Wichita State University’s Implementation of Dynamic Mapping in WebVoyage

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So Why Did Wichita State University Libraries Want To Do This?

- Our building layout can be confusing
  - What is on each floor?
  - Terminology: Folios. What is a folio? Where are they? What is “Compact Shelving”?
Or…

- Floors: We have a missing fourth floor (according to the elevator buttons).
- “Mixed-up Media”: We had Government Documents microforms in one place, other microforms in another as the project began.
- Rooms: How do I find the Current Periodicals Room?
- In short: Public Services had many directional questions to answer …
Yes, we had traditional maps

- Building maps were available
- Floor guides existed
- Lots of signs were available

But confusion still existed.

- Which way is north?
- I can find the beginning of the F call numbers. Where are the numbers at the end?
We did what we could with WebVoyage configuration

- We tried to name locations carefully, and to customize messages
  - There were limits to the length of message we could use
  - We couldn’t customize to the level of detail public services wanted: (If the call number is a Q, can’t you generate a message saying what floor Q’s are on?)
Could OPAC maps help?

Challenges We Needed to Face

- Multiple classification schemes in use: LC, SUDOC, Accession Numbering, “other” varieties.
- Same work in more than one location with different call numbers.
- Where to pull the call number from? (We needed to use the holdings call numbers, not the bibliographic record call number).
- What if there is no call number?
As the work began

- We started with basic maps first, then moved to the dynamic maps as they could be built.
- We began with our main library stacks. (As these began to appear, immediately we began to hear … when will we get the Documents done? How about the Music Library? Etc.)
- The maps were immediately popular, since they showed different parts of the building and collections in more detail.
When the dynamic features began to appear

- Immediate WOW! Factor
- The maps do seem to highlight “other available” copies.
- Since the maps “walk” people through the stack areas directional questions are reduced.
- Positive public feedback – the dynamic maps are perceived as “fun”.
Transform the OPAC by linking and integrating...

- Linking the information universe and integrating users’ search experience;
  - Unified discovery experience: Google, Amazon…
  - Enrich the OPAC, push OPAC information to search engines

- Integrating discovery tools, external web services and programming to the ILS;
  - Endeca
  - AquaBrowser

- Presentation and visualization techniques to transform the OPAC and augment the user experience.
  - Integrating 2D and 3D to OPAC
  - Subject Visualization
Adding directional information to the OPAC

- Link to floor maps;
- Link to specific floor map(s);
- “Dynamic” interpretation:
  - Dynamic location information
    - University of Huddersfield library catalog, U.K. Map example
  - Animated directional path
  - Dynamic Wi-Fi positioning of the users
    - SmartLibrary at the University of Oulu, Finland
- Dynamic mapping at WSU libraries can handle complicated shelving situations.
Dynamic Map Examples:
Materials shelved/ not shelved by LC class number

- If NOT shelved by LC class number, display holding locations
  e.g. Gov Docs, special collections
  (Example 1)

- If shelved by LC class number, display the exact shelving position
  (Example 2)
Dynamic Map Examples:

Multiple Maps

- Multiple maps are displayed for holdings at different locations
  (Example 3)

- Multiple maps are displayed for holdings in different formats
  (Example 4)
Dynamic Map Examples:
Electronic Resources Display

- Multiple formats or multiple urls for a bib record
  
  e.g. Title entry: book, microform…
  856 additional url(s)

(Example 5)

- If only one electronic item or link is associated with a bib record, it will redirect to the online resource in four seconds

(Example 6)
Dynamic Map Examples:
Branch Libraries

Patrons will be given directions to items at branch libraries via dynamic campus maps e.g. Music Library, Chemistry Library…

(Example 7)
Dynamic Map Creation

- **Software**
  - Adobe Photoshop 7.0
  - Adobe ImageReady 7.0
  - Switched to Adobe CS2
  - Considering 3D software…

- Based on:
  - Location
  - Call number
How do we handle shelving locations change?

- Compact shelving project

- Adjust floor maps and call number ranges, and modify the programming if necessary.
  - New Map example

- Creating new locations:
  - Wichita Art Museum location, using embedded Google map:
    - WAM Map Example
Dynamic Map Display Strategy

- Elements in Dynamic Map Display
  - Brief Title
  - Authors
  - Call Number
  - Description
  - Dynamic Map

- Levels of Dynamic Map
  - Bib Record Map Display
  - Holding Record Map Display
Data Processing

- Export Data from WebVoyage
- Export Syntax in DisplayN.cfg
- Export Bib Data in DisplayN.cfg
Data Processing

- Combine Data in Access Report
  - BIB_MFHD table
    - Link to Holding Record
  - MFHD_MASTER table
    - Holding’s Call Number
  - BIB_TEXT table
    - Title and Author
  - LOCATION table
    - Check if LC Class applicable
The Query

```
SELECT  
    d.location_id, d.location_display_name, a.title_brief, a.author, f.record_segment,
    c.display_call_no, e.link, e.link_text
FROM    
    bib_text a INNER JOIN BIB_MFHD b
ON      a.bib_id = b.bib_id
INNER JOIN bib_data f
    ON a.bib_id = f.bib_id
INNER JOIN MFHD_MASTER c
    ON b.mfhd_id = c.mfhd_id
INNER JOIN LOCATION d
    ON d.location_id = c.location_id
LEFT JOIN elink_index e
    ON b.bib_id = e.record_id
WHERE    
    a.bib_id = 878401
```
Data Processing

- Combine Data in Access Report
  - ELINK_INDEX table
    - Link to Electronic Resource
- JOIN Tables & Make Query
- Create and Save Query [MAPQUERY]
- Create Active Interface Pages
  - Receive Data from WebVoyage
  - Send query string to the Access Query
  - Handle Various Display Conditions
  - Display Map with Bib Info
Data Processing

Diagram of Data Processing Flow

WebVoyage

BIB_ID
Descript

Processing Program

Dynamic Map
Display

Conditions

Access Reports
[Mapquery]

ODBC

Voyager Database

Location?
Call Number?
Description?
DVD?
Video?
CD?
Microfilm?
E-Links?
Programming Logic

- Process Received Data
  - Remove Useless Characters
    - Description = Replace (Description, "</TD></TR><TR><TH NOWRAP ALIGN=RIGHT VALIGN=TOP></TH><TD>", ")
  - Set Identifier for Accompanying Items
    - DVD = INSRT (Description, "DVD")
Programming Logic

- Create SQL RecordSet in ASP
  - Query String
    - SELECT * FROM [MAPQUERY] WHERE [BIB_ID] = "" & BIB_ID & ""
  - Returned Fields from [MAPQUERY]
    - CALL_NO
      - Display Call Number with the Map
      - Get LC Class for Dynamic Map Display
    - BRIEF_TITLE & AUTHOR
    - LOCATION_ID
Programming Logic

- Conditions & Display
  - LOCATION
    - Library Stack: Display LC Class Map
    - Electronic: Display Link & Description
    - Folios: Display Folio Stack Map
    - Branches: Display Campus Map
    - Others: Display Location Map
  - CALL NUMBER
    - Display Micro Location if Containing ‘Micro’
    - Process Separately for Class ‘Q’ & ‘H’
New Beta Map

- **Goals**
  - Download and deploy this webapp;
  - Configure it for a voyager oracle database;
  - Map images to locations or codes.

- **Assumptions**
  - Other libraries do things in a similar fashion;
  - LC call numbers are universal.

- Test bib_id/map relationships
- Map Administration
- by Erik Mallory
Thank you!