HEA Conference 2010
Education in Library Management Systems (ELMS)

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Overview

- ELMS grew out of teaching on the MSc Information and Library Studies course

- An introduction to library management systems will be given

- ELMS takes a novel approach to including core concepts in a practical manner, and attendant pedagogic issues and project outcomes will be outlined.

1/7 Library management systems

• Libraries have a long history of using computer systems to enhance their operations.

• Nowadays there is little need for pioneer work in this area and libraries will typically use a commercial library management system (LMS), except where their needs are unique.

• Little use of open source LMS
2/7 Library management systems

• A library management system is essentially a customised relational database

• Like software applications generally, an LMS comes in modules, all of which share a common data format (or formats), but which perform different functions on that data

• Core functions:
  – supports all the ‘back-end’ operations.
  – enables users to find items or information
3/7 Library management systems

• Back-end operations are not as simple as they might seem.

• **Stock selection** should allow the input of enough basic information (e.g. an ISBN, title and author) to identify for ordering purchasable items and to link to selection recommendation systems and to an internal database of publishers and suppliers.

• Need to avoid duplicates, track expenditure, check that items have arrived, have EDI ability etc.
4/7 Library management systems

- Stock comes in two generic forms, ‘monographs’ or ‘serials’.

- A monograph, typically a book, comes complete as is.

- A serial, typically a journal, does not come complete as is. It will appear, hopefully, at regular intervals into the future. Older issues need binding.

- The payments for serials, typically subscriptions, are continual and also subject to change.
5/7 Library management systems

- **A circulation system** is another complex part of a typical LMS.

- Items themselves need to be checked on return or when they leave a library. Optical barcode reading systems (or RFID tags) do this. Checking systems can be staff- or user-driven. Loan policies change over time.

- Users need to know how many items they have on loan, which they must return, libraries need borrower details for recall notices and overdue fines.
6/7 Library management systems

- **Cataloguing** – the recording of item details - the standard record type handled is **MARC** - MACHineReadable Cataloguing

- Very complex in the detail and richness and format of the data stored for each item. As a cooperative task, import and expert functions are required

- **Authority files** control terms that appear in catalogue records: personal and corporate names, subject terms and classification codes.
7/7 Library management systems

- Koha (http://www.koha.org) was the library management system (LMS) used, available for free as open source software. Version 3.2 is was chosen for its ability to run virtualised.

- The concept of open source was introduced through lecture content on: open standards, the development of operating systems and the range of software available. The LAMP stack (Linux + Apache + MySQL + Perl) was also explained.
1/4 Pedagogy

- Main aims were for **practical** student learning:
  
  - configure an LMS for a given library scenario as though a library systems administrator
  
  - for their own configuration, experience its front-end capabilities as a user
  
  - use the cataloguing sub-system to create MARC records
2/4 Pedagogy

- ELMS was based in a ‘Digital Libraries’ module
- Another module, ‘Organisation of Knowledge’, contained theory on cataloguing
- The explicit linking was made clear to students, who appreciated the chance to try out in one module, theoretical content given in another.
3/4 Pedagogy

- Included material on relational databases. Rare in librarianship Masters, typically just an ‘Information Retrieval’ module.

- Lectures gave students a conceptual model, an simple online web 2.0 database, DabbleDB (http://dabbledb.com/) was used in Labs.

- Assignment was set which required students to store references in a database.
4/4 Pedagogy

• To keep the complexity manageable for students, they were limited to a limited set of common MARC tags: 100, 245, 250, 260 and five others

• As part of the assessment for the ‘Digital Libraries’ module, students had to enter six MARC records of books from six different authors with the same surname as the student
1/2 Outcomes

- Now have Koha 3 and Evergreen 1.6 running – potential to expand to ‘compare and contrast’ scenarios
- Planning to add mashup facility for next delivery
- Dropped scripting/programming idea – mixed reception from students!
1/2 Outcomes

• Massive potential for distance learning
  – have contacts at other Departments
  – are considering running a CPD module for library practitioners
  – are considering running a CPD module for library practitioners overseas on open source LMS