The OSS diffusion in Italian libraries: the case of Koha by CILEA[1]

Authors: Tajoli, Zeno,Carassiti, Alessandra, Marchitelli, Andrea and Valenti, Fulvia
CILEA, Milan-Rome (Italy)

Abstract:

Koha is an open-source Integrated Library System (ILS) developed in New Zealand and deployed for the first time in January of 2000 for Horowhenua Library Trust. Koha is a full-fledged software with basic and advanced features. Koha has also a strong and wide community of librarians and developers. In particular, it is suitable to all institutions who want to automate their libraries using a system that allows a complete control over data and over software itself. CILEA worked to adapt Koha to Italian libraries and now it is a part of the community.

Intro
Koha[1], "gift" in Maori language, is an open source Library Management System, created in New Zealand by Katipo Communication Ltd for Horowhenua Library Trust. The development started in 1999 and the software was first released in 2000.
Many libraries now use Koha around the world[2]. The software is maintained by a community of librarians and software developers. The last stable version of Koha (released on March 2010) is the 3.0.5. Now Koha has all the standard modules of a modern Integrated Library System.

Features
Koha is composed by two parts: the OPAC and the interface for the librarian (the staff client). The staff client allows librarians to perform all library's typical activities.
The available modules are:
 - Cataloguing / Authority
 - Circulation
 - Patrons management
 - Acquisitions
 - Serials
 - Reports.

All the modules can be customized and adapted in many different ways, so they can fit the needs of any library. The principal support in setting up Koha and learning how to use it is the official manual documentation (only in English)[3]. For the day by day tasks the librarian could also use the on-line help linked from every web page.

With the cataloguing module, the librarians can add new bibliographic records in three different ways: derived cataloguing via Z39.50, cataloguing from scratch, cataloguing with an external tool that sends data to Koha using specific software interfaces usable by external programs (called API, Application Program Interface).
If the librarian catalogues via Z39.50 or from scratch, he could use specific frameworks to modify or edit the records. It is possible to create new frameworks for specific uses or materials. The frameworks have many instruments to help the cataloguing process, as templates for fields like 008 or to connect headings with authority. An example of external source for cataloguing with Koha is ‡bilbios[4].

The circulation module allows librarian to manage loans, reservations and recalls. The reservations could insert by the patrons directly from the OPAC. Loans can also be done in a fast mode, by entering the patron's card code and the barcode of the document in a specific form.

There is a specific section for patrons administration. Librarian can add the data collected from patrons and also photo. For each patron is available a specific report page. Only the authorised librarians could see it. In this page there are his personal data: ongoing loans, overdue notes, fines, the list of requests submitted to the library, reservations requested and suggestions for acquisitions. Patron can see those data if they login in a specific web page on the OPAC.

The Koha's acquisition module could record orders, suppliers and budgets. Orders are linked to a specific supplier and to a budget. When the librarian places an order, its amount is subtracted from linked budget.

The serials module could be used to insert and edit subscriptions, to insert planning patterns, to receive issues and to claim the missing ones. Librarians could also manage routing list for the patrons and check subscriptions expiration .

Finally, the report module allows the creation of statistics for all the other modules. The reports generated are displayed on the screen. They could also be downloaded as files to be opened with a spreadsheet or text editor. Koha has predefined reports, a wizard to create new reports in an easy way and a form to insert SQL queries for create them. The Koha community has a wiki page with many examples of reports[5]. Librarians can find the report that he need or he can ask to developers to write a new one. He could also create one from scratch.

Koha has a next-generation OPAC for searching the library catalogue. There are two search forms for the users: the simple one and the advanced. The simple form is a Google-like form available directly from the Koha home page. The OPAC is a "Social Opac" or "Web 2.0 Opac" with many features like tags from patrons, clouds of subjects and tags, RSS feeds, enriched contents from Amazon, Google, Syndetics Solutions, LibraryThing, results list sorted by popularity of the items, dynamic research refinements.
Registered users can also have a personal page, called My Koha. They also can aggregate records in a temporary collection (OPAC Cart) or in a permanent collection (OPAC List). The OPAC Lists could see only by user (the Private Lists) or if public, will be visible by everybody..
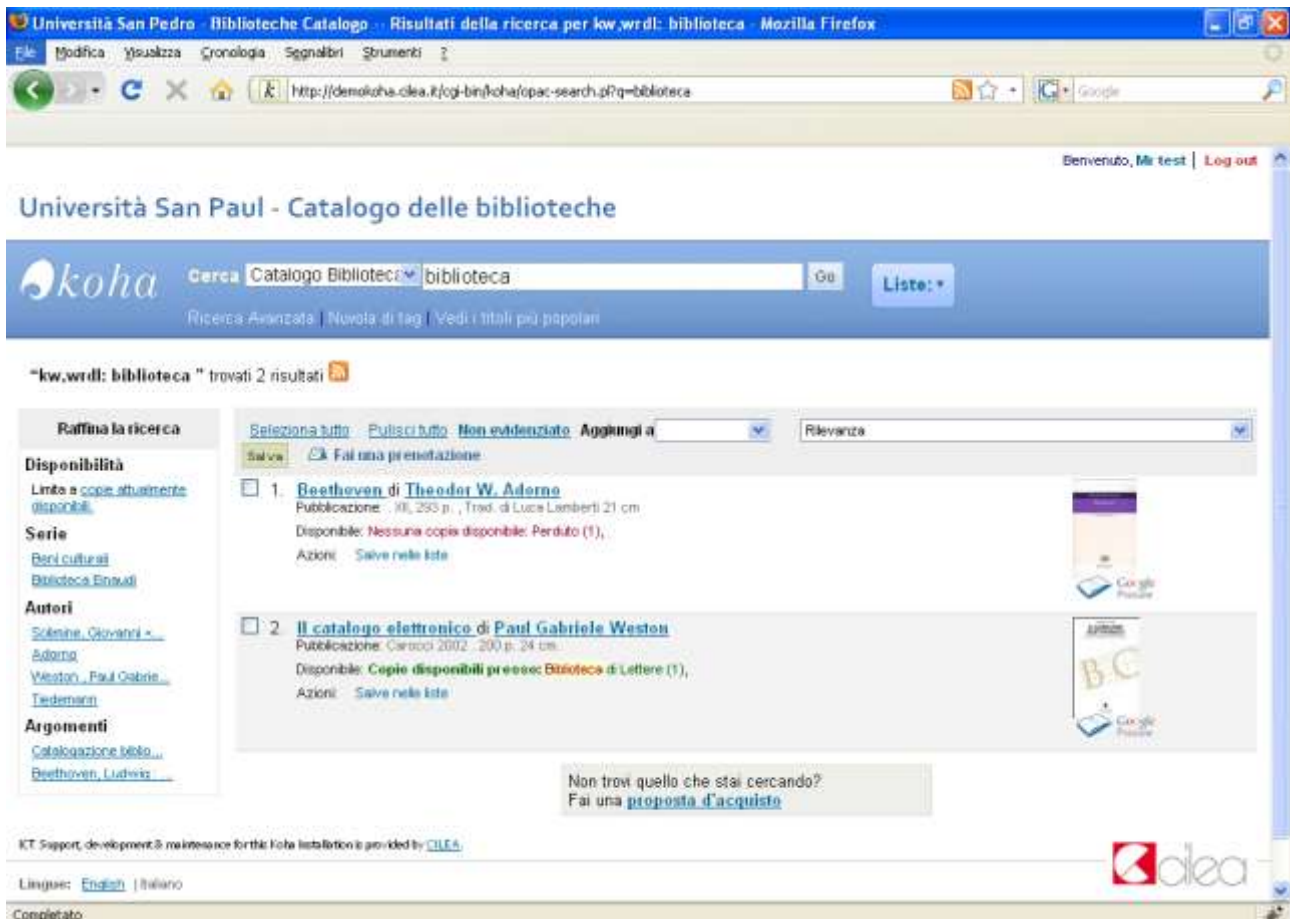Every user are can save results in different formats

Image 1: The result of a search on CILEA demo installation

Specifications

Koha is an application based on Linux, Apache, MySQL, and Perl.
Data are stored in MySQL tables. Bibliographic data are stored also in a XML indexer, Zebra by IndexData[6]. Zebra can create indexes on each field and subfield MARC, it has sort routines and can handle UTF-8 and MARC-8 as characters sets. It is a tool written and developed specifically to handle bibliographic records in MARC21 or UNIMARC format. It is natively a Z39.50 server and, with some additional configurations, also a SRU server. The web pages of Koha use HTML, CSS and JavaScript with two libraries: YUI[7] and JQuery[8].

To customize and to manage Koha, library staff needs to work with two tools: the web configuration interface and the perl scripts on command-line of Linux. The web interface is very easy to use by a Library Manager but many tasks typical of a librarian are done with perl scripts. So the positions of Library Manager, System Librarian, and IT support are not strongly differentiated. After installation are very few task for staff with strong ITC skills but Library Managers and System Librarian needs basic Linux skills as login, edit a file, download files, launch scripts with parameters.

The Koha community

Koha has spread around the world and several complete translations are available[9]. There are also multiple versions for English, to support the use of different terms between American, British and New Zealand libraries.

There are two main tools of communication within the community: mailing lists and chat[10].

Among the various mailing lists, the most important are the general mailing list and the developers mailing list. The general mailing list gathers all stakeholders involved in Koha. The mails are generally about Koha (how to use and setup it generic requests of help). In the developer's mailing list, main issues concern how to develop Koha and how to fix the bugs that are founded. It assumes that the participants are interested in manipulating (even elementary level) the source code of the software. Both the lists are published on the web and anyone can join them.

In chat channel are discussed all issues relating Koha but in particular is used for community meetings. There at least one meeting every month. Times and days vary because the community is made of people living in different parts of the world.

In Koha the community is one of the most important assets. So for the newcomers it's very easy to find other librarians that could have similar problem on installation and configuration and that can help them. The developers too can answer for free on the basic problems. The community writes also the general planning of new feature for the future releases. There is also a generic coordination between the libraries that pay developers for specific features; they try to co-sponsor the development and to develop features usable from different types of libraries. This coordination is started in 2009.

CILEA and Koha

CILEA (Consorzio Interuniversitario Lombardo per l'Elaborazione Automatica - Lombard inter-university consortium for automatic computation) is an Italian consortium of universities founded in 1974. The main focus of CILEA is to give ITC support to universities and public administration in Italy. It has been working for libraries until its foundation.
CILEA participates actively in the Koha community since 2008 and participated in several subprojects. In particular, it has worked on Italian translation and on writing a correct default configuration for Italian libraries.
CILEA staff started doing test installations, subscribing mailings list and studying the manual. Zebra was the most difficult piece of software to learn but it is mandatory for fine tuning the searches in the Opac and for adapting it to a specific language, for example for the sorting rules, diacritics, etc.
The translation of the web pages was done with Pootle files. CILEA did not use the web site but it found a specific software to work on Pootle file, Poedit[11]. The critical feature present in Poedit and not in Pootle web site is the link from the phrase to translate to the all page in which the phrase is present. With this feature is much easier to translate well a phrase.

There are many defaults configurations in Koha, those configuration are stored in SQL data files that are imported during installation. Using those SQL data files Koha, after installation, could be used without many changes. But those configurations are written in English and are written for USA public libraries. The Italian libraries could have different needs. So CILEA studied the whole set of SQL data files and wrote a new set of files focused on a generic Italian library. For example, CILEA deleted fines and it inserted blocks on loan rights, as is usual in Italian libraries. The Italian libraries use UNIMARC as default, so CILEA also prepared a complete translation of UNIMARC into Italian to use it in the configuration[12].

CILEA received support and tips from the Koha community and it gave back something. CILEA fixed some bugs in the documentation, in the Opac and in some modules but the main work is on the MySQL documentation subproject.

Since June 2009 CILEA works to develop and maintain the documentation about tables, indexes and relations used by Koha on MySQL. With this documentation people can understand how data are organized and developers can more easily find and correct bugs and problems of Koha.
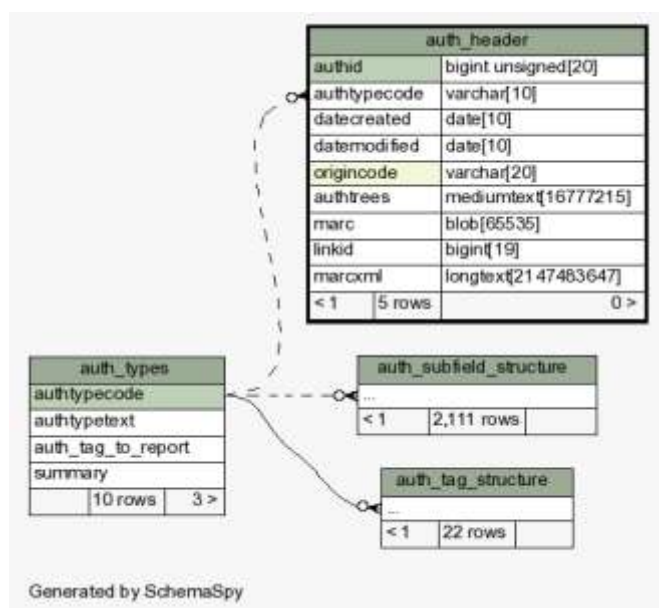

Image 2: SQL structure of tables used by authority module.

Short biographies:
Alessandra Carassiti: (carassiti@cilea.it). After obtaining a degree with first class honours in Italian Literature at the University of 'La Sapienza' in Rome in 2001, she obtained a diploma in editing specialising in eBooks electronic publishing for editors in Milan in 2002. Alessandra worked as a web editor until 2004. In November 2004 she joined CILEA; she has been involved in numerous projects relating to the assistance and support for libraries via the use of different software for automation.

Andrea Marchitelli: (marchitelli@cilea.it) He's been working in libraries in 1999, initially as a cataloger, and then also in management tasks. Interested in new technologies, in particular in the WWW environment, for libraries and for electronic publishing, he is working in CILEA since June 2006. Moreover, since 2003, he is the Italian editor of E-LIS, the open the archive for library and information science. Member of Italian library association (AIB) since 2001, he is member of the standing Committee of IFLA Information Technology Section. His publications are available from E-LIS, http://eprints.rclis.org/

Zeno Tajoli: (tajoli@cilea.it) After a degree in History and Library Science from University 'Ca'Foscari' in Venice in 1999 with first class honours, he obtain a MSc in Library Science from University of Parma and Newcastle (UK) in 2005. From 2000 to 2002 worked in Italian Exlibris section as System Librarian on Aleph500. He joined CILEA in 2003 and he has been involved on support Open Access repositories and on support libraries as System Librarian. He works on many different ILS. His publications are available from E-LIS, http://eprints.rclis.org/

Fulvia Valenti: (valenti@cilea.it) After obtaining a degree in Mathematics at the University of Milan, she is been working in CILEA. Now she is the project leader of library automation support team at CILEA

---

[1] Koha Community site: http://koha-community.org/

[2] The site lib-web-cat http://www.librarytechnology.org/libwebcats/ lists more than 900 libraries with Koha

[3] Koha Documentation: http://koha-community.org/documentation/

[4] ‡bilbios home page: http://biblios.org/

[5] Koha SQL Library: http://wiki.koha.org/doku.php?id=sql_library

[6] Zebra: http://www.indexdata.com/zebra

[7] Yahoo User Interface (YUI) Library: http://developer.yahoo.com/yui/

[8] jQuery JavaScript Library: http://jquery.com/

[9] There is a specific web site to translate Koha and the software used is Pootle, http://translate.koha.org/

[10] Links to mailing lists and chat logs are in http://koha-community.org/support/free-support/

[11] Poedit: http://www.poedit.net/

[12] The translation of UNIMARC was done in coordination with IFLA and it is published in a specific web site, http://unimarc-it.wikidot.com/