

## User experience in an Australian academic library

Dana McKay<sup>1</sup>, Teula Morgan<sup>1</sup>,

<sup>1</sup>Swinburne University of Technology, Melbourne AUSTRALIA

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### Abstract

In this paper we outline the scope for user experience practice in the library. We use Swinburne Library as a case study to demonstrate how support for user experience can be built at organisational and local levels. We will also discuss how having a user experience consultant has improved Swinburne Library, not just as a direct result of the consultant's work, but also due to the cultural change that having a dedicated user experience consultant in the library has engendered.

### Introduction

The user experience discipline has arisen from the limitations of usability; rather than identifying and fixing problems within a system, user experience practice is holistic in its approach, examining users' lived experiences, needs, wants and problems.

Recent years have seen an increased focus on the needs and wants of library users, particularly with the advent of the 'Library 2.0' movement [31]. At the same time, library users have been expressing decreased levels of satisfaction with online library services, and this has caused some to criticise young people in particular for being information illiterate and suffering from the 'Google effect' [39]. Assumptions about library users have driven decisions about what services to provide, and how best to provide them, but these assumptions have often remained unchallenged, as have traditional models of service delivery. Similarly, decisions in libraries are often made by information experts for whom lay users' struggles with information systems may be invisible or inexplicable. This combination of expert user focus and unchallenged assumptions means that while services are changed and improved, users' views of libraries may not be. This problem is particularly evident in academic libraries, where the users are primarily young people, and a large proportion of the information delivered is delivered online.

One response to users' dissatisfaction with library services is the creation of 'user experience librarian' positions (see for example [29]), however user experience research is not always done by librarians. The pioneers in this field are Nancy Fried Foster (who is an anthropologist) and Susan Gibbons (a librarian). They have done considerable research in an American academic library, demonstrating that our users' behaviours and needs do not always match our assumptions [18]. They have also shown that by studying users, and having professionals dedicated to users' accurate representation when decisions are made, we can improve users' experiences of libraries and library services [17, 18].

While this work can help inform our understanding of academic library users more clearly, the American college experience is very different from that of Australian students and academics, and as such not all the available research is applicable in an Australian context. Thus far, there is no published material about the experience or impact of user experience work in an Australian academic library.

In this paper we discuss the benefits and issues surrounding having a dedicated user experience consultant in an Australian academic library (at Swinburne University of Technology). This consultant comes from a computer science background, where her previous research has focused on human information seeking and digital library usability. She has no education or qualifications in librarianship.

This paper is in three parts. The first section discusses scope and motivation for including user experience practice in libraries. The second section addresses how we built and maintained support for a user experience role within the library at organisational and local levels. The third section includes a selection of case studies of our user experience work including incorporating user experience goals into the selection of an ILMS, adapting the terminology we use to ensure students understand our online materials, understanding our researchers' data needs and practices, organising our web site according to our users' understanding of the materials we offer, and day-to-day usability troubleshooting.. While we will include discussions of methodologies and individual study outcomes, the larger focus of this paper will be on how having a person dedicated to understanding and representing the users of an academic library can improve not just the user experience of that library, but the performance of the library in terms of delivering services and information to its users.

### **Scope for user experience in an academic library**

It is widely recognised and readily apparent that library resources are hard to use for the average user [4, 6, 12, 24], and that researchers [8, 9] and students [2, 16, 21] alike are generally at least as inclined to select commercial search engines as library resources as their first port of call when information seeking. Search engines provide surprisingly high-quality results [7], and it is readily evident that information seekers are prepared to sacrifice some quality for convenience (known as 'satisficing') [1, 20]. To compete with commercial search engines, libraries need to provide not just quality

resources, but resources which are attractive and easy to use [6]. While librarians recognise that users have difficulty finding and accessing library resources, their librarianship training means they have a different approach to information seeking from the average user [21], and thus may not understand why users face these difficulties, or what to do about them. This problem is compounded by increased use of online resources [16, 33] where it is well known that users do not use help materials [3, 26], and where the help of a librarian (which is very effective [14, 35]) is not available to them. Librarians' experience of information seeking interfaces may be the primary yardstick for decision making about how to present information resources to users, with little understanding that librarians' experiences of these interfaces are dramatically different than the experiences of the general public.

In an effort to make libraries more appealing to younger users, and to demonstrate what libraries have to offer there has been a drive to 'go to the users' in their online environments [38], including library chat [13], Facebook pages [28], Second Life Islands [19] and a number of other Web 2.0 ventures in academic libraries around the world [23]. While these ventures are admirable, except in the case of chat [13], there has been little critical evaluation of the difference they make in library users lives.

User experience as a discipline can be used to bridge the gap between librarians and library users, making library information resources more accessible and palatable to non-librarian users, while at the same time generating an understanding among librarians of the struggles and concerns of everyday library users. User experience can also provide assistance to evidence-based librarianship; usability methods and techniques are easily applicable to library situations, and can suggest directions for change, assess existing services, or be used to demonstrate positive or negative effects of changes to library services. The evidence generated in these studies can make it considerably easier than working on assumptions alone to make decisions, allocate resources, and provide a high-quality library service to users.

## **Support for user experience**

For user experience services to be effective they must be supported at the organisational and local levels. In the following two sections we demonstrate how support for user experience was built within Swinburne administration and the library specifically.

### ***Organisational support building***

Swinburne's management have committed to a 2015 vision [37] that places high importance on excellence in teaching, learning, and research. While Swinburne is a relatively small institution, the vision for 2015 is to compete at an international level.

In terms of teaching and learning the Swinburne strategy for 2015 places strong emphasis on flexibility and distance learning. The strategy document also specifically states:

“Swinburne will enhance innovation and excellence in the provision of a quality educational experience [37]”

thus spurring those involved with teaching and learning strive for excellence through uncommon means.

With regard to research, the 2015 strategy sets out goals that include equipment and research space, but also includes a commitment to improve Swinburne’s research ranking relative to other Australian institutions, and to attracting and retaining quality staff.

Academic libraries are closely tied to teaching, learning and research at any tertiary institution, and as such the 2015 vision requires Swinburne Library to meet the needs of its users in new and flexible ways, and to perform to a standard that improves the Swinburne experience for both staff and students. In this climate it was not difficult to establish institutional support for a user experience position within the library, as this aligns closely with Swinburne’s goals of innovation and excellence.

### ***Building local support***

Swinburne Library has long had an interest in the experience of its users, and regularly surveys them to assess satisfaction levels (see for example [22]) and understand what issues may become a problem before complaints arise.

Not only does Swinburne Library have a history of user focus, but the user experience consultant that was employed had a background in digital libraries (see for example her work in [30]), meaning that library concerns and issues were not unfamiliar, and making it easier to bridge the cultural divide between librarianship and user experience.

Beyond the good starting point that the consultant’s background and the Swinburne Library approach provided, every opportunity was taken to demonstrate how user experience practice can add value to library services. The consultant was employed for a year on a special project before working on library projects more generally, and this time was used to generate interest in and support for user experience. The consultant spoke at a reference librarians’ forum and the all-staff development day. When she did work that stretched beyond the special project she made sure to seek input from other areas of the library, and she made it clear that she was always available to answer questions. Results of her work have been made available to all library staff, both inform and to raise awareness of what user experience practice has to offer. Through all of this very public advocacy, library staff were already well aware of the services and unique perspective that the user experience consultant could offer when making decisions that affected library users.

### **Examples at Swinburne**

In this section we will briefly examine a number of ways user experience consultancy has already been used in Swinburne Library, including driving the selection process for a new ILMS, understanding our researchers’ data needs, and examining our use of jargon. We will also examine more day-to-

day uses of our user experience consultant's services, with respect to how this has changed the culture in the library.

### ***User experience and the ILMS***

Swinburne Library is considering replacing the existing Integrated Library Management System (ILMS). The ILMS is a significant factor in any library's operation, and is one of the first points of contact for many library users [5]. Simply replacing the old ILMS with more of the same, though, would not improve the experience of our users at all, and one of the key drivers in selecting a new ILMS is improved user experience.

Certainly specifications for a new ILMS could have been written without the assistance of a user experience consultant, and some emphasis on user experience may still have come through. However, describing the ideal ILMS is a big task, and there are many conflicting demands on a system that is so key to library business. Having a user experience consultant on the team meant that there was one person specifically dedicated to representing the needs of library users, who are the majority of users of the ILMS, but who do not usually have a dedicated voice in library software selection processes.

It is very easy when selecting software that library staff members use every day to overlook the needs of users, or to have these needs represented vaguely in a small part of a requirements document, thus making them appear less important. Even if users' needs can be adequately represented, librarians (as it is human nature to do) may look to their own experiences to determine those needs (which, given that librarians seek information very differently to library users, may not always work), or they may simply not know what users need in a library system if their unassisted information seeking is to be effective. And even if users' needs can be well defined, librarians may not know how to assess whether those needs are likely to be more adequately met with one system than another.

Swinburne Library's user experience consultant has drawn on her background in information seeking and upon the literature surrounding ILMS features to assist in creating an evidence-based list of end user requirements that would ideally be met in any new system. She has driven a strong user focus in requirements documents, and encouraged library staff to consider their own user experience when drafting lists or requirements. She has also used designed scenarios for early stage testing of prospective systems, based on her knowledge of human information seeking behaviour and empirical data about current use of the library's ILMS. Moreover she has considered possibilities for later stage testing, and for final stage testing to demonstrate the long term benefits of the new ILMS.

### ***Researcher data needs***

In Australia the rules about preservation of and access to research data that is generated using public funding are changing. The government is mandating that all data which is paid for by the public must eventually be publicly accessible for use by other researchers [10].

The library is already one of the primary data curators in Swinburne, and we have a strong relationship with researchers from our approach to our publications repository [36]. Combined, these factors make the library an obvious player in developing and implementing data management policy for Swinburne. Rather than imposing arbitrary rules and mandates, however, we have learned something from the example set by institutional repositories' failure to gain content [17, 27] and decided to assess what researchers want and need before developing policies and services.

The user experience consultant designed a survey to elicit researchers' experiences and feelings with regard to sharing and storing their data, as well as their current practices and hopes for the future. Similar studies have been done at other institutions, though Swinburne is a unique case being a small, dual-sector institution, where other studies have been in large single-sector universities. This survey was run online, and a prize was offered to elicit responses from those who might not necessarily have strong feelings about data management. Certainly Swinburne Library's survey could have been written and analysed by a librarian, but unbiased survey design and analysis is not as straightforward as it might seem [25], and our user experience consultant has training in these skills. Not only that, but she does not have the expert understanding of information management and archiving that librarians do, and thus did not skew the survey with expert bias.

While (as is to be expected) the survey demonstrated some researchers were very open to sharing data, and some were very concerned about it, the data also showed a demand for storage and (more surprisingly) training in data management. The information gleaned in this survey is being used to guide data management policies and solutions within Swinburne. This survey was circulated among Australian organisations interested in data management, and has received considerable interest from other institutions.

### ***Library terminology***

Library jargon is well known for being at best difficult to understand [4, 12, 15, 32], and at worst so problematic that library users do not find the information they are looking for [11]. This is particularly true in an online environment, where users do not read help files [3, 26] and they have no-one to ask about concepts they do not understand. Some libraries have tackled this problem by creating online glossaries, but it is likely that these, like help files, are unread by the majority of users. Good user experience practice dictates making interfaces easier to understand, rather than providing guides to them anyway.

There are a number of studies of which jargon library users understand in the U.S, but given that Australian English is different to American English, and that Swinburne has a high proportion of international students it was considered well advised to investigate our own users.

The user experience consultant designed, ran, and analysed a survey that assessed users' understanding of jargon in a two pronged approach: asking users to choose the correct definition of a word, but also asking what they would call a concept. This survey was run online to improve response rates, and to avoid bias, and an ipod prize was offered.

Librarians were both interested in and surprised by the results of this survey when it was circulated through the library. As a result of the new understanding gained in this survey changes are being made to the terminology used with library users, both online and in brochures and face-to-face interactions.

### ***Card sorting***

Like any web-site, there are a number of relationships between the pages on the Swinburne Library web-site, and presenting them in a menu structure that is useful to web-site users can be challenging.

Card sorting is a technique used to elicit users' mental picture of an information space [34]. Our user experience consultant designed and ran a card-sort to understand users' mental models of the relationships between pages on the library web-site. This is a technique that may not be well known to those outside the user experience/information architecture fields.

Again, this study was run online, and prizes were offered to eliminate respondent bias. While close analysis of results is still underway at the time of writing, some surprising results have emerged already. Relationships between online collections (for example journal databases, Swinburne's institutional repository, and online course readings) were surprisingly strong in the minds of participants in the card sort. Also surprising, and likely to be useful, is the handful of respondents who sorted the concepts not based on their relationships to each other, but on how useful those respondents found each of them.

### ***User experience day-to-day***

As a result of the firm relationships the user experience consultant has built within the library, and her willingness to help out with any user experience matter, consulting her has become common and accepted within the library.

Where decisions that affect library users are being made, it is now commonplace for the user experience consultant to be called upon to provide support for the decision making process, either in terms of existing research or empirical user studies. This has led to an increase in user-focused, evidence-based decision making, and is in keeping with Swinburne's goals of excellence in teaching and learning.

In a more day-to-day capacity, the user experience consultant does usability troubleshooting, from fielding questions about appropriate terminology to making suggestions about signage and being involved in the design of library brochures. Her services are widely used and respected, and over the course of a year her input has been sought increasingly frequently. This increase in frequency reflects a wider cultural change within the Library, where (despite already being a user focused institution) user concerns and evidence-based librarianship have become consistently more visible and important.

## Conclusions

It is increasingly important for libraries to provide simple, easy-to-use information services, because there are a number of commercial search engines that can provide information that is nearly as good. Librarians may not be best placed to understand what is easy for non-librarians to use, because they are expert information seekers. For libraries' sake it is similarly important not to try to keep up with users by chasing every fad, and providing services users do not use or like. User experience services can help both in determining which services to provide, and assessing how easy users find them to use.

In this paper we have described an example of user experience consultancy at work in an Australian academic library. User experience concerns had existing support from the institution, and within the library, and the consultant has been well used to inform the design of new services, and assessing the impact of existing ones. The change is not only in the user of her services, however, but in an increased focus on user needs and evidence based librarianship, and it is this cultural change that will ultimately be of long-term benefit not just to the library, but to its users as well.

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