

Technical requirements for the e-print archive for Nordic arts and humanities

Draft

This document describes the technical requirements for system platform of the “Nordic e-print archive for arts and humanities”, i.e. of the repository software. The archive project is funded by Nordbib, part of NordForsk, which is an independent institution operating under the Nordic Council of Ministers for Education and Research.

The purpose of the project is to provide a policy and a technical infrastructure that permits Open Access to research within the arts and humanities, thereby resulting in a number of advantages with respect to the electronic accessibility and visibility of this research area. The aim is to make Nordic research available through an Open Access online electronic repository.

The project is hosted by the Copenhagen University Library (the Royal Library), and is managed by a consortium consisting of Oslo University (Norway), Copenhagen University (Denmark), Lund University (Sweden), Museum Tusulanum Press (Denmark), and the Royal Libray (Denmark).

This document lists the most important requirements to the system’s (the repository) software. Since several software technologies can be taken under consideration for the repository, and since some of the requirements are not supported by all existing repository software, the technical requirements are divided into three levels: While any system failing to meet Level 1 requirements will not be considered, a deciding factor is likely to be the number of Level 2 requirements full filled. Realistically, a number of desired features are not likely to be supported by any existing repository software: These are the Level 3 requirements that should at the least be under consideration for future upgrades.

Contents

- Level 1 system requirements: What are the “must have” requirements to the repository technical system
- Level 2 system requirements: What are the “would like to have” requirements to the repository technical system
- Level 3 software requirements: Features that are presently optional but should be required of future versions of the system.

Level 1 requirements: Must have

The requirements listed here are not optional and they are the absolute minimum features that any software system under consideration must full fill. These requirements can be compared to the hardware requirements written on the back of software packages.

- The system must be based on standard low-level software, such as PHP, Perl, MySQL etc.
- The system type must be actively developed continuously, be robust and scalable
- Usability: The system must be user friendly regarding submission as well as download (as well as browsing and searching)
- The system must be able to handle registration of authors
- Its must be possible to dynamically modify and update records by both registered users and maintenance superusers
- The system must handle submitted media files correctly and allow these (i.e. common image, audio and video formats)
- It must be possible to harvest metadata from other OAIPM sources
- It must be possible to supply metadata to other institutional and national OAIPM repositories
- The interface to the system must be UTF-8 compliant and support multiple languages, especially Nordic (including Scandinavian)
- The system must allow an adaptable layout, e.g. through specified CSS type files
- The system must allow and support user specified news queries e.g. email, RSS etc.
- The system must support a wide range of standard metadata
- The system must allow optional submission fields, such as 'note' or 'comment' and 'keywords' (specified as well as unspecified)

Level 2 requirements: Would like to have

The requirements below are not features to be disregarded, but they are main functions that the repository consortium finds to be highly relevant for the functionality of the repository. However, recognizing the limitations of some existing software systems, we do not want to rule out beforehand any functioning system, simply because it presently fails to support a minority of these requirements.

- The system should be able to generate searchable PDF files from optional uploaded text files, if the uploaded file is not a searchable PDF file already (additional text file formats could be e.g. Word, L_aT_EX, Powerpoint etc)
- The system should allow easy output to reference tools (e.g. Reference Manager, BibTeX etc)

- The system should allow an optional choice with respect to long or short format viewing of records (as seen by users)
- The system should be able to automatically submit deposited works into other OAIPM repositories
- The system should consist of separable search engine and database systems
- The system should feature a “shopping basket” allowing collected searches to be viewed and processed simultaneously (as seen by the user)
- It should be possible to arrange commercial hosting (web hotel) using this software (i.e. the costs of the software should be based on a facilitating licence model)

Level 3 requirements: Presently optional features

The features listed here are highly important functionalities that it should at least be possible to develop within the framework of the system.

- The system should support Web 2.0 capabilities (e.g. tagging/commenting on records into metadata)
- The system should be able to handle endorsements of submitters by registered authors (limited e.g. to allowing tagging on records)
- The system should feature SFX linking
- The system should allow full text search of submitted text materials

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