Databases have always been the most appropriate tool to catalogue library items, but their most important feature, to instantly retrieve sets of data which satisfy search criteria, has often represented an awkward task to be accomplished, depending on the different kinds of query languages, which vary with hardware and software architecture. WWW browsers and the development of the Internet have offered Information specialists a unique opportunity both to facilitate end-users in the search and retrieval process and to remove barriers which have always separated local from remote resources.

At the crossover point between libraries’ supply and users’ requests, Web-based OPACs allow not only the location of items which are physically owned by the library, but also access to remote resources (either full-text documents or databases, free and fee-based, or selected links relevant to the library community) and actually display or retrieve them on the desktop of any registered user.

Indexing digital resources also means recording type of data which require appropriate database fields such as MARC 856, designed to accommodate URL (Uniform Resource Locator) addresses, as well as others which contain information accessible only to authorized users. This will allow librarians to distribute the appropriate data in a more timely and secure manner than alerting different classes of users on ‘bits and pieces’ of information at any occurring change (e.g. URL changes, passwords and so on), therefore saving time to implement other specific features. Grouping resources from different points of view or grouping users with different interests for current awareness purposes, in order to implement all kinds of alerting services would have been previously inconceivable for librarians, because of the enormous amount of work involved. Also, from the librarian point of view, the crucial task of updating the catalogue must be as smooth and quick as possible, and find in the OPAC interface a valid companion to normalize data.

The structure and functionalities of OWL-Cat (Online Web Library—Catalogue Access), a tool designed to interface DBMS Basis Plus and its Library Management Module Techlib Plus ver. LIG.2 to the World Wide Web are described. The functionalities and new services of OWL-Cat have been implemented at the CNR Research Area Main Library in Bologna.
OWL-Cat features include:
- Providing help to the less experienced user, who had previously achieved negative results, by presenting him/her valid alternatives to run a successful search.
- Helping the librarian to make use of advanced features to correct record orthography and consistency, and to normalize data in authority files.

A number of issues have been identified in designing a Web library-gateway:
1. the librarian need not worry about maintenance of the interface;
2. checking data consistency should be carried out by the system;
3. the system should be able to autonomously manage different user categories, priorities, authorizations, validations and so on.

The most interesting and innovative features of OWL-Cat are:

**User Interface. Querying by forms and by browse.** OWL-Cat offers two ways for formulating searches: fill-in forms and browse lists. There are two kinds of forms, simple and advanced. This is to take into account both low-frequency user and more sophisticated user. Search results are "short" or "detailed" lists of retrieved items. Users can then navigate through related information of interest displayed in the result lists (i.e. co-authors, series titles, publisher, subjects and so on). This nonlinear search will also avoid the problem of a too narrow strategy or misspelling or truncation errors.

OWL-Cat also builds browsing lists which will help the final user home in on his/her needs and to locate relevant resources. Browsing activity is a way for rapidly scanning all the content of interest in the library in a systematic, and eventually, exhaustive manner, as an alternative to inputting data in search forms. OWL-Cat browsing lists (subjects, publishers, series titles, corporate, conference and personal author lists) help users to shape one's own mental representation of the whole library content, which, in turn, can be continuously re-organized on the basis of user preference.

Browse lists are periodically created. OWL-CAT autonomously queries the whole database on behalf of the user and organizes query results in HTML pages. Furthermore, precompiled queries launched by hotlinks in browse lists increase system performance, and also filter generic queries which overload Web gateway traffic and absorb excessive machine resources.

**Resources of resources: URL browse list.** OWL-Cat provides the possibility of automatically generating electronic journal information pages from information gathered in database records. The URL browse list is created by querying all the records that have a MARC 856-like, not empty, field. It then provides timely access to Table of Contents, abstracts and full-text electronic journals. In some cases, the database record will contain other related information such as limitations of online subscription, type of subscription (i.e. abstract only, full-text), username and password, notes, plus, of course, URLs. OWL-Cat takes care of delivering this "confidential" information only to authorized users on the basis of a multi-user policy.

At the librarian's ease, a process of URL checking is launched, which allows further correction of the database. OWL-Cat provides the librarian with a very easy tool to authorise/remove classes of users to/from different services.