

WRIT 4501: Usability and Human Factors in Technical Communication

Hennepin County Law Library Website

Heuristic Evaluation

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Introduction

A heuristic evaluation is an informal method to **assess a product or service against recognized usability principles**. Heuristics refer to Jakob Nielsen's 10 general principles for interaction design. They are called "heuristics" because they are broad rules of thumb and not specific usability guidelines.

Definition

Heuristic | hyō'oristik | Adjective. Enabling a person to discover or learn something for themselves: a "hands-on" or interactive heuristic approach to learning.

Description of the Product

This assessment focuses on the website for the Hennepin County Law Library, which collects repositories of legal documentation for further research into legal topics by both professionals and the general public. This is also the place where continuing education lectures that are put on by the library are hosted and advertised.

Evaluation Methods

The website being evaluated is located at <https://www.hclawlib.org/>, and the subpages included in this evaluation are:

- <https://www.hclawlib.org/online-research>
- <https://www.hclawlib.org/subscribe/subscribe>
- <https://www.hclawlib.org/CLEs>
- Associated sub-subpages

This heuristic evaluation contains the following elements:

1. A paragraph devoted to the product according to each heuristic
2. At least one visual reference about the product regarding each heuristic.
3. A rating from 1–4 regarding the effectiveness of the product according to each heuristic (1 – very ineffective; 2 – ineffective; 3 – effective; 4 – very effective)
4. A conclusion with a summary of the complete evaluation and overall ratings

The initial assessment appears in the Appendix of the heuristic evaluation.

Heuristic 1: Visibility of System Status

The system should always keep the users informed about what is going on, through appropriate feedback within reasonable time.

Visibility is a crucial facet in website design and development, and plays a role in how users are able to interact with and understand the presented content. This heuristic comes into play when there is a need to communicate the effect of a user's actions, as well as to convey which actions are now available to perform. A website that poorly communicates the status of the system is one that users find confusing and uninformative, providing little feedback about the impacts of user interactions, and obfuscating the next possible steps that a user can take. A website with a high amount of status visibility is one that allows a user to know what they've done and how it changed their present situation.

For example, Visibility is often most prevalent in navigation of websites, being the factor that must be satisfied by any feature that allows the user to move between pages of the site. The user must understand where they are, how they got there, and where they can go next, all through the use of a visual medium. Most people can recall an instance of a navigation feature or structure that was muddled and hard to understand, while on the other extreme can also recall one that was clear and easy to use.

Assessment of HCLL Website:

Navigation is effectively prioritized on the site, allowing users to understand where on a single page they are, and providing opportunity to quickly navigate to a different position. The website also responds to hovering actions, affording discoverability and relaying the presence of further topics. This being said, there is a tendency to build up several tabs originating from the same place with slightly different layouts, possibly confusing users. These factors result in a rating of 3/4 - Effective.

Heuristic 2: Match between System and Real World

The system should speak the users' language, with words, phrases and concepts familiar to the user, rather than system-oriented terms. Follow real-world conventions, making information appear in a natural and logical order.

Websites, at their core, are a repository of information organized and presented to a user. With this in mind, the importance of conveying this information in a digestible fashion becomes a paramount practice. Devoid of animation, graphics, color, and other ornament, the information on a website page must be able to stand alone as a cohesive and easy to follow set of content. A website with poor organization of information can leave users unsure of what they've just consumed, or even left with an impression that the content is contradictory to itself. When well structured, the content of a web page can stand alone as a narrative that conveys its point and information effectively. When done poorly, the information can easily become muddled by its placement and organization, and leave the user struggling to find what they need.

For a website, this could be viewed as the literal organization of the content on the page, like text and media. When these things are well structured, there is a natural flow to the prose and the content supports the idea it is trying to convey to the user. Aside from literal content, organization of sections within the broader website can also contribute to an easy-to-digest user experience. Large, broad topics can consist of smaller parts that build upon and compliment one another, such as how they would in a real-world manual or technical specification guide.

Assessment of HCLL Website:

Content is presented plainly, with descriptive titling. This allows users to refine a perhaps broad idea of what their task is and how to complete it in an easily understood manner. Acronyms and resource names that may not convey directly what they pertain to are either defined or contextualized with other, contrasting resources that allow users to utilize natural logic processes to discern more about the content contained or referred to. This presentation and contextualization is rated 4/4 - Very Efficient.

Heuristic 3: User Control and Freedom

Users often choose system functions by mistake and will need a clearly marked "emergency exit" to leave the unwanted state without having to go through an extended dialogue.

User Control is one of the forefront considerations of designing and building a website, as all actions on the site are triggered by the user. No website is published to be viewed and used by nobody, so making sure that the actions that are performed are understandable (and correctable) is key. Sites that do not include these features often leave users feeling trapped in their current process, and annoyed by needing to restart it entirely in order to make an edit or pursue a different route of executing their task.

To instantiate this concept, many websites utilize a visual navigation of the path the user has taken, such as with shopping sites, which often show the hierarchy of pages that the user has visited in order to reach their current position and have each of these sections hyperlinked for easy abort actions. Also on the topic of shopping sites, each stage of the cart and checkout process has clear "cancel" buttons or icons, to allow easy stopping of the current process and to allow for changes. More broadly, many sites with text forms include "clear" buttons, sites that utilize content editing include "undo" or "revert" buttons, and so on.

Assessment of HCLL Website:

The lack of user input on the website reduces the need for "undo" or "cancel" actions, and also streamlines the process of using the website. The constant presence of some sort of navigational element with embedded representations of the user's position also supports user agency, allowing them to move quickly and freely between pages or back to the home page. This sense of agency and quick, flexible navigation earns a rating of 4/4 - Very Efficient.

Heuristic 4: Consistency and Standards

Users should not have to wonder whether different words, situations, or actions mean the same thing.

When many tools, applications, and websites exist to perform the same actions, it is important to have the user be able to utilize transferable skills and prior knowledge in order to reduce the amount of effort required to perform the task on any given instance of one of these platforms. Reducing this learning curve lets users complete their task easier and more efficiently, leading to a higher level of user satisfaction and understanding. A website that uses excessively technical language, exceedingly novel content structures, or intricate and obfuscating interactions risks alienating and confusing its users.

An example of this lies in niche websites for niche audiences, that also contain special-use information that may be helpful to general users. Websites like Stack Overflow, a resource for software developers, often host discussion about common errors or issues in general computing, which are then indexed and referenced by search engines for when any random user might have a similar problem. The organization of this site is that of a typical forum, with prompts and replies organized into threads and hosting expected features like voting for useful answers. This organization mirrors that of other forums, as well as in places like emails and messaging apps, allowing novice users to grasp how the information is structured and therefore being less daunting to them. In less specific instances, concepts like vertical content organization and scrolling, pagination of content, headers and footers, search bars and their positioning, and universal iconography also support this heuristic.

Assessment of HCLL Website:

The main consistency of the website comes from the standard use of language and titles, as well as the graphic and ornamental theming present. Where this heuristic is instituted less effectively is in the organizational presentation of each page, where there are several content layout styles presented and many feel clunky or inefficient in relation to the size of the page. These combined place the rating for this heuristic at 2/4 - Inefficient.

Heuristic 5: Error Prevention

Good error messages are important, but the best designs carefully prevent problems from occurring in the first place. Either eliminate error-prone conditions, or check for them and present users with a confirmation option before they commit to the action.

Error Prevention as a heuristic relies on several other heuristics to be properly effective. Through useful implementation of heuristics involving the user's mental model and ones that allow for the user to understand and correct their actions, interactions can be designed to minimize error and maximize efficiency and understandability. Websites with poor error prevention often have users that grow frustrated and produce incorrect results, while good error prevention allows users to complete their task correctly and with minimal friction.

This practice can be seen in websites very clearly in the use of text entry forms and the gathering of information from them. On shopping websites, forms that collect card info do not allow for incorrectly formatted numbers to be entered, constraining the user into correcting an error even before submitting the form. Even after such forms are filled out, many sites use confirmation popups and other warning before an action occurs, so that a user can correct their action before performing it. These systems are not unique, and error prevention exists in every medium of product design. Other examples include scissors that feel uncomfortable when held with the wrong hand, button layouts on devices being most accessible when a certain grip is used, shoes feeling uncomfortable when on the wrong feet, "Are you sure?" prompts for shutting down a computer, and a myriad of other, inherent instantiations of the concept. All of the aforementioned provide immediate feedback to the user about an error committed, and allow for correction before proceeding.

Assessment of HCLL Website:

There is not a wide array of opportunities present on this website for the use of literal error checking and handling, but rather more nuanced places where the guidance is tailored to understanding of content and quick guidance to the resources most applicable to the user's given task. There is present, however, robust error checking in the submittable form under the "Ask a Librarian" section, and with both of these approaches working in tandem the evaluated rating is 4/4 - Very Efficient.

Heuristic 6: Recognition Rather Than Recall

Minimize the user's memory load by making objects, actions, and options visible. The user should not have to remember information from one part of the dialogue to another. Instructions for use of the system should be visible or easily retrievable whenever appropriate.

Any digital interface that strives to provide utility to users seeks to be understandable. Leveraging universal iconography and concepts, these interfaces also seek to reduce the difficulty of learning how to use them. To do this well, an interface can provide visible and digestible representations of tools and actions to the user, in the hopes that the user is able to recognize the potential action rather than recall the specifics of what will occur. Interfaces that are too vague or niche with their representation of actions require lots of upfront documentation, or worse, excessive amounts of trial-and-error for users to understand what to do and what will happen after.

As mentioned previously, universal iconography helps in this aspect by leveraging memory to convey a potential action. Things like hamburger menus, search bars, tabbed interfaces, and matching icons allow for users to discover actions without having to learn about them in this explicit implementation, as they recognize opportunity from other interfaces they have used before. Being able to remember what happens, say, when a hamburger menu is clicked on allows for the discovery of possible actions without the interface having to explicitly inform the user of where they are. This discovery and recognition is cheaper in terms of time an efficiency than having to rely on the user's memory of how to perform an action.

Assessment of HCLL Website:

The understandability of this website is furthered by the clear and concise language and section titling. This guides users to their intended goal without the need for them to deeply understand how to achieve it, through using actionable prose as content titles and being consistent with its use. The present elements also contribute to this, with web design standards being employed in areas like dropdowns, searching, and navigation. This use of standards, with the commitment to understandable content, yields a rating of 4/4 - Very Efficient.

Heuristic 7: Flexibility and Efficiency of Use

Accelerators — unseen by the novice user — may often speed up the interaction for the expert user such that the system can cater to both inexperienced and experienced users. Allow users to tailor frequent actions.

Interfaces that are used to complete a task often find themselves appealing to both novice and expert users. The novice users want guidance, and the experts want streamlined efficiency. To meet both of these needs, an interface must leverage flexibility in order to adapt to the needs of more specific users while remaining accessible to a broad audience. Poor flexibility tailored to novices can feel tedious to expert users, while strong flexibility and efficiency is able to cater to both groups.

An example of this comes in the form of application interfaces, in which reside a multitude of tools. Each tool must remain present or easily discoverable, and therefore the question of how to do so comes to mind. Many interfaces utilize toolbars, which group related tools for users to select from. A feature of many toolbars used in this fashion is the ability to customize them, adding or removing tools at will. The default selection is chosen to appeal to the most common actions and broadest range of users, while their ability to be changed and specialized allows for more expert users to streamline their workflow. Applying this heuristic to a website could leverage cookies to recall common actions performed by a user, quick links to jump directly into a process, or specialization of an interface on a per-user basis informed by location, time, or language.

Assessment of HCLL Website:

In terms of efficiency and flexibility, the website utilizes helpful elements and structures to allow for more experienced users to quickly reach their goal, while also allowing novice users to trim some of the time and effort off of their task if they so choose. Mainly the search bar, but also quick links and relevant information in the header/footer, and the presence of a “Popular Links” section, contribute to the rating of 4/4 - Very Efficient.

Heuristic 8: Aesthetic and Minimalist Design

Dialogues should not contain information which is irrelevant or rarely needed. Every extra unit of information in a dialogue competes with the relevant units of information and diminishes their relative visibility.

In a visually communicated medium like digital interfaces, the choices made about content and visuals to include on each screen are paramount in ensuring understandability and engagement. An interface that displays everything possible finds itself cluttered and overwhelming for users. On the other extreme, an interface that is too streamlined can leave out important information or provide not enough guidance to users.

For a website, this is a delicate consideration that must take into account the purpose of the page or individual screen. For web pages that are part of informative texts like manuals or guides, the content becomes paramount and the graphics are carefully chosen so as not to overwhelm the user with visual input. For websites that deliver content like video or pictures, the media takes the focus and the other content must be complimentary, to not detract from what is being displayed to the user. These facets are often shifting based on what the purpose of the page is, but as a general application of the heuristic the content that is deemed most in line with the purpose of the presentation must be paramount, with other ornamentation and input being additive rather than distracting.

Assessment of HCLL Website:

The website, while putting its content in focus, suffers from an excessive minimalism leaving it feel sparse and poorly utilizing screen space. This poor utilization increases the need for scrolling and places a heavy load on the discoverability of website elements. In addition to large and distracting media where there is any present, there is a lot of time spent looking and scrolling past dead screen space, which results in a rating of 1/4 - Very Inefficient.

Heuristic 9: Help Users Recognize, Diagnose, and Recover from Errors

Error messages should be expressed in plain language (no codes), precisely indicate the problem, and constructively suggest a solution.

While some errors can be prevented and protected against, a facet of doing so is communicating the issue to users and guiding them to the correct execution of the task. To have an interface report that *something* is wrong is not sufficient, it must also attempt to communicate as much as possible to the user about the issue without being overwhelming. Well constructed signifiers of error allow users to understand what they've done wrong and what to do next. A poor implementation of this leaves users confused and unable to proceed, sewing frustration. An effective one allows users to recover easily and understand the root of the issue so as to avoid it in the future.

Instantiated in the form of a website, this heuristic can take several forms that not only support other heuristics, but aim to improve the experience overall. Features like text input fields demonstrate this well, often using formatting and input checks to denote something entered is illegal, improperly formatted, or in the wrong place. How this is accomplished can often be a matter of taste and adherence to design guidelines, but several common ways include popup prompts, labels appearing under the fields, red borders, or error iconography. The uniting concept in all of these is that they communicate an issue and where it is, and often precisely how to fix it. This affords some agency to users, allowing them to recover by themselves without additional guidance or resources needed.

Assessment of HCLL Website:

With few opportunities for user input on this website, there are lots of more subtle methods to guide users toward completing their goal while allowing them to learn when they've strayed from that path. Constantly present reminders of where they are on the website and how to move to a different position help foster this idea. In the main instance of user input, the "Ask a Librarian" form, there is robust and informative error checking for each of the text fields on the form, which yields a rating of 4/4 - Very Efficient.

Heuristic 10: Help and Documentation

Even though it is better if the system can be used without documentation, it may be necessary to provide help and documentation. Any such information should be easy to search, focused on the user's task, list concrete steps to be carried out, and not be too large.

While error prevention and recovery do a lot to aid users, sometimes it is necessary to share with them the details of a system and how best to utilize it. Even with the best prevention and recovery methods, occasionally users will want an all-encompassing solution right away and seek out help. Providing this help is useful for teaching users about the process as a whole, revealing to them more nuanced uses of the interface, and building a more holistic understanding of how to complete their task. Documentation that is too long, overly technical, or hard to find information in ends up being useless and frustrating to the user. When the user can easily find help for their specific issue in a timely and easy to digest manner, it not only improves the efficiency of the task they're trying to complete, but also fosters a sense of support and understandability in users.

Websites often accomplish this through the use of a "Frequently Asked Questions" section, which gathers the most common issues and provides quick answers with additional pointers to more in-depth guidance. Websites can also make use of tooltips, footnotes, and graphic signifiers to help guide users along the process of their task and reduce the need to launch an entirely separate page (or set of them). Many modern sites also make use of chatbots or direct links to support professionals in order to further develop the set of resources available to users.

Assessment of HCLL Website:

The HCLL website does a lot to guide users toward their goals and offer alternative routes, but these are in the context of the website content itself. There aren't any other present guides for how to interact with the site and learn more about best practices for using the present features. These present features and content sections also occasionally suffer from being concise, but not contextualized to what content they offer. The help that does exist requires reaching out to the library itself, halting the user's process of completing their task. These combined yield a rating of 2/4 - Inefficient.

Appendix A: Heuristic Evaluation of Hennepin County Law Library Website

1: Visibility of System Status

HCLL's website serves as a repository for legal documentation, allowing for searching of the archives and enabling users to find more resources about the topic in which they're interested. In this case, the content and how easily it is searchable becomes paramount. When visibility of system status is applied as the lens through which to evaluate the website, some notable characteristics both aid and hinder the experience.

First, the website is highly responsive to user input that is not necessarily execution of a command. Links respond to hovering, buttons have a palette that changes based on hover status as well (Figure 1). This affords discoverability to users while also communicating that there is more to be found behind a particular link. Once clicked, these links open in new tabs with the same titles, allowing users to understand where they've navigated to. Navigational menus also respond in a similar way, highlighting based on position on the page (Figure 2). These elements work in tandem to communicate current navigational position within the site, while also suggesting which places are possible to go next. Consistent theming and color choices also remind the user that they're still engaging with the HCLL website.

While these elements relay position to the user, there is also the concern as to whether the branching and opening of new tabs muddles the user's understanding of the path they've taken to get there. Having several tabs open, all with slightly different layouts and focuses, quickly becomes a departure from a single source of content and engagement. Users may find themselves questioning whether they've reached what they intended to due to the shift in layout in a new tab.

Rating: 3/4 - Effective, due to the discoverability of content and relaying of position within the website, with the acknowledgement of the rapid buildup of tabs and their slightly different layouts.

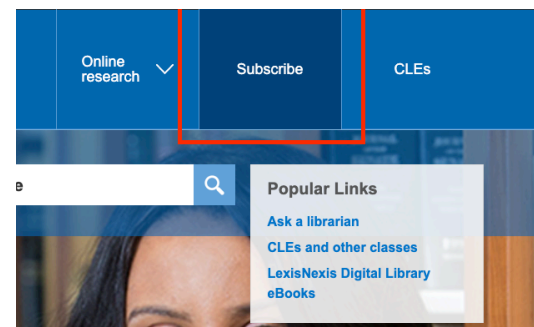


Figure 1: Element Responding to Cursor Hovering

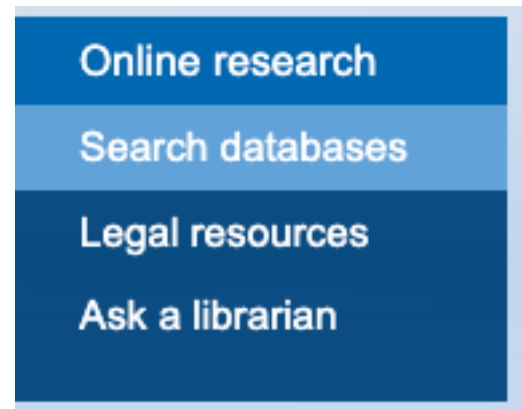


Figure 2: Position-Responsive Navigational Menu

2: Match Between System and Real World

With the specialized content and narrow focus of this website, there must be an effort to convey the information in a fashion that is accessible to broad range of user groups. HCLL's website does a good job of this, communicating the resources available in names and language that match what a user would see elsewhere, or what they may have already been exposed to in other informational settings.

The main sections of the navigation convey what a user will find there in plain, digestible language, while subsections denote their purpose and contained content. These titles are expressed commonly as actions, which removes the need for the user to draw connections between their tasks and where they might find to material to complete them (Figure 3). Resources found in these subsections are also often placed in contrast to one another, allowing users to use a dichotomous method to find what they need in a logical manner (Figure 4).

This organization allows users to start from the top level with their intended action in mind without knowledge of the particular resource needed to complete it, and to be guided toward said resource through process of elimination or through comprehension of easy to understand titles.

The only consideration to keep in mind is the use of acronyms, the most common one being CLEs, or Continuing Legal Education. While this acronym is defined on the subsection that pertains to them, from a top level a user may not understand what the title refers to.

Rating: 4/4 - Very Effective, due to the use of descriptive and plain titling that matches the titling of other resources that a user may have encountered in other informational settings, with an effort to guide users in a commonly understood fashion.



Figure 3: Section Titles as Actions



Figure 4: Dichotomous Subsections

3: User Control and Freedom

The presentation of content on the HCLL website lends itself to a hierarchical process of navigation, with each subsection being easily navigated between and back to. Due to the lack of submittable text entry fields on the main website, the need for “clear” or “undo” actions is negligible.

In the design of this website, there is a constant presence of navigational opportunities, allowing users to move between pages without much effort and from a variety of different elements. In addition to the top navigational bar, there are also floating navigation menus that allow for quick jumps to (or back to) different sections. In addition to these, there are also labels showing the progression of the user through the site, and they’re hyperlinked to allow the user to return to different levels quickly (Figure 5).



[Hennepin County Law Library](#) > [Subscribe](#)

Figure 5: Progression Label with Hyperlink

This ability supports a sense of agency for the user, giving them the freedom to navigate and move between pages and resources with ease. Each page utilizes an element that allows this, be it a progression label or floating navigation menu. The relative depth of each section also reduces the need for the user to keep track of how far from the main page they’ve wandered, as this page is only ever one to two levels back from where they could end up.

Rating: 4/4 - Very Effective, due to the constant presence of return menus and representation of current position within the site. Minimal need for user input also reduces the need for corrective actions like “undo” or “cancel”.

4: Consistency and Standards

The examination of this heuristic in reference to the HCLL website is twofold: content consistency and visual consistency.

As for content, the website excels in using consistent terminology throughout. Section titles use the same language as found within their content, and as mentioned previously many of these titles are formatted as actions that the user can understand and employ. Terms for users, subscribers, and content are also carried throughout. Even more niche titles and facets like CLEs are referred to in a standard manner and the use of the acronym rather than the full title is consistent across pages and references.

Visually, this standardization lacks. With the exception of the catalog, which links to a different page, there is a disconnect between the visual organization of each page. The “Home” page uses large horizontal content bars with no need for scrolling but a present ability to, which only reveals or hides the header and footer bars (Figure 6). In a departure from this, the “Online Research” page scrolls excessively, using similar visual elements to the Home page but spread out very far from one another (Figure 7). Links on this page redirect to the third present organizational format, the one used by the Subscribe and CLEs pages. Here there is a central column of information that expands vertically, with wide margins on either side (Figure 8).

While they cater to different purposes, either content or redirection, there is a large opportunity here to better utilize space and theming in order to foster more cohesion between different major sections of the website.

Rating: 2/4 - Inefficient, due mainly to the disconnect between major sections and pages, as well as inefficient use of space.

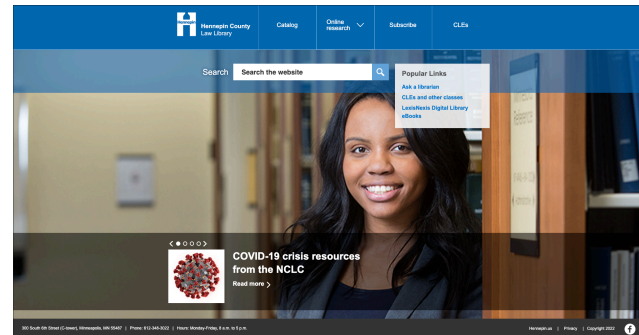


Figure 6: Home Page with Footer Exposed

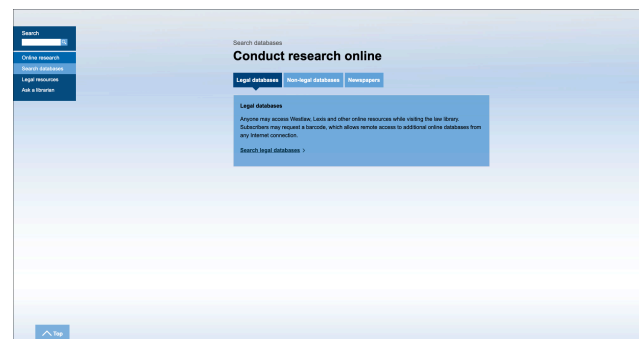


Figure 7: Online Research Page

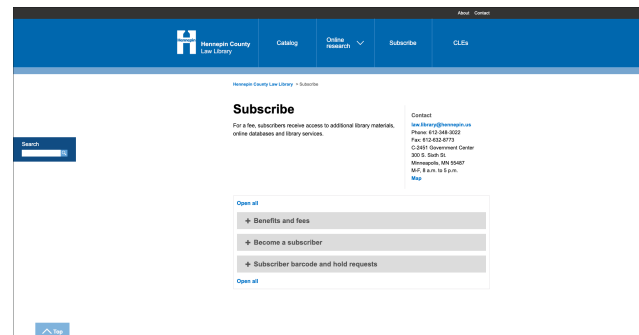


Figure 8: Subscribe Page

5: Error Prevention

Error prevention on the HCLL website in terms of literal content and formatting checks is applied mainly to the “Ask a Librarian” feature, as this is one of the only points where a user can enter text that needs to be a of a certain format or type. Here the website excels in error checking and input compliance, having each field host its own formatting conditions and requiring them in order to proceed with the question submission. The details thereof will be discussed later in this appendix (Heuristic 9), but the presence of these error checks helps to ensure that the user is able to utilize the feature with proper compliance to formatting and input parameters.

Outside of this feature, the titling of sections and subsections seeks to guide the user toward the correct resources. The narrative style of subsection headers allows the user to recognize potential actions as part of a narrative prose rather than non-descriptive feature titling (Figure 9).

The application of this heuristic is also an opportunity to once again mention the lack of user input in a repository-style website, meaning a lot of the error in preventing user error falls upon clear, understandable content that guides users towards their goal.

Rating: 4/4 - Very Efficient, as discussed previously much of the content and titling is written to be clear and understandable, while guiding the user toward the resources that will help accomplish their goal. Literally error checking appears in form submission, and is robust.

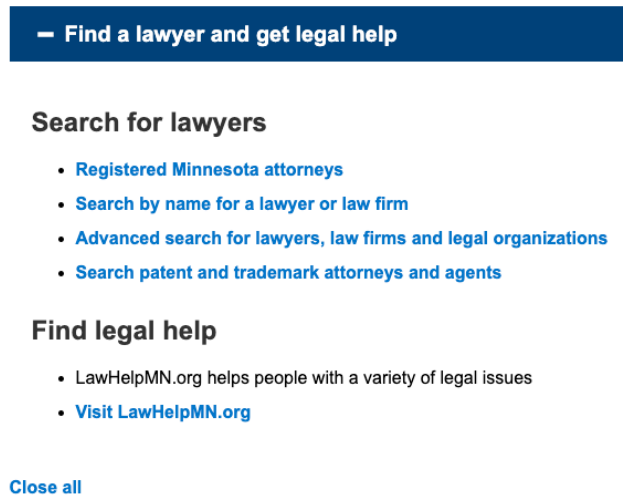


Figure 9: Subsections Presented as Actions

6: Recognition Rather Than Recall

To reduce the cognitive load on the user while completing their task, interfaces leverage methods of utilizing recognition over recall to minimize the amount that must be memorized by the user. HCLL does this by using conventional website elements like a search bar, headers and footers, navigation menus, and standard iconography.

The search bar is present on the first page, and allows users to navigate more directly to the content they're seeking, without needing to traverse the hierarchy of pages to find or return to a particular section (Figures 10 and 11).

The website also utilizes a persistent navigational bar across the top of the page, constantly presenting users with content navigation options rather than forcing them to recall which ones are available. The position and design of this top bar is also consistent with many other websites, providing a recognizable element to users that they don't have to learn for this website in particular.

The use of iconography also aids this effort, with standard practices like having clickable links in blue text, carats or plusses to expose dropdown menus, and left/right arrows on horizontally scrolling elements. The leverage of common elements among websites means users already have a set of tools with which to approach the interface, and can more quickly navigate and understand interactions with it.

Rating: 4/4 - Very Efficient, due to the consistent adherence to standard web design practices around navigation, visual elements, features, and iconography.



Figure 10: Main Search Bar



Figure 11: Floating Search Bar

7: Flexibility and Efficiency of Use

Ease of use is paramount for any discussion about user experience, and in applying this heuristic to the HCLL website, there are several elements that reinforce this practice well.

Right away, users are greeted with the aforementioned search bar. This allows users to reduce the time it takes to find the resources needed to complete their task from a novice perspective. For more experienced users, utilizing specific phrasing or referencing a specific content piece yields a significant reduction in overall effort.

Furthermore, on the Home page, there is a “Popular Links” section (Figure 12). This is a standard element that parallels a Frequently Asked Questions section, and continues to provide shortcuts to a broad range of users. This range includes those with the most common questions or use cases, which statistically would encompass the largest amount of users.

Putting “About”, “Contact”, and “Ask a Librarian” links on the “Home” page of the site also provides shortcuts to more specific inquiries or use cases, without having to specifically look for those options. Including the contact information once again in the footer opens up the opportunity to contact the library directly without even having to click anything, further developing options available to users with increased efficiency.

Rating: 4/4 - Very Efficient, based mainly on the presence of accelerators like the “Popular Links” section, relevant information on the footer, quick links to additional resources, and the constant presence of these elements throughout the experience of using the website.

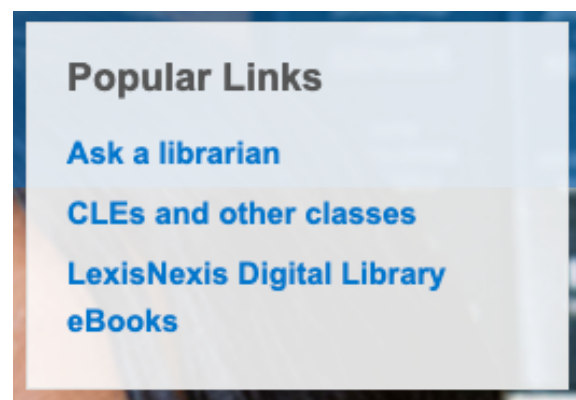


Figure 12: Popular Links Section

8: Aesthetic and Minimalist Design

In the context of an informational repository such as the HCLL website, there exists a great need for clarity of content and its presentation.

This website exhibits a strong adherence to clarity of content presentation, but suffers from its use of visual ornamentation and supplemental graphics. Pages with lots of text content often have it centered in the page, which is standard, but the organization of visual elements on the rest of the page is inefficient. On the “Home” page, the relevant links and information are pushed to the top and bottom of the page, leaving the center for a large image. This diminishes the focus on the links and directions toward further content.

The page that has the least focus on content is the “Online Research” main page, which often has just a title and links separated by a disproportionately large amount of unused space, which is intended to be traversed using a scroll interaction (Figure 13). This action is not discoverable however, so this page suffers from excessive minimalism. The scrolling also tends to place the text over the background image in a fashion that makes it difficult to read.

The “Subscribe” and “CLEs” pages have a similar issue, with the relevant information centered on the screen surrounded by an excessive amount of whitespace that does not support the content or make it clearer.

Rating: 1/4 - Very Inefficient, due to the use of minimalism as a method to fill screen space with nothing in particular, which detracts from the content being shown. Large, poor quality images take up most of this space, and while properly ornamental do little to support the content. In the case of the “Online Research” page, there is little information conveyed on each part of the page itself, with massive amounts of scrolling required to traverse the empty space between groups of links.

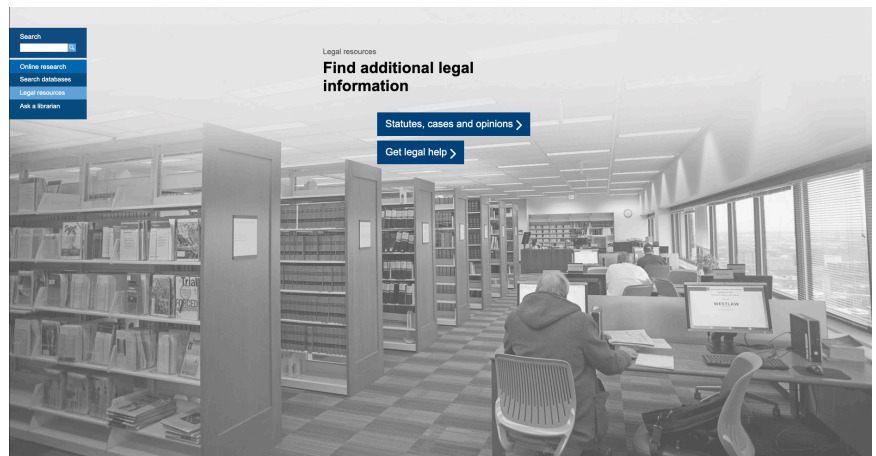


Figure 13: Online Learning Main Page

9: Help Users Recognize, Diagnose, and Recover from Errors

Error recovery ensures that users can understand their error and return to their task after being able to remedy the situation. For the HCLL website, there is little input or interaction on the website itself, so the main points for error recovery are in evaluating whether the user is in the proper place, and in the “Ask a Librarian” submission form.

With much of the website being dedicated to hosting links and information, there exists a need for the user to be able to realize that they are not in the correct place, and to recover from this. There exist many ways of doing this on the website, namely the ever-present navigation elements like the top bar or floating navigation menu, which relay the current position and allow the user to return to an appropriate point in their process from which to advance on a different path. The presence of the progression labels on pages with hierarchy also supports this in a similar fashion.

As for the “Ask a Librarian” form, there is a strong presence of error checking and helpful indicators to understand what is incorrect about the user’s input. In the same labels, there are also suggestions for correcting the input to meet the format requirements of the form. These labels appear directly under the offending text input field, which is highlighted red in the case of an error. Upon attempting to submit a form with illegal input, there is also a popup that is launched in-browser to both not allow the action to continue, and to tell the user what to correct.

Rating: 4/4 - Very Efficient, because in the instances where the user is not giving input, there exist reactive and present elements that allow them to diagnose whether they are on the right path and to correct it. In the case where there is input, the error checking is robust, clear, and helpful.

The screenshot shows the 'Ask a Librarian' form on the Hennepin County Minnesota website. At the top right, a dark popup message reads: 'formcatalog.hennepin.us says: Your email address and confirmation email address do not match. Please correct.' with an 'OK' button. The form itself has the following fields and error messages:

- Your name***: Empty field.
- Email***: Contains 'test'. Error message: 'Please enter your email in this format: name@example.com'.
- Confirm email***: Contains 'test2'. Error message: 'This Field is a required field.'
- Subject ***: Contains 'For example, criminal law, book suggestion, Minnesota appeals, etc.'. Error message: 'This Field is a required field.'
- Question or suggestion***: Empty field. Error message: 'This Field is a required field.'

A 'Submit' button is located at the bottom left of the form.

Figure 14: Ask a Librarian Form

10: Help and Documentation

The HCLL website is dedicated almost entirely to help and documentation by itself. In utilizing clear titling and content organization practices, users are able to get their task completed with these resources.

Help in the sense of this heuristic is focused on using the website itself, which does a great deal to explain more about each section, but not always which section is accessible and relevant. Users of this product may not always know what kind of resource they need, and while many are presented, not each one is given a relevancy to a topic. This can be seen on the “Online Learning” page, with the section containing links to legal and non-legal databases (Figure 15). These titles are descriptive, but do not hint as to what kinds of questions can be answered by each. There is the aforementioned dichotomous presentation of these subjects, but contextual clues alone can only do so much.

With this being said, there is an option presented at nearly all times to complete the “Ask a Librarian” form, which will give nuanced and detailed answers to user questions after a period of time. This, however, is the only additional resource for how to use the website itself, as there is no posted guide for how to traverse the site and its content. There is also the “Contact” link in the header of the website, which is also nearly always present for users to find, but is unclear in the difference between its function and that of the “Ask a Librarian” feature.

Rating: 2/4 - Inefficient, due to there being little to no help about how to use the website itself accessible to users without reaching out to the library itself.

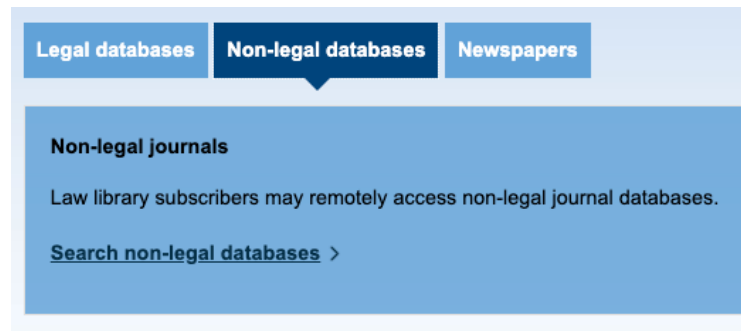


Figure 15: Different Databases on the Online Research Page

Conclusion

Overall, the HCLL website finds its purpose in being a repository for legal documentation and information made available to a wide range of users. With this wide range, the website finds its strengths in providing control to users (Heuristic 3), preventing errors by guiding users and allowing them to recover easily from them (Heuristics 5 and 9), and leveraging clear and concise sectioning that allows users to recognize and “figure out” what they may need rather than memorizing specific paths or topics to research further (Heuristic 6). These strengths compliment the main type of content on the site, that being text and links. By sections being easily evaluated for relevance to their task, them being guided toward appropriate sections, and them being given the tools to move between pages and content easily, users are able to perform their research with relative ease.

The drawbacks come mainly in the form of the website being inconsistent (mainly in its layout and hierarchies)(Heuristic 4), overly minimal and often sparse (Heuristic 8), and providing little to no in-context assistance to users (Heuristic 10). These facets combine to leave users occasionally confused and without guidance for how to continue, either through content or across pages themselves. To improve these points, visual consistency in layout of content and graphics would help to reduce some of the discomfort of navigating pages, and improve heuristics 4 and 8. For heuristic 10, there must be present some sort of additional guidance in-context, so users can recover from errors or understand best practices without having to contact the library itself. This would reduce the need for the user to completely abandon their task in order to get more nuanced assistance in completing it.

References

Hennepin County. (n.d.). Hennepin County Law Library. Retrieved October 12, 2022, from <https://www.hclawlib.org/>

All figures present in this evaluation are sourced from the Hennepin County Law Library website.

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