Transforming conventional library systems into digital libraries

Ole Husby
SINTEF DELAB

1. BIBSYS

BIBSYS is a shared library system for Norwegian university libraries, other academic institutions and the National Library. Traditional retrieval services are centered around the catalogue. Our web-gateway was launched in early 1994 as one of the very first of its type. Other access methods include Z39.50 operation.

2. Strategies for the transformation

The following strategies have been started as part of the transition from BIBSYS II (IBM mainframe) to BIBSYS III (UNIX).

They all seem to be necessary conditions for further development in the direction of digital library systems.

- Move focus towards the end user
- TCP/IP
- Client/server technology
- UNIX platform
- Open standards
- International cooperation

3. Method: WWW

Hypertextual structure is abundant in the library world. WWW is a nice tool for navigating links

- Between related bib records
- Within a thesaurus
- Between thesaurus terms and bib records
- Between the bib record and the primary document
- Within the journal - item - article hierarchy
- Between documents and the agent

All these types have been implemented in the BIBSYS WWW service.

4. Method: Z39.50

Interoperability is needed to access and reuse cataloguing work done elsewhere. Z39.50 is the technology to use in some areas (not only bib records).

Technology alone is not enough. We need service agreements and profiles.

5. The metadata problem

Traditional library cataloguing is too complex for the collections of the virtual library, perhaps even for the "real library". We need new abstract sets of descriptive elements, together with formats and standards for representation and exchange of metadata.

The need to keep metadata apart from the primary document is not a law of nature.

Dublin Core, SGML, URN/URC are some of the methods to be considered.

This process is made possible by the failure to agree upon an international MARC format.

6. Current projects and services

- FORSKPRO: An integrated database of research projects in Norway
- MECANO: Connecting CD-ROMs to the OPAC
- ONE: Establishing a European OPAC
- UNIVERSE: Solving Z39.50 interoperability problems
- NWI: Nordic WWW index
- Web copy/loan ordering
- ISI: A joint Norwegian agreement, with BIBSYS linking possibilities.

7. Experiments

- Museum: An integrated index to collections, with links to pictures.
- 856: Integrating cataloguing of networked multimedia documents into the main BIBSYS bibliographic file.

8. Access to BIBSYS

End user access to BIBSYS is free, no userids are needed.

- WWW: http://www.bibsys.no/
- Telnet: eros.bibsys.no (Login: bibsys / Password: bibsys)
- Z39.50: z3950.bibsys.no:2100 (Databases BIBSYS, PERI; Query type RPN/BIB-1; Syntaxes NORMARC, USMARC, SUTRS)