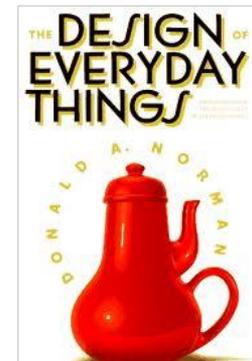


# Practical UX Research Tips for Librarians

Kathryn Whitenton

Nielsen Norman Group:





# Kathryn Whinton

User Experience Specialist, Nielsen Norman Group

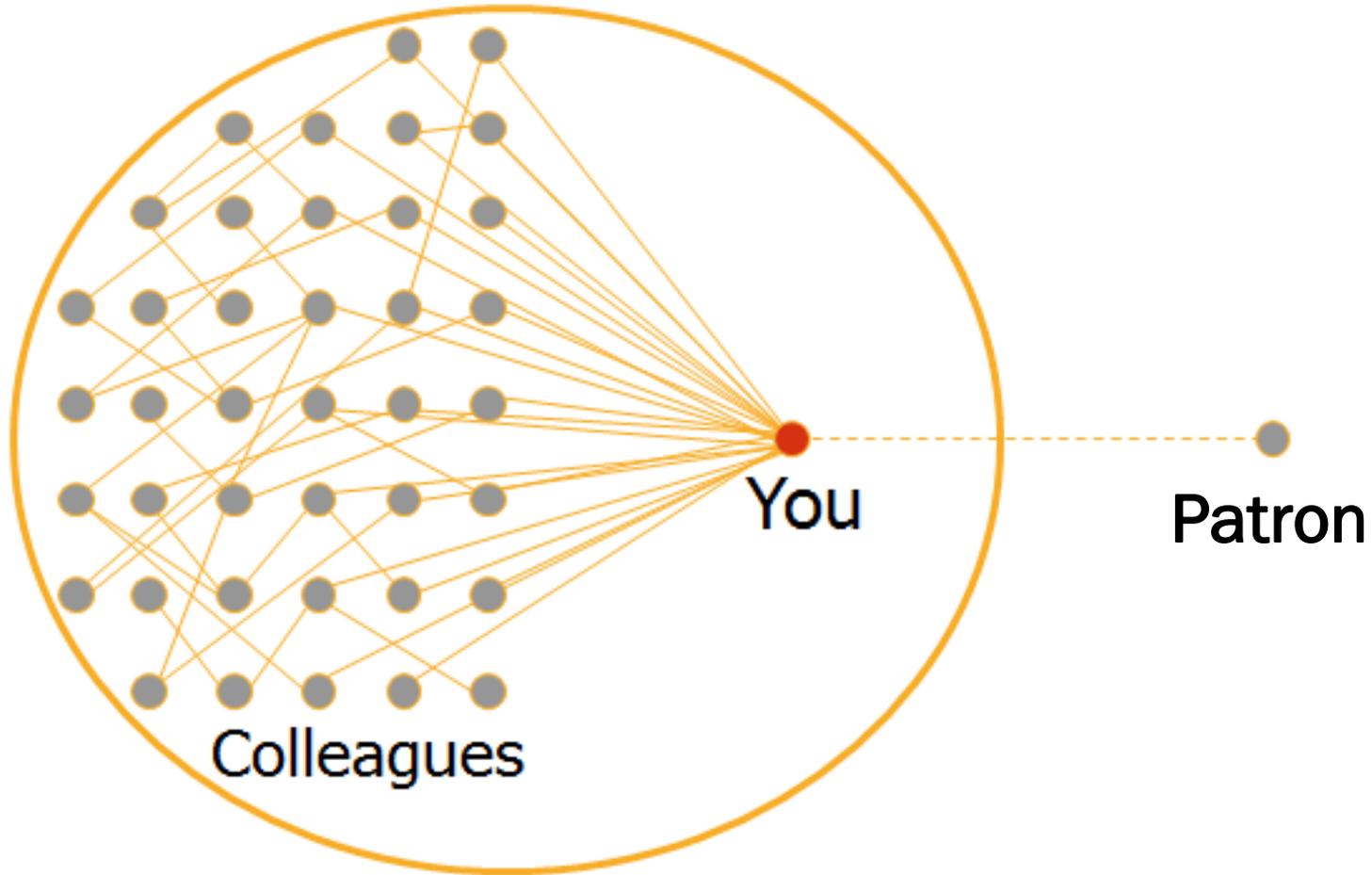
Kathryn Whinton conducts usability research, eye-tracking user research, remote usability testing, studies of users on mobile devices, and information architecture evaluations in the United States, Europe, Asia, and Australia.

She has worked with clients in technology, telecommunications, media, and health care to develop strategic design direction, evaluate existing designs, and improve end user experiences.

She also conducts seminars focused on Information Architecture, Principles of Human Computer Interaction, and Fundamental Guidelines for Web Usability. Prior to joining NN/g, Whinton worked as a Usability Engineer with the University of Washington Libraries, where she led user research and usability testing for the Libraries' website, including introducing new design techniques and testing methods. She also worked as a psychology researcher at the University of Texas at Austin, where she managed a clinical research study funded by the National Institute of Health. Whinton holds Masters in Library and Information Science from the University of Washington, and a B.A. in Psychology and Plan II from the University of Texas at Austin.

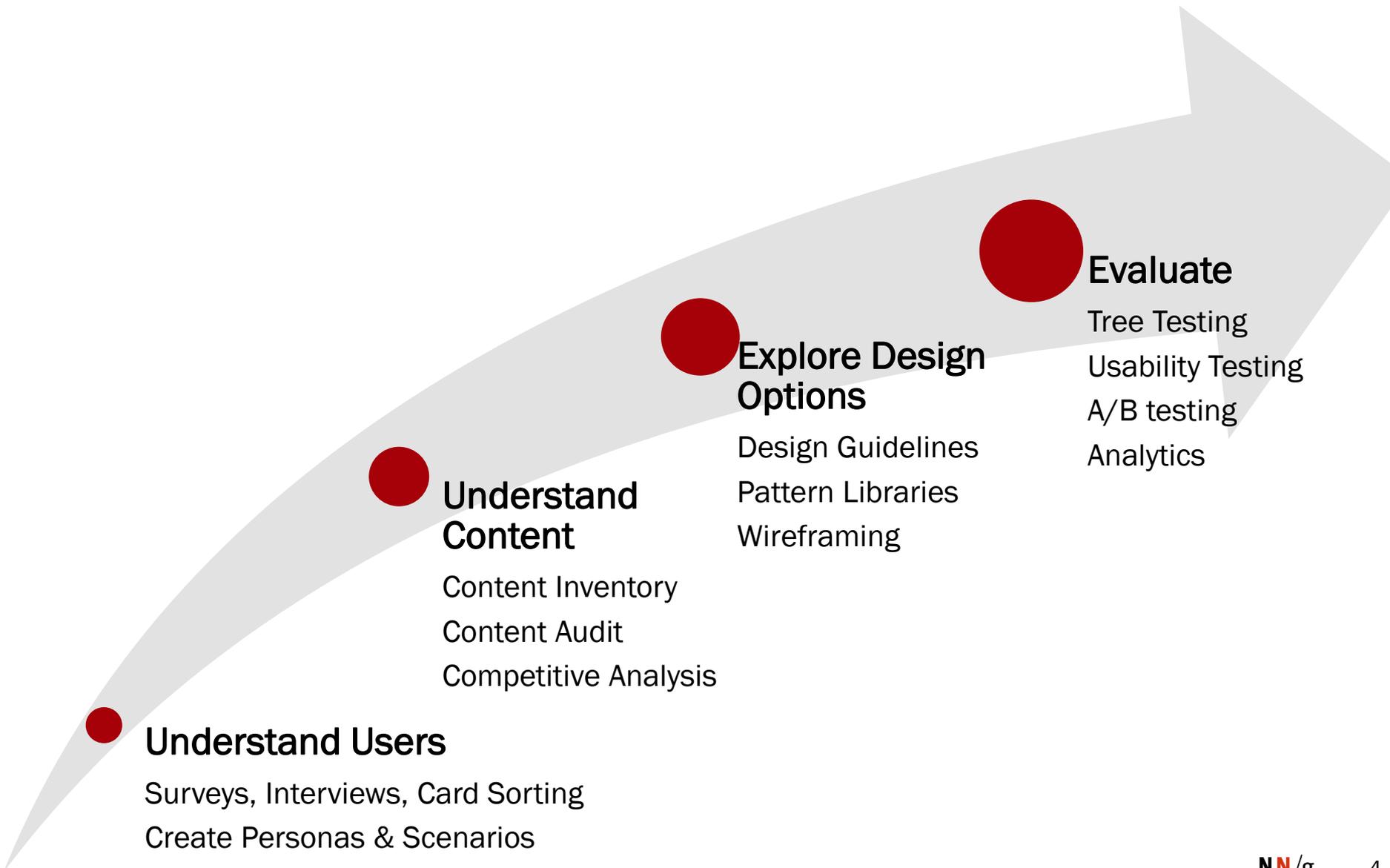
# Important rule: You are not the user

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# UX Process Overview

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## Understand Users

Surveys, Interviews, Card Sorting  
Create Personas & Scenarios

## Understand Content

Content Inventory  
Content Audit  
Competitive Analysis

## Explore Design Options

Design Guidelines  
Pattern Libraries  
Wireframing

## Evaluate

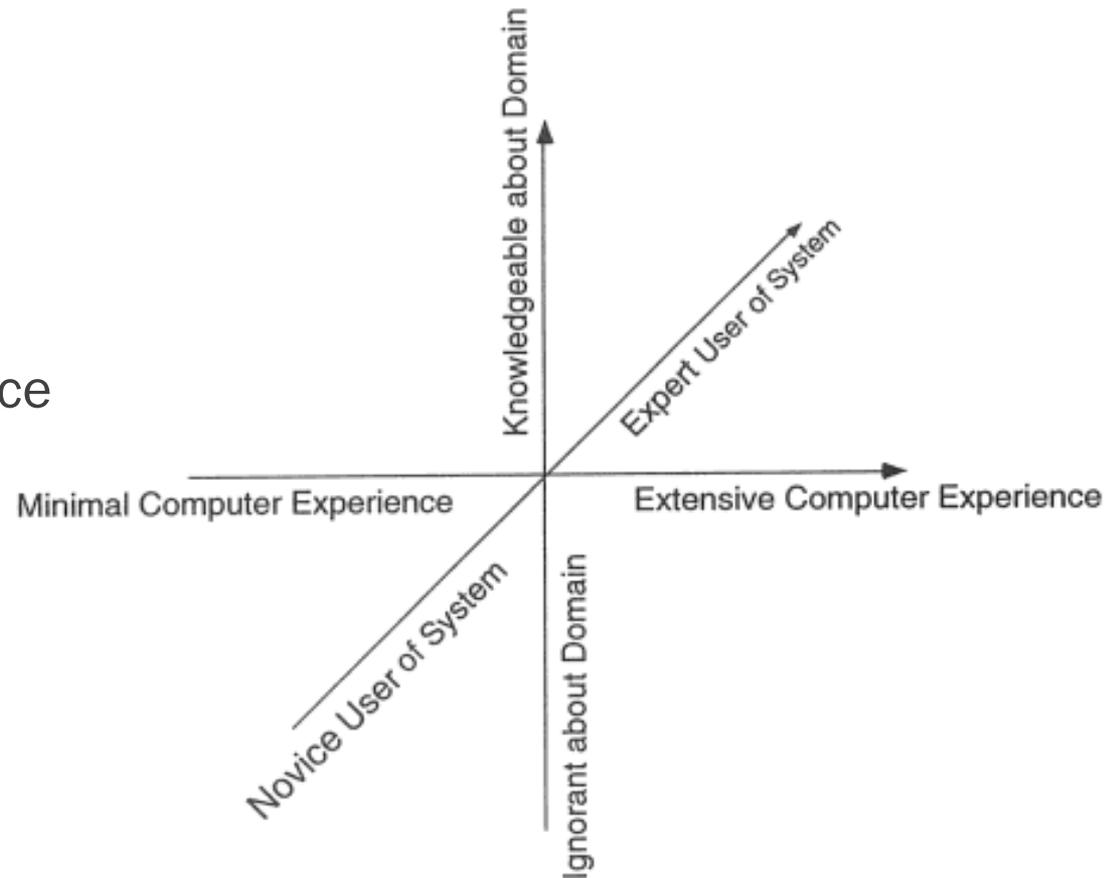
Tree Testing  
Usability Testing  
A/B testing  
Analytics

# Understanding Users

# Who are your users?

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- Determine defining characteristics of your audience
  - New or returning
  - Novice or advanced
  - Age
  - Gender
  - Specializations/jobs
  - Online habits and experience
  - Interests or activities



# Study user motivations and preferences

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Survey	Set of questions asked to large subset of users. “How many of our patrons use both the mobile app and the website?”
Interview	Conversation with users one-on-one. “What drives people to our website?”
Focus group	Facilitated discussion with a group of target users (5-8 people). “What kind of experiences have our users had with our website?”

# Surveys should be as simple as possible

SURVEY TYPE	WHEN	WHY
Intercept	While user is on the site	Target issues with pages or sections
Post-transaction	24-48 hours after visit	Assess general outcomes

The screenshot shows the CakeMail website interface. At the top left is the CakeMail logo. The top right contains the phone number 1.866.924.1420 and links for Contact Us and Sign In. A navigation menu includes FEATURES, PRICING, SUPPORT, COMPANY, and BLOG. A sidebar on the left lists categories: Reseller & Agency Tools (with sub-items: Easily Manage Clients, Resell & Profit, White Label) and Email Marketing Tools (with sub-items: Create & Send Campaigns, Build Contact lists, Report and Analyze, Email Deliverability). The main content area features a heading "It's easy to manage your clients with CakeMail" and a paragraph: "We want to make it easy for you to manage and grow your business and of course, it all starts with being able to manage your clients. Whether you're tracking performance or setting up a new client account, these tools are here to help." Below this is a "Reseller Dashboard" with a bar chart showing activity for the last twelve months and a summary box stating "5,996,526 emails were sent" with a breakdown of open and click rates. A survey pop-up is visible in the bottom right corner with the question "Were you able to find the information you were looking for?" and two radio button options: "Yes [ Here's what I learned: ]" and "No [ I was looking for: ]". A "SEND" button is at the bottom right of the pop-up.

# Conduct ethnographic research to learn about your users in their natural environment



# Card Sorting: Explore Mental Models

- ~ 60 cards
- Avoid ‘keyword matching’ by using synonyms and non-parallel structures
  - harvesting vs. picking
  - woman vs. female
- Consider adding brief descriptions/images if meaning is unclear: Digital Collections vs. Special Collections
- Use content from the same “level” in the site hierarchy



*legalzoom*

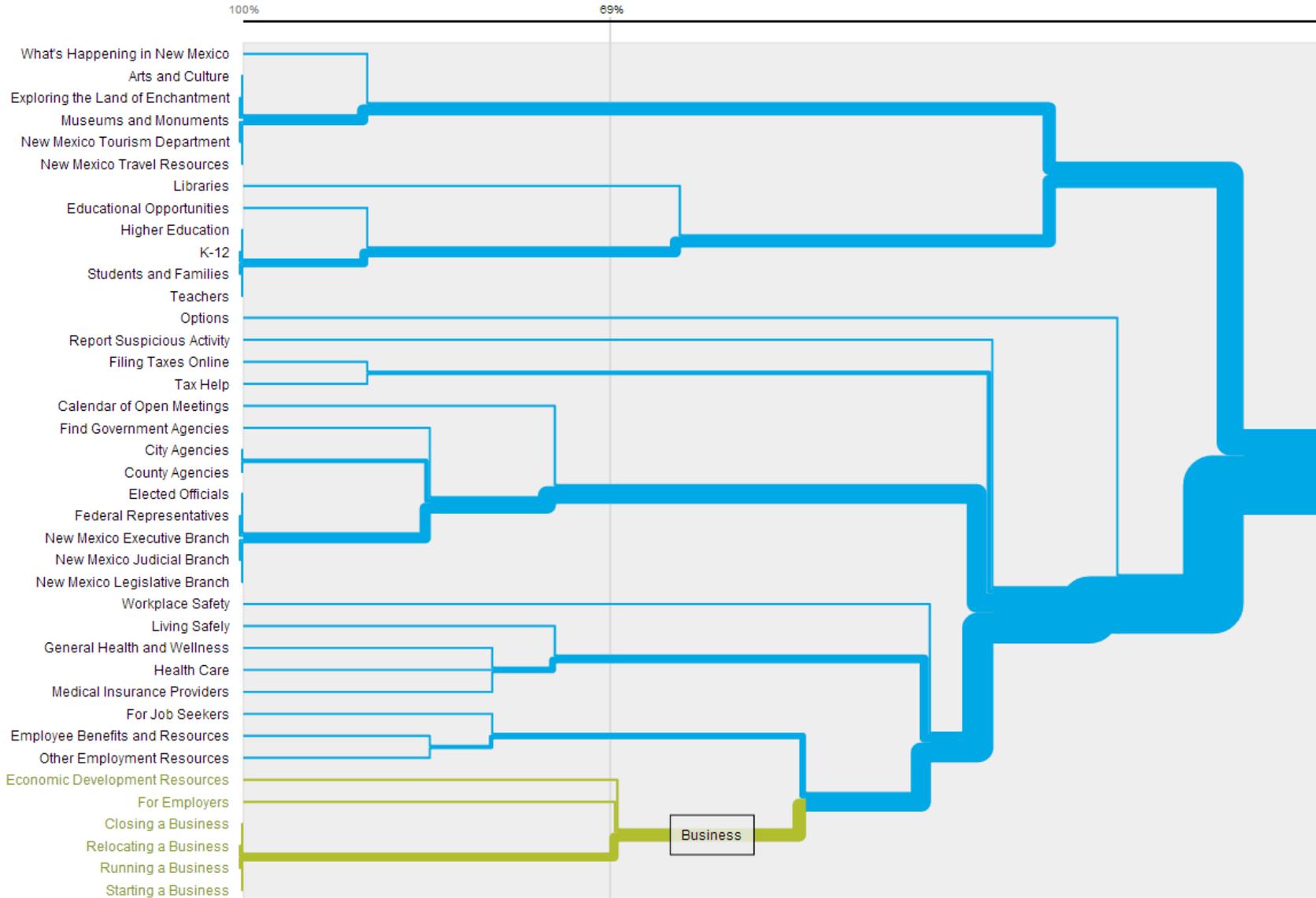
🏠	Starting Your Business	Running Your Business	Wills & Trusts
<b>Forming Your Business</b>	<b>Naming Your Business</b>	<b>Additional Business Services</b>	
LLC (Limited Liability Company)	DBA / Business Names	Corporate Supplies	
Incorporation (S-Corp, C-Corp)	Entity Name Availability Check	Certified Copies	
Nonprofit	Entity Name Reservation	Certificates of Good Standing	
Sole Proprietorship	Trademark Search	Registered Agent Services	
General Partnership	Trademark a Business Name	Legal Forms and Agreements	

# Card sorting results

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- Card sorting does NOT provide a finished, multi-level IA.
- Case Study: Drupal.org
  - Users expected to find: *About, Community, Documentation*
  - “Outsiders” did not expect: *Download* to include themes or modules
  - Before: A horizontal navigation bar with six blue buttons: Handbooks, Download, Support, Forum, Contribute, and Contact.
  - After: A horizontal navigation bar with six dark blue buttons: Get Started, Community & Support, Documentation, Download & Extend, Marketplace, and About.
- How to analyze your results: look for
  - **Similarity:** Number of times two cards are placed in the same pile
  - **Label ideas**
  - **Rationale:** **Why** people group things together; provides insight into users’ mental models

# Results: Dendrograms show concept clusters



# Other sources of information about users

- **User Research:** Field research, usability tests
- **Customer Service:** Customer service records, user comments
- **Engineering:** Server logs
- **Leadership:** Business plans, vision documents
- **Internal audiences:** Employee surveys, job descriptions
- **General Information:** community demographics, [www.pewinternet.org](http://www.pewinternet.org)



# Personas: User archetypes

- “Personas place the focus on specific users rather than on ‘everyone.’  
- John Pruitt and Tamara Adlin, authors of The Persona Lifecycle
- Help focus the team
  - Refer to personas instead of “the user”
- Can be used as a guide in an expert review
  - How would Winnie deal with this process?  
Walk through several screens noting positive and negative spots for Winnie
- Tip: Make them available to everyone; hang on walls in team areas

## Brooke the Beginner



*I'd rather use an online article that 'kinda works' than go to the hassle of finding a book in the library.*

**Key Facts:**

- New to the research process and academia
- Working on several assignments in different disciplines, but not an expert in any of them
- Will take the first thing that's good enough

**What she needs to do**

- Get assigned readings for class
- Find academic articles to cite in a paper

**Pain points**

- Intimidated by all the different choices
- Doesn't understand terminology, like the difference between articles, journals, and databases

**How She Uses the Libraries Website**

- Finds class materials by looking up the class in MyUW and following the link to Course Reserves.
- Checks the hours at Suzzallo to see how late they are open before she goes there to study
- For class papers, if she can't find enough articles using Google, she will visit the libraries' website. She looks for basic academic articles across several different topic areas by entering key words in the main search box, then using filters to refine the results.

Brooke is a 19 year old undergraduate who hasn't yet declared a major.

Right now she's taking classes in English, History and Biology. She hasn't used the library website much yet, but will need to do research for many different class papers and projects over the next couple of years.

When Brooke first started at UW last year, she felt overwhelmed by all the activities and classes going on at once, and all the decisions she had to make. She's learned to cope by tuning out most of the 'extras' and just focusing on what she needs to do immediately. She relies on MyUW to access all of her school information in one place, and keeps track of all her friends and social activities on Facebook.

Doing well in school is important to Brooke, but she also has a part time job working in the payroll office, tries to work out at least twice a week, and volunteers with JumpStart, a student leadership development club.

With all of these activities, she tends to put assignments off until just before they're due, and usually only has time to do what's required for a good grade.

Brooke comes to the library at least once a week to study and use the computer labs - she doesn't like to carry her laptop around campus all day because it's too heavy.

For class assignments, she mostly uses printed course materials and websites like Google and Wikipedia. She sometimes tries the Libraries website but she only uses the main search box on the home page because she's not sure what the other links are.



# Personas & Scenarios

## UW Libraries Patron Personas

The personas described here represent the patrons of the University of Washington Libraries.

Our patrons span a wide range of disciplines and skill levels, but share certain fundamental goals and needs. By focusing on these essential characteristics, these personas embody our users and can help us make decisions about what will best serve the entire patron population.

It's difficult to make an interface that is both simple enough for Beginners and rich enough for expert Researchers. When user needs conflict, these personas can help support design choices by making the costs and benefits of different alternatives more apparent. Different user needs can be prioritized based on:

- The size of that user group
- The value of that particular feature to their goals
- The impact of their research goals on the University's mission

To help estimate the users that each Persona represents, the personas are displayed here along with corresponding population information from the UW Facebook. This correspondence does not always apply, for some undergraduate students may be quite experienced researchers, while some scholars may behave more like beginners when looking for something outside their area of expertise. However it is useful as a rough way of thinking about our patrons.

For most design choices relating to the website, Brooke the Beginner will be the primary persona. Students like Brooke, who are just beginning their academic careers, are a fruitful area for us to focus our design efforts. Aside from being the most populous user group, they stand to suffer the most from unsupportive systems, since they lack subject experience to know what research materials exist, and have little prior familiarity with library systems. Since they will need to use the library more and more over the next few years, they also stand to gain a great deal from a system that matches their expectations and guides them to appropriate resources.

More experienced library users, such as Richard the Researcher and Sharon the Scholar, already have some idea of what research materials will be available; for them, using the Libraries is often simply a matter of locating items they already know about. They will be able to successfully use any reasonable interface, even if it does not entirely conform to their expectations.

### Brooke the Beginner

*I'd rather use an online article that 'kinda works' than go to the hassle of finding a book in the library.*



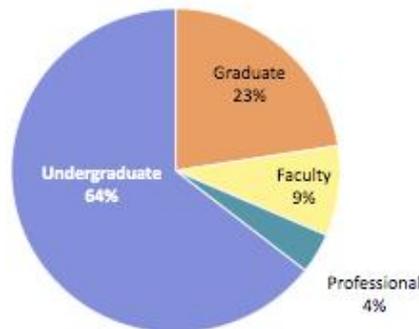
- New to the research process and academia
- Working on several assignments in different humanities disciplines, but not an expert in any of them
- Will take the first thing that's good enough

### April the Alumna

*I have a library card, why can't I use the research databases?*



- Former UW student who now has access to some (but not all) library services
- Remembers extensive resources at the Libraries and would like to use them for a personal project
- Asks for help via email and phone



UW Libraries Patrons



### Richard the Researcher

*Accessing full-text articles online is central to my research...but some reference materials aren't online.*



- Dedicated full-time student with significant knowledge in his area of study
- Working on a long-term, in-depth project
- Will pursue all avenues to obtain materials related to his research

### Sharon the Scholar

*I have to stay current on my field and do the research work...Those are the priorities at a research institution.*



- Expert knowledge in her research area
- Ongoing, in-depth projects using primary sources
- Long-term user who has already learned existing systems

### Paul the Professional

*I feel like there's information in all of these drawers, and I don't know which drawer to open.*



- Returning to school after several years, still working full-time outside of school
- Some subject matter knowledge and strong technology skills
- Very little time on campus, so all research work is done remotely

\*Statistics from the UW Facebook Common Data Set and 2008 Graduate <http://www.washlib.org/about/theses>  
 †Images used with permission under the Creative Commons License. Picked to Flickr by [www.flickr.com/photos/stevebrink/](http://www.flickr.com/photos/stevebrink/), [www.flickr.com/photos/jshelton/](http://www.flickr.com/photos/jshelton/), and [www.flickr.com/photos/gandgand/](http://www.flickr.com/photos/gandgand/)

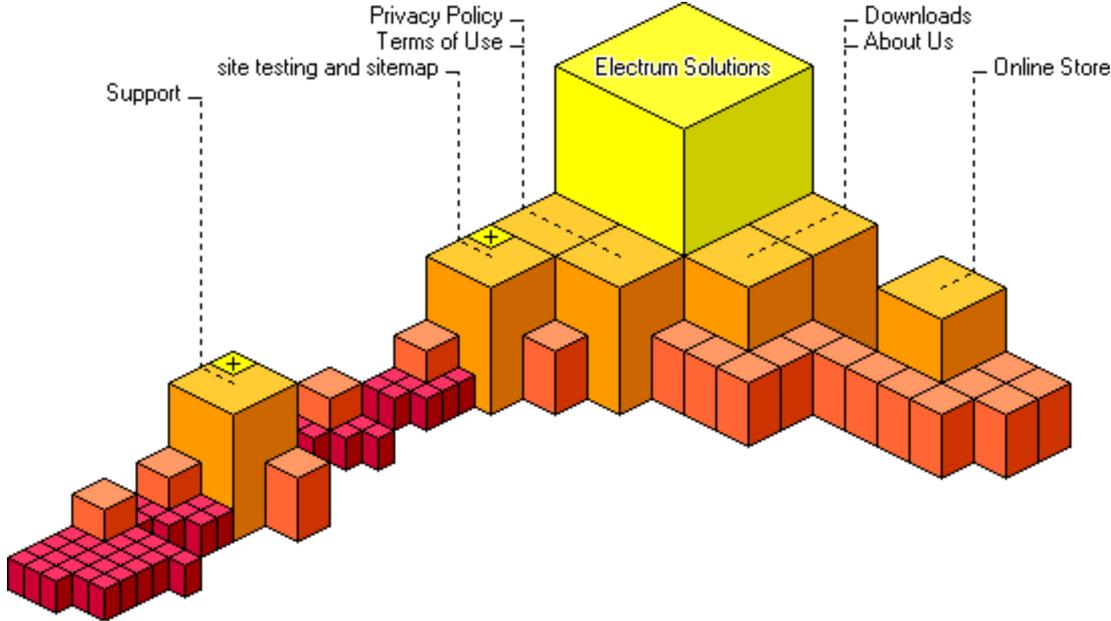
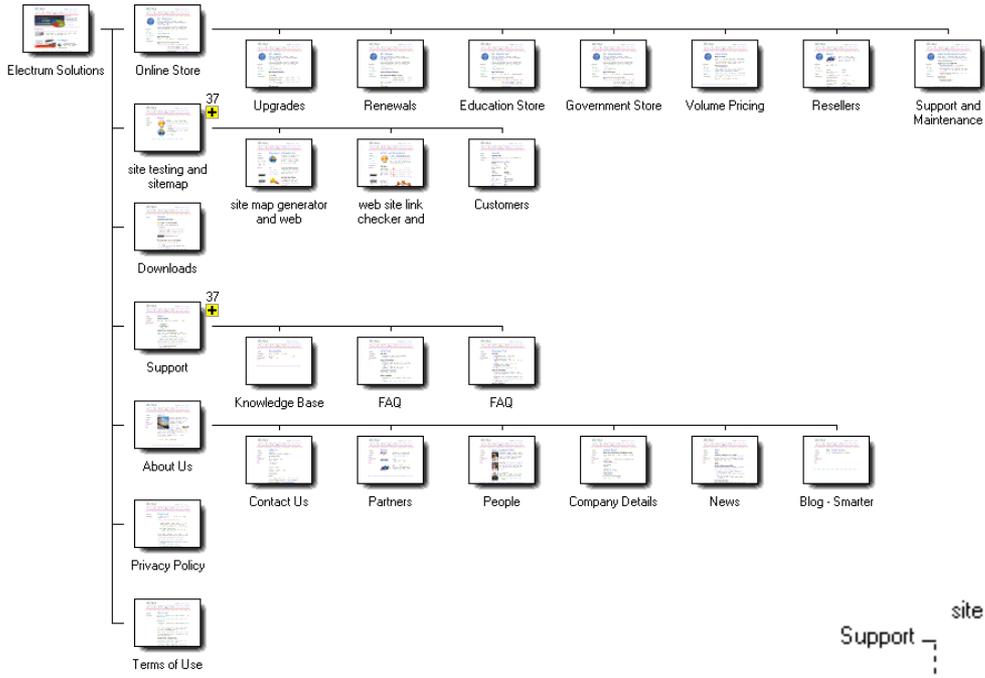
# Understanding Content

# Content strategy

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- “Content strategy plans for the creation, publication, and governance of useful, usable content”
  - Kristina Halvorson, author of Content Strategy for the Web
- Start with a content audit
  - What content do you have now?
  - How is the content organized?
  - Who creates the content?
  - Is the content effective?
  - Is the content findable?
    - Think Search Engine Optimization (SEO)
  - Is the content structured with metadata?

# Site mapping tool: PowerMapper



# Content inventory vs. Content Audit

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## Content inventory

### Purpose:

Identify and locate existing site content

### Includes some or all of the following:

- ID number
- Page title
- URL
- Level in the site
- Content type (i.e., HTML, PDF, .mov)
- Character count
- Owner/maintainer
- Topics/keywords/meta description
- Last updated
- Broken links
- Alt tags on images

## Content Audit

### Purpose:

Evaluate content

### Includes some or all of the following:

- Purpose
- Intended audience(s)
- Accuracy
- On message?
- Traffic
- Calls to action
- Consistency with style guide
- ROT (Redundant, Outdated, Trivial)
- OUCH (Outdated, Unnecessary, Current, Have to Write)

### TIP

Use a site crawling tool (Xenu or Powermapper) to partially automate the inventory.

# Competitive Analysis

A	B	C	D	E
1	<a href="http://www.lib.ncsu.edu/siteindex/">http://www.lib.ncsu.edu/siteindex/</a>	<a href="http://www.lib.unc.edu/webindex.html">http://www.lib.unc.edu/webindex.html</a>	<a href="http://www.lib.washington.edu/sitemap.html">http://www.lib.washington.edu/sitemap.html</a>	<a href="https://staffweb.lib.washington.edu/units/information-services/info-index">https://staffweb.lib.washington.edu/units/information-services/info-index</a>
2	NCSU Site index	UNC Chapel Hill Web Site A-Z	UW Site Map	Staffweb Info Index
3	A	A		
4	About the Collections	Account	Academic Calendar	W
5	About the Libraries	Affiliated Libraries	UW Access Program	W
6	Access and Delivery Services	African Studies Collections	Access+ PCs and Workstations for visiting researchers	L
7	Access to D. H. Hill Library Building	American South Collections	Access Technology Lab Computing resources on campus for disabled UW students, faculty	W
8	Acquisitions Department	American Studies Collections	Access+ PCs FAQ about the Access+ PCs	W
9	Administration	Administration	Access+ Software Software available on the Access+ computers. YOU MUST SCROLL DOWN W	
10	Administrative Staff Directory	Ancient and Middle Eastern Languages Collections	Adaptive Technology Lab Also known as Access Technology Lab - computing services for U W	
11	Affiliated Libraries and Reading Rooms - see Oth	Anthropology Collections	Admissions - Undergraduate Admissions Office Web site for the UW Undergraduate Admi: W	
12	African American Cultural Center Reading Room	Article Databases	Advising - Undergraduate Advising Office Web link to Undergraduate Gateway Center's Advi: W	
13	Annual Reports	Art Library	Aerial Photographs Web link to Map Collection aerial photograph information	broken link
14	Archives - see University Archives; see also Special	Art Collections Research Center	Allen Center - Paul G. Allen Center for Computer Science and Engineering Link to informati: W	
15	AgNIC		Allen Center Location Link to campus map of location of the Allen Center	W
16	Ask Us	Ask a Librarian	Alumni Association Link to Web site of UW Alumni Association	W
17	Assistive Technologies Center (ATC)		Appealing Library Fines Link to public Web page about how to appeal library charges.	L
18	Atlases - see Maps and Atlases		Architectural Drawings Public Web link to information about Special Collections architectur: L	
19	Authors' Database - see Scholarly Publications Repository		Archives - See Special Collections Link to Special Collections public Web site	L
20			Art Department Image Library Link to Web page describing the Art Department's image: L	
21			ASUW - Student Organizations Link to ASUW page	W
22			Athletics - GoHuskies.com Link to official UW athletics web site	W
23			Athletics - IMA Link to IMA (gym for UW students, faculty & staff) Web site	W
24				W
25				W
26				
27	B	B		
28	Book Binding	Beyond Books and Buildings: North Carolina's History of B	Borrowing Services	Big Bhutan Book Link to public Web page about the 'Bhutan: The world's biggest book' ext: L
29	Book Reviews	Biology Library		Blind Persons - Washington Talking Book & Braille Library "The Washington Talking Book: X
30	Borrowing & Requests - see also Tripsaver	Blackboard		Blueprints of Seattle Campus Buildings Link to Campus Engineering Web site - see the 'Rec: W
31	Borrowing Privileges	Book return by mail		Book Arts Librarian Link to public Book Arts subject page
32	Branch Libraries - see Library Locations	Borrowing & Circulation		Book Store Link to UW Book Store Web site
33	Browse Subjects	Botany Library		Borrowers Card Eligibility Public Web page link about how non-UW visitors, UW alumni, an: L
34	Building Map - see D. H. Hill Library Map	Brauer Math/Physics Library		Borrowing Privileges Public Web page about who is eligible for UW Libraries borrowing pri: L
35	Business Information Network	Building Use Policy - Davis Library		Brechman Auditorium Public Web page to School of Music performance spaces informati: W
36		Building Use Policy - Undergraduate Library		Building Locations Codes Also called 'Classroom Location Codes' or 'Guide to Classroom: W
37		Business Collections		Buildings History - UW Public Web site with historical information about UW Buildings
38				Burke Museum of Natural History and Culture Public Web page for the museum
39				By George Public Web site for this Seattle Campus food service
40				L
41	C	C		
42	Calendar of Events	Calendar of Events (Davis)	Catalogs	Camcorders for UW Students Use Link to Classroom Support Service page for the STF Equi: W
43	Call Numbers and Locations ?	Calendar of Events (HSL)	Center for Urban Horticulture, Miller Library	Campus Maps - Seattle Public page for various maps of the Seattle campus
44	Campus Computing	Calendar of Events (UL)	Chemistry Library	Campus Tours - Seattle Public Web site with information about various tours of the Seattl: W
45	Catalog (NCSU Libraries) - see also Library Cata	Calendar of Events (Wilson)	Class Web Pages	Career Materials Public Web site of Career Materials acquired by UW Libraries - Mostly ho: L
46	Cataloging Department	Carolina Population Center Library	Collections	Career Services UW Web site for UW Career Center - for UW students and UW alumni and: W
47	Centennial Campus Library Services	Carrels	Computer Access in the Libraries For current	Carlson Leadership & Public Service Center Public Website for the Carlson Center
48	Circulation Services	Catalog (UNC-Chapel Hill)	Computer Access in the Libraries For visitors	Carrels - Assigned Carrels and Study Rooms in the Suzzallo & Allen Public Web site with in: L
49	Citation Builder	Celebrating Five Million Volumes	Connect from Off-Campus	Catalyst Public Web site for Learning & Scholarly Technologies
50	Citation Tools	Cell phone policy (Davis)	Copy & Print Services	CD Burners or CD-RW to Catalyst site listing hardware (and software) available at OUGL: W
51	Collection Management	Cell phone policy (UW)	Copies	Center for Studies in Demography and Ecology Public Web site for Center for Studies in D: W
52	College of Education Media Center	Center for Reserch Libraries	Course Reserves	Center for Urban Horticulture Public Website for the Center for Urban Horticulture with a: W
53	Community	Chapin Planning Library	Cyberinfrastructure Initiatives Program	Chemistry Study Center University of Washington Chemistry Study Center Third floor - Bay: BROKEN LINK
54	Computing	Chat reference service (Davis)		Chief Seattle - "Little Green Lie" Foster Business Library FAQ about a famous Chief Seattl: L
55	Congressional Bibliographies	Chat reference service (HSL)		Classroom Support Services Public Web site for classroom bookings, STF Equipment L: W
56	Contact Information - see Directories	Check Out Materials,		CLUE CLUE is a free, late-night, multidisciplinary study center.
57	Contact Us	Chemistry Library		Collaboration Studio Group members collaborate through shared desktop displayed c: W
58	Course Pages	Circulation-Davis Library		
59	Course Reserves - see Reserves	Citation Builder		Communications Dawg Prints Center Public informational Web site for the Communic: W
60	Copyright Statement for NCSU Libraries' Website	Citing Information (How do I?)		Community Information see: Reference Tools>Seattle & Washington from Libraries Ho: L
61	Copyright Guidance	Citing Information (tutorial)		Computer Classes for UW Seattle Students Public Web page for workshops offered via: W
62	Current Periodicals and Reserves	Classes and Tours		Computer Classrooms Located on Odegaard Undergraduate Library and Mary Gates Hz: W

# Explore Designs

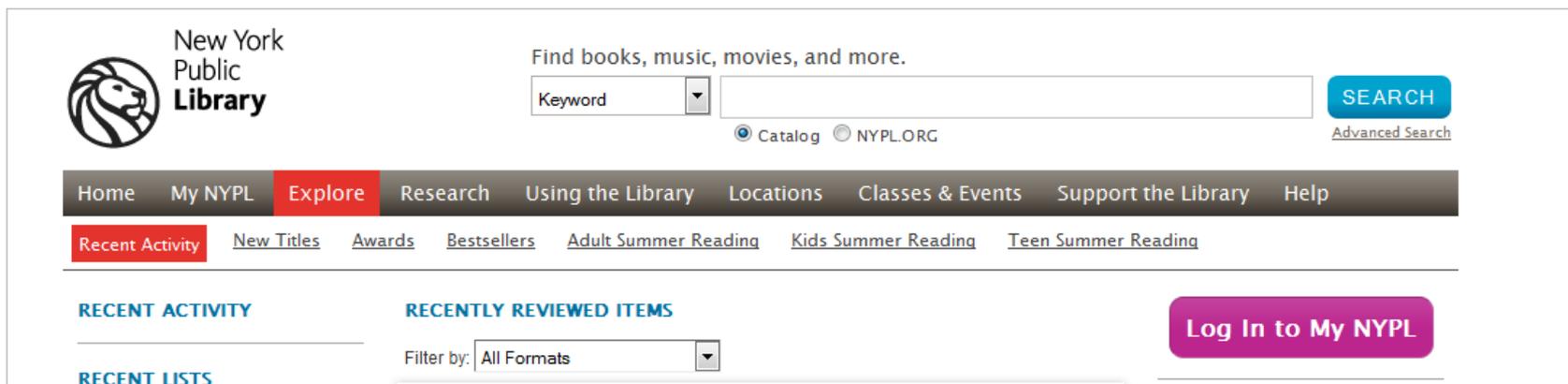
# Where to start with your design

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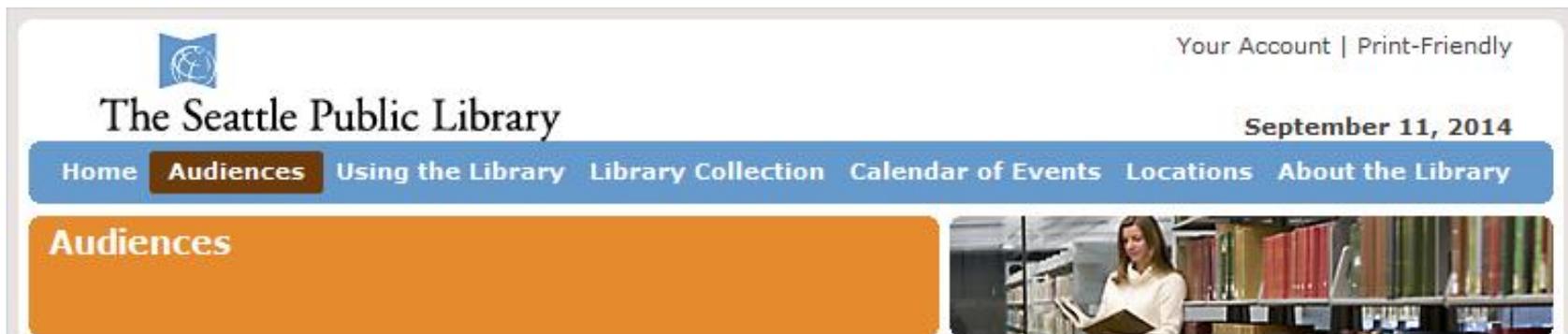
- Follow design principles & conventions
  - Usability guidelines
  - Psychology concepts
  - Accessibility requirements
  - Pattern libraries
  - Platform conventions

# No right way to design a UI – “it depends”

- Following guidelines and best practices will make it easier
- Example: In the main navigation, highlight the site area the user is currently viewing a page in.



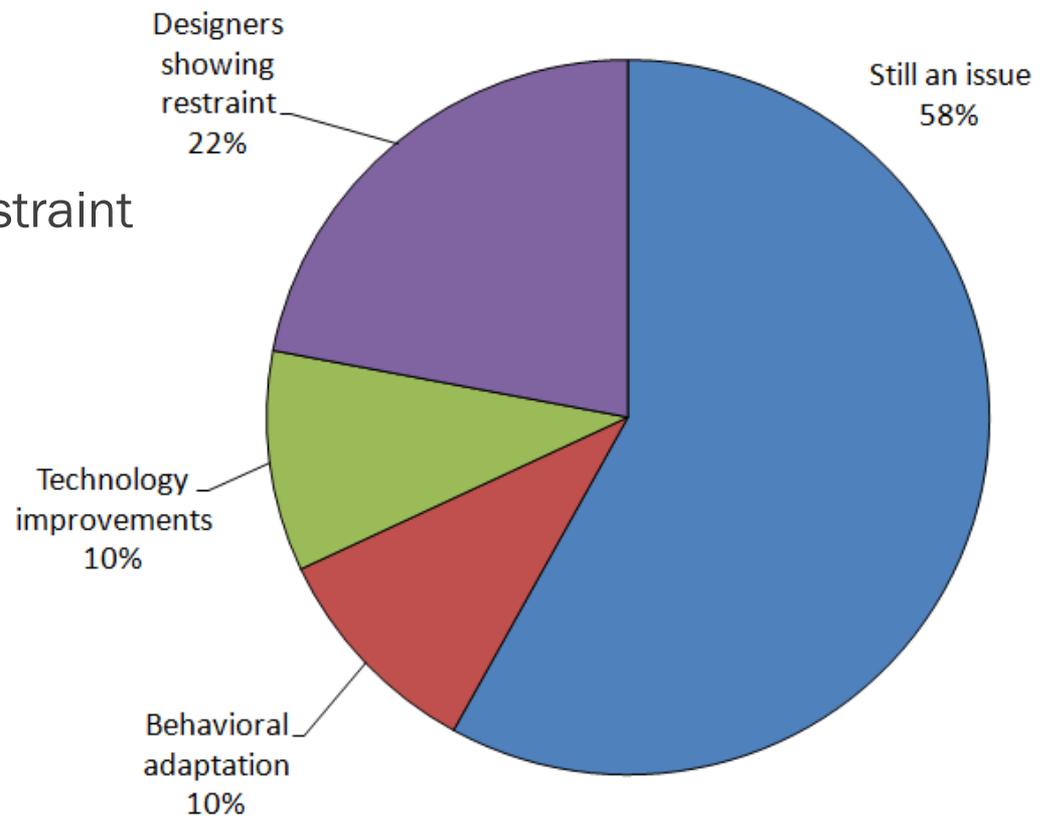
The screenshot shows the New York Public Library website. The logo is on the left. A search bar is in the center with the text "Find books, music, movies, and more." Below the search bar are radio buttons for "Catalog" (selected) and "NYPL.ORG". A "SEARCH" button is on the right. Below the search bar is a navigation bar with items: Home, My NYPL, **Explore**, Research, Using the Library, Locations, Classes & Events, Support the Library, Help. Below the navigation bar are links: Recent Activity, New Titles, Awards, Bestsellers, Adult Summer Reading, Kids Summer Reading, Teen Summer Reading. Below the links are sections: RECENT ACTIVITY, RECENTLY REVIEWED ITEMS, and a "Log In to My NYPL" button. A filter dropdown is set to "All Formats".



The screenshot shows The Seattle Public Library website. The logo is on the left. The date "September 11, 2014" is on the right. A navigation bar has items: Home, **Audiences**, Using the Library, Library Collection, Calendar of Events, Locations, About the Library. Below the navigation bar is a large orange banner with the text "Audiences" and a photo of a woman reading a book in a library.

# Durability of usability guidelines

- US Air Force's UI guidelines from 1985: **90%** still correct
- Web usability guidelines from 1998, reassessed in 2007:
  - **80%** still correct
    - 58% still an issue
    - 22% designers showing restraint
  - 20% fixed
    - 10% better technology
    - 10% better users



# When “the experts” disagree

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- Personal opinion vs. empirical research
  - Everybody entitled to their own opinion, but opinions do differ
- How many experts on one side or the other?
  - Usually most people with sound methods find the same things
  - Simply weigh the evidence on a balance scale
- Discount sensationalist findings claiming to disprove all that’s previously known
  - e.g. “response times don’t matter for web usability”

# Creating good labels

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Get ideas from...

- Search logs
- User testing results
- Card sorting
- Competitors

# Pattern libraries hold examples of features known to work well in specific situations

“Use a progress bar in a wizard or other predefined multistep process that the user may only ever have to complete one time, or at most on rare occasions...”

The screenshot shows the Yahoo Design Pattern Library interface. At the top, there's a navigation bar with 'YAHOO! DEVELOPER NETWORK', 'Developer Solutions', 'APIs & Tools', 'Community', a search box labeled 'Search YDN', and a 'Sign In' link. Below this is the page title 'Yahoo Design Pattern Library' with links for 'Documentation' and 'Forum'. The main content area is titled 'Progress Bar' and includes a 'Beta' badge and a date 'Last modified December 9, 2009'. The main text explains that a progress bar helps set expectations for process length and provides feedback. To the right, there's a 'Pattern Information' sidebar with sections for 'RELATED PATTERNS', 'AS USED ON YAHOO', 'CODE EXAMPLES', 'SIMILAR PATTERNS IN OTHER LIBRARIES', and 'BLOG'. A 'LAYOUT' and 'NAVIGATION' section is also visible at the bottom right.

**YAHOO! DEVELOPER NETWORK** Developer Solutions APIs & Tools Community Search YDN Sign In

Yahoo Design Pattern Library Documentation Forum

## Progress Bar

**Beta** · Last modified December 9, 2009

A progress bar (or progress meter) can help set expectations for length of process and for what to generally expect throughout the process, and can also let users know where they are in the flow.

Also known as 'Progress Indicator,' 'Multi-step Progress Bar (or Indicator),' 'Wizard Steps,' 'Progress Train,' and 'Steps Left.'

### Add Connections

Select Source Import Contacts Notify

#### Step 1 - Select Source

Consolidate all your address books in one place. You can also invite your contacts into your connections — we'll show you how.

#### Pattern Information

**RELATED PATTERNS**

- Breadcrumbs

**AS USED ON YAHOO**

- Yahoo Password Helper
- Yahoo Groups

**CODE EXAMPLES**

- Progress Bar

**SIMILAR PATTERNS IN OTHER LIBRARIES**

- Progress Bar (Design of Sites)
- Completeness Meter (UI-Patterns.com)
- Steps Left (UI-Patterns.com)
- Locator Element: Step by Step Train (Oracle)

**BLOG**

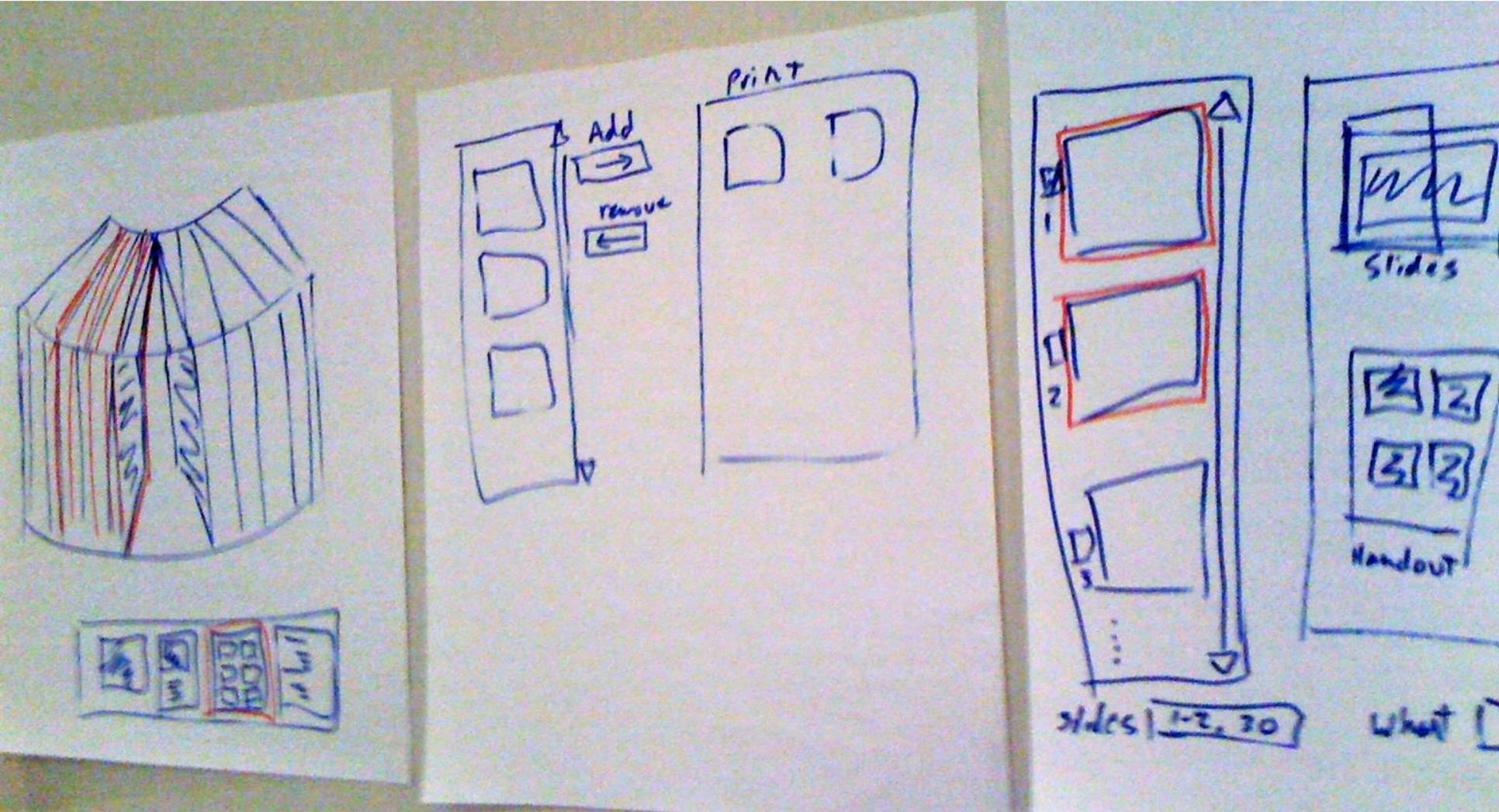
- Blog Article

> LAYOUT

▼ NAVIGATION

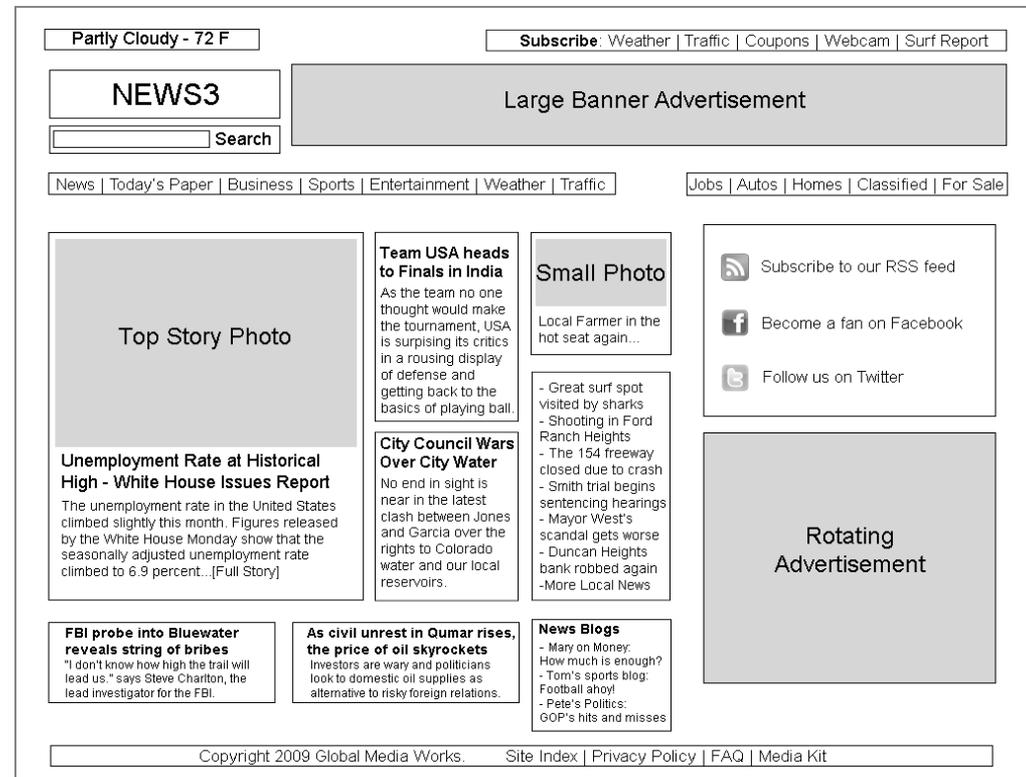
- Accordion

# Sketch → Prototype → Evaluate



# Wireframes can be used for communicating and testing new design

- You may use a different prototype to **test** vs. **impress**
- Don't spend too much time on wireframes
- Use real content as much as possible (not lorem ipsum)



# Evaluate

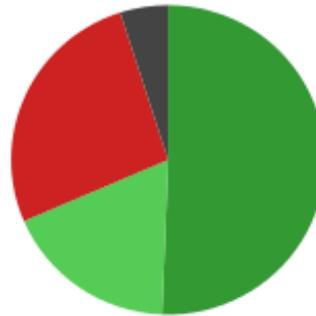
# Tree Testing: Do Users Understand your labels?

The screenshot shows the Optimal Workshop interface. At the top, there's a logo and the text "Optimal Workshop". Below that, there are three tabs: "OptimalSort", "Treejack", and "Chalkmark". The main heading is "IA1 Exercise Tree test". There are four sub-tabs: "Settings", "Tree", "Tasks", and "Messages". The "Tree" tab is active, showing a hierarchical tree structure. The tree starts with "Home", which has a sub-item "Citizen". Under "Citizen", there are several categories: "Education", "Safety and Security", "Health and Wellness", "Taxes", "Recreation", and "Popular Online Services". Below these are "Business", "Visitor", and "Government". At the bottom, there are two buttons: "Bulk import" and "Delete all".

## Task 7

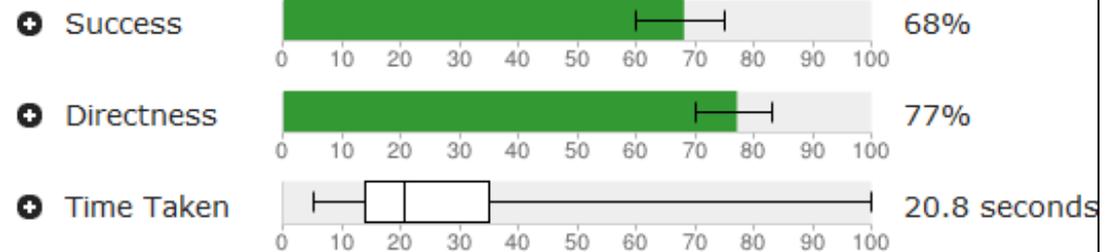
Where would you find information about getting a master's degree

EMPLOYEE SERVICES → ... → Master → MBA Retail



Direct Success	82	51%
Indirect Success	29	18%
Failure	43	26%
Skip	8	5%

[View the Pietree for this task](#)

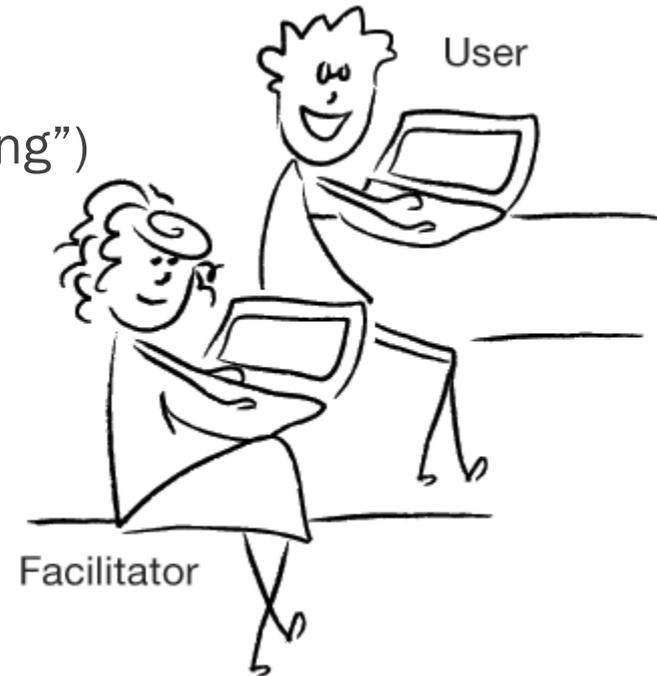


Click the + to learn more about a specific score

# Usability testing 101

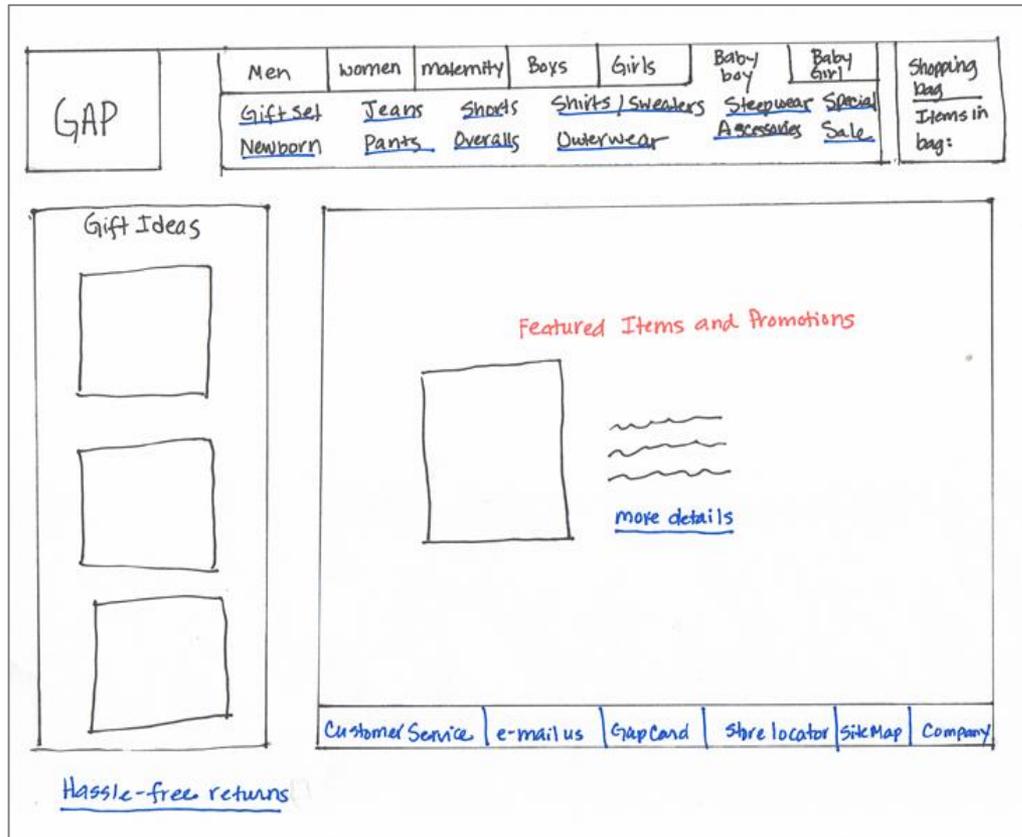
---

- Gathers first-hand data from real users
- Can be quick, easy and inexpensive
- Find about 80% of problems with just 5 user tests
  
- Involves a design, a user and a facilitator
  - Test one user at a time (“one-on-one user testing”)
- Uses the think-aloud methodology
- Measure success, time on task, errors, subjective satisfaction
- Is mainly qualitative (4-5 users)
- Can do in-person or remote meetings



# (Paper) prototype testing

- Encourages idea exploration
- Allows for rapid iterations (quick fixes)
- Can test basic interactions with higher fidelity clickable prototypes

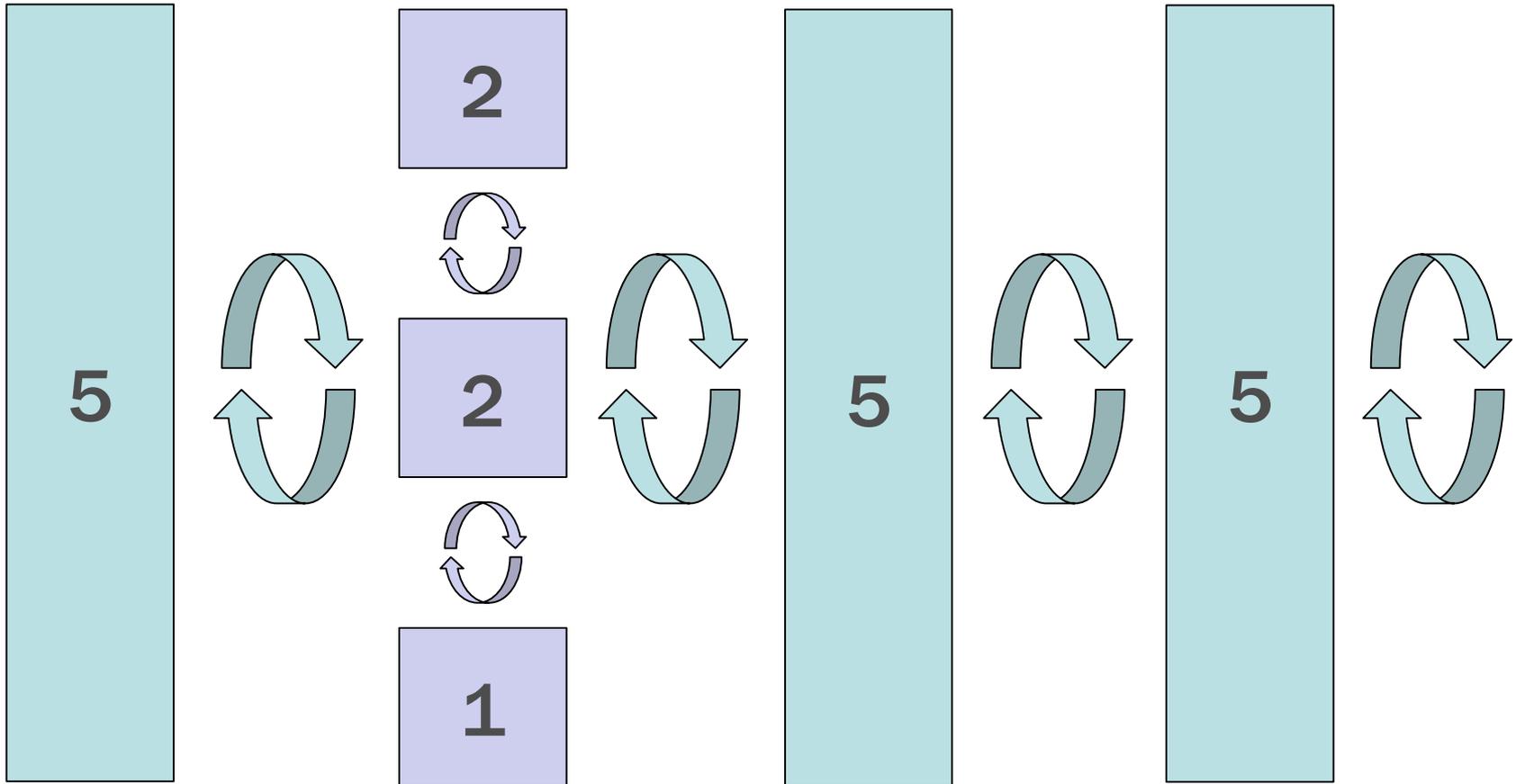


- Tools:
  - Pen & paper
  - balsamiq®
  - axure
  - HotGloo™
  - OMNIGRAFFLE for Mac
  - PowerPoint

# Key determinant of UX quality: How many rounds of iterative design you do?

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Rapid Prototyping



# Analytics: Common elements to measure

---

## “Soft” Data

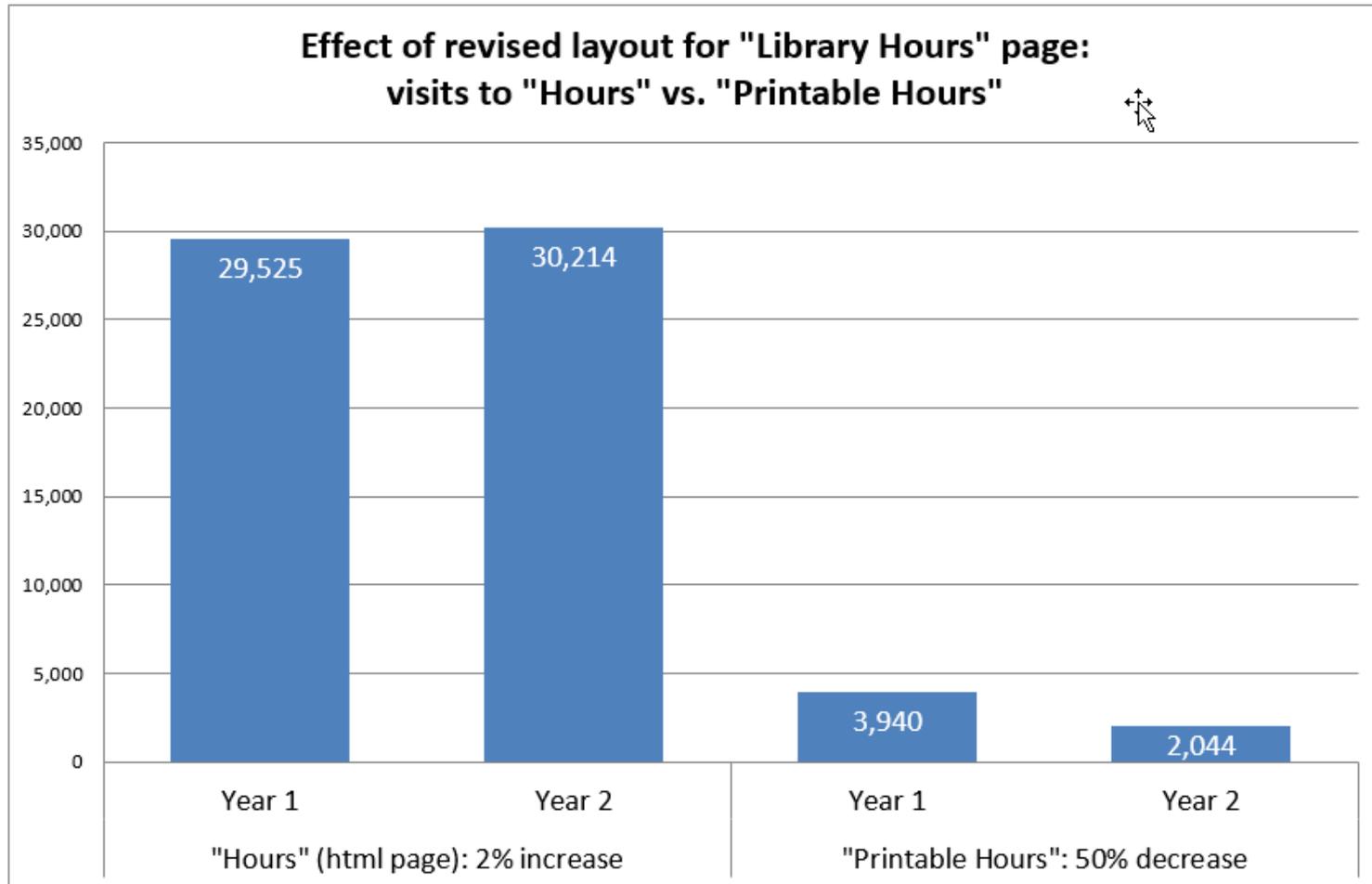
- Pageviews
- Time on page
- Depth
- Search
- Clickthroughs
- Recentness of last visit
- Frequency
- Engagement
- Retention

## Hard Data

- Subscriptions
- Registrations
- Survey Completions
- Blog Comments
- Blog Posts
- Ad clickthroughs
- Downloads

# Use Data to Evaluate Design Success

Careful...sometimes data is ambiguous



# A/B Testing: Compare two alternatives

Make only one design change for each test, so you can be sure it was the cause of the test results.

## Version A: 12.5% conversion

THE CORKSCREW

Free delivery on 12 bottle orders

Phone orders (01) 674 5731

Home Wine Sale Red wine White wine Sparkling Rosé Fine wine Fortified/Sweet Wine gifts

Clos du Porteau "Le Courlis" Touraine 2009

Availability: In stock

Regular Price: €44.95

SPECIAL OFFER: €9.95

Qty: 1 **ADD TO CART** Free delivery & 10% off when you buy any 12 bottles.

**Quick Overview**

A Sauvignon Blanc as it should be. Balanced, elegant while crisp and fresh. Gooseberry, zesty lemons and a lovely mineral edge. All the way through, there's an amazing vein of elegance which belies the humble price tag.

**We accept**

MasterCard VISA LASER

**Why buy online?**

- FREE nationwide delivery when you buy 12 bottles or spend €150.
- Only €10 delivery for smaller orders (or pick up free from our Dublin shop).
- 10% discount when you buy 12 or more bottles (non-sale items)
- Safe and secure online payments provided by Realex

**Recommend to your friends?**

Like 2 Tweet 0

## Version B: 31.0% conversion

THE CORKSCREW

Free delivery on 12 bottle orders

Phone orders (01) 674 5731

Home **Wine Sale** Red wine White wine Sparkling Rosé Fine wine Fortified/Sweet Wine gifts

**15% off** Clos du Porteau "Le Courlis" Touraine 2009

Availability: In stock

Regular Price: €44.95

SPECIAL OFFER: €9.95

Qty: 1 **ADD TO CART** FREE DELIVERY WHEN YOU ORDER ANY 12 btl's

**Quick Overview**

A Sauvignon Blanc as it should be. Balanced, elegant while crisp and fresh. Gooseberry, zesty lemons and a lovely mineral edge. All the way through, there's an amazing vein of elegance which belies the humble price tag.

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- Safe and secure online payments provided by Realex

**Recommend to your friends?**

Like Tweet 0

# Further Reading

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## Books

- Agile and Iterative Development: A Manager's Guide
- The Design of Everyday Things
- Don't Make me Think
- The Essential Persona Lifecycle
- The Inmates are Running the Asylum
- Prioritizing Web Usability
- A Project Guide to UX Design
- The Design of Sites

## Online

- [www.alistapart.com](http://www.alistapart.com)
- [www.boxesandarrows.com](http://www.boxesandarrows.com)
- [www.asktog.com](http://www.asktog.com)
- [www.jnd.org](http://www.jnd.org)
- [www.ixda.org](http://www.ixda.org)
- [www.nngroup.com/articles](http://www.nngroup.com/articles)
- <http://usabilitybok.org>
- [www.upassoc.org](http://www.upassoc.org)
- [www.uxmatters.com](http://www.uxmatters.com)

**Thank you!**

[www.linkedin.com/in/kwhitenton](http://www.linkedin.com/in/kwhitenton)