Evaluation of Academic Library Websites

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INFO 658: Information Architecture

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Assignment 2

02/13/12

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Overview

This analysis examines the information architecture of websites that provide online library services for faculty, students, and alumni of a United States university. In particular, these library websites are examined:

- Robert W Van Houten Library: New Jersey Institute of Technology (NJIT)
- University Libraries: University of Washington (UW).

Both universities are approximately the same age (founded in the late 1800's), and both are cited by the Princeton Review as among the "most green" U.S. universities.

UW, however is significantly larger, with three campuses, 16 colleges, and multiple libraries. NJIT, in comparison, has a single campus, 6 colleges, one main library and one specialized library. UW's undergraduate and graduate headcount is 33 thousand and 12 thousand, respectively, while NJIT has roughly 6.5 thousand undergrad and 3 thousand graduate students.

UW's many programs include informatics and information science. NJIT's Computer Science college has some similar programs, but seems to focus more on engineering than information theory.

The next section of this analysis describes findings for each website. Then <u>*Comparison*</u> summarizes the positives and negatives of both sites, and attempt to predict future direction for these, and similar, websites.

Site Evaluations

In order to ensure consistency and reduce bias, each site was reviewed against a 33-point heuristics checklist, which covers structural organization, labeling, navigation, and search.

Each site was experienced via general exploration and by performing representative tasks:

- Catalog search, using several similar queries
- Database access
- Research guide review
- Reference chat.

These selected tasks are general enough to apply to most site users – whether students, faculty, or library staff – and attempt to simulate end-users' experience. Two additional tasks, journal article viewing and inter-library loan, were attempted but were difficult to experience due to authentication constraints.

In addition to the sample tasks and heuristic ratings, each site's design history and mobility presence is examined as well.

Robert W Van Houten Library

On first-view, the Van Houten website is aesthetically pleasant and conveys a reassuring impression: the page has clearly-marked navigation areas without clutter or ads. Each section on the home page has a recognizable purpose.

The website does not display a site-specific mission. But the About Us section implies that the website's mission mirrors that of the library:

"to satisfy the published information and document needs of the NJIT community in pursuit of their educational and research programs in a cost effective, timely manner, and provide a high quality academic learning environment."

Target users are anyone who wishes use the library's services, with a disposition toward people who have a membership through affiliation with the New Jersey Institute of Technology (NJIT). For example, certain services required a login, which is only issued to active NJIT students, staff, and faculty. And while a Guest page appears within the site navigation, the page is marked as "under construction," implying that guest services are a lower priority.

Key User Tasks

Three of the sample tasks used in the analysis are immediately reachable through specialized navigation on the home page. The fourth task is less convenient, but can be accessed using primary or alternate navigation methods.



Home Page Access to Key Tasks

Catalog Search

Catalog search options are clearly labeled with reliable results. Search refinement needs finesse, but is usable.

Database Access

Database access is easy to find when users are focused on journals or articles. Entry points for this task are less findable if the user is literally focused on "databases," but are still readily accessible.

Research Guides

Research guides are findable from Home and from the Research & Resources section, despite some display bugs. Users can either browse the 53 guides, or search within them.

Reference Chat

Reference chat can be reached after clicking the Services menu option, or by entering "chat" into the Ask a Question box on the home page.

Reference chat also has a presence in the "Our Top Three Most Requested Actions" drop-down box – but this access method is unintuitive. (Why would I bother with this drop-down if I'm looking for "chat" or "reference?") Representing this short list of items as direct links would vastly increase their visibility.

The lesser prominence of this feature suggests that the library's users have – or the library is encouraging – a strong "self-service" attitude.

Detailed Review

Organization

Review of the site's organization reveals some issues. These include:

- The home page effectively presents several high-visibility tasks, but the taxonomy itself does not convey a strong sense of workflow or intelligence about user tasks.
- Two top-level categories raise questions: Research & Resources and Services. Isn't a service a type of resource? Aren't many library services researchoriented?

Examining the contents of each category reveals a pattern that conveys the intent fairly well (the former is for concrete materials such as the catalog and database while the latter is for interactive tasks such as reference chat and inter-library loan). But a user-centric organization might logically group some services with some research tools.



 Another top-level category, Littman Architecture Library, leads to a different domain and clearly has an inconsistent level of specificity. On the NJIT Libraries Catalog page, the presence of a dedicated Author tab is puzzling, since the Basic tab offers "within Author" as a search option in addition to several others, such as Title and Keywords. This raises questions such as, why is Author singled out?, and why don't Title and Keywords merit a dedicated tab?

					-
Basic	Advanced	Author	Course Reserve	Recently Added Items	Other Librarie
Search: Archite	ecture		within Title	~	
		~			
Limit To: All	Material	Constant and the second se			

Fortunately, there are no concatenated, single-child, or miscellaneous categories, which contributes positively to the site's clarity.

When evaluated for organization with the heuristics checklist, the Robert W Van Houten Library website rated 14 out of 22 possible points.

Labeling

Labeling, for the most part, is effective and informative: labels clearly represent content and are succinct without employing abbreviations.

Also, labels appear to be written from a user's perspective. For example, "Find Articles" and "Find Journals" are presented as parallel options, even though the Find Articles section is intended for selecting a database. This labeling choice acknowledges that even though a database will be used for either activity, the database itself is unlikely to be a user's end-objective:

	Find Articles	Find Books and Mo	Find Eboo	ks Find Journals	Find ResearchGuides
	Frequently ac	cessed database	s with access	to selected full-te	xt articles.
	Select from b	elow 🔽 S	Submit		
	Select from be Academic Se Business Sou IEEE Xplore Science Direct	arch Premier <u>to</u> Irce Premier	Z Database	s by Subject	
1	Find Articles	Find Books and Mo	re Find Eboo	ks Find Journals	Find ResearchGuides
	Journal locate	or provides access	s to journals, i	magazines and ne	wspaper by title or ISSN
	Title begins w	vith 🕑		Search	
	Title begins w				
	Title equals Title contains ISSN equals		by Title Jou	rnals by Subject	

In the Labeling portion of the heuristics checklist, this website scored well: 12 points out of 14.

Navigation

Unfortunately the Van Houten site has several navigational points of confusion. For example:

• The page has two banners and navigation systems, distinguished by different background colors. By examining the link targets in each section, and the respective logos, it becomes apparent that the top banner and navigation system, with the blue background, is actually part of the parent njit.edu domain. The library home page is essentially a site within a site.

The distinction between the parent site and its descendant is thwarted by the fact that the library's banner, containing a red background and the library name which to serves as a logo, floats within the NJIT banner:

NULL New Jersey Institute of Technology THE EDGE IN KNOWLEDGE	Popular Links	Calendar Directory	Offices & Services	Search Go for Current Students -
Home About Admissions Academics Researc	ch Campus Li	fe Athletics Conti	nuing Ed Beyond	i NJ Parents Alumni
Robert W Van Houten Library			Our Top Three Mo	st Requested Services 🔻
Welcor Home > Robert W Van H Type your complete	touten Library	Van Ho	uten Li	brary Ask the Library →

• Portions of the site, such as inter-library loan and the catalog, use completely different banner & navigation systems:

NULT New Jersey's Technology		ROBERT W. VAN HOUTEN LIBRARY
Articles via Databases Articles via Journals Online Catalog E-books Research & Information Literacy Unrestume Ione	Interlibrary Loan & Article Delivery Services Use interlibrary Loan to request flams not owned by NJIT Libraries. Check the library catalog and / or the journal locator before submitting a request. • Search the Online Catalog • Check the Journal locator to see if your anticle may be evailable electronically	Other libraries' catalogs: Rutars: University catalog UNIVEL Brany catalog (University of Medicine & Densitry of Hew Jersey)

NJIT Libraries Catalog Library Hours Ask a Librarian Interlibrary Loan	Log in to your account
The pergy Monte A Search My Searches My List My Account Exit the Catalog	
Log In	
Please enter your Patron Barcode and Last Name, then click the Log in button.	
Log in using my Barcode	

- Self-referencing links are prevalent on the home page and in breadcrumbs throughout the site.
- In some cases, the primary navigation menu reflects the selected page: the first-level item expands, and the applicable second-level item is highlighted. However on several inner pages, the navigation collapses, losing all location context.

• The About Us and Dissertations & Thesis pages employ local navigation that is different in appearance for no apparent reason. In both cases, the local navigation is inconsistently used:



- Link labels are clear, but targets to non-HTML formats and outside domains are not distinguished. Also, no use of title attributes (to provide supplementary link information) are evident.
- No index or site map is apparent. To make matters worse, there appear to be several "secret" pages that are not visible in the primary navigation, and could easily be missed by users relying on browsing alone.

On a positive note, users can browse menu options, conduct various searches, and use specialized lookup tools from the home page and various parts of the site. And most pages have a persistent link to Home in the top left corner, granting users a way to recover if they get lost. Regardless, the site's navigation scored only 9 out of 22 possible points.

Search

The only mechanism for searching the site itself appears solely on the home page (the Ask the Library box) rather than being accessible from any page.

Meanwhile, the site's catalog search pages have a mix of positives and negatives. The most disappointing aspect of search results are the static and generally unhelpful filtering suggestions. Also, no tips for expanding results are shown.

On the other hand, the "no results" message is accompanied by a spelling suggestion, and a link to the Ask an NJIT Librarian page. Also, some alternate spellings are accommodated - for example, searches for oreilly-within-keywords and o'reilly-within-keywords retrieve the same number of results. In this area, the website scored 3 of out 5 points.

Filter Your Search:

add filter: Van Houten Library add filter: Littman Architecture Library add filter: Videos add filter: Theses and Dissertations add filter: English language materials add filter: Electronic Books or Journals add filter: 2006 And After

Site Evolution

Even though the website displays no copyright dates with which to establish age, the WayBackMachine archive reports snapshots back to November 11, 1998.

The site's debut in November 1998 features a dense home page cluttered with multiple links arranged in haphazard order with no logical grouping: notices, catalog and database access, tutorials, external links, and even a job posting. The site at this point is merely an assemblage of web pages with no organizational guides.



1997

This chaos is corrected by January 2000, when the site features a pleasantly simple menu of 9 items, plus a drop-down that seems to function as a site map. In this era, the single-level navigation menu appears to sufficiently cover essential site features. This timeframe is also the origin of the modern site's ill-fitting Littman Architecture Library menu option.



In December 2007, the site's tidy navigation takes a step backward: menu items are added, and several show secondary options. As a result, the menu items compete for the user's attention. But the overall home page seems more user-conscious, with links to role-specific areas, embedded help, and an "Ask a NJIT Librarian" option via chat, email, or phone.

NULT New Jersey's Scier Technology Unive	xee & ninty		Houten Library 96-3206 Dec 27, 2007.	Quick link to:
Home	Research Information			
Find Articles				
by topic (databases)	Can't find the information you need?			-
by source (subscriptions)	Need help researching a topic? Go beyond Google !		T	
Find Books online catalog ebooks my account software	973-596-3210 Email: <u>lib_ref@adm.njit.edu</u>		What's	E P P P
Research Helpdesk	For students For faculty	Evaluate your sources Cite your sources	new S	
Interlibrary Loan	For e-learners Ask us	How to Subject guides	You can help save	
Theses and Dissertations	Who's my librarian? Library hours	Information literacy FAQ	the NJ	
Archives			Knowledge	00:00 🗶 1-00
Library Administration	Program: Electronic databases funded by the NJKI	are now in isonardy of being cancelled as of Feb	(NJKI)	Get to know NJIT libraries and prarians who will help you with your research needs.
About Us	rigram creations and bases fullided by the Hold	are now in tooparar or paint ballcolled as of rep	20, 2000. [04:20, 2007]	

2007

Incidentally, an archive of the site from July 2011 explains the alternate banner style that appears here and there within the current site: this style is used on the home page of the 2011 version of the site. Apparently the upgrade to the site's current appearance was only partially successful.

New Jersey's Technology U ABOUT ADMISSIONS A	Science &	VAN HOUTEN LIBRARY TUS 1 Search NJIT
RESEARCH & RESOURCES SERVICES POLICIES	Home > Library Welcome to Van Houten Library Have a question? Type your complete question here Ask using real questions like: How do I find a book? Top 10	Hours Ask a librarian My library account
ABOUT / CONTACT US	Find Articles	Recent research articles by NJIT authors
LITTMAN ARCHITECTURE LIBRARY	Frequently accessed databases with access to selected full-text articles. Select from below Image: Submit Other options: Databases: Ato Z Databases by Subject	 Loan Loss Provisions, Earnings Management and Capital Management under IFRS: The Case o EU Commercial Banks 2010; Leventis, S., Dimitropoulos, P.E., Anandaraian, A.
Robert W. Van Houten Library 182 Central Avenue	Find Books	Micropreconcentration units based on carbon nanotubes (CNT) 2010: Hussain C M

2011

A trend for the NJIT library site appears to be adding functional value for the users, with less attention toward whether users can actually *find* the added functionality.

Mobility Options

The Van Houten library does not offer a mobile-formatted website. When the standard site is accessed from a small screen, even in landscape mode, the page must be zoomed in order to effectively interact with the navigation options. And even then, mis-selections are common because primary navigation options are closely-spaced.

Analysis

On a positive note, the Robert W Van Houten Library site incorporates many design best practices. Major items, based on recommendations from Jakob Nielsen (2001), include:

- Providing high-priority tasks on the home page
- Labeling with user-understandable terms rather than catchy lingo
- Avoidance of single-item categories
- Prominent display of the company name (on most pages)
- Presenting hyperlinks with commonly-expected styling
- Use of high-contrast, simply-formatted text.

When compared with other academic library websites, an advantage of Van Houten Library's is likely to be its labeling system, since it scored highest in this area. But the site's bold visual design grants it an advantage as well.

Unfortunately the site's areas of strength - labeling and some organizational aspects - are weakened by navigational flaws and weak search refinement. As a result, this website is usable, but not optimally so.

These design challenges interfere with the "timely manner" and "high quality learning environment" aspects of the site's mission. The navigational issues alone, while offset somewhat by the efficient home page, foreshadow loss of users' time to confusion and distraction.

To effect improvements, the site's fundamental architecture should be revisited, taking existing content and possible future content into consideration. The site's current issues could possibly have developed over time as new content was added.

Input from current users would be valuable at this point, to confirm how users mentally organize functions accessed on the site. Creating use cases could identify common workflows that may influence the overall organization. Site traffic and other statistics may be helpful as well, to identify usage patterns.

Once the site is reorganized with an improved information architecture, some of the navigation challenges may resolve naturally. The remainder can be fixed by applying recommended website heuristics. Then all changes can be fine-tuned based on additional usability input from representative users.

University Libraries

The home page of the University of Washington's (UW's) University Libraries feels somewhat cluttered, due to multiple lists of text. And an animated section in the lower left corner creates a distraction until the user learns to tune it out. But the overall appearance is pleasant.

This site features the mission of the library itself: "The UW Libraries advances intellectual discovery and enriches the quality of life by connecting people with knowledge."

This mission statement is supplemented with a vision, which identifies the library as the "intellectual and physical commons of our great University" with an objective of preparing students "for success in life as information smart global citizens."

As noted on the Services for Visitors page, the site's primary audience includes current students, staff, and faculty of the University of Washington.

Key User Tasks

Like Van Houten, the University Libraries home page grants immediate access to database and catalog searching. But accessibility of research guides and reference chat is reversed: here, users must dig slightly for research guides, but can immediately chat with a librarian.



Home Page Access to Key Tasks

Catalog Search

Catalog search options appear near the top the site's home page as a central tabbed section. This placement puts the catalog search in direct line-of-site when users reach the page.

However, there is potential confusion because the contents of the tabs themselves pertain to the WorldCat database – a broader search than a user may be expecting. The actual catalog search is

reached by a hyperlink directly below the tabbed section. This hyperlink is granted some visual weight by surrounding whitespace, but is nonetheless overshadowed by the boldly-colored tabs.

The library appears to be deliberately steering users toward the WorldCat search. However, there is a potential for confusion and disappointment for users who do not realize they are connecting to WorldCat rather than the library's local category.

Database Access

For database access, users may opt for the Articles section of the WorldCat tabs, or the UW-only catalog link, *or* the Articles & Research Databases link near the top-left corner. The latter, however, may not be noticed due to the home page's many navigation options.

Research Guides

Research guides are not represented on the home page. Users scanning the page may be attracted by the Articles & Research Databases link (if they see it), but would not find their objective until experimentally clicking FIND IT, or using either Site Map or Site Search at the bottom of the page.

Reference Chat

Reference chat is the most visible task: options for chat, email, phone, and text reference appear prominently at the top of Home and most inner pages. In fact some pages offer more than one entry point to chat. The library promotes this feature heavily.

Detailed Review

Organization

The overall University Libraries website has a hybrid topic / task organization, which works well. Top-level categories are conceptually distinct and their contents are consistent. Subsections employ audience, alphabetical, and location-based schemes as appropriate to the local topics.

The site's categories allow users to reach individual pieces of information intuitively, plus *Using the Libraries* contains sections dedicated to various user roles. These role-based sections tie together items that are most likely of interest to each role. (Unfortunately, due to poor visual design choice, these subsections are slow to attract the user's attention.)



Only a few organizational issues are apparent:

• The Find It section is structurally confusing: Find It is a top level in the home page hierarchy, yet it leads to a tabbed page where Find It is displayed in parallel with several of its subcategories (Subject Guides, Class Guides, and Course Reserves).

The source of this issue straddles both organization and navigation. But viewed either way, the effect is disorienting.



- In addition, *Find It* would benefit from an additional hierarchical level to divide the lengthy "More" list.
- More confusion exists in the How Do I...? section. This category name promises a task-based scheme. But this section's subcategories are topical in nature.



• Two top-level sections, Using the Libraries and About, contain a General second-level category. While this provides a convenient catch-all for site managers, items within may be missed by users since the category name provides no "information scent" (Spool, 2006).

Overall, the site's organization scored well when evaluated with the heuristics checklist: 19 out of 22 possible points.

Labeling

Most labels use natural language that seems to reflect a user's perspective. Some deviate from commonly-used terms, but the intent seems to be user-oriented. For example, the use of How Do I...? instead of Online Help seems to have the user's perspective in mind. Another label, Using the Libraries, is no worse than its common equivalent, Services, and may be more meaningful to the site's users.

A few labels include two terms linked by an ampersand, e.g. Business & Companies, Dissertations & Thesis. But these are not concatenated categories: the intent seems to be to represent two synonyms for recognition by a greater number of users – a good thing.

Labels for third-level items are lengthier, but not wordy. The detail level of the labels effectively summarizes the contents of each category.

However, there are a few deeper labels, particularly on the catalog search pages, which are not clear at all.

- For example, a button labeled Search as Words has the effect of re-running author or title search terms within a keyword search.
- In another case, a button labeled Return to Browse has the effect of removing any limiters applied to a set of search results.

Other than these minor exceptions, labels on this library site are very user-oriented, and constitute the site's strongest feature. The site's heuristic score for labeling is 13 out of 14.

Navigation

Unfortunately, several navigational flaws prevent the site from fully leveraging its solid organization and excellent labeling. Users can move upward and downward in the site's structure, but must use different means to do so depending on the current page.

The site's saving grace in this area is the reliable presence of the library's logo in the top left corner of the page, which, when clicked, returns users to the home page where they can re-orient. Such a "panic button" is important due to several issues:

• The Home page displays primary navigation choices in two different formats: as drop-down menus along the top of the page, and as lists of links in the body text. These mechanisms are

not in-sync and compete for the user's attention.

The position of each link list varies in relation to the others which forces the user to think about whether or not they are parallel. And the drop-down menu mysteriously omits one of the link lists, Tools.



- The navigation drop-down menus that appear on the home page also appear on middle-level pages, but are absent from deeper pages. In such cases, users must return to the Home page in order to switch to different sections of the site.
- Breadcrumbs are present on many pages, but disappear in some cases, as on the How Do I...? pages. In other cases, the breadcrumbs do not match the title of the current page, or elements of the represented path do not appear in the primary navigation.



- The list of links style of navigation used on several inner pages as well as Home is difficult to absorb. These may be better presented as collapsible sections, so that users could process the first level of categories before exposure to the next level within each category.
- Hyperlinks themselves are employed with disregard to common web convention recommended by Jakob Nielsen and others: none of the site's links appear with underlines, forcing users to rely

on text color and hovering to discern linked text.

Furthermore, links don't always convey their destination to the user. For example, "Businesses & Companies" on the Find It page takes the user to different library rather than to a list of business-oriented databases, as context suggests. Also, while some links employ title tags, many do not.



• Navigation style varies throughout the site. Although many pages use lists of hyperlinks, the How Do I...? section switches to tabbed navigation. And the search pages have different options in their navigation menus.

• A site map is present, but flattens the site's hierarchy into two levels and is therefore difficult to read. In addition, the site map's top level categories don't directly correspond to the categories on the home page: Tools and How Do I...? is missing, and a Libraries and Units item is present.

		About the Libraries
E-Journals Audio & Vi Business & Citation & Countries Data Dictionarie Disertatic E-Books	deo deo & Companies Writing Guides & Cities s s ons & Theses pers & News dias	Accessibility Assessment Program Building Sustainable Futures: Strategic Plan Collections Distinguished Librarian Award Diversity Employment & Fellowship Opportunities Facts About the Libraries Friends of the UW Libraries Gifts Hours & Libraries Libraries Student Advisory Committee Library Research Award for Undergraduates News Events Exhibits Office of the Dean Policies
 Images Jobs & Ca Maps Subject G UW Librari 	reers uides	 Policies Preservation Scholarly Publishing & Open Access Issues Staff Directory Support the Libraries User Experience/Human Factors Program
Using the Li	braries	Libraries and Units

In summary, the site's varying navigation options have little consistency and seem arbitrary, bestowing a sense of unease upon the user. The need to repeatedly return to the home page in order to move around the site generates a disruptive "pogo-sticking" effect (Spool 2006). As a result the site rates only 14 out of 22 points in this area.

Search

This website offers an overall site search function in addition to traditional catalog and database searches. This "meta option" to search the site itself grants users an alternate way to access site content – an option that is especially valuable in light of the navigational challenges. Sadly, this option hides at the bottom of the page. It would be much more effective if prominently displayed.



The catalog search function itself could be more user-friendly, but does assist users in several ways:

• Users have the option of broadening certain searches by converting to a keyword-based search.

Mark	
	Box Elder News / [electronic resource].
	Box office / [electronic resource].
	Boxboard / [a] magazine published soley in the interest of the paperboard industry.
	Boxe dans le Nord. Organe sportif de boxe, lutte, poids et haltères / [electronic resource].
	Your entry "boxes and arrows" would be here Search as Words
	Boxmakers' journal and packaging review Mar. 1933-Aug./Sept. 1946
	Boxmakers' journal Jan. 25, 1897-Feb. 1933

- Users can narrow searches by choosing among several metadata facets.
- Some alternate spellings are accommodated - for example, searches for oreilly-within-keywords and o'reillywithin-keywords retrieve the same number of results.
- Although misspellings are treated as any other zero-hit search, at least title and author search results show nearby results, which has the effect of highlighting the spelling error.

	he TITLE Architecture - 1512 entries found.
Please select crite	eria to limit by:
Location:	ANY Art Library Bothell/CCC Campus Library Built Environments Library Curriculum Materials
Publication type:	ANY Printed Materials Printed Music Scores Manuscript Music Scores Maps/GIS Data
Language:	ANY Arabic Chinese English French
Illustrations:	ANY Illustrations Maps Potraits Charts

If the options for narrowing / broadening

results were hierarchically organized, they may be more meaningful. And better handling of misspellings would enhance effectiveness. The heuristic score in this area was 4 out of 8.

Site Evolution

The website's copyright date extends back to 1998, and the WayBackMachine archive reports snapshots back to April 15, 1997. Selected archives (Jan 2008, Jan 2001, Apr 1997) reveal some back-and-forth in the site's top-level labels.

The 1997 version of the site is naturally rudimentary in appearance, yet provided an online catalog and access to some databases, along with much of the information currently in the About and Using the Libraries sections. In addition, the site had a surprisingly sophisticated search tool. In fact, due to minimal information hierarchy, the original version of the site may be been far more search-friendly than browse-friendly.



1997

The 2001 version of the site presented a Find It category very similar to the current site's. But in the 2008 version, this label changed to the more mundane "Resources" before evolving back to "Find It" on the modern day site. The Using the Libraries label was not applied until recently: both 2008 and 2001 use "Services."

The extensive help section, labeled How Do I...? is an extension of the Help section featured on the 2001 site. Even at that time, the site's help information was quite detailed. Oddly, the 2008 version of the site shows no sign of this category. This timeframe seems to introduce the "ask us" email / chat / phone feature. Perhaps the library initially thought this feature would replace the help, but learned differently in later years.

	NFORMATION G	ATEWAY
UW Home Heal	thLinks UW Tacoma UW Bothell	Image Collections
Find It	Get It	About the Libraries
UW Libraries Catalog Top 20 Databases Databases & Catalogs By Subject Reference Tools	Borrowing/Delivery Renewals Course Reserves View Your Record	Contact Us Libraries & Hours General Information Giving to the Libraries Accessibility
Services	Help	Alerts
For Faculty & Staff For Graduate Students For Undergraduates For Visitors My Gateway	Connecting Starting Points Research Guides Library Classes	News Events & Exhibits Employment Opportunities Suzzallo Renovation
	Search Gateway Index	t i i i i i i i i i i i i i i i i i i i

2001



2008

Over the years, the site's direction moves away from search-centric: the hierarchy is progressively refined over the years while searching (of the site, not the catalog and databases) becomes less prominent. And in the latest version of the site, emphasis is on "ask"ing rather than browsing.

Mobility Options

Four of the site's five major sections are not mobile-formatted. However, when viewed in landscape orientation on a 2 X 3 inch screen, most screens are fairly easy to reach due to reasonable spacing between navigation links. The "list of links" navigation style that lowered the site's heuristic score have usability benefits on the small screen. Perhaps the reasoning behind this design choice was an attempted compromise between standard and mobile viewing.

The fifth major section, How Do I...? does have a mobile variant. Unfortunately, the page is not optimized for performance: the screen displays, but is non-functional until (apparently) the contents of all sections has loaded. Attempts to interact with this page in order to evaluate it failed: page loading continued for several minutes until the browser crashed.

Examining a standalone variant of the How Do I section, a small FAQ for mobile resources, reveals excessive whitespace above and below each paragraph. Since this increases the height of each block of information, the page design works well when viewed in portrait mode, but is awkward in landscape.









Landscape View

Since the other sections of the site must be viewed in landscape mode to be comfortably viewed, it seems odd for the single mobile section to be optimized for portrait viewing. Some devices (the Samsung Stratosphere, for example) do not gracefully transition between the two viewing modes – therefore these users are likely to be distracted when moving into *How Do I…*? from other areas of the site.

Analysis

The University Libraries website employs many of the same best practices as Van Houten's library site, such as:

- Prominent display of the company name
- Providing high-priority tasks on the home page (in most cases)
- Labeling with user-understandable terms rather than catchy lingo
- Avoidance of single-item categories

Some additional design choices, while not explicitly recommended as best practices, are very beneficial to the site's users:

- Varying search options
- Extensive help library which includes video footage.

The site has strong advantages in its organization scheme and labeling systems. Another possible advantage over other academic library sites is the *University Libraries*' emphasis on reference assistance, which gives users the option of immediate human help.

This website achieves its mission of connecting people with knowledge by offering multiple approaches to its users. The combination of "Ask" functions, primary navigation, site search and site map grants users several paths to needed information. The multiple access points helps ensure success despite weaknesses in any one approach.

However the site falls somewhat short of its secondary objective of producing information-smart citizens. Since the site's organization is obscured by poor navigation, users have few opportunities to comprehend the site's structure and glean insights about information organization.

University Libraries' positive aspects would be enhanced by resolving the site's navigational difficulties. Wireframing two or three alternate navigation schemes, and then testing them with site users may reveal a more intuitive way of moving from the home page to other areas of the site. Improving the site map and moving Site Search to a more prominent location should also be considered. Such a redesign would help users focus on the information they need rather than on figuring out how to reach it.

Comparison

The websites for NJIT's Robert W Van Houten Library and UW's University Libraries have several similarities. Both sites address similar high-level best practices and are strongest in their labeling systems. Both need navigation and search improvements, to different degrees.

But *University Libraries* scores higher in all four heuristic areas, with significant differences in organization and navigation:

	Organization	Labels	Navigation	Search	Overall
Van Houten	64%	86%	41%	38%	58%
University Libraries	86%	93%	64%	50%	76%
Difference	23%	7%	23%	13%	18%

Differences in evolution and mobile computing exist as well. Historically, the Van Houten site has focused on expanding its available resources, seemingly without revisiting and updating the site's structure and navigation, to the detriment of both of these elements. Meanwhile, *University Libraries* has progressed through different modes of finding information, moving from search-centric, to browse-centric, to an extension of the personal one-to-one interaction provided by physical reference desks into the online world.

Even though the Van Houten site also offers chat and other reference options, they are not emphasized on the home page. Furthermore, chat availability is limited to certain business hours – unlike UW's chat, which is available 24 hours a day through cooperative arrangement with other libraries.

Also, *Van Houten* shows no signs of entering the miniature world of mobile web browsing. In contrast, the University Libraries site is designed to be relatively friendly to mobile visitors. And, despite some needed refinements, portions of *University Libraries* are offered as *bona fide* mobile format.

Perhaps the sheer size of the University of Washington lends greater design resources to these areas – or perhaps UW's Library & Information Science program has influenced the site's design.

In terms of competitors, both sites have strong points that can potentially lend an advantage over other academic library websites. Other academic libraries, however, may not be strong competitors. It is possible that the library and its website could influence prospective students in the process of choosing a university. But based on the difficulties in obtaining logins experienced while conducting this evaluation (see Page 25 in the Appendix) existing students are unlikely to seek information on other university library's websites.

A more direct competitor to academic library sites may be Google and other Internet search engines. Some libraries feel the need to publish educational materials advising students of the potential disadvantages of Internet research (Mavodza 2007, Google vs the Library Web 2011).

And in Liu and Lang's 2004 study, a majority of distance learning students indicated a research preference for the Internet versus their university library and other academic sources. Preferences in the study were most influenced by retrieval speed and ease of access.

The University of Washington Libraries' promotion of reference chat (and other reference mechanisms) throughout the site is a possible move to elevate the library's value to its users. When deciding between an iterative expedition through a library's catalog and database search tools with "a quick google," students may indeed turn toward the Internet. But the option of personalized interactive guidance from a librarian, as opposed to a relatively impersonal set of search engine results, could give the library a competitive advantage.

In an era where varying-quality information is quickly and easily accessible online, with information seekers who tend to make choices based on convenience (Bierbaum, 1990), UW's University Libraries approach may set an example that other academic libraries will eventually follow.

Appendix

Criteria Used in Sample Catalog Searches

- 1. Architecture within Title
- 2. Title begins with Information
- 3. Title begins with Information Architecture
- 4. Morville within Keywords
- 5. Morville within Author
- 6. oreilly within keywords
- 7. o'reilly within keywords
- 8. Boxes and Arrows within Keyword(s)
- 9. Hinton within Author
- 10. Hinton, H within Author
- 11. Journal title begins with Boxes
- 12. Journal title contains architecture

Heuristic Analysis Checklists



Login Access Requests (Denied)

From: "Slutsky, Bruce" <Slutsky@ADM.NJIT.EDU> To: "askalibrarian@njit.edu" <askalibrarian@njit.edu> Cc: "kprieto01@yahoo.com" <kprieto01@yahoo.com> Sent: Saturday, January 28, 2012 7:59 PM Subject: RE: Alumnus Library Access

Karen - the NJIT Library does not have access to ILLiad as described in http://www.oclc.org/illiad/. Is this what you mean? Alumni do not have access to the databases subscribed to by the NJIT Library. You certainly may view the numerous pages under our home page at http://library.njit.edu . There is a program in the works that will allow alumni to access JSTOR.

Have I answered your question? If not you can get back to us.

Bruce Slutsky New Jersey Institute of Technology Robert Van Houten Library 323 Martin Luther King Blvd Newark, NJ 07102 <u>Bruce.Slutsky@njit.edu</u><mailto:<u>Bruce.Slutsky@njit.edu</u>> Voice (973) 642-4950 Fax (973) 643-5601

From: University of Central Florida <IS6212_22900@is.instantservice.com> To: kprieto01@yahoo.com Sent: Monday, January 30, 2012 12:54 PM Subject: RE: Alumnus Access (#6939-276846373-6767)

Hello Karen,

I'm sorry but only UCF students & UCF staff have ILLIAD accounts, we register with our UCF Library ID & PID. You are welcome to use our catalog if that would be of help to you.

Best regards, Meredith UCF Ask A Librarian

From: reference@usciences.edu [mailto:reference@usciences.edu]
Sent: Friday, February 03, 2012 10:27 AM
To: kmp76@drexel.edu
Cc: c.wieman@usciences.edu
Subject: [Ask a Librarian] Your question has been answered

To reply, please go to <u>http://ask.library.usciences.edu/reply.php?iid=341&qid=68251&access=74ca665736effc499d7ee15a48c</u> <u>2be45</u> instead of replying to this email.

Hello,

You asked:

Website login for Drexel students?

I am currently enrolled in Drexel University's MS-LIS program, and am working on an assignment that involves evaluating the design of library websites. I would like to test the UScience Library's accountbased services such as inter-library loan as part of my evaluation. I understand that Drexel has reciprocal agreements with UScience. Does this grant me online library access? How do I set that up? Thanks in advance. Kp

Answer:

Hi Karen,

Our reciprocal agreement with Drexel allows you to visit JW England Library during weekday hours, but due to our licensing agreements we can't give unaffiliated patrons access to our e-r

From: Judy Gardner [mailto:jgardner@rci.rutgers.edu] Sent: Monday, February 06, 2012 11:38 AM To: kmp76@drexel.edu Subject: Re: Ask a Librarian Service Reply Hello,

A colleague, Roberta Tipton, referred your question to me. The Libraries' account services require authentication with Rutgers NetIDs

and are limited to current faculty, students, and staff of the university. I'm sorry but we can not issue guest logins.

Regards,

Judy Gardner Head, Access & Interlibrary Services jgardner@rci.rutgers.edu

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