

## Partnership

Canadian journal of library and information practice and research

Revue canadienne de la pratique et de la recherche en bibliothéconomie et sciences de l'information

PARTNERSHIP

The Canadian Journal of Library and Information Practice and Research  
Revue canadienne de la pratique et de la recherche en bibliothéconomie et sciences de l'information

# What is a Library Website, Anyway? Reconsidering Dominant Conceptual Models

## Reconsidérer les modèles conceptuels dominants

Amy McLay Paterson

Volume 16, Number 1, 2021

Special Issue on Libraries and the Pandemic

Numéro spécial sur les bibliothèques et la pandémie

URI: <https://id.erudit.org/iderudit/1078563ar>

DOI: <https://doi.org/10.21083/partnership.v16i1.6363>

[See table of contents](#)

Publisher(s)

The Partnership: The Provincial and Territorial Library Associations of Canada

ISSN

1911-9593 (digital)

[Explore this journal](#)

Cite this article

McLay Paterson, A. (2021). What is a Library Website, Anyway? Reconsidering Dominant Conceptual Models. *Partnership*, 16(1), 1–22.  
<https://doi.org/10.21083/partnership.v16i1.6363>

Article abstract

In late 2019, Thompson Rivers University embarked on a multi-phase website usability project beginning with a website user survey, to be followed shortly afterward by usability testing and interviews. While the survey was completed as planned, the COVID-19 pandemic closed the library and interrupted the usability testing phase. This interruption and the frantic website changes that followed led me to consider survey findings within the context of differing conceptual models of the library website as a whole. This study explores a number of conceptual models of the library website in further depth, considering evidence from both the existing literature and the user survey in addition to the researcher's own experience making post-COVID website updates. Particular models that are examined include Website as Research Portal, Website as Extension or Representation of the physical library, and Website as Library Branch. Each of these conceptual models has different implications on priorities, structure, purpose, and resource allocation. Rather than considering the models of library employees superior or more advanced than those of students, I contend that an awareness of myriad ways to understand the website can best bridge the gap between library employees and other users. The study concludes that while there is no perfect model of the library website, considering and communicating our models may sharpen collegial decision-making structures and create greater unity of purpose within the library.

© Amy McLay Paterson, 2021



This document is protected by copyright law. Use of the services of Érudit (including reproduction) is subject to its terms and conditions, which can be viewed online.

<https://apropos.erudit.org/en/users/policy-on-use/>

érudit

This article is disseminated and preserved by Érudit.

Érudit is a non-profit inter-university consortium of the Université de Montréal, Université Laval, and the Université du Québec à Montréal. Its mission is to promote and disseminate research.

<https://www.erudit.org/en/>

# PARTNERSHIP

The Canadian Journal of Library and Information Practice and Research  
Revue canadienne de la pratique et de la recherche en bibliothéconomie et sciences de l'information

vol. 16, no. 1 (2021)  
Theory and Research (peer-reviewed)  
DOI: <https://doi.org/10.21083/partnership.v16i1.6363>  
CC BY-NC-ND 4.0

## What is a Library Website, Anyway? (Re)considering Dominant Conceptual Models

### Reconsidérer les modèles conceptuels dominants

Amy McLay Paterson  
Assessment and User Experience Librarian  
Thompson Rivers University Libraries  
[apaterson@tru.ca](mailto:apaterson@tru.ca)

#### ***Abstract / Résumé***

In late 2019, Thompson Rivers University embarked on a multi-phase website usability project beginning with a website user survey, to be followed shortly afterward by usability testing and interviews. While the survey was completed as planned, the COVID-19 pandemic closed the library and interrupted the usability testing phase. This interruption and the frantic website changes that followed led me to consider survey findings within the context of differing conceptual models of the library website as a whole. This study explores several conceptual models of the library website in further depth, considering evidence from the existing literature, the user survey, and my own experience making post-COVID website updates. Particular models that are examined include Website as Research Portal, Website as Extension or Representation of the Physical Library, and Website as Library Branch. Each of these conceptual models has different implications for priorities, structure, purpose, and resource allocation. Rather than considering library employees' models superior to or more advanced than students' models, I contend that an awareness of myriad ways to understand the website can best bridge the gap between library employees and other users. The study concludes that while there is no perfect model of the library website, considering and communicating our models may sharpen collegial decision-making structures and create greater unity of purpose within the library.

À la fin de 2019, l'Université Thompson Rivers s'est lancée dans un projet d'utilisabilité du site web à plusieurs phases en commençant par un sondage auprès des utilisateurs

du site web, suivi peu après par des tests d'utilisabilité et des entrevues. Quoique le sondage fut complété comme prévu, la bibliothèque a dû fermer en raison de la pandémie de la COVID-19 ce qui a interrompu la phase des tests d'utilisabilité. Cette interruption et les changements frénétiques du site web qui ont suivi m'ont amenée à considérer les résultats du sondage dans un contexte de modèles conceptuels différents du site web de la bibliothèque dans son ensemble. Cette étude porte sur plusieurs modèles conceptuels du site web de la bibliothèque de manière plus approfondie, en considérant l'information probante provenant de la littérature existante et du sondage auprès des utilisateurs, ainsi que mon expérience personnelle en faisant des mises à jour post-COVID du site web. Certains modèles examinés incluent le site web en tant que portail de recherche, le site web en tant qu'extension ou représentation de la bibliothèque physique, et le site web en tant que succursale de bibliothèque. Chacun de ces modèles conceptuels ont des implications différentes sur les priorités, la structure, l'objectif et l'allocation des ressources. Plutôt que de considérer les modèles des employés de bibliothèque comme supérieurs ou plus avancés que ceux des étudiants, je soutiens qu'une prise de conscience des multiples façons de comprendre le site Web peut mieux combler le fossé entre les employés de bibliothèque et les autres utilisateurs. L'étude conclut que, même s'il n'existe pas de modèle parfait du site web de la bibliothèque, le fait d'envisager et de communiquer nos modèles peut affiner les structures décisionnelles collégiales et créer des objectifs communs au sein de la bibliothèque.

### ***Keywords / Mots-clés***

library website, academic libraries, usability testing, COVID-19 pandemic, conceptual models

site web de la bibliothèque, bibliothèques universitaires, tests d'utilisabilité, pandémie COVID-19, modèles conceptuels

### ***Introduction***

If all research is to some extent an awkward marriage of two projects, the plan and the execution, then I suspect that will be true of this project more than most. In November 2019, Thompson Rivers University (TRU) Library embarked on the first phase, a survey, of an intended multi-stage website usability study. Prior to this study, the TRU Library website had persisted for years and undergone several significant changes without any in-depth user testing. The primary goal of the project was to enhance usability of the library website by identifying common barriers and highlighting pathways to completion of the most common tasks. The survey, while not expected to draw a lot of participation, would be a valuable tool for calibrating usability test tasks and for identifying a pool of participants willing to be contacted for follow-up. After some preliminary analysis of the survey results, usability testing and interviews with three major user groups started during the last week of February 2020. Mid-March, with only one group completed, amidst rising awareness of the COVID-19 pandemic, the library was closed indefinitely, and all in-person activities abruptly ceased.

In the rush to adjust services to the state of the world, the website became the focus of many rapid changes, both to highlight currently available services and to create new points of contact between users and library employees. Making COVID-motivated adjustments with usability research still fresh in my mind reinforced what I had been coming to see as a clash between competing website purposes and goals. Even within the small sample of survey participants, it was evident that users had differing conceptual models of what the library website is and how it should or could be used. Reading any two sets of survey answers in sequence, it was often hard to believe that they were inspired by the same website, and many of the comments clashed with or challenged my own conceptions of what the website was supposed to be.

Using a combination of my findings from library website usability literature, the usability survey results, and an analysis of the library's post-COVID website changes, I want to extrapolate on what I have found to be the predominant models of the library website, with an emphasis on the implications of favoring any particular model on library values, priorities, and resources. I contend that the overall purpose of the library website has not been adequately examined and that further examination of the dominant conceptual models will help clarify the website's purpose and move our development goals forward.

## ***Literature Review***

Scholarly literature focusing on the library website finds itself in general agreement about many things—in particular, the challenge of successfully building and maintaining a usable library website. While Blummer's (2007) review emphasized the need for libraries to consider design in navigating these huge swaths of content, Little's (2012) point that libraries "don't have articulated standards for web sites" (p. 56) still rings true. Gallant and Wright (2014) summed up the problem of needing simultaneously to address a wealth of information while clarifying paths to specific content, which must be both useful and useable to a variety of user groups with varying needs. Stover, as far back as 2001, noted that librarians' need to control the design of library webpages was a predominant theme of the literature, but this need has led to websites designed primarily for library employees rather than library users (Dominguez et al., 2015). Design challenges are often compounded by the restrictions of a university-wide template (Comeaux, 2017).

In accepting these challenges, the natural conclusion has seemed to be that a one-size-fits-all design does not meet the needs of individual users (Gillis, 2017; Liu, 2008). Liu (2008), inspired by then-innovative Web 2.0 principles, articulated a vision of the website in which "the relationship between users and information is transformed from stand-alone, separate silos to mutually inclusive, mutually reliant, and reciprocal action-and-reaction entities" (p. 10). While many libraries have adopted small-scale versions of Liu's targeted portals based on user groups, it is difficult to imagine a library so well-resourced as to transform their website to the fully collaborative, user-responsive space she envisioned to "engage users and encourage collective intelligence" (p. 7). However, while Liu's website futurism remains idealistic even 12 years later, Tella and Soluoku (2016) moderated that vision somewhat, defining Library 2.0 as a reflection of transition to user-centered change, including services that have since become standard, such as

virtual reference and responsive, mobile-friendly design. There is hardly a library employee, let alone a user experience librarian, who would disagree with the general principle of cultivating “awareness and empathy towards user needs” (Dominguez et al., 2015, p. 100), though the specific parameters of these needs remain up for debate.

While a major focus of web design innovation has been to accommodate individualization (Liu, 2008), search tools have made what could be seen as the opposite move, embracing web-scale discovery services accessed through a single search bar. Implementation of single search has not been without its hand-wringing (see Fancher, 2007), but Google’s influence on users’ search behavior is undisputed (Mierzecka & Suminas, 2018). Various studies have noted that students in particular gravitate toward prominent search boxes (Swanson & Green, 2011) and approach all search boxes as if they were the Google interface (Asher & Duke, 2012; Azadbakht et al., 2017), but the degree to which Google has influenced or should influence library web design choices remains an unresolved question. Rennick (2019) contended that it is unrealistic to expect library users to follow complicated paths when they are accustomed to Google, though Turner (2011) was concerned that mental models of searching that emphasize a single tool and query formulation are unsuited to the library environment.

The preoccupation with Google in library website literature becomes awkward when scholars neglect to draw appropriate distinctions between libraries and the commercial sector. Google is mentioned frequently in the context of being a library competitor (Detlor & Lewis, 2006; Dominguez et al., 2015; Liu, 2008), though as Vaughn and Callicott (2003) pointed out, “the aims and values of business are geared toward sales, rather than education and skills” (p. 10). In terms of usability, using commercial services as primary benchmarks and comparators can bias tests toward ease of use rather than usefulness (Vaughn & Callicott, 2003). For libraries especially, website user experience extends beyond how efficiently tasks can be performed (Gallant & Wright, 2014) to how useful these tasks are to user needs (Glanzng, 2012).

### ***Considerations for Study Design***

It was with these concerns in my mind that I determined the necessity of prefacing usability testing with an exploratory survey. Rather than default to my own assumptions about the website’s most important functions, I wanted first to gauge why various user groups came to the website and what they perceived as its most important functions. Vaughn and Callicott (2003) coined the term “broccoli librarianship” for usability testing that reflects a library-filtered interpretation of good website use rather than everyday usage scenarios; similarly, Chao (2019) stressed the importance of approaching a problem from a student’s perspective when designing usability tasks. Both Gallant and Wright (2014) and Gillis (2017) found that overuse of jargon made it difficult for participants to understand certain tasks. By soliciting users to discuss their website use through a survey, I could note common word usage in the responses and mirror it wherever possible in the testing phase.

A second purpose of the survey was to collect a pool of participants for the usability study. While Neilson's (2000) recommendations to test small groups—3 users from each category—would seem to make recruiting easier, Gillis (2017) noted difficulties finding even a small number of users for testing. The final survey question asked users to include an email address if they were willing to be contacted; this would form a pool of responses from which to select the testing participants.

## ***Study Methodology***

The website usability survey ran throughout November 2019. It was open to all TRU Library website users over the age of 18 and advertised primarily through a banner at the top of the website. Open education is a core value of TRU, and the library supports not only on-campus students but also a large contingent of Distance and Open Learning students; the university also maintains very active ties with the Kamloops community, and the library supports community borrowers. Just as there are no restrictions on who walks through our doors, anyone may use our website, and in the exploratory first stage, I wanted to see feedback from all website users.

Survey participants were asked a mix of open-ended and closed-ended questions (see Appendix A for full survey). The only demographic question was to identify each respondent's user group. While the majority of TRU library employees are evenly split between Faculty Librarians and Library Technician Staff, both groups were asked to identify as Library Employees for the survey because I surmised that they would be united both by their advanced knowledge of the website and their high frequency of use. Other closed-ended questions included identifying how often participants visit the library website, selecting past uses from a predefined list, and answering three brief questions about satisfaction with the website. Open-ended questions included a question about the purpose of their current website visit, their most frequent reason(s) for using the website, and any final comments.

At the end of November, the survey link was taken down, and I completed some preliminary analysis to calibrate the tasks for the usability tests. This analysis included aggregation of the close-ended questions and an initial scan of the open-ended questions to note predominant themes. It was during this initial scan that I first noticed the wide-ranging responses. I responded to this observation by adding the following question to the post-test interview schedule: "Can you tell me in a couple of sentences, what do you think is the main purpose of the library website?" I identified six tasks, with the intent to test representatives from the survey's three most prominent user groups: students, faculty, and library employees. Many past studies have included library employees as a user group; Azadbakht et al. (2017) particularly recommend their inclusion, both to compare their approach to others' and ideally to increase stakeholder buy-in for any resulting change recommendations.

Testing started on February 28, 2020, with the first member of the library employee user group. Because prior studies noted that task order may affect the user approach (for example, see Azadbakht et al., 2017), the desktop was reset after every task so the user could choose their path, including the web browser. Screen recording software that

also captured the user's voice was used to record all tasks and sessions. After all tasks were completed (or abandoned incomplete), users were given a brief follow-up interview. All users who participated in the usability testing were offered a \$20 gift card to a local grocery store to thank them for their time. Four members of the library employee user group were tested and interviewed by March 6, 2020. Testing and interviews with the faculty user group began the next week; two faculty members completed the tests and interviews before the library closed on March 17.

In the days and weeks that followed the closure, many changes were made to the website with varying levels of communication with and agreement from library employees. My original intent was to resume the tests upon reopening. Once it became clear that reopening was not on the horizon, I continued my analysis of the open-ended survey answers using inductive coding (see Appendix B for full codebook). Because the usability testing was not adequately completed, I will not be referring to the finished tests in any form. However, I will refer to comments from the follow-up interviews with library employees.

### ***Mental and Conceptual Models***

Because of the expected but disappointingly low participation in the survey (n=95), it would be a mistake to draw definitive conclusions about the behaviours and preferences of any particular user group based on the survey results alone. Instead, the most interesting aspect of the survey was that the responses did not seem to reflect a common understanding of the boundaries, purpose, or scope of the library website. I realized that part of what I was seeing in both the usability survey, as well as ongoing intra-library disagreements about website direction, could be attributed to differences in overall website models. What I had originally attributed to differences in mental models, akin to Turner's (2011) study comparing students and library staff, seemed to be closer to how Michell and Dewdney (1998) would characterize differences in overall conceptual models.

A term originating from cognitive psychology in the 1940s, mental models have principally been applied to LIS research focusing on search tools and databases. Michell and Dewdney (1998) reviewed the use of the theory in LIS, noting its applications for training or learning new information retrieval systems; they defined a mental model as "a working model of the system (or of the world) that individuals construct in their minds to facilitate interaction with the environment, other individuals, or technology" (p. 275). Turner's (2011) application of mental models theory to the website as a whole reveals the need for library employees to "bridge the gap between their own knowledge of library sources and search tools and the knowledge students bring with them" (p. 298). She envisioned the practical challenge of web design as "developing online interfaces and instructional strategies that foster more accurate mental models" (p. 298). Both Turner (2011) and Michell and Dewdney (1998) saw differing mental models as user images of a conceptual model: "the most complete, accurate, and consistent representation of the system, as envisaged by designers, trainers, and other experts" (Michell & Dewdney, 1998, p. 275-276). Each mental model, including those of librarian users, is viewed in relation to the original conceptual or design model.

I will use the term conceptual model going forward, though my interpretation of this term differs from Michell and Dewdney (1998) in one significant way: I contend that there is no single, controlling conceptual model of the library website. If a library website can be said to have once had a designer (and its Ship of Theseus-like transformations over many years put that to question), I see no value in prioritizing their vision over that of any user. While I agree with Turner (2011) that mental models may differ in complexity, with library employees likely forming more advanced models of information architecture, advanced knowledge of library structures cannot completely bridge the usability gap if users are working from and toward different concepts.

Through a combination of my usability research, my review of the literature, and my own experience, the following conceptual models of the library website have emerged:

1. A research portal
2. An extension of the physical library
3. A virtual representation of the physical library
4. A library branch
5. A single resource
6. A communications vehicle

I found significant support for the first three models listed here in all available avenues (i.e., the survey, the literature, and my own experience). I will discuss each of these in further detail. While I did not encounter much external support for the fourth model, it is the closest description of my own conceptual model of the website, and I believe giving more prominence to this working concept would offer some intriguing possibilities for libraries in the post-COVID era; therefore, I will discuss it in further detail as well. The last two models are less prominent; I have encountered some support for them in at least one, but not all, of the avenues available to me. I will describe them briefly, but neither model is adequately robust to sustain the entirety, or even the majority, of the website's functions and purposes.

The idea of Website as Communications Vehicle is perhaps the most contentious. While many usability researchers agree that the overall mission of the library dictates that of the website (Stover, 2001) and that the website can be a valuable tool for communicating that mission (Kuchi, 2006), Mierzecka and Suminas (2018) noted that basing the website mission on that of the library did not "give a precise indication as to what information and services exactly should dominate the library website content" (p. 159). In their testing, they found that students were completely uninterested in the library's online image. Kasperek et al. (2011), even while advocating for websites that build relationships and community through social media tools, felt that some pages featured excessive promotional content "to the detriment of the library and its users" (p. 237). In my usability survey, only two respondents mentioned that their current visit to the website involved finding some kind of event information or general information. A further two mentioned finding event information as one of their most frequent reasons for using the website; they were among the least active users of the website, citing their frequency of visits as "A few times a month" and "Less than a few times a month"

respectively. Ultimately, I believe an overall conceptual model of the library website as a communications vehicle would be deleterious to its function as a research tool.

The concept of the website as a single resource is one I have heard expressed primarily by undergraduate students in my liaison work. They ask how to cite things they find on the library website (by which, upon probing, they likely mean scholarly articles found through our Discover service), or if they have been directed by their instructor to find three sources for a paper, they ask what sources other than the library website would be suitable. It is entirely possible that the Website as Single Resource model is a less-developed version of the Website as Research Portal concept, which will be discussed in further detail below.

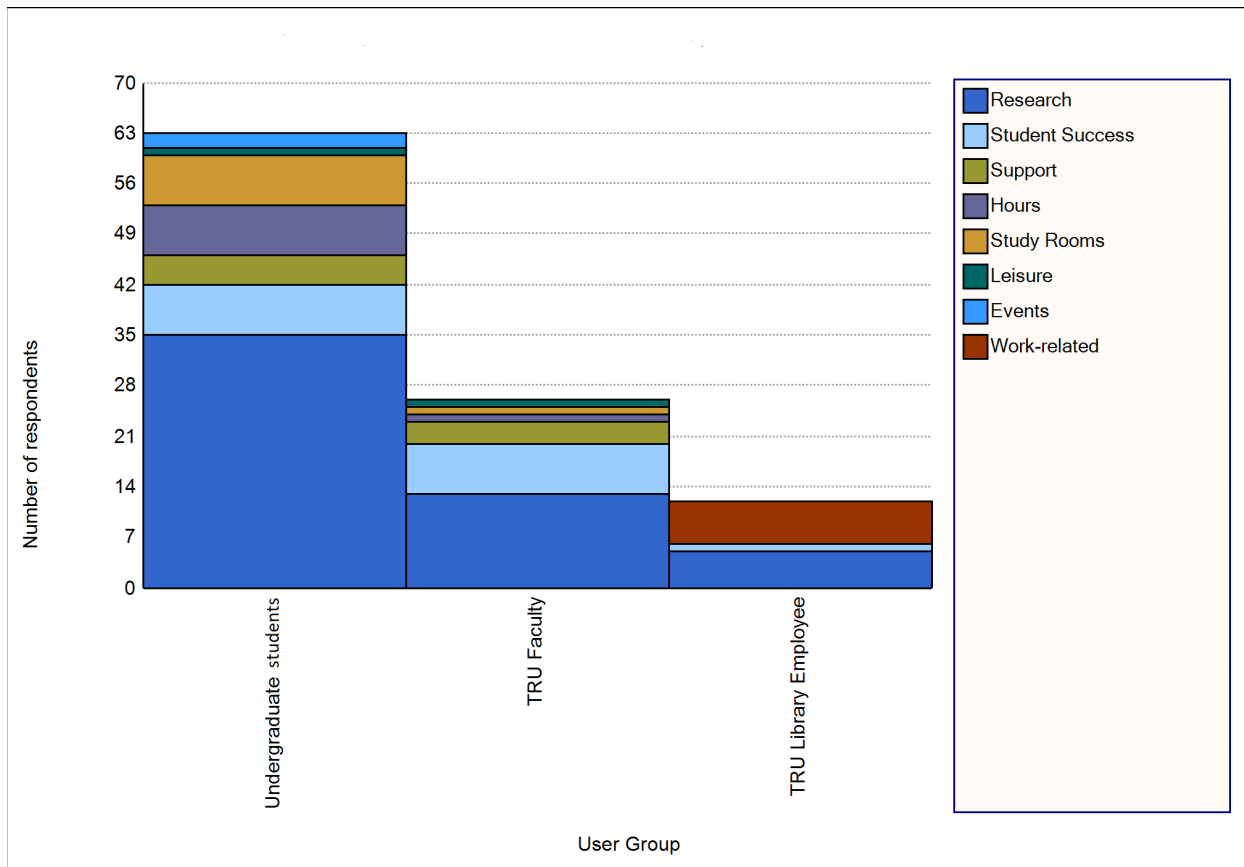
### ***Website as Research Portal***

Although conversations in the literature about how the library website functions as a research portal can stall over the question of whether or not we are Google (see Swanson & Green, 2011; Vaughn & Collicott, 2003), recent usability research shows general agreement that research is the primary focus of the library website. Gillis (2017) found that searching for resources was foremost in his study participants' minds when they used the website, while Liu (2008) characterized academic library websites as "gateways to information that supports faculty and student research and educational needs" (p. 6). While the metaphor of the Web itself as a gateway has long been a prevailing theme (Stover, 2001), the library's role has an additional layer of exclusivity: what Fancher (2007) called a "sheriff" in the Web Wild West (p. 134). The library community views the quality of sources it can provide as higher and more authoritative than sources obtained from popular search engines (Gillis, 2017; Mierzecka & Suminas, 2018).

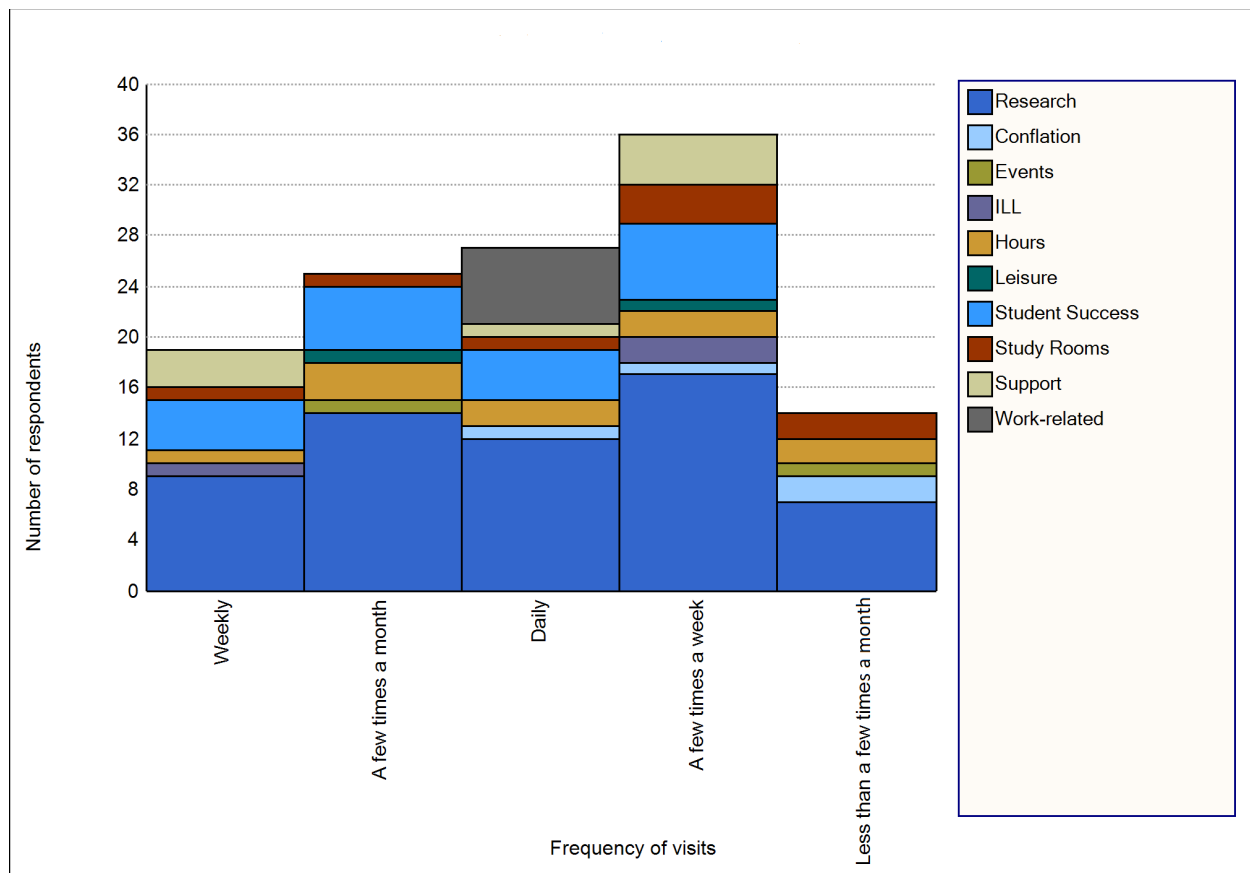
In my usability survey, the vast majority of participants cited research as one of their most frequent reasons for visiting the website (see Fig. 1). Examples of responses coded as research include:

- "writing papers writing papers proving people wrong" - Undergraduate student
- "To look for scientific papers" - TRU Faculty member
- "find books related to my research" - Kamloops community member
- "research" - Various respondents

Research as a purpose seemed to unite all user groups, despite taking many different forms. Research was also consistent as a purpose no matter how frequent the user declared their website visits to be (see Fig. 2).



*Figure 1.* Most frequent reason for using the library website by user group. Note: Open-ended responses to the question “What is your most frequent reason(s) for using the library website?” were categorized through inductive coding and are presented by user group of the respondent (Undergraduate students [n=54], TRU Faculty [n=17], TRU Library Employee [n=11]).

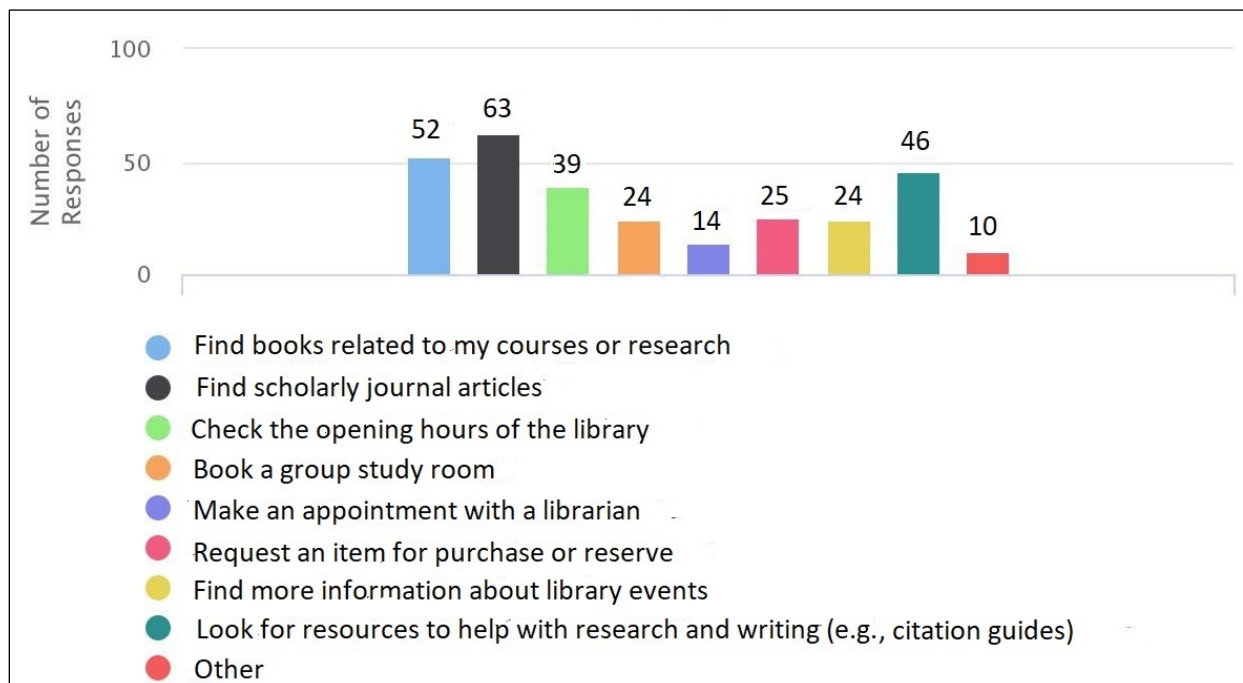


*Figure 2.* Most frequent reason for using the library website by frequency of visit. Note: Open ended responses to the question “What is your most frequent reason(s) for using the library website?” were categorized through inductive coding and presented by the respondent’s declared frequency of visit.

However, there may be disadvantages to viewing a research portal as both the website’s primary purpose and conceptual model. Some researchers have found that while library employees tend to view the website as a superior information resource portal, this view may not be shared by user communities, who may prefer either Google explicitly or the Internet in general as a place to obtain information (Gillis, 2017; Kuchi, 2006; Mierzecka & Suminas, 2018). Moreover, explicit promotion of library-approved collections and resources as superior and more authoritative can also be conflated with bolstering the authority of proprietary vendors and publishers that provide and control a significant portion of library databases and discovery tools. As Web-scale discovery eclipses the OPAC as the prominently featured search tool and awareness grows for open access and open educational resources, perhaps library workers who view their website predominantly as a research portal should reconsider how much of this service relies on external vendors.

The other potential downside of the Website as Research Portal model is that it may lead libraries to neglect materials that aid in student and user success. Other than research, student success was the only factor cited in the survey across all three primary user groups (students, faculty, and library employees) as one of their most

frequent reasons for visiting the website (see Fig. 1). As an example, one TRU faculty member described “checking the website as a site for my students’ reference regarding MLA and general ‘How to research’ information” as their most frequent reason to use the website. When asked to select past reasons for using the website from a pre-defined list, finding resources to help with research and writing (e.g., citation guides) was the third most popular answer, after finding books and finding articles (see Fig. 3). In an interview, a TRU Library employee defined the main purpose of the website as to “help students or individuals find information they are looking for, to help them with their assignments.” If library-produced educational materials are considered valuable to the library website in supporting student success, the Website as Research Portal model may not adequately incorporate these purposes.



*Figure 3.* Past uses of the library website by number of respondents (n=95). Note: Survey respondents were asked to check all that apply to the following prompt: “In the past, I have used the library website to....” The library employee user group was excluded from the chart above because almost all members of that group selected almost all of the activities.

### ***Website as Extension or Representation of the Physical Library***

I view the conceptual models of Website as Extension of the Physical Library and Website as Virtual Representation of the Physical Library as very closely related. By Website as Extension, I am referring to conceptual models that seek to position the website as primarily an attempt to push the boundaries of the library beyond the physical building. By Website as Representation, I refer to models that view the website as a virtual simulation or synecdoche of the physical library. Both models centre the library website around the physical library, and both generally seek to mirror in the website the resources and services provided by the physical library.

## **Website as Extension of the Library**

An influential 2005 report published by Talis asked and answered the question, “Do libraries matter?” with four principles of Library 2.0, the first two of which were: 1. The library is everywhere and 2. The library has no barriers (Chad & Miller, 2005). While the Talis report asked libraries to move beyond a single “destination web site” (p. 9) to a more pervasive online presence, the website cannot help but play an active role in extending the library beyond its physical walls. However, the downside of viewing the library website as an extension, a substitute for when the physical building is unavailable or inaccessible, is that it may contribute to the diminishing of the website as its own entity.

In responding to the survey question, “Why did you visit the library website today?” the most popular answer after a topic-based search appeared to be a conflation of the library website with the physical library building. Examples of these responses included:

1. “To borrow video equipment mainly” (we do not have this facility on our website)
2. “looking for a book in the stacks”
3. “Long night against procrastination” (a popular library event that occurred while the survey was running)
4. “Food”

Additionally, several of the survey responses to “Any additional comments related to your use of the library website?” did not relate to the library website at all:

- “A lot of the journals I need we do not have”
- “The switch to plural ‘TRU Libraries’ was an annoying change”
- “I’m not sure if there is an orientation to library services as part of new faculty orientation but if so that would be great.”

These conflating responses spanned across many different user groups, including library employees.

Other comments singled out prominent library vendors and search tools for critique, prompting some significant questions. If the website is an extension of a library, how far does it extend? If the intent is for the library to be everywhere, how much of that presence can reasonably remain under the stewardship of library employees?

## **Website as Representation of the Physical Library**

In the concluding paragraph of their 2003 study, Vaughn and Callicott stated, “if the library Web site is an extension of the library and not a substitute for it, librarians and Web designers cannot expect patrons to automatically utilize all of the information resources contained within” (p.16). Vaughn and Callicott were inclined to the extension model because they concluded that the website “teaches research skills only in a limited fashion” (p. 14), but finding as I do, the ideas of Website as Extension and Website as Representation so similar, it is interesting to see them set up as opposing binaries. If

one of these two models is more pervasive both in the minds of library employees and within the scholarly literature, it is the idea of Library Website as Representation.

Stover's (2001) review of pre-2001 library Web literature revealed four predominant themes, including "the picture of the Web library as a surrogate for the physical library in its traditional mission and functions" (p. 174). Kasperek et al. (2011) echoed this idea a decade later, calling academic library home pages "virtual representations of the library itself" (p. 220). Liu (2008) also noted in her conceptualization of Library 2.0 that library websites "have made significant efforts and are successful in putting available information online and providing users with complete access to online library resources and services" (p. 11). While many of these researchers see the website and its purposes as evolving (Kasperek et al., 2011), the idea of providing complete access appears constant.

The model of Website as Representation was perhaps most pervasive in interviews with library staff. When asked, "Can you tell me in a couple of sentences, what do you think is the main purpose of the library website?", three out of the four library employees interviewed gave answers consistent with the Representation model. These answers were:

- "The main purpose of the library website...to get across all of the information that is needed to access the resources and the services that the library offers, to communicate anything that is going on."
- "Main purpose of the library website?...being able to get access to all of the services and materials the library has."
- "User-friendly and the usability and to give people, um, more independence in looking, as well as knowing what we have out in our collection and what is available and what kind of services we have."

It would not be a far stretch to suggest that the Website as Representation model is likely closest to what could be considered the original design model of the library website.

However, there are significant drawbacks to this model, including that the tendency of librarians toward website completionism may contribute to what many users would view as significant design flaws. Liu's (2008) focus on individualization may have helped libraries move away from website content arranged by library function, and constant Google comparisons may have provided some much-needed lessons in minimalism and the centrality of search (Swanson & Green, 2011), but researchers still find library websites "bogged down with confusing language, poor structure, and an overwhelming number of links" (Dominguez et al., 2015, p. 100). In addition to the difficulties users experience when confronted by library jargon (Gillis, 2017) and overabundance of information (Blummer, 2007), under-resourced library web teams may find the prospect of maintaining a complete and accurate library representation an unrealistic goal. While many would acknowledge limitations of space on the homepage (Swanson & Green,

2011), in the usability survey and interviews, library employees frequently referred to items as being buried or hard to find because they were not prominently featured.

## ***Website as Library Branch***

Admittedly, one of my biggest supports for the model of Website as Library Branch is that it most closely matches my own conceptual model of the library website. By a library branch, I mean that the website can be part of the larger TRU Libraries network while supporting and developing its own unique characteristics. I have introduced it in this way to students in library instruction sessions, and I was surprised not to find more support for this thinking in either the survey or the existing literature. However, I believe there are certain advantages to this conceptual model not covered by any of the others.

The primary difference between this model and the others is that it marks a clear distinction between the website and the physical library. While the resources and services presented on the website would still necessarily overlap with and connect to both the physical library branches and the mission of the library overall, under this model the website would no longer be subservient to or dependent on the physical branches. The website could have its own needs and priorities, independent of the library building.

The Website as Library Branch model could perhaps look to the world of digital libraries for inspiration, where there have already been significant conversations about what language might best describe digital libraries and how they could best be “merged with traditional library practices” (Burns et al., 2019). Like library websites, digital libraries have struggled with how best to articulate an accurate model of themselves to users. In 2009, King urged libraries to transform traditional websites, which served mainly as a guide to the physical building, into full digital branches. King, along with Sun and Yuan (2012), saw the digital branch as more than the traditional website because it has “real staff, a real building, a real collection, and real community happening on and around it” (Sun and Yuan, 2012, p. 13). However, in the decade since these articles were written, most academic libraries have taken significant steps in this direction; at the time of his writing, King lamented that some libraries had “no meetings, chat, or other types of interactions happen online. There is rarely a staff person or staff group whose main job is to oversee the site” (p. 6). Since that time, chat reference has become ubiquitous, and many resources are accessed exclusively online. While library web teams may still be under-resourced, it would be difficult to find an academic library without at least one librarian responsible for its online presence. In some ways, the COVID-19 pandemic accelerated the transformation of library websites into full-service branches and highlighted ways in which our current online presence falls short.

When TRU Library’s physical branches closed in March 2020, one of the first things that became clear was how much of our website was oriented to support the physical buildings. In their initial reactions, library employees were both divided on and unsure of what website edits would best support the new reality. While some initially mentioned a need to add content to the website, the end result was more of a reduction. Other than a single additional LibGuide created to explain the service changes and closures, many

objects were removed from the website to clarify the remaining services. Forms were removed and LibGuide book lists, full of inaccessible print material, were significantly trimmed.

In our most significant change, the workflow for asking questions of library staff was simplified and streamlined through a single question form that could be easily duplicated in multiple locations. TRU Library's virtual reference service saw approximately triple the users of previous years between March and October, and despite declining enrollment, the ability to book online appointments with librarians has kept research consultation numbers on par with previous years. If we are to conceptualize the website as a library branch, then prominent connection points with library employees are paramount. Gullikson (2020) reported that user experience librarians, particularly those with a Web focus, often feel lonely or isolated; an appropriately resourced website branch would likely mean devoting additional staffing to this work. It may also mean granting more independence and deeper thought to the website's specific needs as a unique entity.

### ***Concluding Thoughts***

Many of the preceding models can help to contextualize the multiplicity of uses and evaluative judgments made by various user groups. A website seen as inadequate under the Website as Representation model for burying information may be seen as successful under the Website as Research Portal model because of the way it highlights and centralizes search functions. However, an overriding challenge of library web design is that these models must continue to co-exist. If the website, like the library, is a growing organism, then libraries need to acknowledge how these oft-competing perspectives factor into organizational priorities for website growth and development. Opening this new facet of the conversation may increase feedback or buy-in to a collegial decision-making process, and prioritizing any particular conceptual model may clarify resource allocation and future website directions.

There will never be a perfect library website, just as there may never be a way to completely bridge the gap between how library employees and other users envision website content and purposes. However, much of librarians' daily practice has been disconnected from appropriate critical reflection on the larger implications of our website decisions, and there is a lack of awareness of where interpretation differences originate. Viewing students' models as simplistic and library employees' as more advanced depictions of a single concept belies the complexity and ever-changing nature of our digital architecture. A better approach would be to assess these various conceptual models not as right versus wrong or even simple versus complex but based on their suitability to our situations, their usefulness to our users, and their long-term sustainability. By reconsidering our models, both conceptual and mental, of the website, there may be a path toward greater unity of purpose within the library.

## Acknowledgements

I would like to thank the study participants, particularly my fellow TRU library employees, for their time and their candor. I would also like to thank the anonymous reviewers and the *Partnership* staff for their thoughtful contributions.

## References

- Asher, A. D., & Duke, L. M. (2012). Searching for answers: Student research behavior at Illinois Wesleyan University. In A. D. Asher and L. M. Duke (Eds.), *College libraries and student culture: What we now know* (pp. 71-86). American Library Association.
- Azadbakht, E., Blair, J. & Jones, L. (2017). [Everyone's invited: A website usability study involving multiple library stakeholders](#). *Information Technology in Libraries*, 36(4), 34-45.
- Blummer, B. A. (2007). [A literature review of academic web page studies](#). *Journal of Web Librarianship*, 1(1), 45-64.
- Burns, D., Sundt, A., Pumphrey, D., & Thoms, B. (2019). [What we talk about when we talk about digital libraries: UX approaches to labeling online special collections](#). *Weave: Journal of Library User Experience*, 2(1).
- Chad, K. & Miller, P. (2005). [Do libraries matter? The rise of Library 2.0](#) [White paper]. Talis.
- Chao, Z. (2019). [Rethinking user experience studies in libraries: The story of UX café](#). *Weave: Journal of Library User Experience*, 2(2).
- Comeaux, D. J. (2017). [Web design in libraries—A longitudinal study](#). *Journal of Web Librarianship*, 11(1), 1-15.
- Detlor, B. & Lewis, V. (2006). [Academic library web sites: Current practice and future directions](#). *The Journal of Academic Librarianship*, 32(3), 251-258.
- Dominguez, G., Hammill, S. J., & Brillat, A. I. (2015). [Toward a usable academic library web site: A case study of tried and tested usability practices](#). *Journal of Web Librarianship*, 9(2-3), 99-120.
- Fancher, L. (2007). [Wanted, dead or alive: Federated searching for a statewide virtual library](#). *Internet Reference Services Quarterly*, 12(1-2), 133-158.

- Gallant, J. W. & Wright, L. B. (2014). [Planning for iteration-focused user experience testing in an academic library](#). *Internet Reference Services Quarterly*, 19(1), 49-64.
- Gillis, R. (2017). ["Watch your language!": Word choice in library website usability](#). *Partnership: The Canadian Journal of Library and Information Practice and Research*, 12(1), 1-27.
- Glanzng, M. (2012). [User experience research: Modeling and describing the subjective](#). *Interdisciplinary Description of Complex Systems*, 10(3), 235-247.
- Gullikson, S. (2020). [Structuring and supporting UX work in academic libraries](#). *Weave: Journal of Library User Experience*, 3(2).
- Kasperek, S., Dorney, E., Williams, B., & O'Brien, M. (2011). [A use of space: The unintended messages of academic library web sites](#). *Journal of Web Librarianship*, 5(3), 220-248.
- King, D. L. (2009). *Building the digital branch: Guidelines for transforming your library website*. ALA TechSource.
- Kuchi, T. (2006). [Communicating mission: An analysis of academic library web sites](#). *The Journal of Academic Librarianship*, 32(3), 148-154.
- Little, G. (2012). [Where are you going, where have you been? The evolution of the academic library web site](#). *The Journal of Academic Librarianship*, 38(2), 123-125.
- Liu, S. (2008). [Engaging users: The future of academic library web sites](#). *College and Research Libraries*, 69(1), 6-27.
- Michell, G. & Dewdney, P. (1998). [Mental models theory: Applications for library and information science](#). *Journal of Education for Library and Information Science*, 39(4), 275-281.
- Mierzecka, A. & Suminas, A. (2018). [Academic library website functions in the context of users' information needs](#). *Journal of Librarianship and Information Science*, 50(2), 157-167.
- Neilson, J. (2000, March 18). [Why you only need to test with 5 users](#). Neilson Norman Group.
- Rennick, B. (2019). [Library services navigation: Improving the online user experience](#). *Information Technology and Libraries*, 38(1), 14-26.
- Stover, M. (2001). [Theoretical and conceptual foundations for web site design in religious and theological academic libraries](#). *Journal of Religious and Theological Information*, 3(3-4), 161-201.

- Sun, J. & Yuan, B.-Z. (2012). [Development and characteristic of digital library as a library branch](#). *IERI Procedia*, 2, 12-17.
- Swanson, T. A. & Green, J. (2011). [Why we are not Google: Lessons from a library web site usability study](#). *Journal of Academic Librarianship*, 37(3), 222-229.
- Tella, A. & Soluoku, T. (2016). [Usage analysis of Web 2.0 and Library 2.0 tools by librarians in Kwara State academic libraries](#). *Education for Information*, 32(3), 225-247.
- Turner, N. B. (2011). [Librarians do it differently: Comparative usability testing with students and library staff](#). *Journal of Web Librarianship*, 5(4), 286-298.
- Vaughn, D. & Callicott, B. (2003). [Broccoli librarianship and Google-bred patrons, or what's wrong with usability testing?](#) *College and Undergraduate Libraries*, 10(2), 1-18.

## **Appendix A**

### **Survey Questions**

1. To which of the following groups do you belong? (If more than one, please choose the group which relates most closely to your use of the TRU Library.)
  - ☐ Undergraduate student
  - ☐ Graduate student
  - ☐ TRU Faculty
  - ☐ TRU Staff
  - ☐ TRU Library Employee
  - ☐ Kamloops Community Member
  - ☐ Other (please explain)
2. How often do you visit the library website?
  - ☐ Daily
  - ☐ A few times a week
  - ☐ Weekly
  - ☐ A few times a month
  - ☐ Less than a few times a month
3. Why did you visit the library website today?
4. In the past, I have used the library website to... (check all that apply)
  - ☐ Check the opening hours of the library
  - ☐ Find scholarly journal articles
  - ☐ Request an item for purchase or reserve
  - ☐ Look for resources to help with research and writing (ex. citation guides)
  - ☐ Find more information about library events
  - ☐ Find books related to my courses or research
  - ☐ Book a group study room
  - ☐ Make an appointment with a librarian
  - ☐ Other (please specify)
5. What would you consider your most frequent reason(s) to use the library website (please list up to 3)?
6. I find the library website easy to use
  - ☐ Agree
  - ☐ Neither agree nor disagree
  - ☐ Disagree

7. I can usually find what I need on the TRU Library website

- ☐ Agree
- ☐ Neither agree nor disagree
- ☐ Disagree

8. Overall, I am satisfied with the TRU Library website

- ☐ Agree
- ☐ Neither agree nor disagree
- ☐ Disagree

9. Any other comments related to your use of the library website?

10. Are you willing to be contacted for follow-up regarding the responses you submitted in this survey? If so, please provide your email address.

## Appendix B

### Codebook for Open-Ended Survey Responses

<u>Code name</u>	<u>Description</u>
Most frequent reason	Coding structure for responses to the prompt: What would you consider your most frequent reason(s) to use the library website (please list up to 3)?
<ul style="list-style-type: none"> <li>• Conflation</li> </ul>	Remarks that appear to conflate the website with the physical library building
<ul style="list-style-type: none"> <li>• Events</li> </ul>	Finding information about workshops or events
<ul style="list-style-type: none"> <li>• Hours</li> </ul>	References to finding building hours; looking for general contact information also goes here
<ul style="list-style-type: none"> <li>• ILL</li> </ul>	Specific references to interlibrary loan services
<ul style="list-style-type: none"> <li>• Leisure</li> </ul>	References to finding leisure reading or to finding materials specifically unrelated to coursework or research
<ul style="list-style-type: none"> <li>• Research</li> </ul>	Direct references to research or to finding books, articles, and/or other research-related resources go here
<ul style="list-style-type: none"> <li>• Student Success</li> </ul>	References to teaching resources or explicitly to the welfare of students and their connection to resources goes here. Students who mention accessing non-research-related course materials also goes here.
<ul style="list-style-type: none"> <li>• Study Rooms</li> </ul>	References to booking group study rooms
<ul style="list-style-type: none"> <li>• Support</li> </ul>	References to finding research support tools or to asking for help go here
<ul style="list-style-type: none"> <li>• Unclear</li> </ul>	Comments where the meaning is ambiguous or uncertain
<ul style="list-style-type: none"> <li>• Work-related</li> </ul>	Library staff discussing use of the website in their professional role goes here
Reason for visit	Coding structure for responses to the prompt: Why did you visit the library website today?
<ul style="list-style-type: none"> <li>• Account</li> </ul>	Renewals, fine information, adjustments to personal library account
<ul style="list-style-type: none"> <li>• Articles</li> </ul>	References to finding journal articles where it is unclear whether the reference is to a specific article or a topic-based search
<ul style="list-style-type: none"> <li>• Books</li> </ul>	References to finding specific books go here
<ul style="list-style-type: none"> <li>• Citation</li> </ul>	References to citation guides or finding citations
<ul style="list-style-type: none"> <li>• Conflation</li> </ul>	Responses that appear to conflate the library web presence with the physical library building
<ul style="list-style-type: none"> <li>• Events</li> </ul>	Searches related to library events that do not appear to conflate with physical attendance at the event
<ul style="list-style-type: none"> <li>• Hours</li> </ul>	References to library hours information

<u>Code name</u>	<u>Description</u>
• Study rooms	Booking a group study room
• Topic-based search	References to use of databases or searching for non-known items on a particular topic
• Work-related	Library employment tasks, as well as marking-related tasks for faculty go here
Comments	Coding structure for responses to the prompt: Any other comments related to your use of the library website?
• Feature Request	Requests for new features to be added to the website
○ Existing feature	Requests for features that already exist go here
• Not website related	Conflation with physical building or not related to website
• Praise	Praise for the website or for the library more generally goes here
• Specific problem	Any reference to a specific problem rather than a more general comment about the website
○ Information Access	Difficulty finding information or services
○ Resource access	Difficulty connecting to a specific resource
○ Vendor criticism	Criticism of specific databases or prominent library vendors