Subsequent to this project, HeOSP plans to push ahead with a Hesse-wide Open Science Portal - also involving non-university research institutions. In this funding period we are working to address the challenges outlined above and in summary, portals are to be expected in the HeOSP network that will

- make meta-information on research projects searchable,
- provide queries on topics, persons, funding and other access information on research results

funded by



References:

[1] DINI, Arbeitsgruppe Forschungsinformationssysteme (2022): Management von Forschungs- informationen in Hochschulen und Forschungseinrichtungen – Eine Standortbestimmung. 2022. DINI Schriften 22 -de. Version 1.0, November 2022. DOI: <https://doi.org/10.18452/25440>
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<https://uni-marburg.de/L3dVrR>

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