

PHOENIX GETS IT RIGHT

A dynamic, database-driven design sets a benchmark for library web sites

By Leo Robert Klein

When I first looked at the new Phoenix Public Library (PPL) web site I thought: nice job—they probably outsourced everything. Why? Because the site feels like a high-end commercial site. We've all seen the bells and whistles before—when buying a book, tracking a shipment, or performing any number of other complicated transactions online. Finally, my thinking ran, whoever created one of those sites did one for a library.

Was I wrong. The entire site (www.phoenixpubliclibrary.org), both front- and back-end, was done in-house.

Even if we ignore the high-end nature of the site for a moment—after all, not everyone has a programmer at their beck and call—there is still plenty at which to marvel. What really stands out, especially after talking to some of the people involved with the project, is the attention to how things work, and don't work, on the popular, commercial sites. PPL's web team looked closely at Google, Amazon, and other consumer sites their customers use regularly. Then they applied what they learned, with embellishments, to the delivery of library services.

The robust nature of these applications, together with the dynamic nature of the site and the integration of information and services (here is where the programmer/developer comes roaring back), puts this site head and shoulders above other library web sites.

Snapshot of a project

The new PPL web site launched in September 2003. According to information services manager Cindi Holt and in-

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terlibrary loan supervisor Carole Towles, cochairs of the web team, the development process took a little over a year.

It began with a retreat in July 2002. There, participants talked about what they liked on other sites and what they wanted to see on a new site for the library. Discussion was "pretty much all over the place," admits webmaster and chief tech Jesse Haro.

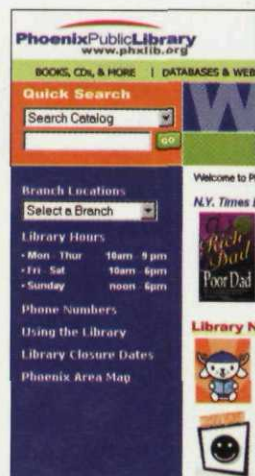
Whatever made the final cut had to fit the site objectives. Those objectives were strong on promoting library programs and services. "Most library web sites are so rich in material and content," Holt observed. "There are so many layers and so much richness. We wanted to see if we could provide more direct access and promote greater use of things like the databases and web sites."

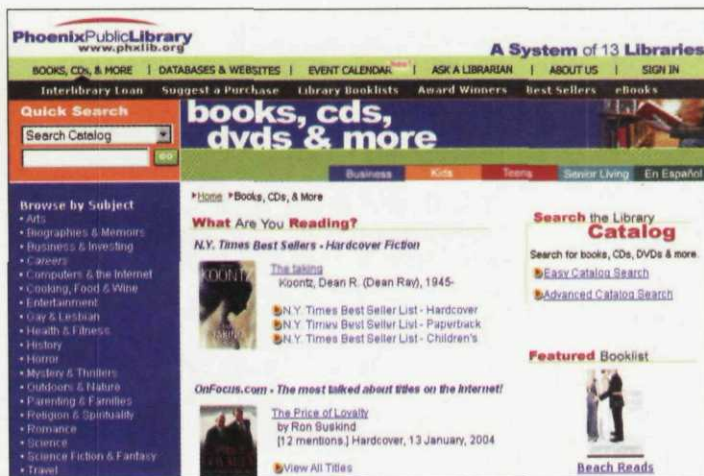
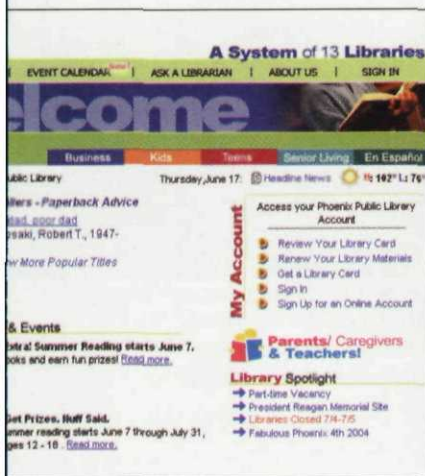
Specs and tech

By November 2002, Haro had put the finishing touches on the Site Specification Document, or road map. It detailed things like core message and site objectives. The goals required the site to be quick and easy to use and promote and drive usage of library services, particularly those relating to information and literacy.

In addition, the document contained data about site architecture and a time line for the project. "Our site document didn't tell us every last piece of information at that point," Holt explained. "But it told us what the steps were and when we hoped to have them done."

For technology, they chose mostly open source products. These have features, Haro explains, "almost on a par with what's out there for commercially licensed products." They use Apache for the web server and Tomcat for the Java server pages. Much of the site runs off of a PostgreSQL database. "We went with the Java API," Holt said, "because of its flexibility and robustness."





Librarylicious (l.-r.): The Homepage is a combination of the dynamic and the useful. Library Hours is part of the left navigation and on the right there is **Headline News, Access to Your Library Account, and more. Books, CDs, DVDs & More** is the gateway to the circulating materials

All home-grown

Most of the site was built from scratch. That seemed like the best way to integrate the various pieces. The best off-the-shelf products couldn't deliver the seamless integration that the web team wanted. Even the graphic design was done in-house, by Haro.

A major challenge was getting the integrated library system (Information Management and Delivery System from CARL) to do everything the team wanted it to do. The ILS offered no easy method to access information—particularly in the enhanced way that the Phoenix team intended. For example, they wanted search results to show up not on some pre-ordained “catalog” page but on one of their “normal” web pages. Next, they wanted the results to integrate with other features of the site such as authentication and personalization. These things were not easily accomplished. The library team ended up grabbing the information before it got to the user, applying the transformations they needed, and only then sending it on.

Making it usable

Toward the beginning of 2003, the team had a working mock-up that could be tested for usability. They wanted to determine whether the navigation and terminology made sense, whether people could find things like library materials or *make their way with ease to the various sections of the site*, and whether they were on the right track with personalization. For example, they wanted to know if there were any problems creating a personal account. “We were look-

ing at how the public approached these things,” Holt said, “and what we needed to do if necessary to change them.”

The team's adherence to commonly accepted web practices can be seen in the use of such familiar categories as “About Us” and “Contact Us.” In fact, “Contact Us” is used interchangeably with “Ask-a-Librarian,” going with whatever term makes most sense to the public. The same goes for Catalog,

all, Holt reports, the library has received many nice comments.

Personal and easy

One function that library patrons love is the personalization. The great news is that it's a lot like other personalization we see on the web. If a user has ever created an account with any kind of web site—be it a news organization or some other service—the way personalization works

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Going public

The site went public in September 2003. Bits and pieces were still needed, but the main objectives had been reached. There was the usual handholding and explanations common to a new site—particularly one so different from the previous iteration. Questions to “Contact Us” briefly shot up.

“Some people thought we had taken things away, but we just needed to show them where they were,” says Holt. “Most people loved it immediately, although there were some who asked, ‘Why did you change? We loved it before.’” Over-

at PPL will be completely familiar.

“We’ve streamlined the process,” Holt notes. “A user logs in once and everything is open: OPAC information, database access, personal book lists, calendar profile.” Phoenix users don’t have to type in their whole library card number—14 digits—every time they want to place a hold or use a database.

To create an account, they make up their own user name and password. Then they sign in once and that’s good enough for any of the library’s services.

Results from the library catalog can be added to a personal “My Bookshelf,” as well as titles recommended by the various online readers’ advisory services (e.g. *New York Times* Bestseller

List). If there's a particular database users want, they can add that to their favorites as well. All of this and more is done in the same user-friendly context that customers might otherwise find at Yahoo!

Quicksearch for real

Quicksearch is another example of seamless integration of information. Many libraries now have a search box on their main page. This is enormously convenient, but what typically happens is that the user is whisked off to the catalog to be served the results. At the PPL site, the results are presented as just another web page—exactly what users experience at Amazon or any of the other commercial vendors.

Once they have the results in front of them, patrons can check availability, put items on hold, or add them to their personal book list. Even better, the Quicksearch box is available from every page on the site.

Programs get integrated

A recent addition is the events calendar. The events here are perfectly integrated with the rest of the site. That goes for everything from the location to how events are listed as part of the general personalization settings.

Only interested in events at your local branch or events at your local branch related to computer training? That's what you'll see. Several turnkey solutions offer the same options, but nowhere are they as well integrated with the host site as something built to order.

Using data streams

It's easy to miss how much outside information is incorporated into the site because content integration is so seamless. For example, many of the reading lists on everything from pets to cooking are generated directly from Baker & Taylor. On the homepage, there are links both to Headline News and Weather, which add to the overall energy of the otherwise spare display.

The Business page in particular is an amalgamation of various sources. It's kind of like what you would find on Yahoo! if you went to the Finance page—the only difference is that the library is hosting the information and therefore library services naturally have a special prominence.

Let's Go Shopping

Phoenix's web team discuss the design process and results.

Leo Robert Klein: What were your objectives for the new site?

Cindi Holt: We wanted to drive usage of library materials, resources, programs, and services.

A lot of what you see is very promotional.

Jesse Haro: Another objective was to create a more seamless environment. When our users access information from our catalog, for example, we wanted them to know that they're still on our web site and that they're still in the same world they started out with when they hit our web page.

What models did you look at?

Holt: We really started with why each of us uses the Internet, what our favorite web sites are, and what makes them important to us—important enough for us to use them.

Haro: We also knew that our customers' experience includes much more than library systems. It includes the Googles, Amazons, Barnes & Nobles, and museum web sites that are out there. We wanted to bring our environment up to par with them.

When you launched the site, what was the reaction?

Haro: Huge. These were enormous changes from what we had before. We had come from a web site that was about the library to a web site that was about being interactive for library users.

Holt: My very favorite comment was early on—we'd been up about two weeks—when a young woman came up to the reference desk and said, "I love your new web site, it has such a fun 'let's go shopping' feel." I loved that.

How has personalization worked out?

Haro: Since going live in September, we've averaged over a thousand unique registrations a month. We don't really publicize the personalization piece of it. We quietly say, "Hey, are you tired of using your library card number? Click here to create a user name and password to access your information."

What can library system vendors do to make your life easier?

Haro: Improve access. It's important that they don't tie in the user interface with access to the data. The library should have the right to change whatever is on the front-end, at any given time.



Left to right: Carol Towles, interlibrary loan supervisor; Jesse Haro, webmaster; and Cindi Holt, information services manager

Evolution never ends

Other enhancements are in the works. One development targets emails or newsletters. In the calendar, it's a natural step to ask users if they would also like to be informed of future programs in their area of interest. This could be a powerful way for the library to advertise its programs and services.

Probably the most important enhancement is federated searching. The Quicksearch form already goes through a number of resources in addition to the Catalog (the event calendar and web pages are only two examples). The vision behind federated search is far more expansive: search through all sources of information including full-text journal databases from multiple vendors, the cat-

alog, events, and more and serve everything up on one page for users to select what they want.

From past performance, we can expect a fully integrated approach on federated searching, just as we've seen throughout the PPL web site. The library has been looking at a few open source search products; after the effort of building everything from scratch, Haro admits that, at least on federated searching, he would "rather implement something than develop something in-house." Either way, the library world will be watching how Phoenix Public Library's web team solves this challenge, enhancing library services for their customers while creating a new model for the online library. ■

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