

# Barcoding the Bodleian

ICT Forum Conference 2010

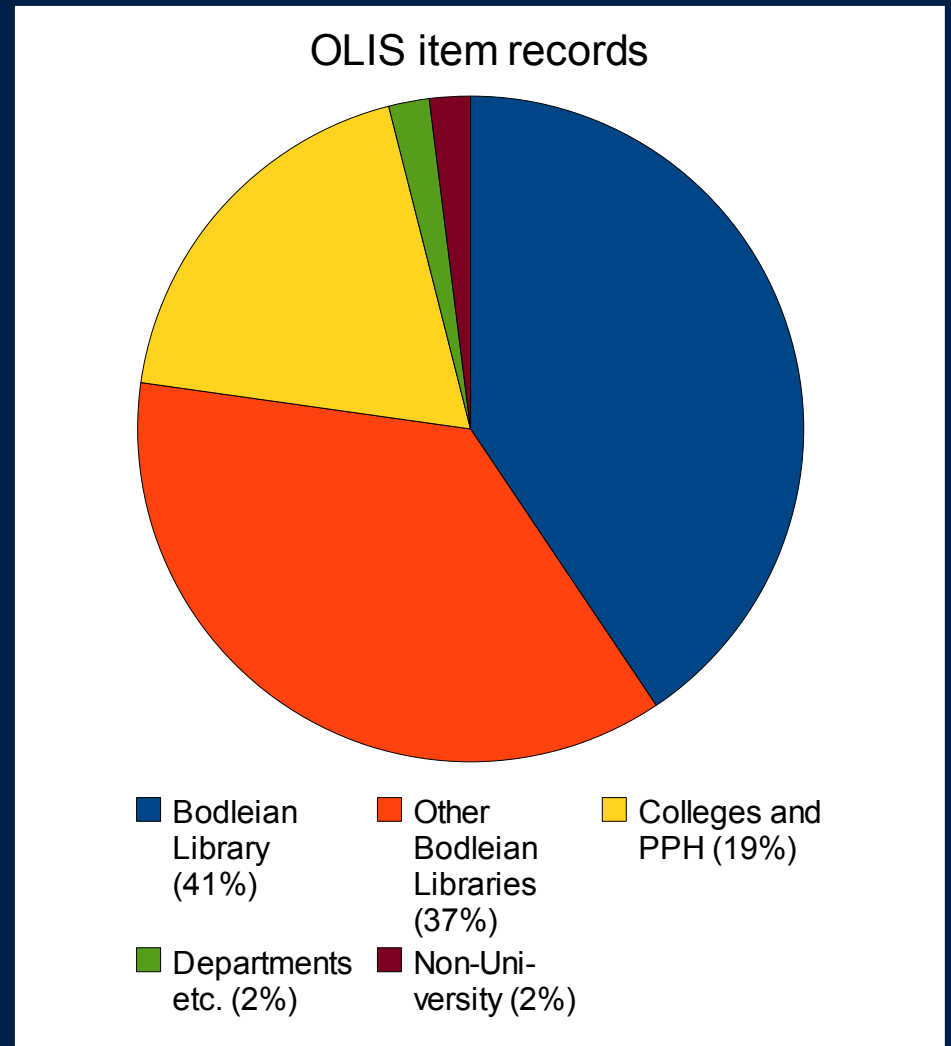
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# Libraries in Oxford

- About 100 University and related libraries contribute to the OLIS catalogue
- By far the largest is the Bodleian Library
  - About 4.5 million items on OLIS
  - Also many items not on OLIS!



# Bodleian Library



- Formally opened 1602
- Legal Deposit library
  - (1/6 in UK & Ireland)
  - Agreement with Stationers' Company 1610
  - Receives about 75k monographs and 120k serials issues per year

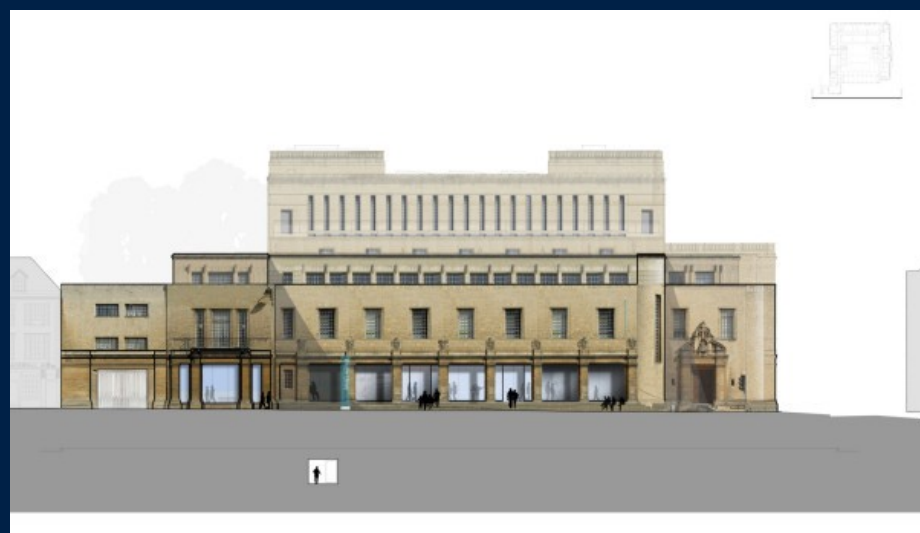
# Lack of space

- LD intake requires about an additional three miles of shelving every year. Not counting purchased material. Keep running out of space!
- Underground Bookstore - 1912
- New Bodleian - 1940
- Nuneham Courtenay - 1975
- DeepStore (Cheshire saltmine) - 2006
- Book Storage Facility near Swindon - 2010

# New Bodleian



Source : Stevecadman on Flickr (CC-BY-SA-2.0)



- Remodelling of the New Bodleian as a Special Collections library
- 2010-2015
- Will be renamed “Weston Library”
- Much reduced stack space, but much improved conditions

# Book Storage Facility



- 15-acre site in South Marston, close to Swindon
- storage for up to 8 million “low-use” items
- expect twice-daily deliveries to Oxford



# Book Storage Facility ctd

- 10m high shelving
- Books in “trays”
- Staff on forklift trucks / cherry pickers
- Similar to BSFs used by North American universities
  - Photo is of ReCAP at Princeton



# Book Storage Facility Information System

- BSFIS will track which items are in which trays on which shelves
- Shelves will have barcodes...
- ... trays will have barcodes...
- ... and of course the books already have barcodes, don't they???
- Oops!



# Wanted: barcodes

- Other OLIS libraries have barcoded material since the late 1980s
  - Barcode number is the unique record key on OLIS
- Bodleian only started adding these to *all* incoming material in 2009
  - 400 year backlog!
    - Although the oldest material won't be going to the BSF and won't need barcoding
    - Although shelfmark barcodes have been added to new monographs since the late 1980s

# Barcoding Project - aim

- Add OLIS barcodes to all the items that will be stored in the BSF, before they need to be ingested into the BSF
  - All of the central Bodleian Bookstack by end of July 2011
  - The rest by end of December 2011 (including Nuneham and DeepStore)
- Project planning started in late 2009 and barcoding started in March 2010

# Barcoding Project - logistics

- About 6.5 million items in scope (monographs + periodicals)
  - About 192km or 120 miles of shelving
- 50-60 FTEs employed on the project
  - including agency staff drawn from a pool of 200 part-timers
- Estimated cost is in excess of £2 million
- Barcoding must be done at the shelves – inefficient to move the books at this stage

# Hardware

- Programmable data collection devices?
  - Expensive
  - Negligible current in-house experience for development and support
- Netbooks + conventional barcode scanners?
  - Cheap
  - Already widely used; easier dev and support
  - But bulky and awkward to use in confined spaces
- Decision: netbooks

# Networking

- Essentially no network in stacks
- Add wireless network to stacks?
  - building and shelving structures incompatible with efficient wireless
- So need to work offline



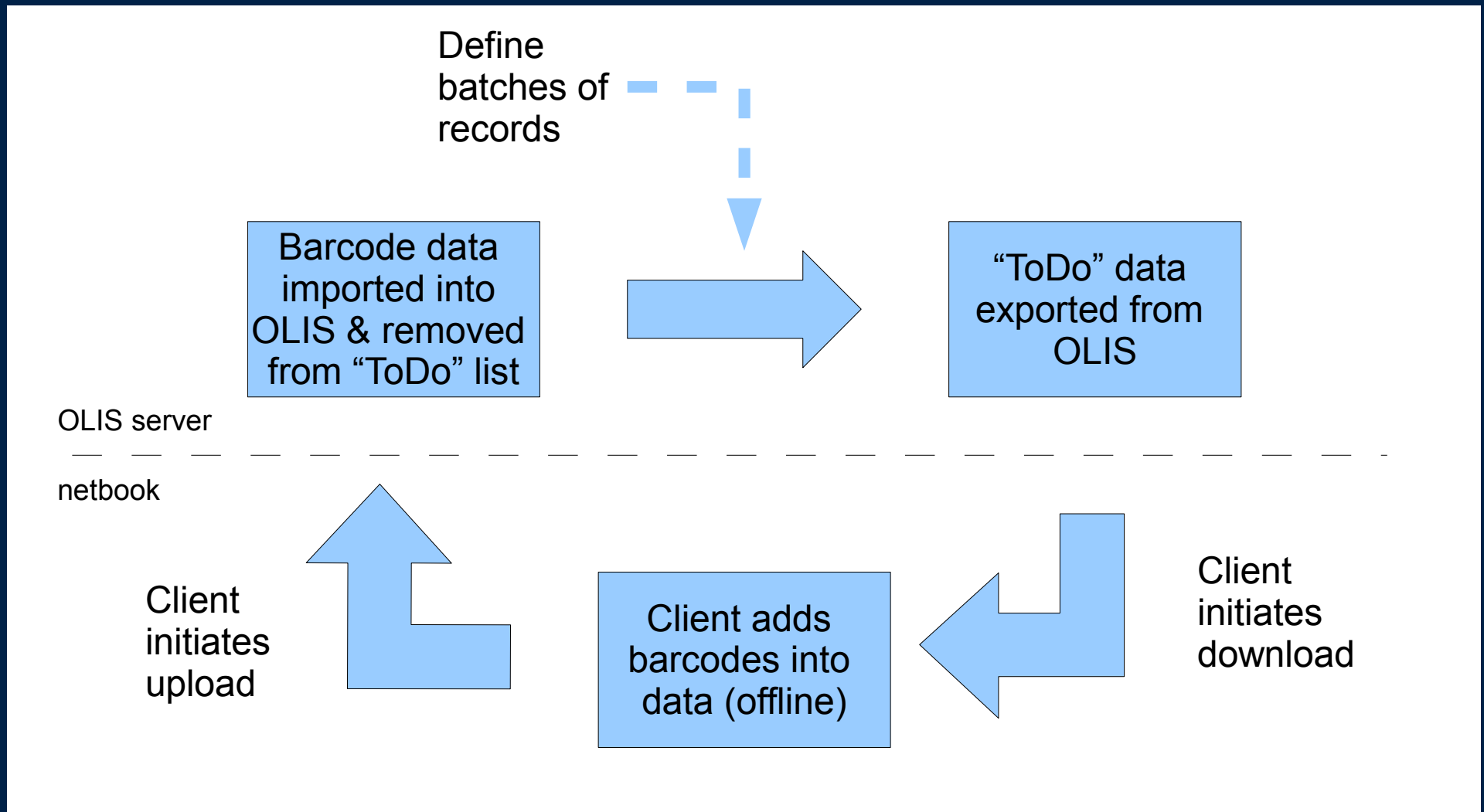
# Monograph data

- Assumption: already have unique item record on OLIS for each monograph
  - Not strictly true :-)
- Want to stick barcode onto book and record that number into the correct catalogue record
  - quickly
  - safely
  - offline

# “ReBar” Software

- Adapted our CroBar client software (already used by Bodleian Copyright Receipt Office)
  - Enables CRO staff to efficiently scan ISBN and OLIS barcode pairs to automate recording the arrival of new Legal Deposit material (and simultaneously barcode it)
- .NET client-side GUI
- FTP
- Server-side scripting

# Processing cycle





# Server-side

- Download file is **SQLite** database
  - single .db file but full database functionality
- **Perl** is the driving force and glue
- **Expect** (over tcl) imports the data into OLIS
  - OLIS currently has a character-based staff UI
  - Risk: don't yet know how this can be accomplished on the new ILS (expected go-live Jul 2011)
- OLIS db native code (TCL, UniVerse BASIC, etc.) used for export

# Client-side

The screenshot shows the OLIS CroBar application window with a blue title bar and standard Windows window controls. The interface has a light beige background and a menu bar with 'Start', 'Import', 'Scan', 'Upload', and 'Extra'. The 'Scan' menu item is active. Below the menu bar, there is a text input field labeled 'Scan ISBN / Request#' containing the text '92 e.116 (i,2)'. Underneath this is a larger text area containing the text 'Harmony of revelation and the sciences, address' and '92 e.116 (i, 2)'. A 'Skip item?' button is positioned below the text area. To the left, there is a 'Scan OLIS item barcode' label next to a white input field. Below the input field is a black rectangular area representing a barcode. To the right of the barcode area is a text box containing the note: 'Note that this item is of type SPECIAL CARE'. At the bottom of the main area are two buttons: 'Next item >' and 'Done Scanning'. A status bar at the very bottom of the window displays the text 'rebar-exp-2010-07-09-1810-163.1.20'.

- “Wizard” workflow
- Different modes for different types of shelfmark
  - Scan shelfmark barcode
  - AutoNext prediction
- On-screen flagging for special cases

# Monographs progress

- 1 million mark hit last week – about 15k per day
- More haste less speed?
  - QA issues – barcoded blocks of wood!
- Side-effects
  - First modern large scale stock check of Bodleian
  - Highlighting need for retrocon and remedial cataloguing
- Ongoing development – scope creep – hard to plan

# Serials data

- Most serials are now being checked in on OLIS
  - As each individual issue arrives it is represented by an item record on OLIS
- But most Bodleian serials do not have individual item records for older issues
  - There may be a single item record representing a range of thousands of physical items
- Ideally lots of cataloguing would be done before barcoding started – but no time or resources

# Serials workflow

- Should be starting this week!
- Using netbooks and Excel (with VBA)
  - Time pressures did not allow the rewriting of Excel prototype :-)
- Much more complex than monographs
  - Far less automated
  - Much of the server-side processing requires human intervention

# Questions?

Brief project updates are published at  
<http://www.bodleian.ox.ac.uk/about/projects>