

Redesigning the Library Experience

by Michael Magoolaghan

Michael Magoolaghan is an information architect with the Vanguard Group. He can be reached at mmagoola@comcast.net.

For the past seven years I've served on the board of trustees of a small public library in the western suburbs of Philadelphia. I volunteered for this post because I wanted to offer my project management and information architecture skills to support an institution that has enriched my life in countless ways. As it turns out, I soon found myself engaged with one of the major challenges facing small public libraries today: rethinking the user experience to help bridge the digital and physical realms while enabling library administrators to better respond to patrons' changing needs.

The opportunity to address this challenge came about innocently enough. A consultant we had brought in to kick-start the board's long-range planning process observed on first entering the lobby, "My, you've got a space problem!" This recognition led the board to push renovating the library's physical plant to the top of its list of long-range planning priorities, along with overhauling its ailing website.

Separate Tracks

To help tackle these two projects we enlisted a building consultant and architect, along with a group of graduate students in library and information science at Drexel University. As the final project for an information architecture course taught by Wei Ding, the students offered to lay the groundwork for the website redesign by developing some preliminary personas, performing heuristic and log file analyses of the current site and developing a site map, several wireframes and a basic HTML prototype.

The problem with proceeding along separate tracks,

however, was that we risked developing two distinct, uncoordinated user experiences. As the board assessed the work submitted by the building consultant and architect on the one hand and the Drexel students on the other, we gradually realized that we needed to approach these two projects in a more coordinated way. In short, we needed to redesign not just the building and website, but the end-to-end library experience.

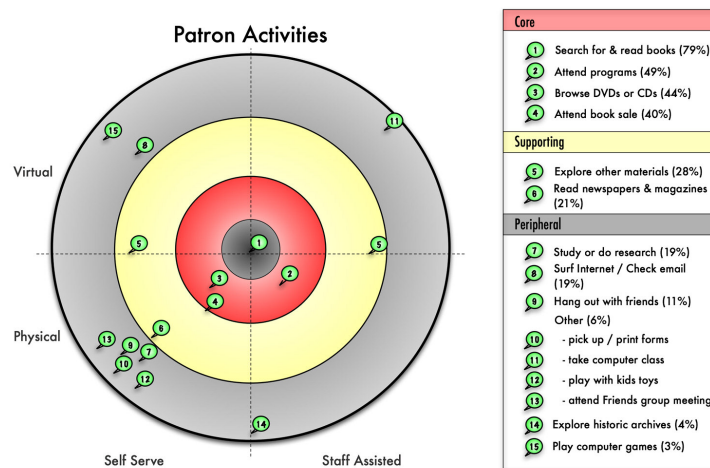
The Research Program

To get a detailed view into how our patrons actually use the library across both the physical and virtual domains, I developed a three-pronged user research program. The overall approach borrowed heavily from MAYA Design's work on the Carnegie Library of Pittsburgh, which provides a lucid, beautifully documented roadmap for a fully integrated library design. MAYA's documentation of that project is available online at www.maya.com/web/what/clients/what_client_clp_dyninfo.mtml.

The cornerstone of the research program was a 10-question survey, distributed online and in hard copy. The survey asked patrons to rank the importance of their current library activities, rate the library's products and services, and provide suggestions for improving the library's offerings and overall user experience. As the completion rate of 91.7% for 110 responses showed, our patrons clearly feel passionately about the library and were eager to share their suggestions.

The second part of the research program consisted of on-site user interviews and card sorts [1]. For the card sorts I first asked the interviewees to list all activities they pursue

FIGURE 1. Patron activities



at the library or through its website. I then had them sort the activities from most to least important (to them), hardest to easiest, most computer-driven to most “manual” and those requiring librarian assistance to those requiring no assistance. After each sort I asked the interviewees to elaborate on any unique behaviors or points of pain they mentioned, which I noted on the whiteboard next to the patron’s own sticky notes.

In parallel with the patron interviews, I had the library director and staff perform a similar set of card sorts in the staff kitchen. Over five consecutive weekends I posted a new set of instructions on the kitchen wall, capturing the previous week’s responses with a digital camera so that I could later type them into a spreadsheet and compare them with the patrons’ responses.

Findings

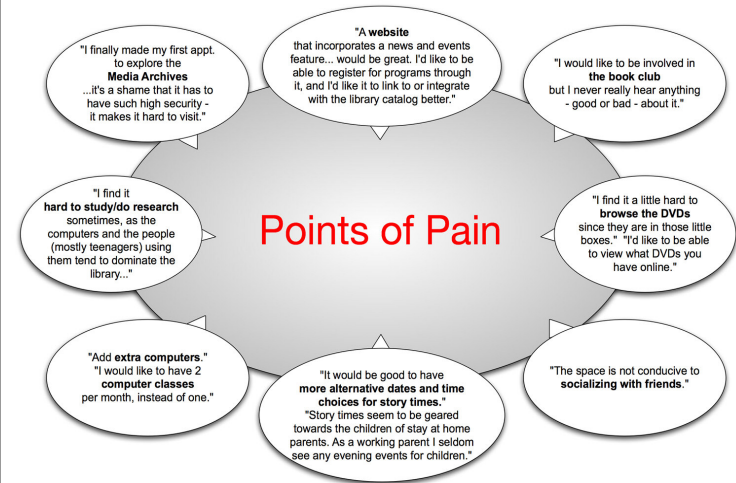
The tallying of the survey data and card sort results gave us our first-ever comprehensive view into what our patrons actually do at the library. I presented the core data via a simple

bull’s-eye chart, with quadrants to highlight the online vs. physical and self-service vs. staff-assisted dimensions (Figure 1).

Along with helping us identify the core, supporting and peripheral activities patrons pursue at the library, this chart highlighted a somewhat surprising fact: While 20% of our patrons use the library almost solely to check email or surf the Web, 80% use it primarily to search for and read books. Clearly, print resources are still quite important to our user population, though those statistics also raise the question of whether the low web-usage numbers are due to the website’s poor usability. We plan to track these numbers closely once we launch the redesigned website.

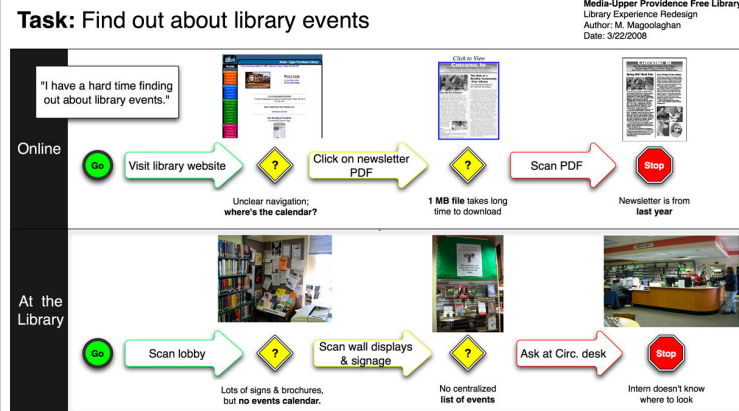
From the survey responses and patron interviews I was also able to pull together a list of the top eight points of pain, with representative quotes that helped pinpoint the key issues (Figure 2).

FIGURE 2. Points of pain



By analyzing each of these issues from the patrons' point of view, I was able to identify what MAYA calls the "breakpoints" in the system. I captured these in a series of task diagrams that used simple roadsign-based notations to show where exactly the patrons ran into problems (Figure 3).

FIGURE 3. Finding out about library events



My aim in developing this documentation was to ensure that the architect and web developers would incorporate coordinated solutions to our patrons' *specific* problems into their building and website designs. Since the building consultant's report and the board's vision statement left open a wide range of possible approaches,

the user research findings were invaluable in helping us prioritize our requirements and establish a truly user-centered design program.

As I write this, the architect is preparing sketches for three different renovation approaches that will be presented at the next board meeting. Meanwhile, the library's webmaster and I are working on setting up a Drupal-based framework for the redesigned website, for which I developed a new set of wireframes. Once the board and architect settle on a preferred approach to the building renovation, we'll begin working with a graphic designer to develop a branding strategy, integrate the physical and online wayfinding systems and (most importantly) design the materials for our fundraising program.

Ensuring Success through User-Centered Design

My experience with this project has reinforced my belief that a user-centered design approach offers small public libraries their best chance to meet the mighty challenges they face. As IAs, we have a unique opportunity to help library boards, administrators and architects learn how to leverage user research as they work toward bridging the virtual and physical domains. If they can keep the end-to-end user experience in focus, I have no doubt that small libraries will weather the storm and remain a vital part of our communities for decades to come. ■

Resources Cited in the Article

[1] Donna Maurer and Todd Warfel's "Card sorting: a definitive guide" provides an excellent introduction to this quick and inexpensive user research technique. Their article can be found on the Boxes and Arrows site at www.boxesandarrows.com/view/card_sorting_a_definitive_guide.