

National Hosting and Interoperability: the LuKII Project in Gemany

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The German LuKII (LOCKSS-und-KOPAL-Intrastruktur-und-Interoperabilität) project was funded to start building an archival network in Germany using the LOCKSS¹ (Lots of Copies Keep Stuff Safe) software, which is 100% open source, and the open source elements of kopal (co-operative Development of a Long-term Digital Information Archive) that are found in its koLibRI (kopal Library for Retrieval and Ingest) software. kopal is a German archiving system based on the idea of prophylactic migration that unfortunately has a proprietary element, therefore for LuKII only koLibRI, the open source library of Java tools, is used.

The Deutsche Forschungsgemeinschaft (German Research Foundation) funded this project in order: 1) to establish a cost-effective Private LOCKSS Network (PLN) within Germany, 2) to implement interoperation with koLibRI (especially its metadata features), and 3) to test it using open access materials from German institutional repositories.

The LOCKSS program is cost-effective and financially self-supporting. Building a cost-effective German PLN is largely an organizational task involving German partner libraries. koLibRI will enrich content in LOCKSS with technical metadata by using JHOVE (JSTOR/Harvard Object Validation Environment) and the recently enhanced metadata capabilities of the LOCKSS daemon. Content will be stored and exchanged as WARC files; the metadata will be in METS containers.

Because of LuKII's involvement in long term digital archiving in Germany, LuKII team members play an active role in the study about potential national hosting solutions for scholarly data in Germany. A study by Charles Beagrie Ltd. helped to focus the choice between LOCKSS (LuKII) and Portico. The LuKII Team (both Humboldt-Universität zu Berlin and the German National Library) is both providing expert information about the LuKII PLN and about long term hosting issues. The awareness in Germany is slowly growing that bitstream maintenance is complex and that it matters – since without the content intact, migration is meaningless. Copyright issues have also played an important role. Many German members of the study are convinced of the importance of maintaining content in Germany so that a single set of copyright laws apply to their storage and future use. Another important question has been one of management control. In both cases LUKII / LOCKSS can comply with requirements by establishing a PLN whose members are only within Germany and can give full control over that PLN to the appropriate German partners.

1 LOCKSS is a trademark of Stanford University.

Final decisions about national hosting will not take place until well into 2011 at the earliest.