

Enriching the institutional research graph on DSpace-CRIS: equipment and facilities

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Abstract

DSpace-CRIS is becoming an increasingly popular open source alternative to implement an institutional research information management system (RIMS/CRIS): with 54 instances in 21 different countries on the euroCRIS Directory of Research Information Systems ([DRIS](#)) at the time of writing, DSpace-CRIS is the 6th most popular CRIS software solution in the directory (as well as by far the most popular open source one). This is because its expanded data model allows the main research entities (such as researchers, organisations, projects, publications, datasets, etc) to be effectively collected and cross-linked.

As these research information management systems become more ambitious and comprehensive, they are starting to capture the institutional research instruments and facilities and to add them to the research graph of interconnected research entities [1]. The traditional expanded DSpace-CRIS data model does however not allow instruments and facilities to be added to the institutional research graph. Or not yet anyway.





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In January 2026 the Vietsch Foundation awarded a project to euroCRIS, 4Science and the Technical University of Hamburg [2] precisely to expand the DSpace-CRIS data model so that it becomes possible to add instruments and facilities to the snapshot for the institutional research activity. The project plan includes the modelling of this new CERIF research entity by euroCRIS on the basis of the work done by the RDA PIDINST WG, its implementation in the DSpace-CRIS version under development by 4Science and its real-life testing by the TUHH via their DSpace-CRIS-based institutional CRIS TORE [3].

This talk will summarise the project achievements and the lessons learned at the time the presentation gets delivered. The talk will raise awareness of this new DSpace-CRIS functionality and of the progress on its application at the TORE institutional CRIS so that other institutions using this software solution may become familiar with the metadata set used to describe these objects and the links that can be established to other entities already in the system. This development is particularly relevant in the light of the recently announced merger of DSpace and DSpace-CRIS [4], meaning that this functionality will soon be available for any institution currently operating a DSpace-based institutional repository.

Making the institutional instruments and facilities more visible by having them sitting alongside the already existing research entities is also very well aligned with the Barcelona Declaration on Open Research Information [5].

The presentation will also explore a couple of use cases for the open availability of institutional research instruments and facilities. First, the possibility of monitoring the use of such equipment by projects, organisational units and principal investigators and networks of academic and external stakeholders, as well as the results of such use in terms of publications, datasets and other outputs [6]. Second, the contribution of this information to a growing integration of shared infrastructure assets that groups of institutions at a regional, national or international level are able to pool and offer to their users wherever they happen to be [7].

Some reflections will finally be shared on the value of integrating the institutional research instruments and facilities in the wider research graph. This could for instance open the door to the possibility of tracking specific Academia-Industry collaborations where companies contact institutions with an expression of interest on their research facilities [8]. Confidentiality concerns notwithstanding – the “as open as possible, as close as necessary” mantra the community has systematically been applying to datasets would naturally apply here too – the possibility of capturing the value academic institutions contribute to their regional innovation ecosystems is an area that initiatives like the 4th Generation University (4GU) have been exploring for quite some time now [9].

Keywords

DSpace-CRIS, research information management, open source software solutions, research instruments and facilities, research graph, open science

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