9.1 Importance of Navigation

What is navigation? Navigation is the way by which someone moves from one place to another. In terms of website design, navigation is how your users move around your site as intuitively, and with as few clicks, as possible. Web designers will often leave navigation as an afterthought to content. Without proper planning, a design concept can turn into a navigation nightmare or cluttered mess. This can cause users to leave the site and search for information elsewhere.

Experienced designers understand that end users need to know how to find the content they are looking for. If the user cannot find what they are looking for, then the website or interface being designed is of no value to them. Mapping out the website before development is a critical step in the process.

Generally, when you go someplace new, you try to orient yourself. Places like theme parks, zoos, museums, malls, and parks all greet visitors in the same way: a map showing what is in the area, where the visitor currently is, and how they can get to another location. Similarly, when a user lands on your website's homepage, they are looking at a map and expecting it to guide them to what they are looking for.

User-Centered Design Concepts and Navigation

Just as maps need to be neat and orderly, so does your website. Getting a user to your web page instead of a thousand others is a small portion of the battle; you want them to stay there, view your content, and pick your site as a trusted resource. How do you do this? By utilizing user-centered design (UCD) concepts. UCD is "a project approach that puts the intended users of a site at the center of its design and development" (Le, 2017).

To build an effective website, one cannot simply make a homepage, add page links or menu buttons that look neat, throw in pretty graphics, and call it a day. The first step in the website design process is planning, and planning requires analyzing your content and organizing it into meaningful, structured sections, all the while considering how your user is going to interact with it. There are no set rules to navigation design, and there are a variety of UCD process outlines. However, the key to both is the user.

It does not matter how clean your formatting, crisp your images, or how innovative your use of coding tricks is if your site is unusable. Craigslist is not the prettiest of sites, but its navigation system is simple and obvious for users to do what they have come to do. In the end, that is what a website is for: to assist a user with accomplishing a task. The task could be as complex as finding out how to repair a dishwasher, or as simple as satisfying a burning question. The content is not what should shine. What should shine is the simple, invisible path the user took to find the content.

Mystery Meat Navigation

When considering the user, a minimalistic design is often considered to be the best approach. However, condensing an enormous breadth of content into clearly ordered and visually defined sections may unintentionally cause the content to be too condensed. This can lead to a concept called, "mystery meat navigation" (MMN). MMN was coined in 1998 by Vincent Flanders, creator of Web Pages That Suck, to describe concealed navigation elements (links, images, etc.) whose destinations are not revealed except by mouse rollover or other tricks. As James Kalbach wrote in 2007, "...concealed navigation is fine for situations in which the target audiences may already be looking for entertainment, such gimmicks can be a usability catastrophe for...information-rich sites."

Kalbach's observation has held true for over a decade. MMN can be fun and cool on art or entertainment websites, but they require a learning curve most users do not have time for on a business or information-heavy page. Rather, you want to make sure your navigation optimizes the usability of your site and, as Kalbach adds, "...tells a story—the story of your site."

ESSENTIAL READING

Read "Website Navigation: Tips, Examples, and Best Practices (opens new tab) " from the Daily Egg to learn about the importance of website navigation.

As you read, consider the following questions:

- Why is navigation important?
- What are the connections between navigation and user experience?
- What are the types of website navigation?

ESSENTIAL VIDEO

Watch "All the things the end user does not care about (opens new tab) " from LinkedIn Learning to learn the value of considering the end user of your web page over your own design preferences. This resource discusses how people will use the website and how the technical design should not overshadow usability.

As you watch, consider the following questions:

- How will the end user use your site?
- What two ideas should guide you?
- How should a site be designed?

ESSENTIAL READING

Read "User-Centered Design Basics (opens new tab) " from usability.gov to learn about the user-centered design process.

As you read, consider the following questions:

- What are the phases in the UCD process?

- Why is each phase important?
- What is the International Standard 13407?

PARTICIPATION ACTIVITY   9.1.1: Navigation Considerations

1) What is key when considering web design and navigation?

- ○ Mystery Meat Navigation
- ○ Your content
- ○ Planning
- ○ The user

Attributions and References

Kalbach, J. (n.d.). Designing Web Navigation. OReilly. https://www.oreilly.com/library/view/designing-web-navigation/9780596528102/index.html

Le, K. (2017, November 7). User-centered Design Method. RedCat Design Blog. https://medium.com/redcatstudio/user-centered-design-method-28e3aafc8c8a

Miller, C. R. (2020, June 26). Website Navigation: Tips, Examples and Best Practices. The Daily Egg. https://www.crazyegg.com/blog/website-navigation/

Rand-Hendriksen, M. (2014). All the things the end user does not care about. LinkedIn Learning. [Video]. https://www.linkedin.com/learning/mapping-the-modern-web-design-process/all-the-things-the-end user-does-not-care-about

U.S. General Services Administration. (n.d.). User-Centered Design Basics. Usability. https://www.usability.gov/what-and-why/user-centered-design.html

9.2 Navigation Best Practices

Part of planning your website is considering how the content will be organized and structured for clear and logical navigation. As discussed in the previous section, if your user cannot find what they are looking for, all your work is moot.

This section will review the different types of site structures and some URL creation and file naming practices. You will also see how UCD concepts continue to guide design decisions while also noting the importance of making your site friendly with search engine optimization (SEO).

A website consists of pages organized into one or more configurations called structures. Website structure is the first step in building an effective information architecture. It is the piece that, at first

glance, will draw in your users and, upon use, set your page apart from similar sites.

Site Structure

The three most used site structures are:

- Hierarchical: Pages organized into parent/child subsections
- Sequential: Pages organized into a specific order
- Matrix: Pages connected via links

Hierarchical Structures

Also called tree structures, or hub-and-spoke structures, the information is organized from the top down into paths starting with a broad category (parent) and branching down into detailed, more defined subsections (child). A clothing site is a perfect example of a hierarchical structure: if you are looking for a specific type of sock for your grandmother, you would start in the apparel section of the page and drill down until you have found her favorite, black and blue compression socks.

Most sites have a hierarchical structure: a home page that branches off into its main sections, and from those sections, branches further into related subsections. This configuration is the most familiar to many users. To view an example of a hierarchical site structure, please explore the following website: https://www.whitehouse.gov/

Sequential Structures

As the name implies, this type of configuration leads a user to follow a particular path, step-by-step. The steps are easy to follow and the link to the next stage is marked. Think of those quirky Facebook quizzes. Do you want to know which Game of Thrones Direwolf You Are? To find out, you must answer a series of questions, each one popping up after the previous has been answered, until you land on your result. (You are no wolf—you are a dragon! Congratulations.) Sequential structures are not just for personality quizzes. These are also the structure of the Checkout area on any e-commerce site. To view an example of a sequential site structure, please explore the following website: https://www.wikihow.com/Main-Page

Matrix Structures

Also called web-like structures, this type describes pages connected in numerous ways by links, allowing the user to choose their own path of discovery as the whim takes them. A wiki is an excellent example of this kind of structure. One may begin casually looking up their local dam's history, but the various linked texts could send them three hours later to learn about solar farms in Sweden. To view an example of a matrix site structure, please explore the following website: https://www.wikipedia.org/

URLs

Invented by Tim Berners-Lee, Uniform Resource Locators (URLs) were developed to "...'locate' resources, by providing an abstract identification of the resource location" (Berners-Lee, 1994). Web-savvy users can use a website's URL to get an accurate idea of a page's orientation within the site structure. URLs are like breadcrumb trails, a kind of secondary navigation scheme showing a user's location in a website.

If you want your users to utilize URLs like this while they navigate your site, it is important to understand there are limitations. First, you cannot assume a user knows how to interpret a URL; sometimes a URL cannot be seen due to the address bar being hidden, or the URL is so long, it is difficult to comprehend. In other instances, the full URL is not displayed by the internet browser. Additionally, a URL can only communicate your site's structure if your files are organized in a logical and meaningful manner.

You want to make sure your URLs are well-crafted, not just so a user can get an idea of what the page is about or where they are on it, but so a search engine can discern the same information. Using keywords in a concise and definitive URL can improve the chances of your website's search visibility. To accomplish this, consider using a semantic URL, a URL that describes the destination. Semantic URLs can boost your site's SEO, increasing traffic to your page.

File Names

Once you have user traffic directed to your site, users will start navigating the various pages and content. A directory structure for this content must be planned, and should be clear, consistent, and efficient. It should utilize a root directory with branching child subdirectories. This directory structure is where all the individual content files for the website will be stored, so it is important to place emphasis on how they are placed and named. This section will focus on how files should be named.

In The DAM Book (2009), Peter Krogh notes, "File naming is the most basic component of your file system structure. As such, it's important that you choose a method of naming files that you can grow with and use for a long time." While Krogh's book is directed to photographers, his sentiment is spot-on for web designers. Without good file names, your site will become unfriendly to the user and confusing to the search engine.

When creating your file names, adhere to standardized file naming practices. A file name should include two to three keywords to provide context for the user and the search engine. They should also be kept as short as possible, no more than four or five words. The longer the file name, the harder it will be to remember.

Keep in mind how links to files are used or shared. Spaces in a file name can result in broken links, while mixing up your capitalization can confuse some web servers. Use lowercase text to avoid issues and hyphens to separate words. Special characters are to be avoided. These characteristics will enable search engines to index sites properly.

ESSENTIAL READING

Read "A conversation about content audits (opens a new tab)" from usability.gov to get an overview of recent content audit conversations from industry professionals. This resource gives an overview of the three most common organization structures, describes the Database Model, and provides design advice.

As you read, consider the following questions:

- Why are content audits important?
- What are attributes captured in audits?
- Where is a good place to start when thinking of an audit?

ESSENTIAL READING

Read "URLs (opens new tab) " from moz.com for an overview of what URLs are and why they matter. This resource discusses URL design, how they interact with SEO, and some best practices.

As you read, consider the following questions:

- What does URL stand for?
- What is a URL?
- A URL must be shorter than how many characters?

ESSENTIAL READING

Read "Site File Naming Conventions Best Practices for Web and SEO (opens new tab) " from ACF Digital Toolbox to learn basic file naming conventions. This resource provides an overview of file naming standards and offers additional file naming guidance.

 As you read, consider the following questions:

- Instead of spaces, what should you use as a separator?
- How many keywords are needed for SEO?
- What kind of keywords should be used?

PARTICIPATION ACTIVITY	9.2.1: Site Structure	

1) Which type of site structure is
   considered a best practice when
   creating a checkout section within a
   web page?

   ○ Hierarchical

   ○ Matrix

   ○ Sequential

   ○ Ranking

Attributions and References

ACF Digital Toolbox. (2020, April 16). Site File Naming Conventions. https://www.acf.hhs.gov/digital-toolbox/resource/acf-file-naming-conventions

Berners-Lee, T. (1994, December). Uniform Resource Locators (URL). IETF. https://www.ietf.org/rfc/rfc1738.txt

Krogh, P. (2009). The DAM Book: Digital Asset Management for Photographers (Second ed., Vol. 2). O'Reilly Media.

Moz. (n.d.). URLs. https://moz.com/learn/seo/url

U.S. General Services Administration. (n.d.). Organization Structures. Usability. https://www.usability.gov/how-to-and-tools/methods/organization-structures.html

9.3 Site Navigation Conventions

The adage "familiarity breeds contempt" does not translate well to the world of web design. End users arrive at a website with an idea of how it should work based on their interactions with similar sites (Yablonski, 2020). Have you ever gone to a stock photo site and looked for the search bar, yet found none? Did you stay and go through each page, or did you back out to find another site with the feature you expected?

Users need to know where they are on a site and then where they can go. Once a user has positional awareness, they will look for how to get to where they want by looking for familiar elements (Yablonski, 2020). Is your site selling something? Users will expect a checkout cart of some sort. Is your site a depository of images or textual works? The user will be looking for a search bar. Does your website have a lot of content, sorted into categories? Your user will want a header.

Familiar Navigation Conventions

Home pages used to be the first thing a user saw when going to a site, but search engines can now direct a user to any area of a site. Since the user will likely arrive by direct link via a search result, it is important to provide orientation cues to let the users know where they are. The following are some of the navigation conventions users have come to expect:

- **Logo placement:** A logo clearly tells a user what site they are on. The best practice is to place the logo in the upper left-hand corner, though sometimes it can be centered at the top. Regardless, the logo should always be placed at the top of the page where it can be seen. When clicked, it should always take the user to the home page.
- **Navigation bars:** A navigation bar tends to appear at the top or on the side of a site, displaying primary and/or secondary links. They are often combined with, or replace, a header. The contents of the bar are often duplicated in a footer (HTC Team, 2013).
- **Breadcrumb trails**: Named for Hansel and Gretel's story of laying breadcrumbs to find their way home, this is a powerful but simple way to tell users where they are. Each step should be a clickable web link. They are handy on large, complex sites where users may need to backtrack to a previous page (Yablonski, 2020).
- **Menus:** Whether they are drop-downs or sidebar, menus are an easy way to communicate the layers of your site's content and help a user drill down quickly to find what they are looking for.
- **Site maps:** Site maps offer a view of the website, laid out in a parent/child structure.
- **Footers:** Primarily used to contain the legal information about a site, such as copyright information, footers can have navigation links too. This allows users to go to these pages without having to scroll all the way up to the top.
- **Visited links:** A visited link is a link that a user has clicked recently. They turn purple (though they can be coded to be other colors) when a user clicks on them.
- **Home page:** The home page is where all information on your site ultimately stems from. Having a home page is a quick and easy way to layout your content and start your user navigating the page.
- **Search Boxes:** Providing a search box on your site is a quick, easy way for the user to find what they are looking for. Sometimes interacting with the box takes the user to another page in the same browser tab, but others may open a new tab (Yablonski, 2020).
- **Naming conventions:** It may be tempting to call your "Contact Us" page "Phone a Friend," but will your user understand? Sticking to standard naming practices will prevent confusion for the user (HTC Team, 2013).

Users arrive at a website with a purpose and expect navigating it to be easy, quick, and predictable. According to Jakob's Law, "Users spend most of their time on other sites, and they prefer your site to work the same way as all the other sites they already know" (Yablonski, 2020).

When selecting your navigational elements, you want to be creative without "breaking" the user. Consider viewing sites like your own to get an idea of what elements are consistently utilized. For example, a site for e-commerce would not benefit from excluding a menu categorizing their goods. Remember, if a user cannot quickly find what they are looking for, or if they become confused, they will move on to the next site.

Positional Awareness

Positional awareness allows a user to understand where the current page is in relation to the overall information architecture. Users should never wonder where they are in the site or how to get where they want to go.

TECHNIQUES

These are techniques that can provide positional awareness:

- A descriptive heading or title on each page allows the user to clearly identify the topic of the current page.
- Breadcrumb trails show a path through the navigational hierarchy to the current page and are very useful for large complex sites.
- Using color or other stylistic highlighting to visually indicate within the primary or secondary navigation that the user is viewing a particular page.
- Images can be useful to indicate positional awareness since they quickly communicate to the user the topic of the page.

EXAMPLE

This page employs several positional awareness techniques. The page header overlaid on the image identifies this as a section of the site for the Bachelor of Information Technology Degrees. On the left-hand-side of the page the secondary navigation element applies a blue background to highlight the current page as Courses & Competencies. This both identifies what the current page is for and how it fits into the navigation for this section of the website.

Figure 9.3.1: Positional Awareness Example

ESSENTIAL VIDEO (1:21)

Watch "Elements of navigation (opens new tab) " from LinkedIn Learning to hear a brief discussion on what navigation elements are, what they are used for, and how a user may utilize them to orient themselves on your page.

As you watch, consider the following questions:

- Why do 10% of tasks fail?
- What are navigation elements used for?
- Should one element be enough?

ESSENTIAL READING

Read "Website & App Navigation Design Best Practices (opens new tab) " from Adobe to be introduced to basic web and app navigation design conventions that improve the user experience. This resource reviews common features in navigation design and reviews the importance of sticking to standard conventions and best practices.

As you read, consider the following questions:

- What are breadcrumbs?
- Why should you avoid drop-downs?
- Why should every page have intuitive navigation?

ESSENTIAL READING

Read "Breaking Web Design Conventions = Breaking the User Experience (opens new tab)," from the Nielsen Norman Group to get a deeper understanding of why using navigation standards creates a better user experience. This resource dissects a real-world instance where the desire to be innovative and stand apart in a site's navigation features negatively impacted the user experience.

As you read, consider the following questions:

- Why is hidden navigation not a navigation standard?
- What are some risks with minimalist design?
- What are the risks of image-heavy pages?

PARTICIPATION ACTIVITY	9.3.1: Website Convention

1) Which website convention is designed to be the originating location for all site information?

   ○ Breadcrumb trail

   ○ Footer

   ○ Menus

   ○ Home page

Attributions and References

Babich, N. (2019, December 17). Website & App Navigation Design Best Practices. Adobe Ideas. https://xd.adobe.com/ideas/process/information-architecture/website-navigation-design-best-practices/

HTC Team. (2013, September 3). 7 Web Design Conventions You Should Never Break. https://blog.htc.ca/2013/09/03/web-design-conventions/

Nodder, C. (2015). Elements of navigation. LinkedIn Learning. [Video]. https://www.linkedin.com/learning/user-experience-for-web-design/elements-of-navigation

Sherwin, K. (2014, July 20). Breaking Web Design Conventions = Breaking the User Experience. Nielsen Norman Group. https://www.nngroup.com/articles/breaking-web-conventions/

Yablonski, J. (2020). Laws of UX: Design principles for persuasive and ethical products (1st ed.). O'Reilly Media.

9.4 Navigation Elements

As discussed, the best websites are user-centered, quick, simple to use, and navigable. Whether the user starts on the home page or a subpage, they should know immediately where they are, where they can go, and how to get to their goal. You cannot know what the user is looking for, but you do know not all the content on your site is equal. Organize your site content logically, so it is usable and consistent.

To help sort your information, designers divide a site's pages into categories, then provide navigation elements to access those pages. In the previous module, you reviewed the different kinds of navigation elements with which users are familiar. In this module, you will review how to use these elements to create primary and secondary navigation.

The first step in creating an effective navigation system is considering what the user expects: a structure of usability and consistency. Pages of content should be arranged with similar information grouped together. Those pages should also be arranged to allow users to move between them with ease. For a page to be usable, the arrangement needs to be enhanced in a way that allows users to move quickly and easily as they perform tasks. The page structure should be consistent; using a different scheme for every page can be confusing.

It can be challenging to devise a good site content organizational scheme, especially if the site is large and complex. This is where the site's navigation interface is broken down into two categories: primary and secondary navigation.

Primary Navigation

Primary navigation is the principal navigation of your site (Juviler, 2020). It is accessible everywhere and visible across the entire site. Usually situated at the top of every page in the header or down below the logo. While the ultimate links will vary between sites, the location of this element should not. Users expect to find primary navigation links in the header or another prominent location, usually seen as bars or tabs (Juviler, 2020).

Primary navigation supports a variety of end user needs (Juviler, 2020). Users expect primary navigation to behave consistently, and if they click on a particular link, they can rely on it taking them exactly where it says. Primary navigation also provides comfort; clicking a logo will reliably take a user back to the home page and allows users to reorient themselves (Juviler, 2020).

Secondary Navigation

Secondary navigation is used to access elements from within a specific site section (Juviler, 2020). It works alongside the primary system as an extension. Often, secondary navigation elements appear

under the primary elements in some way. For instance, a drop-down menu that appears when one mouses over a navigation bar with the primary categories is an example of a secondary navigation element (Juviler, 2020).

Primary navigation helps a user get around a site. However, secondary navigation groups subjects together, helping the user to quickly find what they are looking for. How do you determine what content belongs in primary or secondary navigation? You must sort it (Juviler, 2020).

The following image shows the differences between primary navigation and secondary navigation. The primary navigation is located horizontally at the top of the page and represents the major sections for the website that do not change. The secondary navigation for this page is located on the left of the page and changes based on the user's current page location.

Figure 9.4.1: Secondary Navigation Example
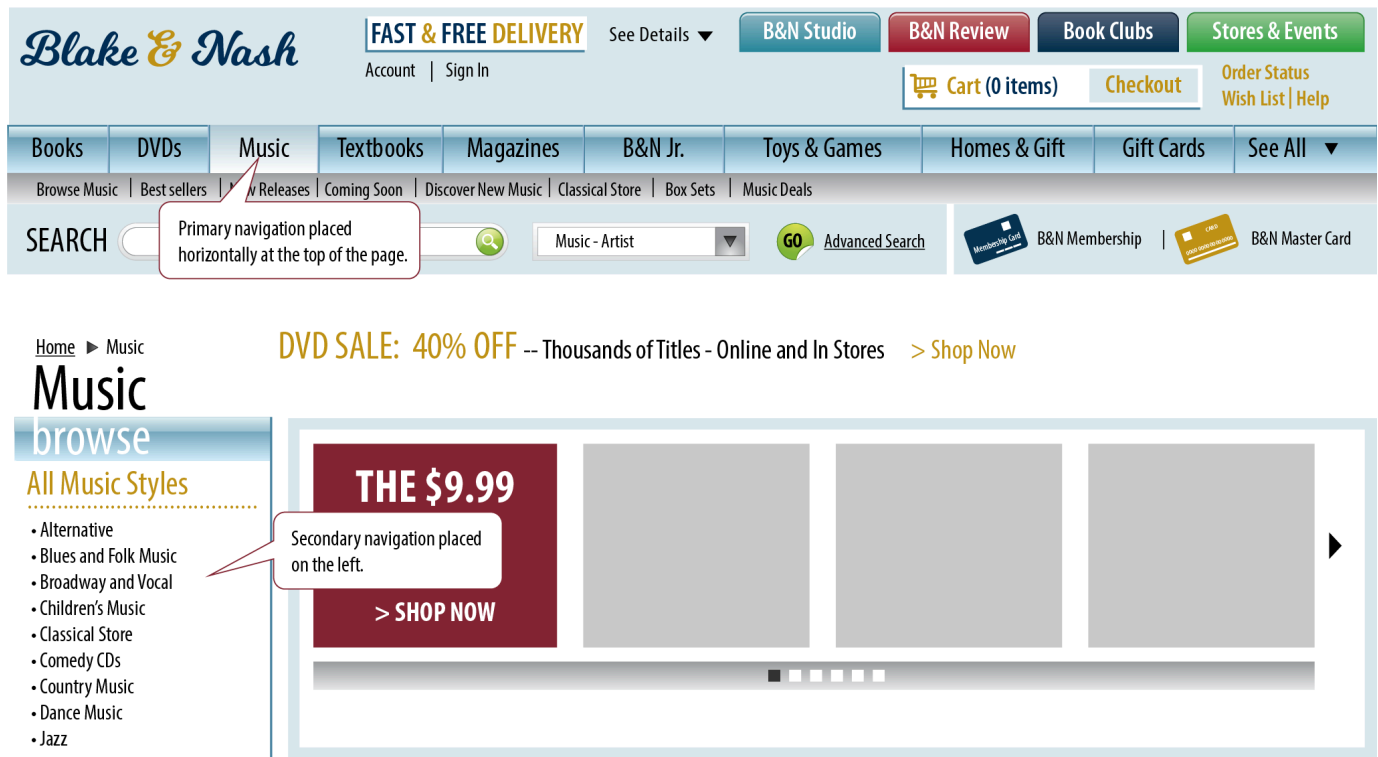
Card Sorting

One of the most effective tools for organizing site content is card sorting. Participants sort a set of cards into categories based on what is written on them. This method is used to help create and refine the navigation scheme of a site. There are two types of card sorting: open and closed (U.S. General Services Administration, 2013).

Each card has a single topic on it in open card sorting, corresponding to a single page or set of related pages on the site. Participants are asked to organize the cards into categories based on these topics

(U.S. General Services Administration, 2013). When they are done sorting, they are asked to name the categories they made. This method is best used for new sites and sites that are being rebuilt.

In closed card sorting, each card has a topic and a category on it (U.S. General Services Administration, 2013). Participants are asked to organize the cards into their designated categories. This method is generally used for existing websites where the categories would remain together.

Once your site content is organized into a logical and consistent set of pages, you can turn your attention to navigation (U.S. General Services Administration, 2013):

- Organize the site into primary and secondary pages
- Decide what primary navigation elements are needed
- Decide what secondary navigation elements are needed

ESSENTIAL READING

Read "The Rules of Modern Navigation (opens new tab) " from dreamerux.com.

As you read, consider the following questions?

- What is modern navigation?
- What are the rules for designing great navigation?
- What are subpages, breadcrumbs, and flat navigation?

ESSENTIAL READING

Read "Primary Navigation (opens new tab) " from Science Direct for a deeper look into primary and secondary navigation. This collection reviews the different uses and patterns of primary and secondary navigation, how to make it accessible, and be user centered.

As you read, consider the following questions:

- What is primary navigation?
- What is accessible navigation?
- What is secondary navigation?

ESSENTIAL READING

Read "Card Sorting (opens new tab) " from usability.gov to gain a better understanding of card sorting for the web design process. This page gives an overview of what card sorting is, the two kinds of card sorting, and an example of setting up a card sorting session with participants. Best practices are also reviewed.

As you read, consider the following questions:

- What is open card sorting?
- What is closed card sorting?
- Why should you have the sorting done by others instead of doing it yourself?

PARTICIPATION ACTIVITY | 9.4.1: Navigation

1) What is the main difference between primary and secondary navigation?

○ Secondary navigation is determined by card sorting techniques whereas primary navigation is not.

○ Primary navigation helps a user get around a site whereas secondary navigation groups elements together in a section.

○ Secondary navigation helps a user get around a site whereas primary navigation groups elements together in a section.

○ Primary navigation is determined by card sorting techniques whereas secondary navigation is not.

Attributions and References

Juviler, J. (2020, September 28). Primary and Secondary Navigation Explained. Hubspot. https://blog.hubspot.com/website/secondary-navigation

Lau, G. (2017, February 14). The Rules for Modern Navigation. D/UX. https://www.dreamerux.com/articles/rx3szl83jplklt7rxzrcznpsp8nyf3

ScienceDirect. (2014). Primary Navigation. https://www.sciencedirect.com/topics/computer-science/primary-navigation

U.S. General Services Administration. (2013, October 9). Card Sorting. Usability. https://www.usability.gov/how-to-and-tools/methods/card-sorting.html

9.5 Benefits of Guided Navigation

In the early days of the internet, it was not uncommon for a search bar to be one of the first things a user saw. However, searches were hit or miss. Most users spent their time browsing a site without a clear idea of where they were or how to find things.

Part of making your site usable is the navigation scheme. If the user cannot find what they are looking for quickly and easily, they will go elsewhere (Whitenton, 2013). You can use different kinds of navigation design patterns to help your end users: breadcrumbs, site maps, footers, or search navigation. For some sites, though, a user is expecting a specific kind of navigation. In this module, you will review a navigation scheme used by content-heavy sites: guided navigation.

When it comes to content-heavy websites, design can be daunting. E-commerce sites that have hundreds or thousands of pages, with ever-changing content options that branch out too far in the hierarchy, the end user is certain to become disoriented or lost quickly (Whitenton, 2013). How do you guide the user through this endless mass of information?

In the previous sections, you reviewed some navigational elements which are familiar to most users. These navigation elements can be broken down into primary and secondary navigation, but different sites require that these elements be utilized in ways that make sense. For content-rich websites like online retail, one powerful navigational tool is guided navigation.

Guided Navigation

Guided navigation, also called faceted navigation or faceted search, is the heart of many content-heavy, product-offering websites (Calik, 2020). It is most familiar on e-commerce sites but is also used by media publishers and libraries. Of course, these sites will have search navigation, but a user may not use the best keywords to narrow the scope. This is where guided navigation shines, as it allows a user to narrow down items of interest without excessive browsing, filters, or toying with keywords (Calik, 2020).

Guided navigation lets an end user narrow their search by what is important to them, without limiting their results. It also helps users who have a vague idea of what they are looking for by offering suggestions for narrowing a broad search (Calik, 2020).

When designing your guided navigation pieces, you want to make sure all options are relevant. Not every keyword related to an item is equal. You should consider what keywords your user is likely to associate with a result. In some cases, you can use guided navigation to educate the user about an item, but your primary goal is to make sure they can quickly find what they want.

Remember to allow for multi-select options. The more searches a user must do to narrow their scope, the more likely they are to give up and go to a site that allows for quicker narrowing (Calik, 2020). Think about a clothing site; many offer ways to narrow a search by size or color, but also material and brand.

It is not uncommon to see guided navigation paired with breadcrumb navigation. This allows users to backtrack in their search by adjusting a filter without having to start over.

While guided navigation can be better for the user with predefined categories, it can be confusing for some. This is especially true if they are looking for something that is not in your prebuilt lists, your lists do not offer enough criteria, or you have an overabundance of filter options.

ESSENTIAL READING

Read "Faceted Navigation: SEO Issues and Best Practices (opens new tab)" from SEO PowerSuite to learn about SEO issues that guided navigation can cause and how to mitigate them. This resource reviews what guided/faceted navigation is, the difference between facets and filters, as well as discusses the risks of using guided navigation in relation to making your site SEO friendly. It also discusses best practices to mitigate these issues.

As you read, consider the following questions:

- How is guided navigation defined?
- Guided navigation allows a user to create what?
- Facets should be ordered based on what?

ESSENTIAL READING

Read "Faceted Navigation: Huge SEO Problems (and Best Practices) (opens new tab) " from Terakeet to learn about SEO issues that guided navigation can cause and how to mitigate them. This resource reviews what guided/faceted navigation is, the difference between facets and filters, as well as discusses the risks of using guided navigation in relation to making your site SEO friendly. It also discusses best practices to mitigate these issues.

As you read, consider the following questions:

- What is the difference between a facet and a filter?
- What does every new faceted search create?
- What are canonical tags?

ESSENTIAL READING

Read "eCommerce Faceted Navigation: How it Affects SEO and Google Search Results (opens new tab) " from Cognitive SEO to learn about the differences between faceted and filtered searches. This resource goes into further detail about the differences between facets and filters, reasons why guided navigation is not SEO friendly and how to mitigate the risk.

As you read, consider the following questions:

- What is a faceted search? What is a filtered search?
- What are some of the problems and challenges with a faceted search?
- Why don't search engines like duplicate content?
- What do canonical tags help prevent?
- What pages should you let a search engine index?

PARTICIPATION ACTIVITY	9.5.1: Guided Navigation

1) Which type of website is best for
   guided navigation?

   ○ Portfolio

   ○ Library

   ○ Wiki

   ○ Personal

Attributions and References

Calik, M. (2020, July 24). Faceted Navigation – What is It?. Delante. https://delante.co/faceted-navigation/

Cojocariu, A. (n.d.). eCommerce Faceted Navigation: How It Affects SEO & Google Search Results. Cognitive SEO. https://cognitiveseo.com/blog/22235/faceted-navigation-seo/

Earley Information Science. (n.d.) Designing for Faceted Search. https://www.earley.com/knowledge/articles/designing-faceted-search

Lemieux, S. (2009, March 1). Designing for faceted search. KMWorld. https://www.kmworld.com/Articles/Editorial/Features/Designing-for-faceted-search-52781.aspx

Sickler, J. (2019, November 8). Faceted Navigation: SEO problems and Best Practices. Terakeet. https://terakeet.com/blog/faceted-navigation/

Whitenton, K. (2013, November 10). Flat vs. Deep Website Hierarchies. Nielsen Norman Group. https://www.nngroup.com/articles/flat-vs-deep-hierarchy/

9.6 Navigation Action Plans

Your bags are packed, your out-of-office message for email is set up, and you have left the dog with your best friend. Everything is in order so you hop in your car and drive off, eager to get your vacation started. You have been looking forward to this for weeks or months. It has involved a lot of planning, including mapping out your route from your house to that rustic cabin in the mountains. It will be a two-hour hike, but you have mapped that route, too. You are confident you will not get lost and will enjoy your time away from it all.

Planning is the key to success. Like a road trip to the mountains would be difficult and unpredictable without a map, traversing your web page will be confusing and frustrating for a user if it is just slapped together and left to chance. You have learned about many kinds of navigational elements; now it is time to put them together in a way that makes sense.

Just like in a business action plan, a navigation action plan is a set of checks and tasks that must be completed to achieve a certain goal (Athuraliya, 2020). Specifically, it is a set of tasks that must be

completed that will layout and define the structure of a website and how the navigation will work. Actions plans in general can help with improving teamwork in all areas of an organization. Not only that, but it is an essential part of the strategic planning process. Action plans include the following components (Athuraliya, 2020):

- a well-defined description of the goal
- the tasks and steps to reach this goal
- members of the group and their tasks
- when each task will be completed
- resources needed
- ways to evaluate progress

A well-defined description of the goal is a clear explanation of what the organization hopes to achieve from this endeavor (Athuraliya, 2020). The goal needs to follow the SMART guidelines. These guidelines are specific, measurable, attainable, relevant, and timely (Athuraliya, 2020). The goal needs to be clear: it needs to have the ability to be tracked, it needs to be realistic, it needs to align with other goals, and it needs to have a specified date that it should be completed by (Athuraliya, 2020). In that respect, the goal of a navigational plan is to layout and define the structure of the website and how each page will navigate to the next. It needs to be realistic in the way that the website should be navigated.

The next step is to list the steps, tasks, and participants in this project. Creating a list of tasks, who is doing them, and when they are being done or completed is a good way to track the amount of work being done, who is doing it, and when (Athuraliya, 2020). Tasks should be easy to understand and clear in what they are asking and hoping to achieve. This is to avoid confusion from all parties involved. Tasks also need to be prioritized based on feedback and based on the needs of the organization or requester (Athuraliya, 2020). Ensuring that all participants involved with completing the tasks are not overworked is vital. These tasks should not conflict with other work duties and responsibilities. Within a navigation plan, there may not be a lot of tasks to assign due to the simplicity of the overall goal. The person in charge will create a diagram and explain how each page is connected. Each page can be connected through a set of links, or some pages may only be accessed through another page. The task of outlining these items will help to visualize this.

Setting dates and milestones for tasks is an easy way to encourage the workers to get the tasks done. Milestones serve as mini goals that can be reached either weekly, bi-weekly, or monthly (Athuraliya, 2020). This makes the workload less burdensome and it allows for more flexibility within the project. Ensuring all pages and navigation between the pages works in a timely manner is important. Without the pages working properly, it would be hard to test other functionalities within the website. Milestones also ensure that parts of the project can be delivered, deployed, and shown if need be.

Knowing what resources are needed for any project can help when planning and executing. It is important to secure all the necessary resources before starting a project plan, otherwise the project could experience delays and/or setbacks due to a lack of preparedness (Athuraliya, 2020). Some resources can include a budget, equipment such as computers and software, and even uncommon things, such as workspace, meeting spaces and other work-related items (Athuraliya, 2020).

Finally, having a way to evaluate the progress of the project and its tasks is incredibly important. Sometimes, having team meetings each morning can help determine where everyone is at within their respective roles and tasks (Athuraliya, 2020). Constant communication is the best way to stay up-to-date on where everyone is, if there are any issues or delays, and if there will be any additions to the project or potential extensions (Athuraliya, 2020). A good way to test a navigation project is to simply begin navigating through the website. It is easy to see early on if something is working right or not. Defining the areas of concern after the test will allow for the navigation itself to be updated and perfected. This ensures that there will be a smooth navigation and transition around the website.

ESSENTIAL VIDEO (3:25)

Watch "Elements every webpage should have (opens new tab) " from LinkedIn Learning for a brief description and examples of elements that web pages should have to help users navigate and understand the site. Good web design creates a place where your user wants to spend time, but they need to know where they are and how to get around. This video discusses conventional navigation elements users will be looking for to help them get around, and the importance of descriptive text.

As you watch, consider the following questions:

- Why should taglines be in text and not as a graphic?
- Why should your logo be clickable?
- What is descriptive text?

ESSENTIAL READING

Read "10 Steps for Better Website Navigation (opens new tab) " from butterfly.com.au for a review of fundamentals of navigation design and how to plan your site's navigation. Planning your website's structure is the key to its success. Draft out what your site will look like. Enrich the user experience by using a variety of navigational elements to get them where they want to go quickly and easily.

As you read, consider the following questions:

- What should you make first when planning your site?
- What is responsive navigation?
- What is sticky navigation?

ESSENTIAL READING

Read "Website Navigation – Planning And Implementing (opens new tab) " from Smashing Magazine for a deep dive into the phases of website navigation planning. Navigation planning should not be left up to chance. The more content your site will have, the more complex it will be. Taking your time in planning out the navigation and organizing your content will make for solid results.

As you read, consider the following questions:

- All websites have at least how many menus?
- Drop-down menus are good for what kind of sites?
- How does the primary language of the site affect design?

PARTICIPATION ACTIVITY	9.6.1: Working Prototype

1) Why should a UI designer make a working prototype of the navigation system?

- ○ Seeing how your content looks on the site
- ○ To determine if the site structure is well organized
- ○ Weed out user groups you do not want using your site
- ○ To assure the site looks aesthetically pleasing

Attributions and References

Athuraliya, A. (2021, January 5). The Easy Guide to Developing and Effective Action Plan. Creately. https://creately.com/blog/diagrams/how-to-write-an-action-plan/

Chambers, R. (n.d.). 10 steps for better website navigation. Butterfly. https://www.butterfly.com.au/blog/design/10-steps-for-better-website-navigation

Nodder, C. (2015). Elements every webpage should have. LinkedIn Learning. [Video] https://www.linkedin.com/learning/user-experience-for-web-design/elements-every-webpage-should-have

The Smashing Team. (2011, June 6). Website Navigation – Planning and Implementing. Smashing Magazine. https://www.smashingmagazine.com/2011/06/planning-and-implementing-website-navigation/

9.7 Navigation Hierarchy

As discussed, your site navigation system needs to follow certain conventions. Innovation is great, but not if it results in visitors scratching their heads and wondering where they are and what they are supposed to do. This is not to say a web designer should never try new things, but do not mistake yourself for an artist. An artist can spend hours on a portrait or throw a can of paint at a wall, and the

result is still art, something to be appreciated. Web designers do not have the luxury of throwing elements around without purpose. Web design is about functionality, not entertainment.

This module will look a little deeper at design conventions in navigation and design principles you will need to use when designing your website's structure. You will also look at some common mistakes new, and even experienced, designers can make and avoid them.

As a web designer, your target audience of site visitors is likely not looking for a navigation system that is a stunning piece of art. They are expecting a system that helps them locate desired information quickly and easily. If you want to succeed in web design, you need to learn how to provide your users with such a system. The structure needs to make sense and be predictable. Remember to keep navigation conventions and principles in mind to align with user expectations.

Navigation conventions

This is a list of site navigation conventions. Depending on the site's content and style, you might choose to modify some of these conventions or ignore them entirely. That is fine if you make these choices consciously and can justify them in terms of your overall design goals. Remember, the needs of the user guide your design choices, not what looks cool (Dutcher, 2017):

- Logos should be placed highest up on the page.
- Navigation should be placed along the top of the page or under the logo.
- Content should be made up of headings and paragraphs.
- Use a grid system to create flows and hierarchies on a page.
- Incorporate link styling within the page to differentiate various types of links.
- Ensure the color used follows any brand standards of the company.
- Buttons should be used for calls to action and should follow website conventions.

Navigation principles

This is a set of principles for web navigation. Use the various techniques presented throughout this section to put the principles into action:

- **Design for the user:** Users are the people who will be visiting the site. You may be designing a site for a client or your organization, and you will need to satisfy their needs. But your main responsibility as a designer is to optimize usability for the visitors (Charlotte, 2009).
- **Test, test, test:** To optimize usability, do thorough testing with real world users, ideally in their actual workplaces performing their actual everyday tasks like navigating the site, locating information, etc.
- **Make navigation controls easy to find:** The navigation text cannot share the same color, font, and size with your content and should be prominent and conspicuous (Charlotte, 2009).
- **Provide multiple navigation options:** Since users normally have different preferences, they like to get to things in different ways. Some prefer classic underlined text links. Others prefer image links, or drop-down menus, or site maps. Sometimes having multiple ways to get to the same

content is needed. As a rule of thumb, always provide at least two ways to navigate to the same destination and avoid using more than three. This is especially important for the accessibility of your users (Charlotte, 2009).

- **Minimize navigation as much as possible:** Navigation should not draw attention to itself. It should take up as little space as possible while still being functional and helping people get to where they want to. If your customers are spending a lot of time staring at your navigation, that is most definitely a problem (McGovern, 2018).
- **Unified:** The core navigation, particularly about the products and services, should be as unified as possible. There is nothing worse than having pieces of navigation put all over the place without any real logic as to why (McGovern, 2018).
- **Should be Clear:** The best and clearest navigation link is a task. The best link tells you what it is, but just as importantly, tells you what it is not. "Costs" is what it is. "Costs" is not "Schedule." The clearest links often avoid verbs such as "find" or "get." Stripping away the verbs allows you to start with a more unique word (McGovern, 2018).

Common navigation design mistakes

Along with striving to follow principles of good navigation design, you should take care to avoid making common navigation design mistakes like these (Baker, 2019):

- **Going against convention:** As websites have grown in popularity, users have come to expect certain elements to be in particular places. Car manufacturers do not experiment with the position of the steering wheel or the brake pedal. Similarly, you should not play around with the navigation bar. In addition, the navigation style should be consistent across all web pages.
- **Using drop-down menus:** A drop-down menu hinders the seamless experience that the visitor was expecting. Instead, it bombards them with more options, which can be annoying.
- **Using non-specific labels:** One of the main purposes of having a website is to communicate with the target audience. Generic labels such as "products" and "services" do not convey vital information about the business. Website navigation needs to be descriptive and self-explanatory. Such labels immediately tell visitors what they can expect.
- **Offering too many options:** Bombarding your website visitors with numerous links on your homepage confuses them. They may not be able to spot the information they were looking for in the first place. They may also ignore key information that you want to communicate.
- **Non-responsive website navigation:** It is important that your website navigation is responsive to different screen dimensions. Otherwise, you may lose out on a lot of website traffic that might come from mobile devices.
- **Dead ends:** No one likes to reach a web page from where they canot access other parts of your website. If this happens, a visitor is likely to perceive your website as unprofessional and cumbersome.
- **Using button-based navigation:** Buttons often take more time to load, resulting in poor visitor engagement. In addition, they are invisible to search engines. Clearly, buttons do not enhance website navigation. So, it is advisable to replace them with text-based links.

ESSENTIAL VIDEO (3:22)

Watch "Creating progressive navigation (opens new tab) " from LinkedIn Learning for a discussion on using progressive navigation with pages to guide users to what they are looking for. A website is designed to get information to an end user and every element of the website needs to be designed to support that goal. Using navigation hierarchy elements like breadcrumbs or progressive navigation facilitate that need.

As you watch consider the following questions:

- What are category pages?
- What is a detail page?
- Category and detail pages are structured like what navigation element?

ESSENTIAL READING

Read "Web Style Guide (opens new tab) " from webstyleguide.com for an overview of different website structures, including the hierarchy structure. Part of the successful functionality of your site will depend upon pages branching logically. There are different ways you can structure the page navigation of your site. Hierarchies, paired with the appropriate navigation elements, are best suited for most websites.

As you read consider the following questions:

- Websites are usually organized around what?
- What are the different hierarchy structures?
- What are the other kinds of site structure?

ESSENTIAL READING

Read "Flat vs. Deep Website Hierarchies (opens new tab) " from Nielsen Norman Group for a deep dive into the difference between flat and deep hierarchies. Information can be organized logically in multiple ways, but the experience for the user will be very different. Determining if your site should use a flat or deep hierarchy structure will shape the user experience and help determine which navigational elements you need.

As you read consider the following questions:

- What is a risk with deep hierarchies?
- What navigational elements help bring usability to deep hierarchies?
- When would you use a flat hierarchy?

PARTICIPATION ACTIVITY	9.7.1: Common Mistakes	

1) What is a common mistake designers
   make when creating a navigation
   hierarchy for a website?

   ○ Putting a menu under the logo

   ○ Offering less options

   ○ Using non-specific labels

   ○ Using text links instead of
     buttons

Attributions and References

Baker, S. (2019, July 18). 9 Website Navigation Mistakes You Might Be Making.
https://shanebarker.com/blog/website-navigation/

Dutcher, K. (2017, June 13). 7 Website Conventions to Follow When Designing Your Website. Web
Ascender. https://www.webascender.com/blog/7-website-conventions-to-follow-when-designing-your-
website/

Lynch, P. J. (n.d.). Site structure. Web Style Guide. https://webstyleguide.com/wsg3/3-information-
architecture/3-site-structure.html

McGovern, G. (2018, April 2). Seven principles of effective digital navigation.
https://medium.com/@gerrymcgovern/seven-principles-of-effective-digital-navigation-885231a0ffb4

Nodder, C. (2015). Creating progressive navigation. LinkedIn Learning. [Video].
https://www.linkedin.com/learning/user-experience-for-web-design/creating-progressive-navigation?
resume=false

Whitenton, K. (2013, November 10). Flat vs. Deep Website Hierarchies. Nielsen Norman Group.
https://www.nngroup.com/articles/flat-vs-deep-hierarchy/