

Implementing user-centered experiences in a networked environment

In this environment where disintermediation seems to be increasingly common, it is ironic people also expect personalized service. Libraries are experiencing this dilemma when it comes to providing many of their services. On one hand fewer people are coming into libraries to access traditional reference services, and at the same time they are expecting interfaces to library content to be “smarter” and more user-centered. How can libraries meet these seemingly contradictory expectations? The answer is not too difficult as long as we: 1) learn how to take better advantage of computer technology to implement our ideas, and 2) re-examine the definition and purpose of patron privacy. This presentation will elaborate on these ideas and demonstrate a few ways they might be implemented.

Re-thinking reference

The traditional roles of many professions have been marginalized with the advent of globally networked computers. Examples include print publishers of all kinds, typists/secretaries, and librarians. The successful way out of this problem is to rethink the essential characteristics of each profession and adapt to the new environment. When it comes to libraries I believe the essential characteristics can be boiled down to four things, each no more important than the other: collection, preservation, organization, and dissemination. When it comes to collection, we need to think less of tangible things like books, journals, and various types of recordings and more about items that are licensed and born digital. When it comes to preservation we need to be thinking less of acid-free paper and more about migrating data forward and software emulation. In the field of organization it is less about MARC and more about XML. When it comes to dissemination it is less about face-to-face discussions across a reference desk and more about interactions across the network. It is this later idea, user-centered experiences in a networked environment of which we are most interested in today.

In a face-to-face environment reference librarians build relationships with people through personal interactions. A “medical history” built on previous visits. “The last time we chatted you were investigating this, that, and the other thing. How are

your new interests similar or different from those?” Repeated visits from freshman taking such and such or so and so class were directed similarly. While your responses were certainly not canned they were not polar opposites from each other either. Current events generate numerous similar questions, and you were generally prepared to answer them accordingly.

In a networked environment is those face-to-face interactions don’t take place. You might chat with someone on regular basis, but the resulting relationship is not the same. More often than not, a conversation never happens and therefore you don’t even get a chance to build a personal relationship; there is no way to remember the interaction. On the other hand, suppose the computer were to “remember” a person’s behavior? The users searched for this, that, and the other thing. They selected these items, and those items had this set of characteristics. Given this information as seeds it is possible to direct the person to similar items, or totally dissimilar items. Suppose you (the computer) knew some characteristics of the person. They are a junior. They have declared this major. They are taking these classes. Now you can match up these characteristics with the characteristics of your resources in order to guide them accordingly. Another approach is to automate the reference interview. Ask questions whose answers lead to other questions. In the end the result is either a set of specific answers, specific things to read, or specific things to search.

Re-thinking cataloging

Another way to approach the problem is to classify your materials based on user characteristics instead of the characteristics of books. Again, what characteristics do our users have? Age. Grade. Status/rank. They are in various departments. They are male or female. They are taking particular classes. They have Ph.D’s in specific subjects. While it is a bit challenging and unnatural for us, it is possible to classify our information resources – as well as our services – based on these characteristics. Once done a number of new opportunities arise. Students log into a course management system. Students are presented classes they are taking. Library resources are integrated with class by matching class headings with resource headings. Alternatively, student comes to library website. Instead of being bombarded with broad subject areas or formats, present them with lists of classes or school departments. Ideally you can get the student to log into your system. Once done you can learn their name, email address, what classes they are in, what their major is, etc. You can then

present them with their librarian, their history of library interactions, lists of recommended resources, lists of people like them, lists of resources used by people like them, etc. – “your library”.

The website

Our networked environment is usually manifested by a website although other mediums are becoming prevalent. When it comes to the website it is imperative to practice user-centered design and facilitate usability studies all along the way, not just at the end of the process. What does this mean? It means conducting focus group interviews during the beginning, middle, and end of the process. It means using the language of the user instead of the librarian. Once scheduled it is a matter of asking questions, listening carefully, recording responses, and doing your best to put them into practice. Repeat. The most difficult thing about focus group interviews is scheduling the people.

Usability studies are similar and don't have to be overly technical. Paper prototypes in the form of wireframes work just fine. Outline a possible website. Ask people to explain what they think they see. Ask them what they would expect if they selected a particular link. Card sorting is trivial. Write down on many pieces of paper things you would like to present on your website. Ask people to put these things into two or more piles of similar things and then have them label each pile. Use these groupings as the basis of your own classification scheme. Consider basing your decisions on data as opposed to antidotal evidence. Use things like Google Analytics to learn who is using your site, what is most popular, and how long they stay.

Re-thinking privacy

User privacy is a real concern but not an impediment for moving forward. Our profession probably takes it more seriously than our patrons, and it is not necessarily our responsibility to protect people from themselves. Users will trade bits of privacy for convenience. If we can make their work easier, then why shouldn't we? Why would we want to make their work more difficult on the outside chance the FBI were coming to visit? We want to do this not because everybody else is doing it, but rather because it paves the way to providing the sorts of experiences people have come to expect. Articulate a privacy policy. Post it on your website. Go one step further by allowing people to opt into (or out of) any such facility. Such a process is almost a necessity these days in order to

satisfy the demand, moreover, libraries are in a unique place in this information ecology. It is a place where we can shine and show the way in regards to the use of information for learning, teaching, and scholarship.

Rocks and hard places

Libraries are in a difficult place. On one hand they have a long tradition of doing certain things in particular ways. But the Internet – globally networked computers – is a game changer in the same way the printing press with movable type was a game changer. Consequently libraries are trying to serve two masters, play a role in two different environments. We have yet to learn how to take advantage of computer and network technology. Sure, we have automated things, but we have not exploited them. The path to success in this regard is formal and information research & development. Participate in conferences such as JCDL and ECDL. Read and learn about the information retrieval theory. Spend time playing. Record what you learn. Share it with others. Repeat. Many of the experiments will be failures. This is okay. You will learn what doesn't work. Learn how to design relational databases. Learn how to index content to make it searchable in the manner people have come to expect. Learn how to encode data into XML. Learn how to write computer programs that glue the previous things together.

Finally, there are truly an infinite number of possibilities for the profession, as long as you focus on the what of librarianship and not the hows. What are you trying to accomplish? If you are trying to facilitate learning then there are many opportunities. If you are trying to decide whether this is a personal name or a corporate name, then your opportunities are limited. It is the what of librarianship that tends towards the timeless. This is where the opportunities lie, not the day-to-day hows the profession. These things change too rapidly to be long lasting.

We are a set of educated people. Let's use that education to discover new ways to use computers to provide better library services.

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