

Sharing and connecting research information : the use of OAI-PMH, authority control and quality checks within the Brocade CRIS solution

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In 2018 we presented at the CRIS conference at Umeå University, Sweden a light-weight CRIS system that was built upon a Library Management Software package.

(<https://hdl.handle.net/10067/1570660151162165141>).

The adjective 'light-weight' referred to some basic extensions we added to the institutional repository module of the library system 'Brocade' that is used and developed at the university of Antwerp. More specifically we added a framework to describe authority-controlled objects such as research projects and research organizations. This allowed us to capture and maintain linked data about research output, research projects and organizations.

When developing extensions for the repository software, we always kept in mind that the end result had to be CERIF compliant. On the one hand the repository data needed to be transferred to the CRIS database of the university of Antwerp and on the other hand we had to support CRIS needs of partners from the ANET network. (<https://www.uantwerpen.be/en/projects/onet/>) Two scenarios in which information about research needed to be transferred to governmental bodies according to the CERIF model.

Initially we built upon experiences, principles and methods from library management which was and still is a reliable place to start from.

However, over the years we extended and re-engineered the repository and CRIS module outside the boundaries of a library management software.

To achieve this we created a new concept that we baptized with the name GNOI, which stands for Generic Namespace Object identifier. Within this framework it is possible to create new entities in a highly configurable way. At the moment we created GNOI systems for projects, funders, contracts, infrastructure, organizations and addresses. With highly configurable we mean that it's easy to extend the metadata model for all GNOI bases entities.

A first analysis of required metadata for GNOI's was based on business rules that are in place to ingest research information to the FRIS, the Flemish Research portal (<https://researchportal.be/en>). As a result every entity can be described according to this rules and metadata checks are added to alert administrators that mandated information is missing. If the object descriptions meet a certain level of quality they can be ingested to FRIS.

Because the GNOI concept is highly configurable it's possible to add metadata for specific local needs without extra software.

Even though the GNOI-architecture hardly interfaces with typical library solutions, it can be easily embedded in existing library software. This has the significant advantage that all CERIF entities can be managed with one application.

As a result we can present today a CRIS solution where the adjective light-weight is not applicable anymore.

Where the repository module is strongly connected with traditional metadata standards that are common and widely used in academic library systems the gnoi metadata entities are not.

Apart from an general introduction to our CRIS solution we like to highlight and demonstrate the following strengths and characteristics of which we believe they differ from other solutions in the CRIS landscape:

- Sharing CERIF en CERIF-FRIS research data via OAI-PMH
 - for internal use
 - for external use
 - Sets on metadadata quality levels
- Extensibility features to support local needs
- Connecting CRIS repositories with other CRIS systems (national, regional and local)
- Shareable and authority controlled data
- Built in metadata checks for CERIF_FRIS metadata compliancy
- Connections with other CRIS solutions