Collaborative systems and tools: Renardus case study

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This paper outlines the principle concepts underpinning Renardus, and describes some of the collaborative systems and tools developed to support its aim to build an academic subject gateway broker service for the academic and research communities in Europe.

Renardus builds on existing trends towards greater collaboration, standardization and interoperability between information services. Since January 2000, project partners from seven European countries have been working together under the EU's fifth framework programme to build a single service providing search and browse access to high quality, distributed, heterogeneous records held in existing subject gateways and other Internet-accessible collections across Europe. Although very successful, many of these publicly-funded services now face the challenge of sustainability: collaboration is needed to maintain quality, develop standards and avoid duplication of effort. The Renardus Consortium has established a management group to negotiate with potential strategic partners to ensure the service's survival beyond the project end date (June 2002) and further develop functionality. Many other gateways across Europe have expressed an interest in future participation and in following standards promoted by Renardus.

The ability to cross-search and particularly to cross-browse participating gateways' records led to development of tools to support the integration and 'sensible' presentation of records from a wide range of services, each using unrelated classification systems and data models, providing interfaces and data in different languages, based on different technical solutions.

A tagged-template translation toolkit supported partners in translating the user interface. A mapping tool first developed under the EU Carmen project was extended to assist gateways' considerable mapping effort to match their local classifications to the top levels of the Dewey Decimal Classification (DDC), facilitated by a research license from OCLC. A common metadata model of eight elements largely based on Dublin Core was also developed to ensure consistent retrieval and presentation of records from different gateways. Experiments have also been undertaken in metadata sharing, mainly with a view to scoping potential future collaboration in this area. Another example of collaboration, the Renardus Metadata Sharing Tool (RMST) was developed on the basis of work previously undertaken for the SSG-FI (gateways participating in Renardus from Germany). To support the distributed, decentralised system architecture, participating gateways are required to set up local Z39.50 servers and undertake normalization routines to convert their metadata to the Renardus application profile format. Support toolkits for the Renardus Z-server and normalization are both available, integrating the DDC mapping information from CarmenX. Tools are also provided to support monitoring and maintenance activities for local servers.