Cooperative Architecture and Cooperative Development of a Course Reserves Tool

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Harvard University

November 8, 2006
Course and Library Reserves Tool

- What is the course reserves tool?
- System Architecture
- Cooperative Development
Course Reserves Lists

Contain citations for:

- Physical materials to be placed on reserve
- E-journal articles and e-resources
- E-reserves (scanned readings)
Reserves List Tool - Goals

- Student view integrated with course web sites with digital links to on-line resources or ILS availability for hardcopy
- Ease of use for faculty and staff - re-use of prior lists and enter new requests in standard course tool
- Minimize library work – manage the workflow and re-use prior term data
Reserves System

Library Management System

reserves librarian
Course Management System

instructor

Course Management System

student
Two Distinct, Tailored Systems

- Library Management System
- Course Management System
## Use Profile Differences

<table>
<thead>
<tr>
<th>Librarian</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Librarian in Library System Frequently</td>
<td>Instructor in CMS infrequently</td>
</tr>
<tr>
<td>Reserves Tool Use Mandated</td>
<td>Reserves Tool Use Optional</td>
</tr>
<tr>
<td>Daily Reserves Management Tasks</td>
<td>Management of Reserves infrequent</td>
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<tr>
<td>Full Workflow Training Expected</td>
<td>Ease-of-Use by the Untrained Expected</td>
</tr>
<tr>
<td>Has Job-Specific OLTP Environment</td>
<td>Has Customizable Web Environment</td>
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<tr>
<td>Primarily in use during business hours</td>
<td>In use 24x7</td>
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</table>
Unthinkable Options

Library system isn’t designed for the very infrequent user
Course management system isn’t designed for workflow
Course Management System

instructor

Course Management System

student
Student view – course site

http://isites.harvard.edu/k8257

Freshman Seminar 361

Course Information

Freshman Seminar 361: A Cultural History of the Banana
Harvard College/CSAS: 1347
Fall 2006–2007
Amy L. Spellacy
Meeting Time: W., 3–5

Text Area

Prior to the 1880s, most Americans had never seen or eaten a banana. By the early years of the twentieth century, however, the banana had become abundant and cheap, a tropical fruit that was accessible to working people in the United States. This seminar will trace the cultural history of the banana, considering how the banana industry has historically functioned as a site of U.S.-Latin American interaction that exposes tensions between the United States and its southern neighbors. Focused primarily on the twentieth century, this seminar will examine how the banana came to be a staple of American grocery stores, investigate the political and economic issues surrounding the banana, and analyze the ways that bananas have shaped cultural texts in the United States and Latin America. Students will explore the

Announcements

Film Screenings
The screening of Weekend in Havana is scheduled for Monday, Oct. 16 at 7:35 p.m. in Barker Center 024. We’ll be watching 3 Bananas on Monday, Dec. 11 at 7:35 p.m., also in Barker Center 024. If you can’t make these screenings, you will need to make arrangements to watch the films in Lamont, where they are on reserve.

Shared Document Area
United States and Latin America. Students will explore the seminar topic through literary texts, films, advertising, and secondary material written by historians. Specific topics for discussion include the history of the United Fruit Company, the 1944 CIA-led overthrow of Guatemalan leader Jacobo Arbenz, the career of Brazilian performer Carmen Miranda, the poetry of Pablo Neruda, Gabriel García Márquez's 1962 novel One Hundred Years of Solitude, and Nelly Allen's 1971 film Bananas. Seminar requirements will include weekly informal writing assignments, a presentation, and a final paper.
Reserve Reading List

Lecture/Class Date: No Lecture Date Specified -- Available
Required for Course
HOLLIS Record (view for call number and availability)
View Full Citation Details

Lecture/Class Date: No Lecture Date Specified -- Available
Required for Course
HOLLIS Record (view for call number and availability)
View Full Citation Details

Henry, O. *Cabbages and Kings.* (1994)
Lecture/Class Date: No Lecture Date Specified -- In process by library
Required for Course
Digital Version
View Full Citation Details

Lecture/Class Date: No Lecture Date Specified -- Available
Required for Course
HOLLIS Record (view for call number and availability)
View Full Citation Details

The Reliever (2005)
Digital links

HOLLIS Record (view for call number and availability)
View Full Citation Details

Roberts, Shari.
Lecture/Class Date: No Lecture Date Specified -- Available
Required for Course
Digital Version
View Full Citation Details

Lecture/Class Date: No Lecture Date Specified -- Available
Required for Course
“The Lady in the Tutti-Frutti Hat”: Carmen Miranda, a Spectacle of Ethnicity

by Shari Roberts

In the years from 1939 to 1944, just prior to and during U.S. involvement in World War II, Carmen Miranda, the “Brazilian Bombshell,” appeared in eight Hollywood musicals and two Broadway musical revues, all of which were highly successful. When Miranda’s Weekend in Havana opened in 1941, it received top box office statistics for that week—over twice the amount achieved by Citizen Kane, which was in its second week. The speed with which rival studios jumped on the Fox-Miranda bandwagon reflects the Latina actress’s popularity and profitability. Miranda wannabes included Lina Romay, “Cugie’s Latin Doll” of M-G-M; Margo of RKO; and Maria Montez of Universal; not to mention...
HOLLIS Record (view for call number and availability)
View Full Citation Details

Roberts, Shari.
Lecture/Class Date: No Lecture Date Specified -- Available
Required for Course
Digital version
View Full Citation Details

Lecture/Class Date: No Lecture Date Specified -- Available
Required for Course
**Current Citation:** (some bibliographic information may have been edited by library staff)

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Jenkins, Virginia Scott.
Bananas : an American history / Virginia Scott Jenkins.
xiii, 210 p. ; 23 cm.
HOLLIS: 008445123

Location: Baker Business HD9266 B3 U537 2000
Location: Lamont HD9266 B3 U537 2000
Location: Schlesinger 641.74 J52b
Location: Widener Harvard Depository HD9266 B3 U537 2000 [Consult Circ. Desk for HX24Q3]
...and availability
Instructor View

Editing "Reserve Reading List"

You are currently editing the content of this Topic Box. You can also:

- Rename this Topic Box, or
- Set access permissions, or
- Exit edit view.

- [Manage Reserves List]
- Reorder Reserves List
- Reuse Citations from Previous Terms
- Add a New Citation

Manage Reserves List

Welcome to the "Edit View" of the Reserves Tool! Using Edit View, faculty and course staff can submit requests for course readings to a supporting library and manage the list of readings to control what students see.

To submit a request, you can reuse a citation request from a previous term or add a new citation request.

Return to this "Manage Reserves List" screen if you want to modify the reserves list. You can edit individual requests to add a note or a lecture date, indicate a required reading, or hide the request from student view.

You can delete New or Reuse requests that the library has not yet processed. To delete requests that are In Process or Complete, you must contact the supporting library. You can send a message to the library by displaying the full request and clicking the library's email address.

Instructors also have the ability to define a custom order of a reserves list. Go here to reorder the reserves list.

[Select All Citations] [De-select All Citations]

<table>
<thead>
<tr>
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<tr>
<td>The Good Neighbor: How the United States Wrote the History of Central America and the Caribbean</td>
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<td>-</td>
<td>Edit</td>
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<tr>
<td>Cabbages and Kings</td>
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<td>-</td>
<td>Edit</td>
</tr>
<tr>
<td>Bananas Is My Business</td>
<td>Complete</td>
<td>-</td>
<td>Edit</td>
</tr>
<tr>
<td>Carmen Miranda: The South American Way</td>
<td>Complete</td>
<td>-</td>
<td>Edit</td>
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### Fall 2005-2006

Copy Citation Requests to Current Term

[ Select All Citations ]  [ De-select All Citations ]

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<tr>
<td>International Public Health: Diseases, Programs, Systems and Policies</td>
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<tr>
<td>The world health report 2002 : Reducing risks, promoting healthy life</td>
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<tr>
<td>The world health report 2001 : mental health : new understanding, new hope</td>
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Copy Citation Requests to Current Term
Instructor View

To submit a new citation request to a supporting library for processing, please select the type of material you are requesting and your supporting library. Reserves staff at the supporting library will process this request and add a link to a digital version of the material and/or to the HOLLIS Catalog availability screen for a physical copy.

**Course Term:** FRSEMR 36I – Fall 2006

**Material Type:** Book

**Supporting Library:** Lamont

To save time -- reuse citations from a previous term

Which library supports my course?
Adding a New Citation

Adding a Citation Request - Book

Estimated Number of Enrolled Students: [12]
Lecture/Class Date: [__] Clear Date
Student View Display: [Show ↓]
Required Reading:

Either HOLLIS number OR Title is required

HOLLIS System Number:

Title or Description:

Author Last Name: ____________________________  Author First Name: ____________________________
Editor Last Name: ____________________________  Editor First Name: ____________________________
Publisher: ____________________________
Year of Publication: ____________________________
Author (of chapter or excerpt) Last Name: ____________________________  Author (of chapter or excerpt) First Name: ____________________________
Chapter Title: ____________________________
Page Numbers: ____________________________  Volume: ____________________________
Reserves System

Library Management System

reserves librarian
Librarian’s Tool
http://rlist.hul.harvard.edu:8080/rlist_admin/loginForm.do?url=home.do
### Library tool – List Results

#### Reading List Results

Results from search on term="Fall 2006" and status=ALL and library=LAM and catalogNumber* and courseName=A cultural and instructor=*  

<table>
<thead>
<tr>
<th>Catalog Number</th>
<th>Course Name</th>
<th>First Request Date</th>
<th>First Person</th>
</tr>
</thead>
</table>

Questions? Submit through the request form.
### Reserves List

**Catalog Number:** FAS-1347 (Fall 2006)

**Course Name:** Freshman Seminar 50A. A Cultural History of the Banana (Amy L. Spalding)

**Links:**
- Course Tool Installed
- Student View
- Request Sections
- Course Note / PDF Guest Login

### Reading List for This Term (Fall 2006)

<table>
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<tr>
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<th>Citation</th>
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<th>Citation ID</th>
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A journal citation

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<td>Author First: Shari</td>
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Citation Links and Notes

| UH To Halls Record:                           |
| Display for FAS-1347? No | No [link] |
| UH To Electron Copy:                           |
| Display for APS-1347? Yes | [Test Link] |
| Internal Notes to Reserve:                     |

http://www.jstor.org/stable/harvard.edu/view/00057101/sp04607/0
Data Sources

• A Reserves List is comprised of two types of data

  • Course Metadata – Managed by Schools
    • Term/year
    • Catalog Number
    • Course Name
    • Head Instructor
    • Course Instance ID

  • Reserves Lists – Managed by Libraries
    • Bibliographic Information (title, author, HOLLIS #)
    • Supporting Library
    • Lecture Date
    • Course Instance ID
Leverage Both Systems
Join systems via SOAP
Service Oriented Architecture

Librarian User Interface

- Reserves Management Service
- get course info
- get/put reserves

Registrars’ Course Catalog
- Course Web Site Data Service
- Courseware User Interface
- get website info
Web Services
Technologies

- Standards based bridge
  - SOAP
  - WSDL
- Library implementation
  - SOAP services - Java, Tomcat
  - Staff tool – Java/JSP/Oracle
- Course platform implementation
  - SOAP services - perl
  - Course reserves tool - perl
Cooperative Development

Library IT: OIS Group

Course Management System

CMS IT: iCommons Group

Library Management System
Technical Issues

- Library Service: a Java-based application running under Tomcat on Library infrastructure.
- CMS Service: a Perl-based plug-in running on the iSites Course Management System

Strategies

- **SOAP** for Platform Interoperability
- **Test Harness** for easy problem diagnosis
- **Co-location** for quick problem turn-around
SOAP: No Silver Bullet

- Library Management System
- Course Management System
- Java Library Module
- Perl Course Module
- Database
- Cache
- SOAP
SOAP: Keep it simple

- Simple types only
  - …for easy interoperability between heterogeneous systems
- Minimize SOAP calls
  - SOAP parsing performance
  - Minimize load on servers
More Issues!

Library Management System

Course Management System
## Distinct Organizations

### Library
- Highly Structured Approach
- Transactional Workflow System
- Find consensus, then Deploy
- Formal Training
- May Timeline

### CMS
- Tactical Approach
- Customizable Web Interface
- Iteration towards Consensus
- Optional Training
- August Timeline
Project Approach

• Library
  • Multi-Month Projects
  • Highly structured project plans

• CMS
  • Four to Eight Week Projects
  • Iterative delivery approach

• Impact
  • Release Timeline
  • Training Materials
  • User Consistency over Time
Project Structure Remedy

Retain Individual Practices
- Separate Requirements Gathering
- Separate Implementation Details
- Separate Training Materials
- Separate UI Design

Join forces where necessary
- Co-develop project goals
- Strict high level project timeline
- Weekly co-lead project meetings
- Co-develop communication protocols
- Co-locate developers to work together
Project Timeline Issues

<table>
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<tr>
<th>…</th>
<th>April</th>
<th>May</th>
<th>June</th>
<th>July</th>
<th>August</th>
<th>Sept</th>
<th>…</th>
</tr>
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</table>

- Reserves Process Starts
- Registrar Course Data Available
- Course Sites Generated
- Students return

Unworkable Timeline!
Disconnected Data Providers

- Reserves Process starts in May
- Course data available in July
- Course Web Sites generated in August

No Course Web Site for Reserves Process until August?
Rectified Project Timeline

Rectified Business Processes

- Reserves Process Starts
- Registrar Course Data Available
- Course Sites Generated
- Students return
Initial Release Timeline

- Reserves Process Starts
- Registrar Course Data Available
- Course Sites Generated
- Students return

… April May June July August Sept …
Release Timeline

- April: Reserves Process Starts
- May: Registrar Course Data Available
- June: Course Sites Generated
- July: Students return

Multiple Feature Releases

Use grows with time
Training & Support

- Instructors
  - Highly localized training and support
  - Optional for Instructor
  - Additional support through library
- Librarians
  - Centralized Training
Availability

When this decentralized system breaks, who is responsible for fixing it?

- Two distinct owners
- Two sets of customers
- 24 x 7 availability
Availability

Solution: Everyone is Responsible

Conference Call

• All tech contacts & associated management get a call/page (24x7) regardless of “fault”
• Teams work together in isolating and correcting the problem
• Follow-up meeting scheduled
And it’s working!
And it’s working!

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Acknowledgements

• Library
  • Julian Marinus, SW Architect
  • Laura Morse, Systems Librarian
  • Julie Wetherill, Outreach Librarian
  • Chip Goines, SW Developer

• Course
  • Colin Murtaugh, SW Developer
  • Cris Wagner, SW Tool Developer
  • Paul Bergen, Head FAS Instructional Computing