

# Building a Single User Experience

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Rachel Vacek, University of Houston  
Jason Battles, University of Alabama

Internet Librarian, October 18, 2011

# Overview

- Nina - Challenges library web shops face
- Rachel - The ultimate goal: seamless user experience across multiple applications
- Jason - How to reach that ultimate goal





= Unhappy  
Library  
Website

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# Overview, in *Frankenstein terms*

- Nina - Describing all the parts that make up Frankenstein
- Rachel - Why we want to hide the seams on your Frankenstein
- Jason - How to build the best Frankenstein you can with the parts you have

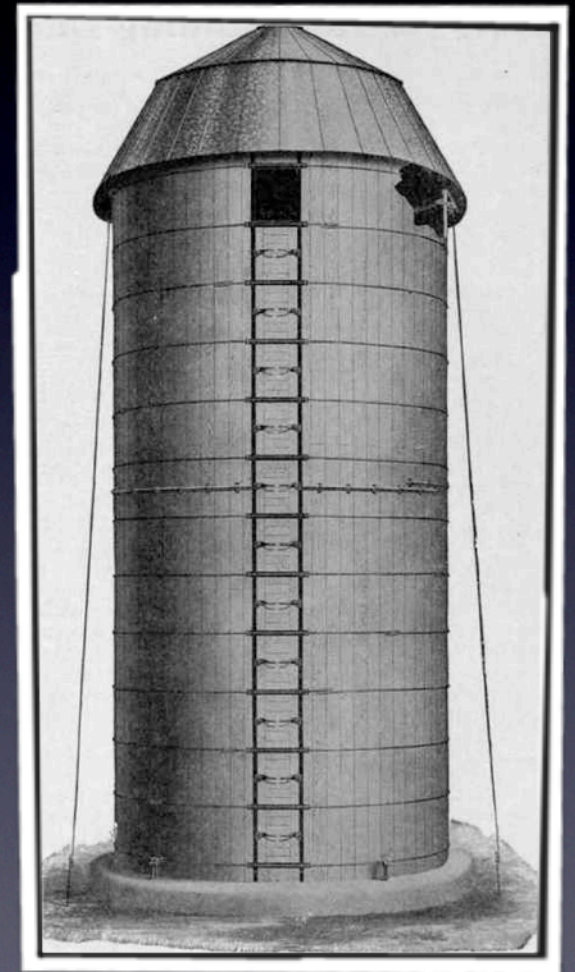


# Challenges for Library Web Shops

- Multiple tools
- Multiple access points for those tools
- Branding
- Organizational politics
- Programming resources
- Assessment tools and methods

# Multiple Tools

The notion of content “silos” has been discussed before in the context of subscribed database / e-journal content





Even with a discovery layer tool that brings disparate sources of content together, we still need multiple tools for different services and functions

- ILL
- Reserves
- Calendaring
- Etc.

Result =  
“function” silos



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# “Function” Silos

- Main library web site(s?)
- Catalog
- Databases/e-journals
- Discovery layer
- Blogs
- Social media
- Digital asset management / repository platform
- Finding aid tools
- EZ Proxy pages

# Different Library Types

## Academic libraries

- Course reserves, ILL, LibGuides

## Public libraries

- Multiple audience pages (kids, teens, etc.)
- Calendars, guides

## Special Libraries

- Special services unique to that library

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encore  
summon docutek  
worldcat sharepoint  
wordpress  
libguides  
millennium x digitool  
evanced  
drupal

# A Multitude of Access Points

- [library.auraria.edu](http://library.auraria.edu)
- [guides.auraria.edu](http://guides.auraria.edu)
- [skyline.auraria.edu](http://skyline.auraria.edu)
- [auraria.docutek.com/eres/courseindex.aspx?error=&page=search](http://auraria.docutek.com/eres/courseindex.aspx?error=&page=search)
- [cudenver.illiad.oclc.org/illiad/logon.html](http://cudenver.illiad.oclc.org/illiad/logon.html)
- [host5.evanced.info/aurariacolorado/evanced/roomrequest.asp](http://host5.evanced.info/aurariacolorado/evanced/roomrequest.asp)



“Where do I post to the library blog?”

“How do I add the new reference librarian to the list of instructors in the calendar software?”

“The hours information on this LibGuide is wrong; where do I change it?”

# Branding

New Search | Publications | Subject Terms | Cited References | More ▾

Sign In | Folder | Preferences | New Features! | ASK A LIBRARIAN! | Help

EBSCO  
HOST

Searching: **Academic Search Complete** | Choose Databases »

in Select a Field (optional) Search Clear

AND in Select a Field (optional) ?

AND in Select a Field (optional) Add Row

Basic Search | Advanced Search | Visual Search | Search History

UNIV OF HOUSTON  
LIBRARIES

Search Options Reset

Search modes ?

- ☒ Boolean/Phrase
- ☐ Find all my search terms
- ☐ Find any of my search terms
- ☐ SmartText Searching [Hint](#)

Apply related words ☐

Also search within the full text of the articles ☐

Limit your results

Full Text ☐ References Available ☐

Proprietary products can be difficult  
to customize in a uniform way

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# Branding

- Adding a logo to vendor databases: what size?
- Layouts, colors, and search functions are still different
- Changing customizable screens
- Code is too often proprietary
- Headers, colors, and fonts may be modifiable, but screens can still be locked in a very different layout

# Organizational Politics

Different applications can be administered by different departments

## Public Services

- Guides, IM/virtual reference
- Blogs/social media/communication channels
- ILL/reserves

## Technical Services

- ILS
- Discovery layer

## Information Technology Services

- Server/web site access
- Network/user accounts



# Programming Resources

- In-house (or community-contributed) custom programming can help hide the seams
- Too few libraries have advanced programming knowledge or skills in-house
- While this is changing in larger organizations, some smaller libraries will not be able to hire a programmer for the foreseeable future, if ever

# Assessment Tools & Methods

- Each tool has its own means of gathering statistics and information about use
- It can be hard to reconcile the numbers
- In the case of web analytics, exit pages aren't necessarily fails, as they are often measured in the world of e-commerce
- Often, users are exiting to someplace we want them to go: a database, the catalog, ILL, etc.



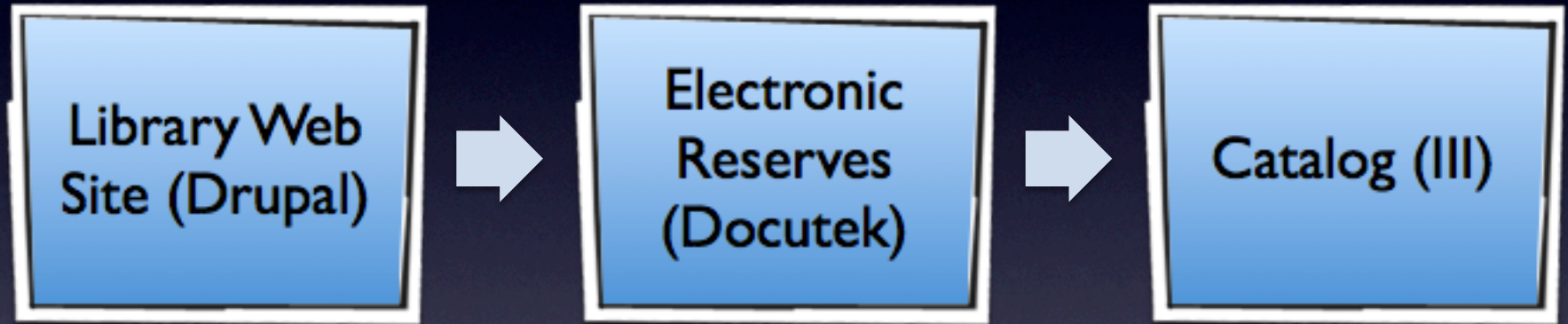
# Where is the user in this mix?

“I need to find a book that my professor put on reserve.”

“I need to book a research instruction class for my students.”

“I need to search for an article from off-campus.”

“I need to find a book that my professor put on reserve.”





10:30 PM auraria library

library.auraria.edu/?site=full

Library Map My Account Search this site :

# AURARIA LIBRARY

Engage your mind. Enrich your future.

Monday, October 10, 2011  
Hours: 7:30 am - 10:00 pm  
all library hours

Research Tools Research Guides Library Services Library Info Ask a Librarian

Quick Links

- Skyline
- Prospector
- WorldCat @ Auraria
- Databases A-Z
- Course Reserves
- Textbook Info
- Faculty Info
- Giving to the Library

Start My Research

Books

Search Tip :

Library FYI

Connections: Linking  
What's New @ Auraria  
Does the Library Have  
Auraria Library Celebr  
Research Behind the I  
Library Essay Contest  
Are you a Twitter user  
QR Codes: How to Us  
Privacy Screens Avail

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10:33 PM Docutek ERes - Ereserves Index

auraria.docutek.com/eres/courseindex.aspx?error=&page=search

# AURARIA LIBRARY

Engage your mind. Enrich your future.

Ereserves Home > Ereserves Index Admin Login | Help Pages English

Please use the provided search fields to locate your library materials.

Search for course pages by

Find

Any Search Field contains

Questions? Comments?  
Docutek ERes v5.6.1 - © 2  
Docutek ERes and DocuFax are

10:34 PM Auraria Library

skyline.ucdenver.edu/search-S0?/pphillips/pphillips/1%2C1%2C4...

# AURARIA LIBRARY SKYLINE CATALOG

Start Over Return to List Another Search

PROF/TA phillips Search

Record 4 of 4  
Record: [Prev](#) [Next](#)

**Prof/ta** [Phillips, Lincoln](#)  
[CCD ART](#)

**Course** [CCD ART 111](#)  
[Art History I: Ancient to Medieval](#)

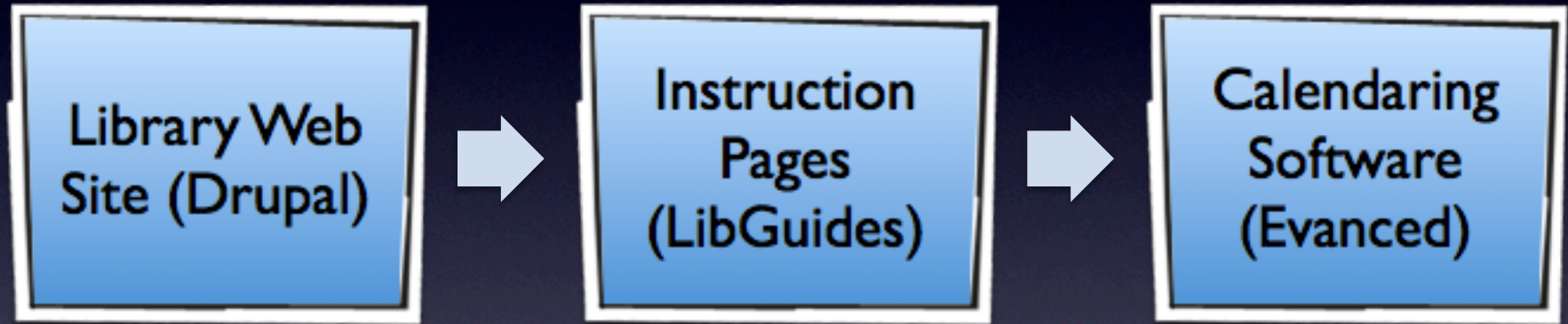
Materials for this course			
Title	Author	Call #	Format
<a href="#">Art History 4th ed. (Examination Copy)</a>	Stokstad, Marilyn and Cothren, Michael W.	Reserve 2 Hour -- CCD 5 P1 c.1 -- DUE 02-26-11 3:06PM	
<a href="#">Gardner's Art Through the Ages: A global History - Thirteenth Edition, Volume 1</a>	Kleiner, Fred S.	Reserve 2 Hour -- PHI 7 P6 c.1 -- AVAILABLE	
<a href="#">Gardner's Art Through the Ages: A global History - Thirteenth Edition, Volume 1</a>	Kleiner, Fred S.	Reserve 2 Hour -- PHI 7 P6 c.2 -- AVAILABLE	
<a href="#">Gardner's Art Through the Ages: A global History - Thirteenth Edition, Volume 1</a>	Kleiner, Fred S.	Reserve 2 Hour -- PHI 7 P6 c.3 -- AVAILABLE	
<a href="#">Gardner's Art Through the Ages: A global History - Thirteenth Edition, Volume 1</a>	Kleiner, Fred S.	Reserve 2 Hour -- PHI 7 P6 c.4 -- AVAILABLE	

Start Over Return to List Another Search

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“I need to book a research instruction class for my students.”





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library.auraria.edu/?site=full

Google

Library Map My Account

Search this site :

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Research Behind the L  
Library Essay Contest  
Are you a Twitter user  
QR Codes: How to Us  
Privacy Screens Avail

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10:31 PM

Schedule a class or workshop - Instruction Department - LibGuides at Auraria Library (UCD, MSCD, CCD)

guides.auraria.edu/content.php?pid=39966&sid=310563

Google

**AURARIA LIBRARY**

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Library » LibGuides » Instruction Department

Admin Sign In

Instruction Department Tags: [information\\_library](#), [library\\_assignments](#), [library\\_instruction](#), [visiting\\_schools](#)

Welcome to the Auraria Library Instruction Department. Use this site to schedule instruction, find research guides, download library assignments and more!

Last update: Sep 16th, 2011 | URL: <http://guides.auraria.edu/instruction> | [Print Guide](#) | [RSS Updates](#) | [SHARE](#) [f](#) [t](#) [e](#)

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[Designing library assignments](#) [Librarian profiles and contacts](#) [Suggestion box](#) [First-Time Requesters](#) [Events, workshops and seminars](#)

[Mission](#) [Jobs](#) [Assignment portal2](#)

[Schedule a class or workshop](#) [Comments \(0\)](#) [Print Page](#)

Search:  This Guide

**Before the library instruction...**

Students attending sessions in the library should have:

1. reviewed [Navigating Library Research](#)
2. taken a [library skills](#) pretest with results sent to the librarian
3. your enthusiasm and encouragement about how valuable the library is as a resource in their academic success!

Faculty need to:

1. send the librarian a syllabus and related assignment
2. talk to the librarian about designing a pre or post

**Schedule a class - give us**

View the schedule and [request a](#)

**CIRCLE:** Work with us on integrating (assignments, focused topic introduction) schedule a service or request more

**When scheduling a class:**

1. Check the confirmation number. The librarian is found to teach the class.
2. An email will arrive (in a few days) with the confirmation number and information.
3. If you do not receive both of these notices email [Mary Dodge](#) in the Instruction Department.
4. We require that course instructors be present for the library

10:31 PM

Room Request Date, Time, and Room Selection

host5.evanced.info/aurariacolorado/evanced/roomrequest.asp

Google

**Room Request**

Date, Time, and Room Selection

Text Size

[Please include set up and take down times.]

**Jackson Enhanced Learning Center (ELC) B on 10/11/2011**

Select	Time	Status
<input type="checkbox"/>	8:00 AM-8:15 AM	ENG 122-013
<input type="checkbox"/>	8:15 AM-8:30 AM	ENG 122-013
<input type="checkbox"/>	8:30 AM-8:45 AM	ENG 122-013
<input type="checkbox"/>	8:45 AM-9:00 AM	ENG 122-013
<input type="checkbox"/>	9:00 AM-9:15 AM	ENG 122-013
<input type="checkbox"/>	9:15 AM-9:30 AM	OPEN
<input type="checkbox"/>	9:30 AM-9:45 AM	OPEN
<input type="checkbox"/>	9:45 AM-10:00 AM	OPEN
<input type="checkbox"/>	10:00 AM-10:15 AM	OPEN
<input type="checkbox"/>	10:15 AM-10:30 AM	OPEN
<input type="checkbox"/>	10:30 AM-10:45 AM	OPEN
<input type="checkbox"/>	10:45 AM-11:00 AM	OPEN
<input type="checkbox"/>	11:00 AM-11:15 AM	Basic Composition (Eng 090-013)
<input type="checkbox"/>	11:15 AM-11:30 AM	Basic Composition (Eng 090-013)
<input type="checkbox"/>	11:30 AM-11:45 AM	Basic Composition (Eng 090-013)
<input type="checkbox"/>	11:45 AM-12:00 PM	Basic Composition (Eng 090-013)
<input type="checkbox"/>	12:00 PM-12:15 PM	Basic Composition (Eng 090-013)
<input type="checkbox"/>	12:15 PM-12:30 PM	OPEN

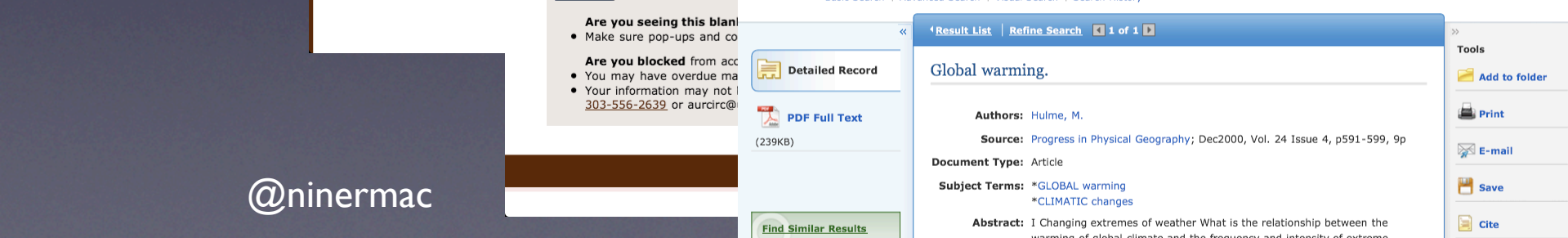
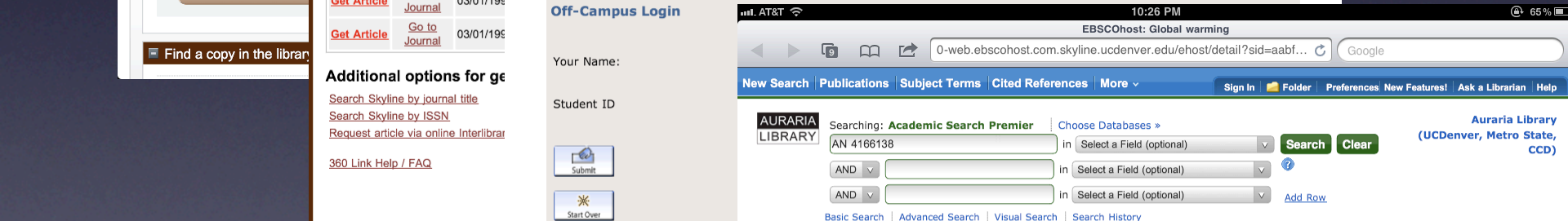
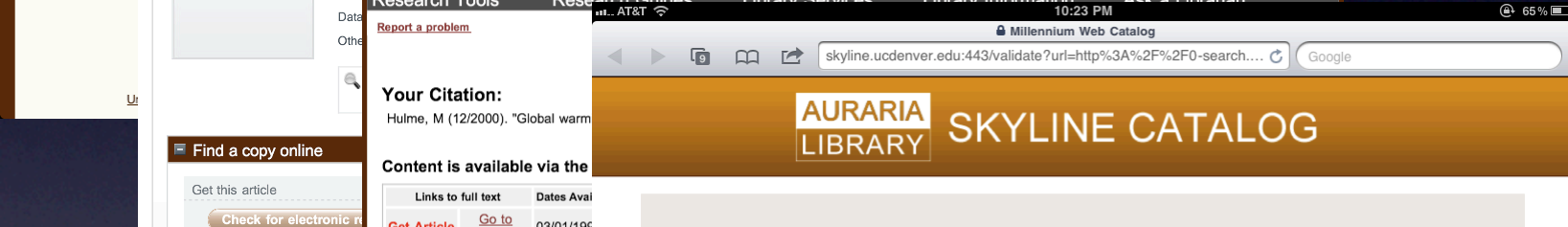
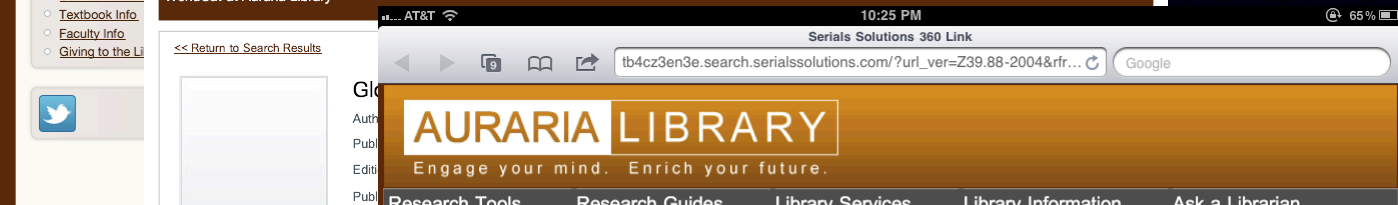
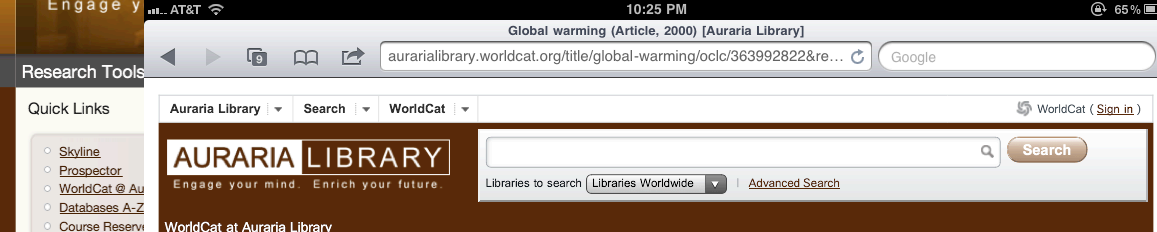
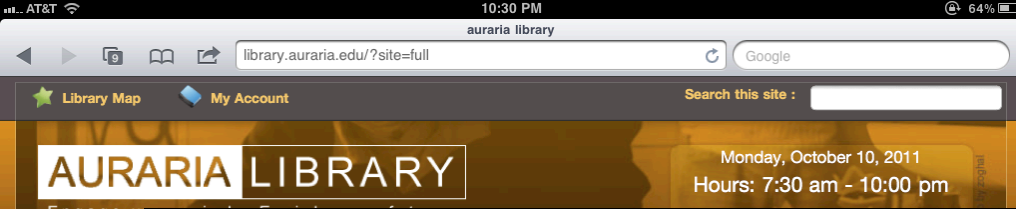
@ninermac

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“I need to search for an article  
from home.”

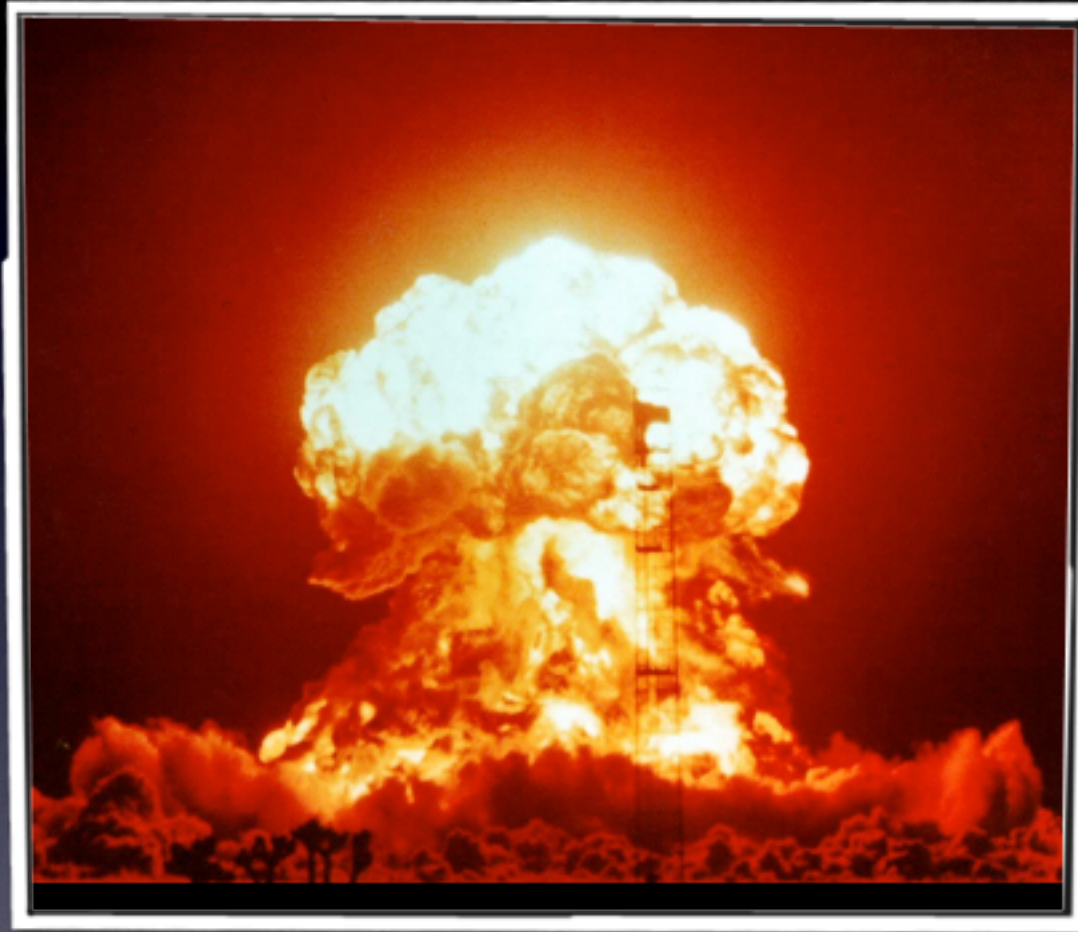






@ninermac

# Our library websites need help!



@ninermac

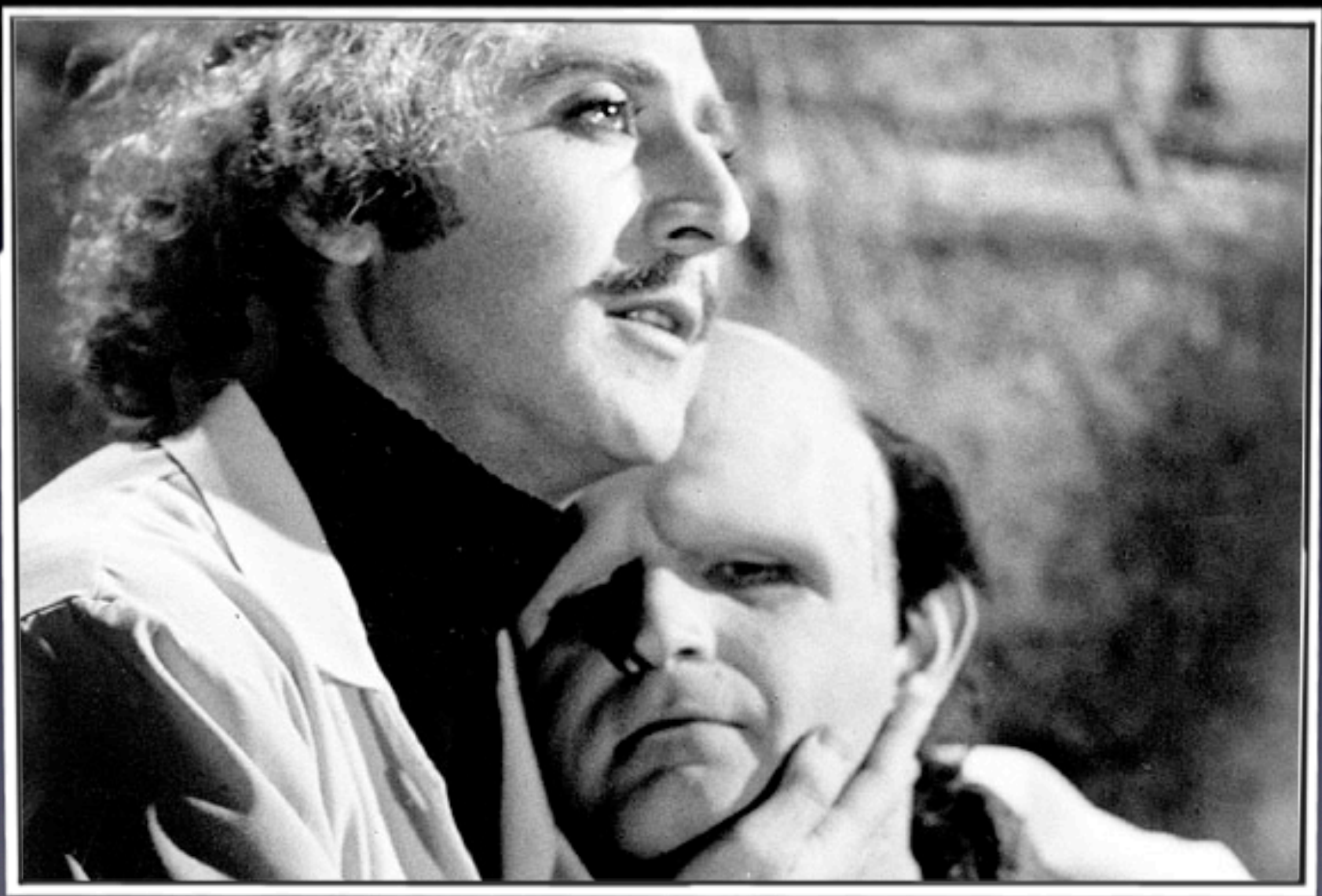
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Goal:  
Create a seamless UX  
across multiple  
applications



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# Looking at UX Across Multiple Applications

Interface, branding, functionality should familiar across systems

- Perception
- Feelings
- Meaningful
- Learned
- How it's used

# UX - Not just about usability

- Accessibility
- Information Architecture
- Information design
- Interaction design
- Writing for the web
- Usability and usefulness testing
- User research
- Visual design
- Web analytics



What is the purpose of the website?

What is the purpose of each section of the site?

Who is the audience?

Is the content presented consistently across every application?

Is the functionality associated with each user behavior presented consistently?

# Creating Content Style Guides

## Consistency

Clears up confusion among multiple contributors

Resolves questions on frequently problematic elements like abbreviations, capitalization, tone, brand, naming conventions

- Elizabeth D. Rockwell Pavilion
- EDR Pavilion
- Elizabeth Rockwell Pavilion



# Creating Content Style Guides

Part of a larger content strategy

Can be library or subject-specific

Decide how links are done

Word usage

- email or e-mail, website or Web site

AP vs. Chicago Style vs. MLA vs. what user is familiar with

# How to Construct Your Own UX Frankenstein





# Components

Multiple applications, interfaces, and options

- APIs
- Accessible Data Structures
- Library Applications (ILS, IR, Discovery, etc.)
- Social Media
- Mobile

# Considering the UX

How are your sites and applications accessed?

- Common points of entry
- Traditional web vs. mobile

Create the appearance of uniformity

- Simple tasks (i.e., branding)
- Advanced integration



# APIs

## Application Programming Interfaces

- What are they?
- Where can you find them?
- Why are they important?
  - Enable you to pull multiple data sources to one UI

## All APIs are not the same

- Some permit complex interactions
- Others simply permit widget construction

# REST and SOAP

## REST

- Representational state transfer
- Approach for retrieving content from a web site via XML
- Important for pulling data into mobile sites

## SOAP

- Another protocol for exchanging structured data



# Data Structures

## Homegrown systems and databases

- Streamline for accessibility by using
  - MySQL databases
  - OAI, XML, REST, SOAP
- These systems *should* be the easiest to fuse into a common user experience in any environment.

# ILS, IR and Discovery

## ILS

- Most all provide some level of API

## Institutional Repository

- OAI compliance is important

## Discovery

- REST or SOAP support is essential



# Content Management Systems

## Drupal

- Many options for including other data sources

## WordPress

- Can pull external content into blogs or WordPress can feed it to other sites

## LibGuides

- Widget building
- Slightly advanced API useful for pulling content into other sources (i.e., Drupal nodes)

# Social Media

## Twitter

- <https://dev.twitter.com/>

## Facebook

- <http://developers.facebook.com/>

## YouTube

- <http://apiblog.youtube.com/>

## Flickr

- <http://www.flickr.com/services/api/>



# My Frankenstein

THE UNIVERSITY OF  
ALABAMA

UNIVERSITY LIBRARIES  
Gorgas - Bruno - Hoole - McLure - Rodgers

Scout

Databases

Course Reserves

Digital Collections

Government Information

Interlibrary Loan

Site Search

How do I ... ?

Hours

Faculty Information

Student Information

Campus Libraries

About UA Libraries

Ask A Librarian

My Library Account

Google Scholar BETA

YouTube Facebook Twitter WordPress

Previously Featured Links

Scout Articles Databases E-Journals Digital Collections

Search

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Resources »  
Scout Discover books, articles, and more  
Articles via Scout  
Electronic Journals E-Books and more  
Databases  
Digital Collections Letters, photos, ETDS  
Classic Catalog  
Williams Americana Collection

Services »  
Interlibrary Loan  
Distance Education  
Sanford Media Center  
Music Library  
Borrowing Materials  
Digital Humanities Center

Research Help »  
Subject Guides  
Ask-A-Librarian  
Finding Materials  
Citing Sources | RefWorks  
Subject Specialists

How Do I ...? »  
Renew My Books  
Find Course Reserves  
Connect to the Wireless Network  
Print From the Libraries Public Computer Workstations

Access to Rodgers Library

Due to construction, public access to Rodgers Library has changed. Pedestrians can reach Rodgers from the east via a crushed rock path

Alabama Hurricane Prep.

Hurricane season begins on June 1st. Our hurricane preparedness page offers list of web sites to help.

Book Collecting Contest

Winners of the 5th Annual Book Collecting Contest announced: junior Wesley Vaughn, and graduate student Timothy Winkler.

UASMC Grand Finale, Tomorrow Oct. 18, 7pm in the Ferg Theater. Come see who is going to win it all!  
6 hours ago · reply · retweet · favorite

UASMC Keep voting! Every vote counts, your favorite could win.  
http://t.co/FXWbqwoE  
3 days ago · reply · retweet · favorite

UASMC Keep voting! Every vote counts. Your favorite could win!!!  
3 days ago · reply · retweet · favorite

UASMC We want YOU to vote for your favorite

twitter Join the conversation

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# Mobile

## Design for mobile first?

- 155,505 web site visits in September
- 2,556 from mobile devices
  - Impact of new site
  - Balancing the present with the future

## Data structures and APIs are important

- Comprehensive mobile sites
- Prevent duplicative work



# Development Options

## Native app

- OS specific
- Software Developer Kits (SDK)
- Vendor options

## Web app

- Lots of frameworks

# jQuery Frameworks

## jQuery Mobile

- <http://jquerymobile.com>
- Cross-platform
- Easy to implement
- Growing community
- <http://www.lib.ua.edu/m>

## jQTouch

- <http://jqtouch.com>



# What about Tablets?

Present a different challenge

What commercial sites are doing

- CNN, ESPN, etc.
- Changing approach?

Consider in website redesigns

# Mastering the Complexity

Libraries have multiple applications, data sources, environments, and access points.

Is a cohesive user experience possible?

- Understand your users
- Research your purchases
- Master your data
- Unify your environments



# Tips

Build your Frankenstein one limb at time

- Start with high impact, low effort projects
  - Branding
  - Streamline data sources you control
  - Create widgets
  - Learn the basic API for a core app

Aim for the most cohesive, unified UX

Accept the limitations



=

Happy  
Library  
Website

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@vacekrae

@jjbattles

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# Thanks!

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<http://www.slideshare.net/jjbattles/single-ux-il2011>

