Information Technology at YUL

Michael Dula
CTO, Yale University Library

April 9, 2014
Library Information Technology

- Library IT: 25 staff
  - Enterprise Systems
  - Systems Infrastructure and Integration
  - Digital Library & Programming Services
  - Workstation and Technology Services
  - User Experience
Major Projects Underway

- **Digital Collections Infrastructure**
  - Hydra, Fedora, Blacklight, SOLR, LadyBird, EAD support, Workflow
  - Server and Storage Architecture

- **Building Digital Collections**
  - Arcadia 4 collections
  - Arcadia 5, YIPP, Day Missions
  - Kissinger and Fortunoff
  - Migration of old collections

- **Discovery**
  - Summon
  - Serials Solutions Suite
  - Blacklight
Major Projects Underway (continued)

- Web Redesign and Mobile Strategy
  - Migration to Drupal and YaleSites
  - Responsive Design
  - SpringShare suite and integration with ClassesV2

- Atlas Systems
  - Aeon, ILLiad and Ares

- Server and Storage Management
  - Decommissioning old systems
  - Strategy for the future
Major Projects Underway (continued)

- **Voyager Support**
  - Automation projects
  - Preparing for next gen ILS

- **Workstation Support**
  - ServiceNow
  - Backup cost reductions
  - Expert Users program review
Enterprise Systems and Infrastructure

Ray Frohlich
Director, Enterprise Systems and Architecture
Enterprise Systems

- Melissa Wisner, Manager
- Yue Ji, Senior Programmer Analyst
- Jenn Nolte, Applications Manager/Database Administrator
- Steelsen Smith, Library Fulfillment Systems Specialist
Enterprise Systems

Areas of Responsibility
- Application administration, programming and integration
- Project management and coordination
- Business analysis
- Vendor management

Supported Services
- Voyager
- Atlas Systems (Aeon, Ares, ILLiad)
- Serials Solutions Systems ( Summon, 360 Suite)
- SQL Server Reporting Services
- ArchivesSpace
Recently Completed Projects

- MARC Record Extract Tool
- Aeon migrated to Yale ITS managed and hosted infrastructure
- ILL web form update
- HATHI Trust holdings extract-completed
Upcoming Projects

May 2014
- Aeon upgrade v3.6

June 2014
- Illiad upgrade and migration to Yale ITS
- Serials Solutions 360 Link/MARC Updates implementation
- Serials Solutions Summon v2.0 upgrade

July 2014
- Ares upgrade and migration to Yale ITS July 2014

Fall 2014
- Serials Solutions 360 Counter/Resource Manager implementation
- Core web services (ATK Caches, Orbis Caches, LSF, Illiad, etc.) migration to ITS
- ILS migration prep – data cleanup group

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Initiatives and Opportunities

- Greater collaboration with non-YUL IT technical staff
- Transition from ad hoc to generalizable web services
- Data and service integration (Integration CoP)
Systems Infrastructure & Integration

- Gail Barnett, Manager
- Steve DiSorbo, Systems Programmer
- Bob Rice, Systems Programmer
Areas of Responsibility

- Systems administration, programming and integration

Supported Services

- 100+ physical and virtual servers
- Storage and tape library systems
Recently Completed Projects

- Digital Repository infrastructure design and implementation
- Fortunoff Archive – reconciliation
- Kissinger Project – vendor data pre-import processing
- ArchivesSpace development environment
- YFAD performance tuning
Upcoming Projects

Spring 2014
- Beinecke VMware guest migration to ITS (~5 guests)
- ArchivesSpace production environment implementation

Summer 2014
- Initial VMware guest migration from YUL IT infrastructure to ITS (~50 guests)
- Digital Repository Next Generation Storage Infrastructure implementation
Initiatives and Opportunities

- Greater collaboration with Yale ITS
- Approach new projects with “hosted first” mindset
- Unit reorganization
Programming

Lakeisha Robinson
Programmer Analyst, Digital Library & Programming Services
Team

- Mike Friscia - Manager, Digital Library & Programing Services
- Osman Din – Senior Programmer
  - Source code manager
  - Source code style and design patterns
  - Ladybird 2.0 technical lead
- Eric James – Senior Programmer
  - Fedora Commons contributor/committer
  - Hydra technical lead
- Lakeisha Robinson – Programmer Analyst
  - Blacklight technical lead
- Anju Meenattool – Programmer Analyst
  - Application support for Kissinger
  - Hydra development for Special Collections

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About Hydra

- Open-source project
- Multi-institutional and international
- Provides a platform for digital preservation and presentation
Hydra Stack

- Fedora
- Blacklight
- Ladybird
- Active Fedora
- SOLR
- Media Server
- Internet Archive Book Reader
- Ingest applications
Overview of Yale’s Hydra Stack and Workflow

Hydra-Head
- Creating and managing objects (CRUD)
- Hydra Model Logic

Blacklight
- Discovering and viewing objects (R)
- Search/Facet Logic

Ladybird
- (Yale’s Cataloging Tool)

Fedora
- (Preservation)

Solr
- (Index)

Solrizer

Hydra Models

Bookreader
- Complex Object Display

Image Request

SAN storage

Media Server

Images

Metadata

Link to Images

Image Retrieval

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Next 6 months of Development

- Blacklight Staff View
- Authorization for restricted content access
- Zoom IIP/IIIF/DJTOKA
- DOI/Handle generation for ingested objects
- Blacklight Unified search
- Import and Ingest performance tuning
- File downloads from Blacklight
- Blacklight upgrade to version 5.x
Long Term Goals

- Ladybird 2.0 as Hydra Head
- Hydra ingest moved to BagIT model
Workstation & Technology Services

Greg Blasko
Manager, Workstation & Technology Services
About W&TS

- **Staff**
  - Greg Blasko, *Manager*
  - Reon Keller, *IT Support Technician*
  - Frederick Rodriguez, *IT Support Technician*
  - Jerzy Grabowski, *IT Support Technician*
    (50% MSSA, 50% Beinecke)
  - 1 part-time student worker

- **Contacts**
  - [http://web.library.yale.edu/lit/wts](http://web.library.yale.edu/lit/wts)
  - 432-1849

- **Office**
  - Sterling Memorial Library, Room 509
About W&TS

- **Scope of Support**
  - Support YUL Libraries, except:
    - Beinecke, Law, Medical, Walpole
  - 650+ Workstations
    - Windows 7
    - Windows XP
    - Mac OS X
    - iOS (iPad)
  - Access Services, Acquisitions, Administration, Arts, Business Office, Cataloging, Classics, Collection Development, Divinity, CSSSI, HCRE, ICRS, Library IT, LSF, Maps, Music, MSSA, OHAM, Preparations, Preservation, Security, Shipping

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About W&TS

- **Areas of Support**
  - **Asset Management**
    - Procurement, installation, and maintenance of staff workstations and laptops
    - Image builds and application deployment
    - Active Directory and Group Policy management
    - Network access and security
  - **Workstation Support**
    - Function as primary point of contact for resolving incidents, service requests, and other IT support issues throughout the Library system
  - **Consultation and Collaboration**
    - Technical consultation for Library staff
    - Collaborate with other units within Library IT and ITS to provide new system services and enhancements to Library staff

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W&TS Projects

- **ServiceNow**
  - IT service management (ITSM) software

- **Workstation Backup**
  - TSM Overages

- **Other Initiatives**
  - Expert User Program Evaluation
  - Website Content
    - Staff Workstation Policy
    - Supported Software Matrices
  - SharePoint 2013
- **ITIL (Information Technology Infrastructure Library)**
  - Framework of standards and best practices leading to the implementation and management of quality information technology services

- **ServiceNow**
  - IT service management (ITSM) software based on ITIL standards
  - Incident and service request tracking system for ITS and Library IT

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ServiceNow at YUL: Why ServiceNow?

- Library IT needed a ticketing system
- Adopt IT service management (ITSM) strategy
- ServiceNow provides interoperability with ITS
Incident and Service Request forms on Library IT Web site
  - CAS logon required
  - Tickets assigned to W&TS

W&TS will triage tickets:
  - Expert Users (Tier I)
  - W&TS Technicians (Tier II+)
  - Other Library IT groups
  - ITS Service Desk
Backup Costs (Jul-Dec 2013)

- **Workstations**
  - $45,582
- **Servers**
  - $10,276

6 Month Total: $55,858!
Backup Overages

- **Tivoli Storage Manager**
  - Overage charges for backups >100 GB
  - Backs up all local data by default
  - External hard drives, Drobo/RAID systems
  - Retains file spaces
  - Result: bloated backups/high overage charges

- **Some server backups deemed obsolete**

- **Identified workstations with largest overages**
  - 11 systems: overages of 1-4+ TB
  - 27 systems: overages of 100 GB – 1 TB

- **Worked with staff to minimize backups**
Monthly Savings: $5,600!
Other Initiatives

- Expert User Program Evaluation
- Windows XP Upgrades
  - Microsoft ceased support on April 8
- Email Migrations to YaleConnect
- A/V Enhancement
  - Lecture Hall / Lecture Capture
- Network Upgrades in SML
- Website Content
  - Staff Workstation Policy
  - Supported Software Matrices
- SharePoint 2013
User Experience Projects

Katie Bauer
User Experience Librarian

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Team

- Kalee Sprague, Systems Librarian
- Andrew Predmore, Web Operations Manager
- Meng Tang, CIS Support Specialist
Major Projects Spring 2014

- Libguides into Classes V2
- YUL Website
- Universal Search
### Visibility in Classes V2 to LibGuides

<table>
<thead>
<tr>
<th>Classes*V2 Subject</th>
<th>Classes V2 Abbreviation</th>
<th>Library's Subject List</th>
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<tbody>
<tr>
<td>Architecture</td>
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<td>CPLT</td>
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<td>Ethics, Politics, and</td>
<td>EP&amp;E</td>
<td>Political Science,</td>
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<td>Economics</td>
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- **Link to a specific guide, guides in one subject**, **guides in multiple subjects**
Website Migration to YaleSites

- Moving content to central ITS YaleSites. ITS supports the server & provides training. We benefit from development work done elsewhere in Yale.

- Completed: Arts, MSSA, Divinity, International Programs, Buildings and Places have migrated to YaleSites. 75% of Use

- Major content to move in Summer: Personal Librarians, Music, Microforms. Additional 10% of Use
Unify Search

- **Summon 2.0**

- **Blacklight Integrated Search**
  - Summon
  - Orbis and Morris
  - Hydra (digitized content)
  - Website
art of designing structures. the term covers the design of the visual appearance of structures, their internal arrangements of space, selection of external and internal building materials, design or selection of natural and artificial lighting systems, as well as mechanical, electrical, and plumbing systems, and design or selection of decorations and furnishings. architectural style may emerge from evolution of techniques and styles particular to a culture in a given time period with or without identifiable individuals as architects, or may be attributed to specific individuals or groups of architects working together on a project.

Read more

Suggested Librarian
Holly Hatheway, Art & Architecture Librarian
mailto:holly.hatheway@yale.edu
203-436-8052

Related Topics
Modern architecture
Performatve architecture
Digital architecture

Recommended Research Guides
Home - Architecture Research - Yale University Library Subject Guides at Yale University Library
by Holly Hatheway, Lindsay King, Lyndsay Bratton
The kid

Author: Bradlee, Ben.
Title: The kid : the immortal life of Ted Williams / Ben Bradlee, Jr.
Description: viii, 855 pages : illustrations ; 25 cm
Baseball players > United States > Biography.
Contents: Shame
"Fairyland"
Sarasota and Minneapolis
Big time
The writers
.406
3A
World War II
1946
1947-1948
1949-1951
Ted and Joe
Korea
Transitions
1954-1956
Late innings
Last ups

Available from:
SML, Map Collection, Room 707 (Non-Circulating)
39 Z19 1943
✓ Available

Google Books
More info at Google books
Wrap-up

Michael Dula

CTO
Miscellaneous Projects

- EliScholar
- Project Management
- LIT Website
- Community Participation and Collaboration