Adapting the Information Search Process model in today's academic library environment

According to Kuhlthau's Information Search Process model, uncertainty and anxiety are an integral part of the information search process (ISP), particularly in the beginning stages, such as initiation, selection, and exploration (1991, 1993). "The whole experience of users affects their information use, their feelings as well as their intellect, particularly in the exploration stage. By neglecting to address affective aspects, information specialists are overlooking one of the main elements driving information use," the author maintains (1991, p. 370). In order to alleviate the patrons’ uncertainty and anxiety and accommodate library users by facilitating the search for information, Kuhlthau's Information Search Process model requires intensive interactions with patrons, in the user-centered environment.

Is the intensive interaction with patrons economically feasible in the academic library environment of today, you will ask? Here is an answer from an academic library setting, at the university where I work.

Ranking in the top ten among private research universities in the United States, University of Southern California has 23 libraries and information centers and the USC Digital Library. The libraries house a total of 5,158,192 volumes and 1,081,764 electronic books, among other holdings (University of Southern California, USC Libraries Facts and Figures). As of this writing, the University employs only three Reference and Instruction Librarians to serve the community of 43,000 students and 25,041 faculty and staff (USC Libraries, Librarian and Staff Directory; University of Southern California, About USC: Facts and Figures). Based on the number of reference transactions completed in the fiscal year 2012-2013 (98,907 transactions), each reference librarian was expected to complete approximately 32,969 transactions annually, or 634 transactions weekly. This indicates that the number of reference librarians employed at the University is overwhelmingly disproportionate to the number of reference requests. Even considering the use of student interns at reference desk, the reference workload has remained overwhelmingly high. Expecting that the intensive interaction with patrons was possible under such limited reference librarian capacity would be simply unrealistic.

So how might we transfer the principles of Kuhlthau’s Information Search Process model to a large university setting? I believe, in the age of digital reference, academic libraries should consider adapting the model principles in the digital reference environment, including the design of user-centered information retrieval systems. With this approach in mind, Bell’s concept of emphatic design appears to be most relevant: “The goal of empathic design is to create services and products from the user’s perspective, concentrating on what makes it work for them rather than what is convenient for us” (2011, p. 327), in particular as it echoes Kuhlthau's statement: “User-centered information systems call for a broad vision of users as people actively engaged in tasks rather than the narrow view of information searchers at the time of interface with the system. […]User-centered systems will need to accommodate users beyond the interface, as people seeking information to create, learn and innovate in the context of their daily lives” (1999).
The USC Libraries seem to have adapted Kuhlthau's Information Search Process model in the user-centered systems rather well. The most recent improvements include electronic reference services, as well as better usability, and more support for mobile devices implemented in the USC Libraries Homer catalog. Among the upgrades:

**Reference Services**
- Enhanced online reference services, including Ask-A-Librarian, Contact a Subject Librarian, Specialized Reference, and Live Chat (available 24/7)
- Electronic research guides and tutorials
- Training resources for librarians and library staff

**Homer Online Catalog**
- A cleaner layout of item-detail pages with better placement of links to related electronic information and more refined link descriptions.
- Tabs and buttons with more intuitive labels. The Home page now includes a Basic Search tab, and we've renamed "Additional Content" to "A Look Inside."
- A dropdown menu on the Homer Basic Search tab has replaced buttons for selecting search parameters such as author, title, etc.
- New services in the My Account section, including a more secure method for handling forgotten passwords, the ability to create personal lists of library materials, and easier bookmarking functions.
- Additional information such as reviews and cover images are provided in more catalog records for books and other materials (USC Libraries, 2011).

**References**


When I read about the changes that occurred in your public library, Carroll, I found quite a few similarities to those that took place in the academic library at the university where I work, the University of Southern California (USC).

Whereas in your public library the Reference Desk was replaced with the 'roving service model,' Reference service in the central USC library branch, Doheny Memorial Library (DML), was moved from the main reference desk into a small office (the consultation room)—as a result of technology-driven restructuring of USC Libraries, during 2004-2009. The move was made in an effort to create a one-stop service point, Tompson and Quinlan explain (2011, p. 369), pointing out that it did not, however, bring about positive change: "It did not work well for reference. Despite various attempts at signage, the consultation room was not very visible. The location of the office and the fact that the door was often closed to protect against the noise from general circulation encouraged a culture of seclusion among reference providers. This move also separated librarians from the print reference collection, about a third of which is not available in electronic format" (ibid., p. 370). As a result, the DML reference was moved back to its historic location just prior to the beginning of the 2009 fall semester.

The outcome of all the changes at USC has a striking resemblance with the recommendation you made at the conclusion of your post—to implement most of the ideas Fister has discussed in *Fear of Reference*, along with keeping a traditional Reference Desk for those users who prefer it. The USC Libraries now expect to operate "a hybrid—reference-desk and virtual reference—service at the USC Libraries for the foreseeable future," Tompson and Quinlan report (ibid., p. 375). They point out that such hybrid service will help address the generational preference of the millennial generation, "who also enjoy FtF [face-to-face] encounters with friendly librarians. These different modes can be combined to complement each other," as described by Radford and Vine in *Reference Reborn* (2011, p. 79). Finally, just like your public library, the USC Libraries virtual reference has been enhanced with the Ask-A-Librarian feature, as well as Live Chat available 24/7, on the library website. Given the academic library experience, I think you are making a valid point here that a hybrid model might be a way to provide 'ideal' reference service in a public library setting, as well.

References
