

Request for Information:

A Preliminary List of Technical Requirements for Public Interface (draft) 22nd of October 2008

The Ministry of Education in Finland has launched a project "National Digital Library". Development of a national public interface for all Finnish memory institutions (libraries, museums and archives) is a central part of the project. National Library of Finland is coordinating the planning the new user interface. Timeline of the project is 2008-2011. The aim is to begin EU procurement process in 2009.

Notice: this document is not a Request for Proposal. We invite you to evaluate and comment this preliminary list of technical requirements. Please, send the comments before 31st of December 2008.

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Requirements marked by ☺ are MUST. All other requirements are SHOULD.

1. Public Interface for Finnish Memory Institutions

The Finnish memory institutions' new information system architecture will be divided to front-end user services and back-end management systems. The public interface provides the front-end services. It is a quick and easy one stop solution for discovery and delivery for the digital resources of all Finnish memory institutions.

Back-end management systems are library systems, digital archives, museum collection management systems, linking resolvers, metasearch systems and the long term digital preservation system.

The public interface will provide wide-ranging, versatile and up-to-date information retrieval and information management services for customers. Authenticated users can find and get all the information they need anytime and anywhere by using personalized services.

The public interface functionality is based on harvesting of library and other collections beforehand but the system must also enable use of metasearch/federated search. The system works mainly with metadata and the actual content is usually displayed in a native interface.

The public interface will be integrated into institutional web pages, portals and other systems. Search functionalities can be embedded into digital learning systems and other web working environments. Thus the information retrieval services are provided where users already are. Libraries and other memory organizations can design separate views for different user groups. Also end users can personalize the system. The user interface should put to use web 2.0 tools and social media practices.

2. Technical Requirements
 - a. Hardware and Operating Environment
 - i. Solaris 10 SPARC ☺
 - ii. 24 / 7 continuous availability ☺
 - b. Access Control and User Authentication and Authorization
 - i. External authentication methods and extensions ☺
 - ii. LDAP ☺
 - iii. Shibboleth or another authentication system used in the Finnish higher education authentication federation HAKA ☺
 - iv. IP address restrictions ☺
 - v. Web proxy support (e.g. EZproxy) ☺
 - c. Standards
 - i. Z39.50 (search, present) ☺
 - ii. SRU (search, present) ☺
 - iii. OAI-PMH ☺
 - iv. NCIP ☺
 - v. OpenURL ☺
 - vi. Unicode (UTF-8) ☺
 - vii. Accessibility (WAI) ☺
 - viii. Valid HTML, no browser limitations ☺
 - d. Metadata Formats
 - i. MARC 21 ☺
 - ii. Dublin Core ☺
 - iii. Other formats, flexibility ☺
 - e. Administration
 - i. Web interface for all administrative and management tasks
 - ii. No system-wide restart required for any task

- f. Consortium Features
 - i. Unlimited number of user interface instances (estimated requirement is 400) ☺
- g. Compatibility
 - i. Open APIs ☺
 - ii. Library systems used in Finland (Voyager, Aleph, Millennium, ATP Origo, Pallas Pro, Libra, PrettyLib, Abilita) ☺
 - iii. Retrieval back-end services (MetaLib and SFX) ☺
 - iv. Institutional repositories ☺
 - v. Museum systems ☺
 - vi. Archive systems ☺
 - vii. Learning environments (e.g. Blackboard, Moodle) ☺
 - viii. Online payment systems ☺

3. Functional Requirements

- a. Usage
 - i. 1000-2000 concurrent users, 500 in the pilot phase. Must be scalable to higher usage ☺
 - ii. No limitations to session duration
- b. Search Features
 - i. Indexing of 50 million records, expandable ☺
 - ii. Unlimited number of indexes ☺
 - iii. Customizable views to the indexed data ☺
 - iv. Continuous updates of indexed data ☺
 - v. Searching all databases currently available via MetaLib ☺
 - vi. OpenURL linking (SFX) from all search results ☺
 - vii. Analyzing of search results, clusters and facets ☺
 - viii. Support for ontologies
 - ix. On the fly enrichment of metadata records or display from external sources ☺
- c. Library Patron Functionality
 - i. Patron information
 - ii. "Library cards", connections to multiple libraries using a single account
 - iii. E-borrowing
 - iv. Renewal of loans
 - v. Reservations/Holds
 - vi. Payments (online banking etc.)
 - vii. Personalized services (e.g. reference management, new item alerts)
- d. Access Control and User Authentication and Authorization
 - i. Display of permissions on item level ☺
 - ii. User policy groups
- e. User Interface
 - i. Customizability on organizational level ☺
 - ii. Web based management and customization tools ☺
 - iii. Social media (web 2.0) features

- iv. Extensibility via plugins or addons ☺
 - v. Personalization ☺
 - vi. Integration with institutional portals ☺
 - f. Consortial Features
 - i. Centralized management with locally managed exceptions ☺
 - ii. High granularity of settings/configuration ☺
 - g. Statistics
 - i. Search usage ☺
 - ii. Sessions (visits) ☺
 - iii. Concurrent users
 - iv. Outbound linking to other systems ☺
 - v. Usage of patron functionality
 - vi. Limits: search target, user group, organization
 - vii. Scheduling of statistics (e.g. once per month)
 - viii. Formats: html, csv, xml
- 4. Other Requirements
 - a. Development of the System
 - i. Vivid vendor or development community ☺
 - b. Documentation
 - i. Comprehensive documentation
 - ii. Description of database structure