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Paper: A User Information Needs Study of the McMaster University Library Web Site

Abstract: This paper discusses an information needs study of the McMaster University Library web site in an effort to improve the design and utility of the site from various user perspectives. Study findings and recommendations for future web site development are discussed, many generalizable to academic library web sites at large.

Résumé: Cette communication présente une étude sur les besoins informationnels des utilisateurs sur le site Web de la bibliothèque de l'Université McMaster afin d'améliorer la conception et l'utilité du site Web selon le point de vue de différents utilisateurs. On y discute des résultats de l'étude et des recommandations pour la conception de futurs sites Web, dont plusieurs peuvent être généralisés à l'ensemble des sites Web de bibliothèques universitaires.

This paper describes a user information needs study conducted at the McMaster University Library in an effort to improve the design and utility of the content and navigation of that library's public web site from various user perspectives. Motivated by the results of a prior survey which indicated that there were usability issues with the web site, separate focus group sessions were held with undergraduate students, graduate students, and faculty members from each of the academic departments of the university, as well as with library personnel. These focus groups discussed the opinions of participants concerning the current web site, what they believed should be added to the site, and what other web sites they used to supplement their academic information needs. At the end of the focus group sessions, participants were shown a conceptual model of a library web site previously proposed in the academic literature and were encouraged to discuss what they did and did not like about the model.

Although there was some variance between the different user groups, a number of consistent themes emerged from the focus group data. In general, opinions of the existing library web site tended toward the negative, yet many users mentioned their satisfaction with the comprehensiveness of the resources available through the web site. Participants indicated that they were generally able to find known resources fairly effectively, but found general topic searching more difficult to do. Multiple groups noted areas for improvement including visual attractiveness and clutter, user friendliness/intuitiveness, and process inefficiencies, all of which created a steep learning curve for the web site.

Self-reported usage statistics identified that few items in the web site were used more than occasionally by most users. This indicates that users come to the site to perform a few, specific tasks: search (e.g., the catalogue, for journal articles, the web site) and acquire materials (e.g., place local or inter-library requests). Most users expressed interest in the addition of personalization features, improvement in the searching and finding functionalities, and more research support.

Web sites used by the focus group participants to supplement their academic information needs included Google (e.g, Google Scholar and Google Books), Wikipedia, and other library web sites. The reliance on each of these sites is reflective of the issues with the library web site that participants mentioned during their focus group sessions. For example, the use of Google sites addresses the issues participants had with the library web site's limited search functionality; the use of Wikipedia supports participants' desires to explore general and new topics not easily facilitated by the current library web site design; and the use of other library web sites provides participants with increased access to more usable subject guides and categorizations.

The conceptual model discussed at the end of the focus group sessions consisted of three types of pages: a home page, portal level pages (for undergraduate students, graduate students, faculty & staff, and friends & visitors), and personal level pages ("My Library Space"). The model was fairly positively received by most of the groups. However, many participants expressed some concern over the basis of segmentation of the portal pages, and that the segmented design may inadvertently lead to instances of missed information. A high level of interest was expressed with some aspects of the personalized space, such as quick access to favourite resources, and very low level of interest in others, particularly web 2.0 items like blogs and wikis.

As a result of the focus group findings, several recommendations for the development of the library web site are made. First, some important general usability guidelines are discussed. For example, the web site should be as self-evident as possible and its content and design should consider the behavioural characteristics of the average web user. General usability guidelines also outline two aspects of the web site that are important to implement well: the site navigation and the home page.

Next, user-centred design concepts are discussed, including recommendations for regular usability testing throughout development and the use of personas. The focus group data indicated that three distinct user types exist among the library web site users: novice generalists, intermediate specializing, and advanced specialists. Since each of these user groups has different interests, background knowledge, and needs from the web site, this could cause some conflict in prioritization during the development of the web site. The use of personas is proposed to facilitate decision-making and prioritization by balancing the priorities of each persona relative to the influence that their group should have on the

direction of the site. Interestingly, library personnel often had unique opinions and priorities, different from each of the personas. For example, library personnel demonstrated concern with textual content in the web site, while no other group made mention of this. Since the goal of the library web site is primarily to serve the university community at large, it is suggested that the priorities of the personas should take precedence.

After that, specific recommendations are made in an effort to address issues with the web site that were raised during the focus group discussions. In the short term, the web site could use refinements in intuitiveness, search functionality, and general topic discovery. Suggestions for near term additions to the site include personalization functions and research assistance information. In the long term, attention should be paid to integration with other McMaster web sites, mobile interfaces, interaction/feedback mechanisms, user segmentation, marketing, and training. With respect to this last item, it was apparent from the focus group discussion that different user groups had different levels of understanding about how to search for different types of resources through the library web site, as well as how external web sites can and should fit into their information discovery strategy. It is recommended that the library should provide some direction in this regard, educating its users about the methods and benefits of using the library web site as well as how Google and other web sites can best supplement their efforts. Lastly, the paper discusses methods for ongoing user involvement to encourage continued development using user-centred design principles. While these specific suggestions for site development reflect the desires of the users of this particular web site, the general usability and user-centred design concepts would benefit the development of any web site.