NYU LIBRARY SERVICES: CARD SORT REPORT

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METHODOLOGY

In order to choose items to include in the card sort, a basic content inventory was conducted. The inventory included the links within the NYU Library services' landing page (http://library.nyu.edu/services/) and links within the next two levels of pages below that (see Table 1). This resulted in an index of 282 items. Of the three layers indexed, the team chose the links within pages that can be accessed from the services' landing page ('First Click' column in Table 1) because it was the level of information that could be sorted into easily accessed categories. Items were removed that were repetitive and/or were deemed too obvious (e.g., FAQ, About, Policies) which narrowed the list to 108 items (see Appendix A). Some items were then renamed to better reflect the contents of their page.

Services Home Page	First Click	Second Click
Ask a Librarian (e-mail reference service)		
For new undergraduates		
	How do I get started on a research paper?	
	How do I find books?	
	How do I find articles?	
	How do I cite sources?	
	Help & FAQ	
	Video Tour of Bobst Library	
	NYU Libraries Resources	
	Study Spaces	
For faculty		
	Contact your Subject Librarian	
		Recommend book or media titles for purchase
		Schedule library research classes for your students
		Schedule a consultation to learn more about library services, procedures, and collections
		Request a library service update or demonstrations of discipline-specific databases for department meetings
	Borrowing, Interlibrary Loan, Access to Other Libraries	
		Borrow books and paging and delivery services
		Additional Borrowers form
		Audio / Video Loans
		Interlibrary Loan (ILL)
		Borrowing at Columbia and NYPL Research Libraries - MaRLI
		Access to other Libraries
		Global Library Services

TABLE 1: SELECTION FROM CONTENT INVENTORY

The online program OptimalSort (http://www.optimalworkshop.com/) was chosen to carry out the card sort. Though card sorts can be conducted manually with index cards, a digital tool was chosen due to its efficient data analysis methods, which was especially important with the large amount of cards being included in this study. An open card sort was chosen, meaning no categories were prescribed, as they are most useful for restructuring existing sites.[1]

The card sort was conducted during two Information Architecture classes, part of the School of Information and Library Science, at Pratt Institute in October 2013. Students were asked to conduct the sort as though they were a user of a library website, not an information professional. The students in the class completed the sort in pairs, which resulted in eighteen card sorts for analysis. On average, the sort took 36.9 minutes to complete and the cards were grouped into fourteen groups. The resulting data and reports generated by OptimalSort were then analyzed by the research team. Due to the large number of cards and study participants, the homogeneity of the results was limited. The most useful report that was generated by OptimalSort was the Participant Centric Analysis, or PCA (Appendix C). The PCA shows "the top … most acceptable [Information Architecture] submissions by participants in this card sort, as tested against all other participant [Information Architectures]."[2] These results were referenced when making decisions regarding the suggested categories and content.

In addition to the sort, the team conducted a soft competitive analysis (see Competitive Review, page 5) to discover how other university library websites successfully organized their services. The competitive analysis results were used to develop an ideal set of top-level categories for the NYU Library Services page. These categories were combined with the research team's expertise to develop a suggested hierarchy of service categories (page 8).

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[1] Spencer, D. (April 7, 2014). *Card Sorting: A Definitive Guide.* Retrieved from http://boxesandarrows.com/card-sorting-a-definitive-guide/

[2] OptimalSort PCA. (n.d.). *Optimal Workshop.* Retrieved October 22, 2013, from https://apps.optimalworkshop.com/suite/optimalsort/admin/results.jsf?s=lux

The library service websites for Princeton University, Cornell University, and Columbia University were chosen to compare against the New York University (NYU) library services site. The evaluation rated each of the university websites on a scale of high, medium, or low for navigation and page layout, top-level menu categories, and links (see Table 1). These ratings are based on criteria developed by our team; for instance, a site received a rating of 'high' in the navigation and page layout category if "the navigation of the site is clearly visible and consistent at all levels of the site" (please see Appendix B for a full ratings breakdown).

	New York University	Princeton[3] University	Cornell[4] University	Columbia[5] University
Navigation and Page Layout	Medium	High	Medium	High
Top-Level Categories	Medium	High	Medium	High
Links	Medium	High	Medium	High

TABLE 2: EVALUATION OF ALTERNATE LIBRARY SERVICES WEBSITES

By evaluating the sites that had the highest ratings for all three evaluation criteria and combining this with our knowledge of the NYU Library Services content, we were able to develop a list of thirteen preferred categories for top-level navigation (see Services List in Figure 1). The provided top-level categories are ideal for the content and navigation of NYU's Library Services website. The terms identified in Figure 1 allow a logical grouping of content,

[3] Services. (n.d.). *Princeton University Library*. Retrieved October 17, 2013, from https://library.princeton.edu/services

[4] Library Services l Cornell University Library. (n.d.). *Home l Cornell University Library*. Retrieved October 17, 2013, from http://www.library.cornell.edu/svcs

[5] Access For Alumni & Visitors l Columbia University Libraries. (n.d.). *Libraries / Information Services Home l Columbia University Libraries*. Retrieved October 17, 2013, from http://library.columbia.edu/services/access.html

reflected in the high ratings of comparable sites. The suggested top-level categories should be prominently displayed on the site with no competing navigational structure.
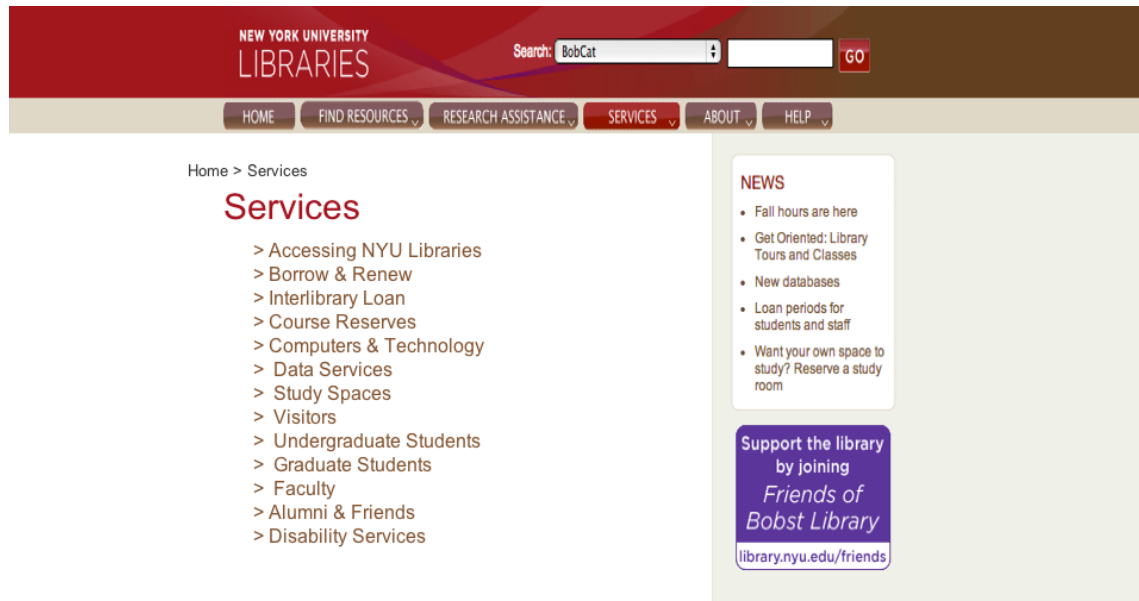

FIGURE 1: SUGGESTED LIBRARY SERVICES HOMEPAGE

Each category should be a link with an associated landing page describing the purpose of that particular category. On each category page the related secondary links should follow a logical hierarchy and be clearly displayed. Breadcrumbs or global navigation allowing the user to track their movement and return to the homepage and the thirteen categories should be visible and consistently available. In addition, the links on each page should clearly indicate if it allows the user to scroll down and view content on an existing page or if it will result in a new page opening.

The previously mentioned recommendations have been utilized on the sites that received high rankings in the three identified dimension and can be applied to the NYU Library Services site to improve the user experience and increase the visibility of relevant information.
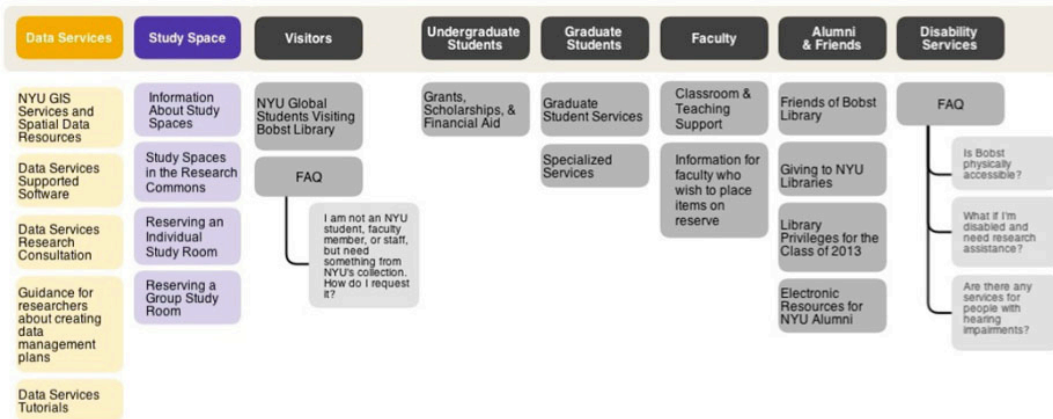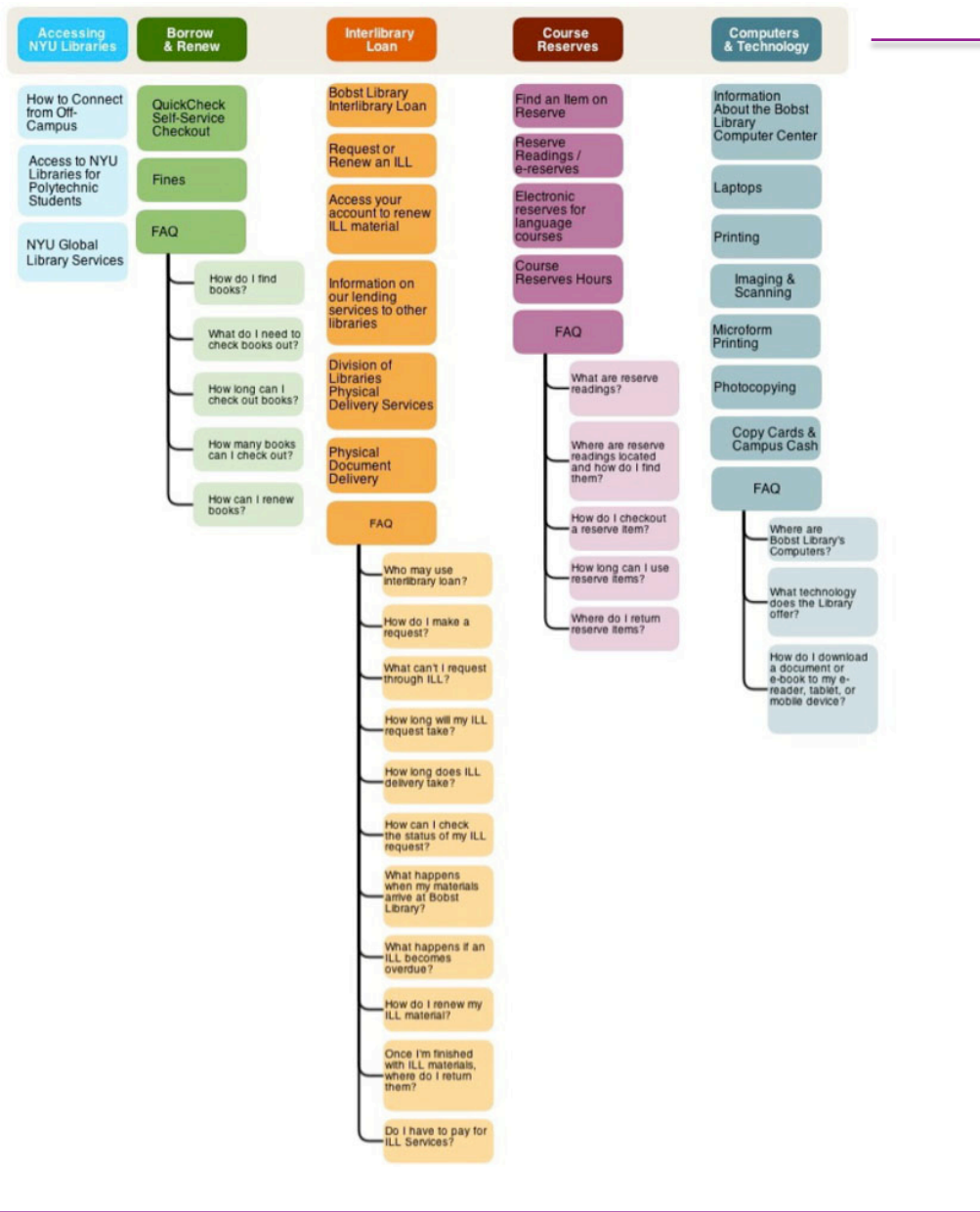
FINDINGS

ITEMS TO REMOVE FROM SERVICES

After looking over the entire NYU Library website, the project team noticed redundancies in the menu contents on the homepage (http://library.nyu.edu/) and the contentions of the Services section. For example, there are currently many items within Services that refer to research best practices and assistance (e.g., Avoiding Plagiarism, Sharing with RefWorks) and they were grouped as such by card sort participants, but should instead be included in the Research Assistance area of the site that is accessible from the homepage. Details regarding collections and BobCat should be accessed under the Find Resources menu item, and items such as Video Tour of Bobst Library would be more appropriately found within the About menu item on the homepage. See Appendix D for a more comprehensive list of items that would be more easily accessible under the existing homepage headings.

PROPOSED SERVICES CATEGORIES

After removing the redundant items from the card sort, and combining the remaining items with the categories developed from the competitive review and the knowledge of the project team, a map of proposed services categories was developed (see next page). There are thirteen proposed top level navigation categories of the NYU Library Services, which would be revealed in the Services drop down menu on the NYU Library's homepage: Accessing NYU Libraries, Borrow & Renew, Interlibrary Loan, Course Reserves, Computers & Technology, Data Services, Study Spaces, Visitors, Undergraduate Students, Graduate Students, Faculty, Alumni and Friends, Disability Services. These sections are supported by the following Participant Centric Analysis categories: ILL, Reserves, Accessibility, Data Services, Technology, Circulation, Alumni & Friends, and Places & Spaces (see Appendix C).

The subcategories included within the site map have all been pulled directly from the items that were chosen for the card sort. These give an indication of the types of information that should be included within each subsection of the Services section of the NYU website.

Accessing NYU Libraries
- How to Connect from Off-Campus
- Access to NYU Libraries for Polytechnic Students
- NYU Global Library Services

Borrow & Renew
- QuickCheck Self-Service Checkout
- Fines
- FAQ
  - How do I find books?
  - What do I need to check books out?
  - How long can I check out books?
  - How many books can I check out?
  - How can I renew books?

Interlibrary Loan
- Bobst Library Interlibrary Loan
- Request or Renew an ILL
- Access your account to renew ILL material
- Information on our lending services to other libraries
- Division of Libraries Physical Delivery Services
- Physical Document Delivery
- FAQ
  - Who may use interlibrary loan?
  - How do I make a request?
  - What can't I request through ILL?
  - How long will my ILL request take?
  - How long does ILL delivery take?
  - How can I check the status of my ILL request?
  - What happens when my materials arrive at Bobst Library?
  - What happens if an ILL becomes overdue?
  - How do I renew my ILL material?
  - Once I'm finished with ILL materials, where do I return them?
  - Do I have to pay for ILL Services?

Course Reserves
- Find an Item on Reserve
- Reserve Readings / e-reserves
- Electronic reserves for language courses
- Course Reserves Hours
- FAQ
  - What are reserve readings?
  - Where are reserve readings located and how do I find them?
  - How do I checkout a reserve item?
  - How long can I use reserve items?
  - Where do I return reserve items?

Computers & Technology
- Information About the Bobst Library Computer Center
- Laptops
- Printing
- Imaging & Scanning
- Microform Printing
- Photocopying
- Copy Cards & Campus Cash
- FAQ
  - Where are Bobst Library's Computers?
  - What technology does the Library offer?
  - How do I download a document or e-book to my e-reader, tablet, or mobile device?

Data Services
- NYU GIS Services and Spatial Data Resources
- Data Services Supported Software
- Data Services Research Consultation
- Guidance for researchers about creating data management plans
- Data Services Tutorials

Study Space
- Information About Study Spaces
- Study Spaces in the Research Commons
- Reserving an Individual Study Room
- Reserving a Group Study Room

Visitors
- NYU Global Students Visiting Bobst Library
- FAQ
  - I am not an NYU student, faculty member, or staff, but need something from NYU's collection. How do I request it?

Undergraduate Students
- Grants, Scholarships, & Financial Aid

Graduate Students
- Graduate Student Services
- Specialized Services

Faculty
- Classroom & Teaching Support
- Information for faculty who wish to place items on reserve

Alumni & Friends
- Friends of Bobst Library
- Giving to NYU Libraries
- Library Privileges for the Class of 2013
- Electronic Resources for NYU Alumni

Disability Services
- FAQ
  - Is Bobst physically accessible?
  - What if I'm disabled and need research assistance?
  - Are there any services for people with hearing impairments?

To maximize the visibility of relevant information and reinforce the desired navigation scheme, the project team also suggests that the current layout of the NYU Library Services website be reevaluated. The landing page of the Library Services website has competing navigation. This is seen in the seventeen options within the drop down Services menu (highlighted in blue within Figure 2), the content list on the center of the page (highlighted in green), and the seventeen options within the vertical navigation menu on the left side of the site (highlighted in yellow). This redundancy of information is confusing for the user and detrimental to the logical hierarchy of the site.
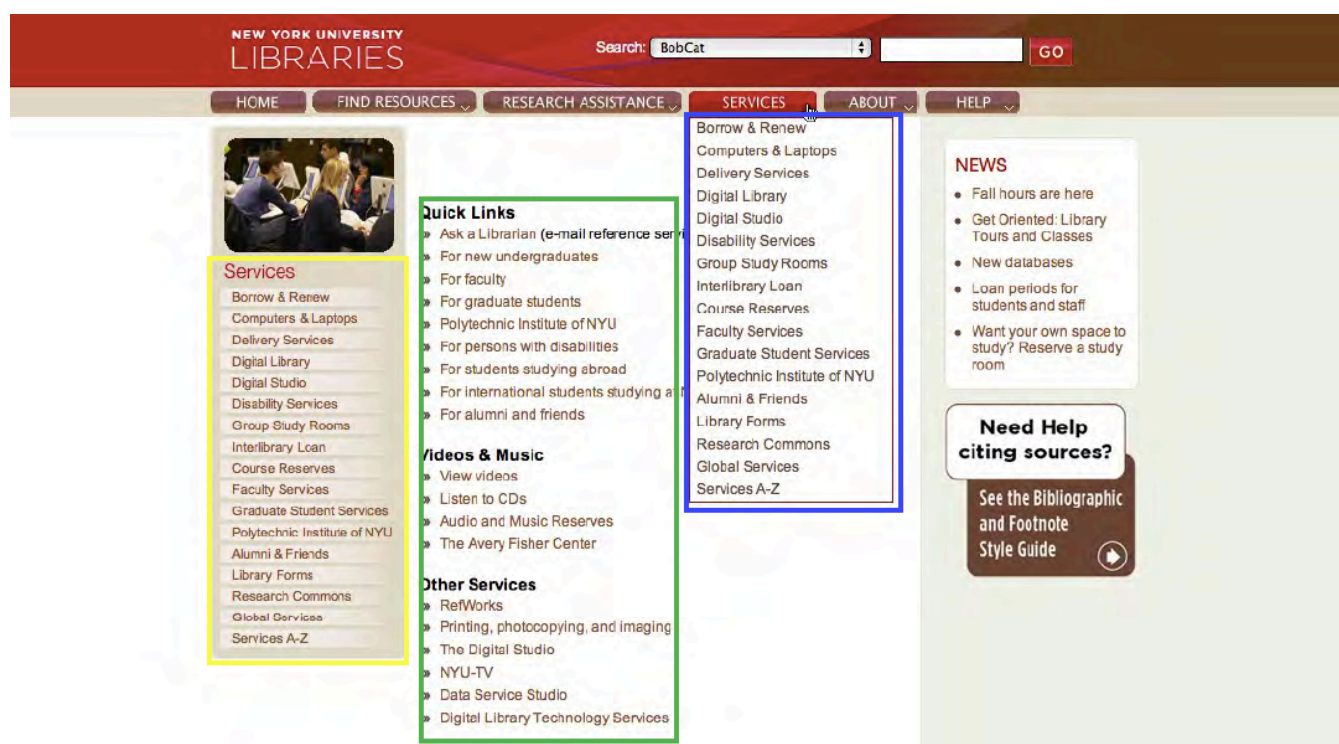
FIGURE 2: SERVICES LANDING PAGE WITH SECTIONS HIGHLIGHTED

Alternatively, the team suggests that the vertical navigation be used to display the second level of hierarchy for each top-level category once selected (see Figure 5). This will clearly show the structure of the site and provide the user with necessary feedback on their progression through the site.
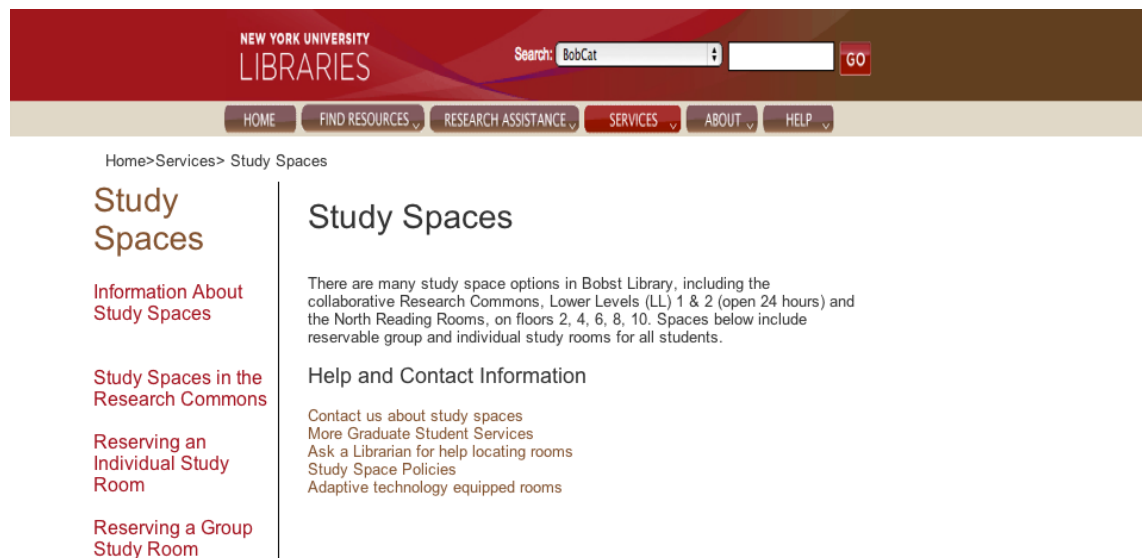
FIGURE 3: SAMPLE TOP LEVEL CATEGORY LANDING PAGE

Access to NYU Libraries for Polytechnic Students

Access your account to renew ILL material

Access your account to renew NYU library books

Adding References to a Research Paper

Are there any services for people with hearing impairments?

Avery Fisher Center for Music and Media, Services for Students

Avoiding Plagiarism

Bibliographies & Citations

Bobst Library Interlibrary Loan

Classroom and Teaching Support

Complete Circulation Policies

Computer Locations for Research

Contact your Subject Librarian

Copy Cards/Campus Cash

Course Reserves Hours

Data Services Research Consultation

Data Services Supported Software

Data Services Tutorials

Digital Media Collections

Division of Libraries Physical Delivery Services

Do I have to pay for ILL Services?

E-Books

E-Journals

Electronic reserves for language courses

Electronic Resources

Electronic Resources for NYU Alumni

English as a Second Language (ESL) Materials

Find an Item on Reserve

Fines

Foreign and Non-English Language News & Newspapers

Foreign Language Materials

Friends of Bobst Library

Getting Started with RefWorks

Giving to NYU Libraries

Glossary of Library Terms

Graduate Student Services

Grants, Scholarships, and Financial Aid

Guidance for researchers about creating data management plans

How can I check the status of my ILL request?

How can I renew books?

How do I checkout a reserve item?

How do I cite sources?

How do I download a document or e-book to my e-reader, tablet, or mobile device?

How do I find articles?

How do I find books?

How do I get started on a research paper?

How do I make a request?

How do I recall a book that's checked out or in offsite storage?

How do I renew my ILL material?

How long can I check out books? How many books can I check out?

How long can I keep my ILL item?

How long can I use reserve items?

How long does ILL delivery take?

How long will my ILL request take?

How many requests can I make?

How to Connect from Off-Campus

I am not an NYU student, faculty member, or staff, but need something from NYU's collection. How do I request it?

Imaging/Scanning

Information About Study Spaces

Information About the Bobst Library Computer Center

Information About the Library Renovation

Information for faculty who wish to place items on reserve

Information on our lending services to other libraries

Intro to Research at Bobst

Is Bobst physically accessible?

Language Dictionaries

Laptops

Library Privileges for the Class of 2013

Managing RefWorks References

Media Viewing Area

Microform Printing

NYU GIS Services and Spatial Data Resources

NYU Global Library Services

NYU Global Students Visiting Bobst Library

NYU Libraries Newsletter - Progressions

Once I'm finished with ILL materials, where do I return them?

Photocopying

Physical Document Delivery

Printing

QuickCheck Self-Service Checkout

Request or Renew an ILL

Research, Scholarly Communication and Publishing Support

Reserve Readings / e-reserves

Reserving a Group Study Room

Reserving an Individual Study Room

Search for a book with BobCat

Sharing with RefWorks

Specialized Services

Storing Files with RefWorks

Study Spaces in the Research Commons

Training Resources by Software

Video Tour of Bobst Library

Videos, Sound Recordings, Musical Scores

What are reserve readings?

What can't I request through ILL?

What do I need to check books out?

What happens if an ILL becomes overdue?

What happens when my materials arrive at Bobst Library?

What if I'm disabled and need research assistance?

What technology does the Library offer?

Where are Bobst Library's Computers?

Where are reserve readings located and how do I find them?

Where do I return borrowed materials?

Where do I return reserve items?

Who can borrow books at Bobst Library?

Who may use Delivery Services?

Who may use interlibrary loan?

Writing and Style Guides

NAVIGATION AND PAGE LAYOUT

Level: High

Characteristics:

The navigation of the site is clearly visible and consistent at all levels of the site.

Users are able to easily maneuver back with the use of a global navigation or breadcrumbs.

The layout of information on the site is consistent.

Major categories and subcategories are clearly defined.

The information on the category landing page is brief and informative with relevant links.

Level: Medium

Characteristics:

The navigation of the site is somewhat inconsistent.

The ability to navigate back is not consistent or intuitive.

The layout of the information on the site is somewhat inconsistent.

The hierarchy of the site is somewhat unclear.

The category landing page does not effectively communicate the purpose of the category.

Level: Low

Characteristics:

The navigation of the site is not easily identifiable.

There is no navigation on the site that allows users to easily maneuver back.

The information and layout of the site is inconsistent.

There are no category landing pages and no clear hierarchy.

TOP-LEVEL CATEGORIES

Level: High

Characteristics:

There are intuitive and logical top-level categories organizing the information on the site.

The categories are clearly labeled and consistent throughout the site.

The hierarchy of information is visible, understandable and follows a logical relationship.

Level: Medium

Characteristics:

The top-level categories are mostly understandable.

The categories are moderately inconsistent throughout the site.

The hierarchy of information if mostly clear and consistent.

Level: Low

Characteristics:

The top-level categories are not easily identifiable.

The hierarchy of information is inconsistent and not clearly labeled.

LINKS

Level: High

Characteristics:

There is no unnecessary duplication of links.

The wording of links effectively communicates to the user where and what content it links to.

The hierarchy and visibility of the available links are clear.

Level: Medium

Characteristics:

There is some duplication of links.

The wording of links is somewhat ambiguous.

Links are mostly visible and follow a hierarchy.

Level: Low

Characteristics:

There are a large number of duplicated links.

The wording of links is confusing to the user.

Links are not clearly visible and there is no clear hierarchy.

Research Resources
Reference
Research/Writing
Research Tasks

- How do I get started on a research paper?
- Adding References to a Research Paper
- Avoiding Plagairism
- Bibliographies & Citations
- Contact your Subject Librarian
- Glossary of Library Terms
- How do I cite sources?
- How do I find articles?
- How do I find books?
- Intro to Research at Bobst
- Research, Scholarly Communication and Publishing Support
- Search for a book with BobCat
- Writing and Style Guides

ILL
Interlibrary Loan
Interlibrary Library Loan
Inter-Library Loan (ILL)

- Access your account to renew ILL material
- Bobst Library Interlibrary Loan
- Division of Libraries Physical Delivery Services
- Do I have to pay for ILL Services?
- Physical Document Delivery
- How can I check the status of my ILL request?
- How do I renew my ILL material?
- How long can I keep my ILL item?
- How long does ILL delivery take?
- How long will my ILL request take?
- Information on our lending services to other libraries
- Once I'm finished with ILL materials, where do I return them?
- Request or Renew an ILL
- What can't I request through ILL?
- What happens if an ILL becomes overdue?
- What happens when my materials arrive at Bobst Library?
- Who may use Delivery Services?
- Who may use interlibrary loan?

Places and Spaces
Bobst
Building Information and Services
Bobst Library

- Avery Fisher Center for Music and Media, Services for Students
- Classroom and Teaching Support
- Computer Locations for Research
- Media Viewing Area
- Information About the Bobst Library Computer Center
- Study Spaces in the Research Commons
- Reserving a Group Study Room
- Reserving an Individual Study Room
- Information About Study Spaces
- Where are Bobst Library's Computers?

Student Services

- Graduate Student Services
- NYU Global Library Services
- NYU Global Students Visiting Bobst Library

Collections
Library Materials
Collections, e-Resources and Databases
Holdings

- Digital Media Collections
- E-Journals
- E-Books
- Electronic Resources
- English as a Second Language (ESL) Materials
- Foreign and Non-English Language News & Newspapers
- Foreign Language Materials
- Language Dictionaries
- Videos, Sound Recordings, Musical Scores

Technology
Technical Services
UTILITIES
Computers and Printing

- Copy Cards/Campus Cash
- Imaging/Scanning
- Laptops
- Microform Printing
- Photocopying
- Printing
- Training Resources by Software
- What technology does the Library offer?

News
Library News
NEWS

- Information About the Library Renovation
- NYU Libraries Newsletter - Progressions

Alumni and Donors
NYU Alumni
Alumni & Friends
About the Library

- Electronic Resources for NYU Alumni
- Friends of Bobst Library
- Giving to NYU Libraries

RefWorks
RefWorks Help
Using Refworks

- Getting Started with RefWorks
- Managing RefWorks References
- Sharing with RefWorks
- Storing Files with RefWorks

Non-NYU Students
Access for outside researchers

- Access to NYU Libraries for Polytechnic Students
- I am not an NYU student, faculty member, or staff, but need something from NYU's collection. How do I request it?

Data Services
Dealing with Data
Data

- Guidance for researchers about creating data management plans
- NYU GIS Services and Spatial Data Resources
- Data Services Tutorials
- Data Services Research Consultation
- Data Services Supported Software

Reserves
Materials on Reserve
RESERVES
Reserve

- Course Reserves Hours
- Electronic reserves for language courses
- Find an Item on Reserve
- How do I checkout a reserve item?
- How long can I use reserve items?
- Information for faculty who wish to place items on reserve
- Reserve Readings / e-reserves
- What are reserve readings?
- Where are reserve readings located and how do I find them?
- Where do I return reserve items?

Circulation
Checkout and Renewal
Borrowing, Checking Out, and Renewing Books
Checkout

- Access your account to renew NYU library books
- Complete Circulation Policies
- How to Connect from Off-Campus
- Fines
- How can I renew books?
- How do I download a document or e-book to my e-reader, tablet, or mobile device?
- How do I make a request?
- How do I recall a book that's checked out or in offsite storage?
- How long can I check out books? How many books can I check out?
- How many requests can I make?
- QuickCheck Self-Service Checkout
- What do I need to check books out?
- Where do I return borrowed materials?
- Who can borrow books at Bobst Library?

Accessibility
Accessibility
Access and Disability
Accessibility FAQs

- Are there any services for people with hearing impairments?
- Is Bobst physically accessible?
- What if I'm disabled and need research assistance?

Welcome

- Video Tour of Bobst Library

unsorted

- Grants, Scholarships, and Financial Aid
- Library Privileges for the Class of 2013
- Specialized Services

APPENDIX D: ITEMS TO REMOVE FROM SERVICES

Non-Services Items	Proper Location
Information About the Library Renovation	About
Video Tour of Bobst Library	About
Complete Circulation Policies	About
NYU Libraries Newsletter - Progressions	About
Who can borrow books at Bobst Library?	About - FAQ
Videos, Sound Recordings, Musical Scores	Find Resources
Digital Media Collections	Find Resources
Avery Fisher Center for Music and Media, Services for Students	Find Resources
E-Journals	Find Resources
Language Dictionaries	Find Resources
Search for a book with BobCat	Find Resources
English as a Second Language (ESL) Materials	Find Resources
Foreign and Non-English Language News & Newspapers	Find Resources
Foreign Language Materials	Find Resources
E-Books	Find Resources
Polytechnic Institute of NYU	Find Resources
Access your account to renew NYU library books	My Library Account (Homepage Link)
Avoiding Plagiarism	Research Assistance
Research, Scholarly Communication and Publishing Support	Research Assistance
Sharing with RefWorks	Research Assistance
Bibliographies & Citations	Research Assistance
Managing RefWorks References	Research Assistance
Guidance for researchers about creating data management plans	Research Assistance
How do I cite sources?	Research Assistance
Intro to Research at Bobst	Research Assistance
Contact your Subject Librarian	Research Assistance
Getting Started with RefWorks	Research Assistance
Writing and Style Guides	Research Assistance
Storing Files with RefWorks	Research Assistance
Adding References to a Research Paper	Research Assistance
How do I find articles?	Research Assistance
How do I get started on a research paper?	Research Assistance