

Website of the Future: Leveraging Microsoft SharePoint® to Create a Dynamic Customer-Facing Library Website

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Abstract

The Sandia National Laboratories Technical Library staff began looking at redesigning its HTML-based website as part of its Library of the Future initiative. After an initial usability study and some investigation into available technologies, it was decided to rebuild the website from the ground up utilizing Microsoft SharePoint®.¹

Leveraging the capabilities of SharePoint allowed the library to develop a dynamic site with content that could easily be updated by any member of the library staff without the need for HTML or other coding knowledge. It also allowed for the development and deployment of Web 2.0 tools and other interactive web parts, including library blogs, polls, RSS feeds, discussion boards, online tutorials, and a book swap site.

This paper explains the process the Technical Library web team used to plan and build the new website, including how usability tests were conducted and customer feedback was solicited throughout the process. It also highlights some of the features of the SharePoint-based site and how the Technical Library uses its new web presence and tools for outreach, marketing, and interaction.

Finally, the paper explains how building the site with SharePoint enabled the Technical Library to be more future ready by giving the web team a platform on which to easily add new content and build new tools and services. It also discusses features in development, including content tagging, social bookmarking, and a site optimized for mobile devices.

Introduction

Sandia National Laboratories is a multi-program Department of Energy (DOE) national security laboratory. It has two principal sites, one in Albuquerque, New Mexico and another Livermore, California. Mission areas include nuclear weapons, nonproliferation, energy and infrastructure assurance, and homeland security and defense. Sandia's workforce is comprised of approximately 8,600 regular employees, around 3,500 of which are research scientists and engineers working in a variety of disciplines.

The Sandia Technical Library's mission is to support the diverse research needs of the Sandia user population. The library has physical locations staffed by professional librarians at both the Albuquerque and Livermore sites, and a circulating collection of over 65,000 physical items. However, the majority of the library's collection—including around 8,000 journals, 50 scholarly databases, and over 100,000 books and reports—is in electronic format. While the physical locations are still visited, Sandia users are increasingly more likely to interact with the library via its electronic collections and web presence.

In 2008, as part of its Library of the Future initiative, the Technical Library began looking at redesigning its then-current HTML-based site. The last redesign of the site had taken place in 2004, and no major changes had been made to the look and feel or overall architecture since, resulting in a site that looked dated and no longer fit users' current needs or the library's growing electronic collections. Additionally, customers reported difficulty finding content on site, and the library had a difficult time keeping site content current due to lack of sufficient staff with required HTML coding knowledge and proper permissions to update the site.

Goals for the redesign project included creating a site that was easy for the library's customers to use and easy for all members of the library staff to update when needed. Additionally, library team members wanted a dynamic site that would make use of Web 2.0 features such as blogs, wikis, and discussion boards to allow users to interact with the library electronically and create their own content and feedback.

Planning the New Website

INITIAL USABILITY TEST

The website redesign plan began with an initial evaluation of the existing site conducted for the library by Sandia's Human Factors Group in order to identify current usability issues and make recommendations for improvement.²

The evaluation consisted of two parts. First, the group conducted an interview with eleven participants with various levels of library experience. These users were asked why and how they currently used the site, as well as features they particularly liked or disliked, and difficulties they commonly encountered.

Next, task-based usability testing was conducted with six inexperienced participants, who were asked to perform twelve common tasks, such as locating full-texts article on a topic, placing a hold on a book, and finding a particular research database by name.

Initial testing revealed a number of problems with the existing library website, including:

- A large number of choices, organized in a way that was not intuitive to users
- Lack of consistent navigation
- Lack of ability to search various library resources directly from the homepage
- Overuse of library jargon, and
- Poor use of white space.

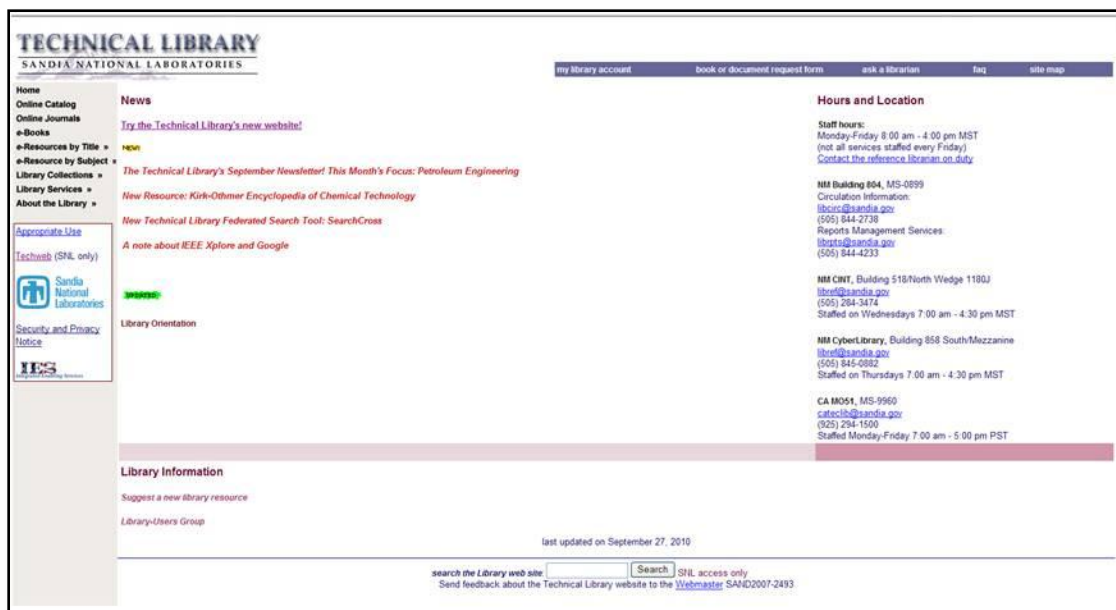


Figure 1: Sandia Technical Library website prior to redesign

CHOOSING SHAREPOINT

While the initial usability test was being conducted, the library web team began looking for an alternative to a static HTML-based site. Open-source Content Management Systems (CMS) such as Drupal and Joomla were investigated, but in the end, the decision was made to build the site utilizing Microsoft SharePoint.

SharePoint is Microsoft's enterprise information portal and collaboration platform. While not strictly-speaking a CMS, it does have many of the same advantages, in that it allows users to create and manage dynamic, collaborative websites without the need for coding.³

At the time the web team was beginning the redesign process, Sandia National Laboratories had recently adopted Microsoft Office SharePoint Server (MOSS) 2007⁴ as a tool for organizational collaboration. Having a corporate-supported platform and access to SharePoint

expertise within the organization was a major advantage to choosing this particular solution. Additionally, the Technical Library had an existing SharePoint-based site for internal team collaboration, and most staff members were already familiar with the basics of utilizing SharePoint from an end-user perspective.

A brief review of the literature showed that a number of libraries, like the Technical Library, were currently using SharePoint-based departmental intranet sites, utilizing built-in features such as wikis, blogs, discussion boards, team calendars, and document libraries for internal collaboration and communication.⁵

Fewer examples existed of libraries using SharePoint for creating customer-facing websites or web services, though examples exist from both special and academic libraries.⁶ The Library of Congress also uses SharePoint for its personalized myLOC site.⁷ Customer-facing library websites made use of SharePoint lists and libraries for organizing content. Some took advantage of the same Web 2.0 features as internal team sites, utilizing wikis, blogs, and surveys to display content and communicate with customers.

CONTENT INVENTORY AND BRAINSTORMING

Next, a content inventory was taken, capturing the name, URL, and purpose of all 161 pages on the existing site, as well as significant external content, and all library search tools and applications. The inventory gave the web team a detailed look at all existing web content and how it was organized. A number of pages were immediately identified as being out of date, inaccurate, or no longer in use. These pages were immediately updated or removed.

A second outcome of the content inventory was a snapshot of existing site vocabulary and most frequently used terms. This would be used later to select terms for card sort testing.

Along with capturing existing content, the web team also spent this phase brainstorming possible new content and services. As part of this process, team members were asked to identify other large-scale websites that they enjoyed using, and what features of these sites they found most useful and valuable. Popular features from other sites included task-based navigation and predominantly-placed search boxes.

CARD SORT TESTING

Card sorting is a method of usability testing in which users are asked to sort index cards, each labeled with a piece of website content or functionality, into groups that make sense to them.⁸

With this method, the Technical Library team hoped to increase findability on the new site by gathering data that would help the web team organize content in a way that was more intuitive to users. The team also hoped to be able to reduce or eliminate the use of library jargon and other terms that had little or no meaning for library customers.

The Technical Library used an open card sort method, whereby sixteen participants organized into five user groups were given cards pre-labeled with terms from the existing website and the potential new website. Users were asked to organize cards into groups that made sense to them and label those groups. Users were also asked to discard any terms that did not make sense to them or that they felt did not belong on the website.

Terms most discarded by participants included:

- Product names, such as SFX, which had no meaning to users.
- Terms that referred to a library function or department, such as Circulation or Collection Management.
- Generic or ambiguous terms, such as News (as users didn't know if this might refer to Technical Library news and announcements or resources like the *New York Times*) or Services.
- Terms that referred to services users did not want.

An example of a potential new service that was a casualty of card sort testing was the proposed "People Like Me" web part that would provide users with lists of other researchers working in similar areas. This received an almost uniformly negative reaction from participants, eliciting comments such as "Why would anyone want that? Who cares?" and "The library's not like eHarmony" and was eventually removed from the final site design.

Like other libraries that have conducted usability testing, the Technical Library found that terms that were intuitive to librarians, including library jargon and attempts at library branding, did not always make sense to customers.⁹ These were eliminated or replaced with a customer-preferred term. "Circulation," for example, became "Checking Out Books." A branch that had been branded the "Cyberlibrary" went back to being referred to as "Library Branch @ [building location]" as patrons found the former term both confusing and dated.

INFORMATION ARCHITECTURE AND NAVIGATION

Results and feedback obtained from the card sort testing proved invaluable for designing the architecture of the site. With this data, the web team was able to identify the most important tasks and critical website features according to library customers. The data also gave the team a basis for labeling and grouping essential content in ways most likely to improve findability.

Using index cards attached to a wall, team members were able to physically manipulate, group, re-group, and discard terms until agreement on the final site structure was reached.

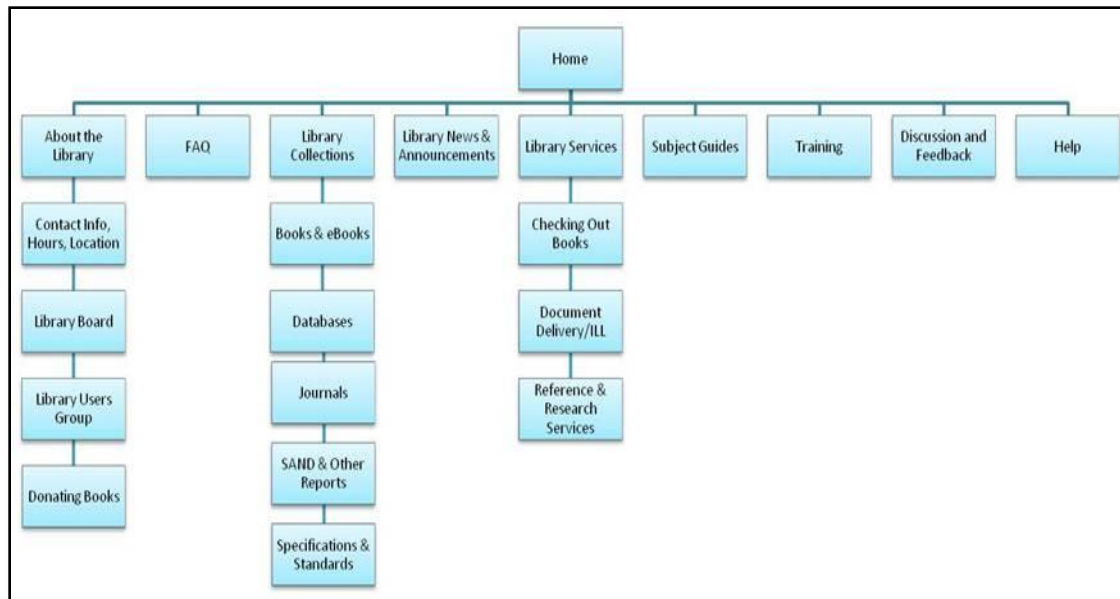


Figure 2: Initial site map, showing top level categories, and first level sub-categories

As consistency of navigation was a problem identified in the initial usability test, the web team decided to take advantage of the built-in global navigation in SharePoint, which would allow consistent tabbed navigation across the top of all site pages. Built-in breadcrumbs would also appear as a secondary form of navigation on almost every page.¹⁰

Since both web team members and card sort participants favored some sort of task-based navigation from the homepage, plans were made for a left side task-oriented navigation menu titled “I need to…” and containing links describing various common tasks such as “Find a book” or “Check my library account.”

WIREFRAMES

Next, several basic wireframes of the homepage and select subpages, such as the subject guides, were created. These did not include graphics or actual content, but instead offered the team and user testers a simple visual example of where elements would appear on various pages.

Initially, multiple versions of the home page and subpages were created. Library staff, members of the Sandia Human Factors Group, and library users who had previously participated in a usability test evaluated the wireframes for potential visual appeal and ease of use.

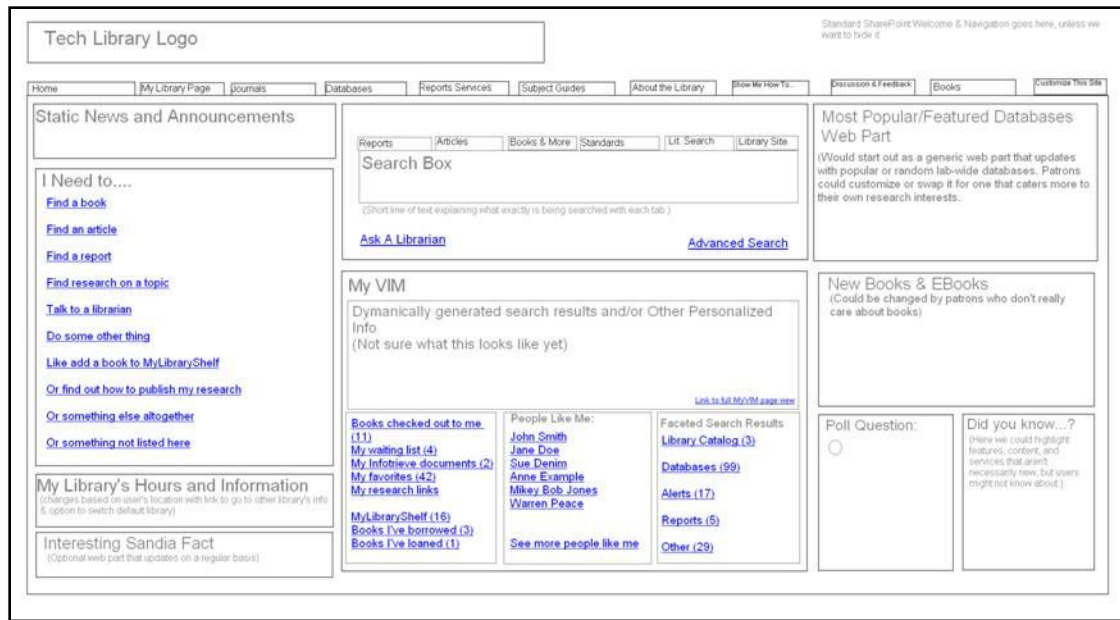


Figure 3: Wireframe of proposed new homepage

Creating the New Site

NEW WEB PARTS AND PAGES

On SharePoint web pages, modules called web parts are used to display content or perform various functions.¹¹ The following sections describe the new and updated features of the Technical Library website and the web parts and pages used to create them. All of these solutions utilize out-of-the-box features of SharePoint, some built with additional customization using SharePoint Designer.¹²

News and Announcements Blog

The new Technical Library website uses a blog site for library news and announcements. An advantage of the blog is that it allows any member of the staff to post an announcement without the need for HTML coding skills. News can now be posted, updated, and deleted as needed by any staff member.

A type of web part called Content Query Web Part displays recent news on the homepage, while additional Content Query Web Parts display relevant news throughout the site, to enhance findability for users who might not necessarily begin a search at the Technical Library homepage. Any announcements about known outages and scheduled maintenance, for example, will also automatically appear in a section the Help page, while any announcement impacting the Books collection will appear on that page as well.

Another advantage is that the blog allows library users to comment directly on news stories, providing another avenue for virtual feedback. Users can also subscribe to library news and announcements via RSS or email alerts.

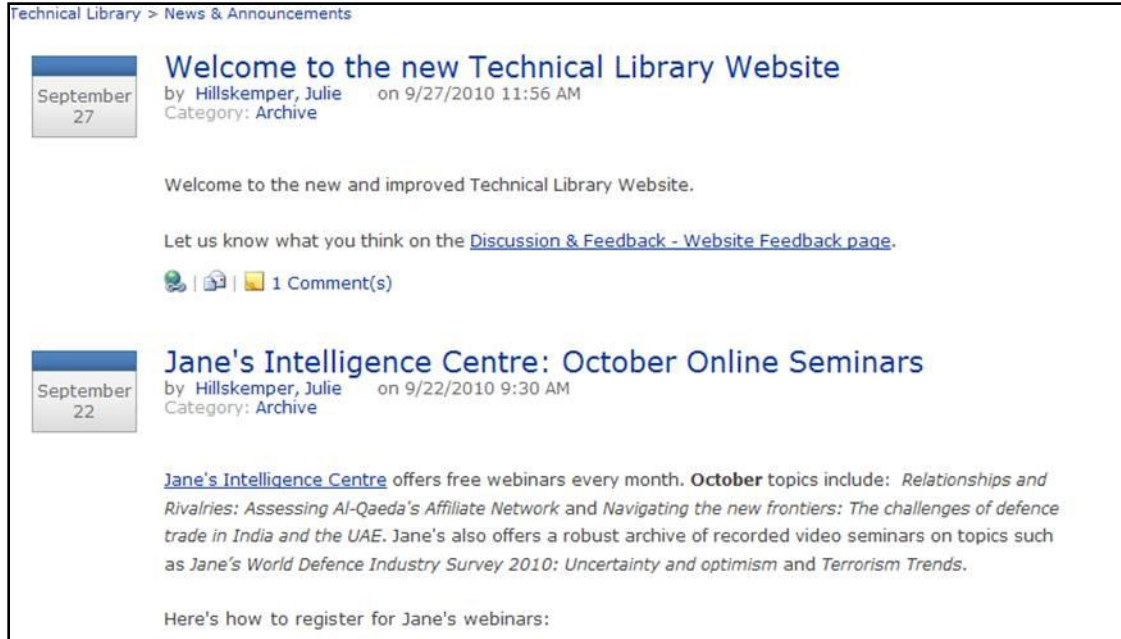


Figure 4: Library News and Announcements blog



Figure 5: Recent News and Announcements as they appear on the library's homepage

Polls

Technical Library polls consist of one or two survey questions that appear on the library home page. This web part uses the SharePoint survey feature with some customization in SharePoint Designer.

The polls give library users a chance to offer quick feedback on topics such as where and how they search for library resources, what devices they use for reading electronic books and journals, and what web content they'd like to see the library offer next. Polls are changed to feature a new topic every three weeks.

Poll: Where Do You Search for SAND Reports?

Where do you search for SAND reports?

- Web FileShare (now EIMS FileNet)
- Library Catalog
- SearchPoint
- Review & Approval Application
- Other

[View All Results](#)

[View past surveys and results](#)

Figure 6: Poll web part

Discussion Boards

Along with the polls, the Technical Library solicits feedback from users via Discussion Boards. These are another built-in feature of SharePoint-based sites that allow for enhanced communication and collaboration. Customers can respond to librarian-initiated discussions or create discussion topics of their own.

New Subject Guides

Subject guides on the old HTML-based site were difficult to update. In the past, if a new library resource was acquired, a URL changed, or a resource not renewed, the information often had to be updated in several places. SharePoint lists and list views allow library staff to update content in a single list on the Subject Guide subsite, and have changes automatically appear on every relevant page.

The new subject guides are also enhanced with a drop-down list of available resource help and tutorials, and a section called “The Library Recommends...” with a librarian-selected list of the best three to five resources with which to begin your research in a particular subject.

A new capability of SharePoint 2010 will soon allow users to rate resources listed in the subject guides, giving librarians an extra source of data and user feedback for improving recommendations and collection management decisions.

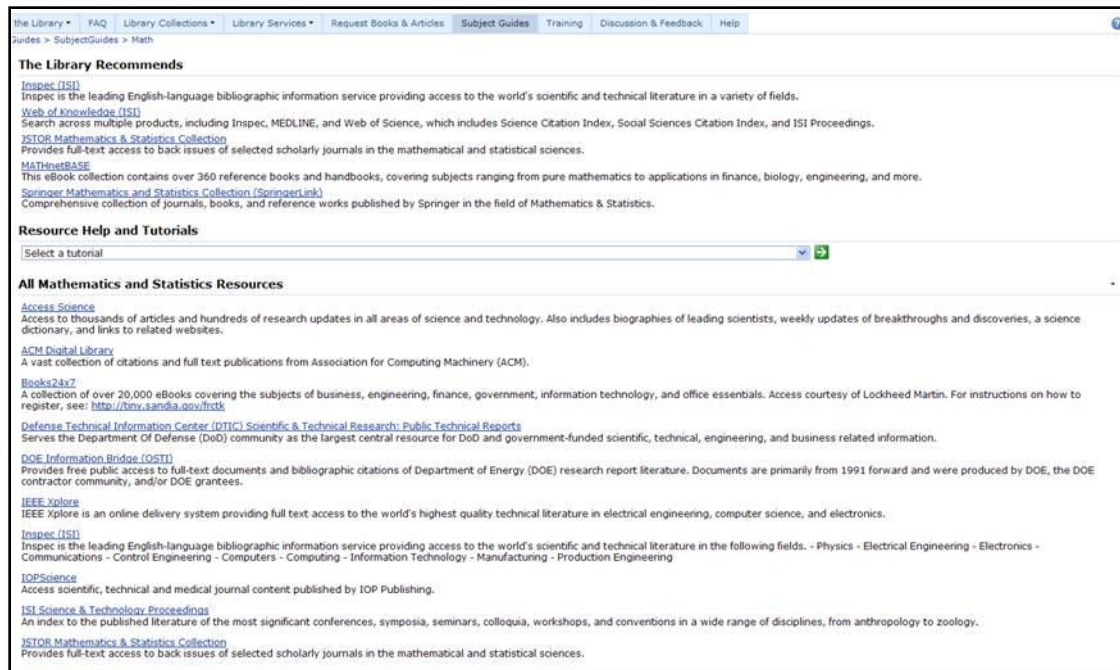


Figure 7: Subject Guide

MyLibraryShelf and Sandia Book Swap

MyLibraryShelf was created in response to customer demand for a tool that would allow users to catalog the books at their own desks and make them available to share with others. Using the library catalog would have been impractical, and using a public social cataloging tool such as LibraryThing or Goodreads was not a possibility due to security restrictions.

Using SharePoint lists and workflows, the web team created a solution that would allow users to enter information for their own books, check them out to others at Sandia, and keep track of what books they have borrowed and when those books are due to be returned.

Sandia Book Swap was created in response to requests from MyLibraryShelf users who had collections of books they no longer wished to keep, but instead wished to give away permanently to others at Sandia who might find them valuable. The tool uses similar lists and web parts, but creates a common “book swap shelf” where users can list books they no longer need, or find books they’d like to take.

These tools are populated and managed almost solely by users, with little supervision required by the library.

Master Library Shelf - New Item

Save Cancel Paste Copy Attach File Spelling

Commit Clipboard Actions Spelling

MyLibraryShelf Beta > Master Library Shelf > New Item

Title * Don't Make Me Think!: A Common Sense Approach to Usability
Note: Please do not enter any classified or sensitive information on the MyLibraryShelf system.

Author Last Name Krug

Author First Name Steve

Additional Authors

If your book has more than one author, you can enter the rest of them here.

ISBN or Report No. 0-321-34475-8
Enter an ISBN for books or a report number for SAND and other reports.

Publisher No Starch Press

Publication Year

Lendable
Keep this box checked if you are willing to lend this book to others at Sandia who contact you and ask.

Checked Out
For books you lend: Check this box when you lend a book on your shelf to someone else. Uncheck it when the book is returned.

Borrower

When you loan a book to someone else, enter their name here. Your book will show up on their "Books I've Borrowed" shelf. Enter a user ID (e.g. depollo) or look up names with the address book icon.

Date Borrowed

Date Due

An option if you'd like to let someone borrow a book, but need it back by a certain date. If the date due passes, the book will show up in the borrower's "Books I Have Overdue" list.

Save Cancel

Figure 8: New item form for MyLibraryShelf

FINAL USABILITY TEST AND LAUNCH

When the SharePoint site was almost complete, the web team conducted a final task-based usability test. This almost exactly mirrored the initial usability test, but with a different set of users and some task descriptions altered to reflect new terminology and new site content.

At the conclusion of the test, users were asked what they liked best and least about the new design, and what could be improved or changed. Most users stated the new site was an improvement, and liked the new layout and organization.

Usability problems still existed, however. In particular, the team discovered that the original layout of the homepage and certain subpages resulted in the need for side-scrolling for some users with smaller monitors. Changes were made before the final launch.

The new site officially launched on October 1, 2010.

The Technical Library Training Web Page

The training web page of the library website was created to provide busy lab staff ways to receive instruction on library resources without having to leave their desks. Staff attendance at in-person workshops is very low, no matter how much marketing and publicity is done to promote such events.

The screenshot shows the Sandia National Laboratories Technical Library Training page. At the top, there is a navigation menu with links like 'Technical Library', 'About the Library', 'FAQ', 'Library Collections', 'Library Services', 'Request Books & Articles', 'Subject Guides', 'Training', 'Discussion & Feedback', and 'Help'. Below the navigation, the page is divided into several sections. On the left, there is a 'Library Resources Training, Help, & Tutorials' section with a sub-section for 'New: Alerts Services'. Below that is a 'Resource Help and Tutorials' section with a pull-down menu for selecting a tutorial. The main content area features a 'Webinar Calendar - all Mountain Time' for April 2011, showing a grid of dates with scheduled sessions. On the right side, there is a 'Recorded Training Sessions' section with a list of tutorials and their descriptions, including 'SAND Report Search video tutorial', 'SAND Report Search Tutorial - PDF version', 'SAND Report Search Training Video', 'Catalog Basics', 'Your Catalog Account', 'Jane's Online Training Video', and 'The Latest Self-Paced Tutorials from our Vendors'.

Figure 9: Library Training page

A major feature of the training page is the pull-down menu of Resource Help and Tutorials. This is similar to the one featured on the library Subject Guide pages. Links are checked quarterly and updated as necessary or as the library is notified of changes by vendors. A variety of formats are represented on this list: FAQ pages, general Help pages, instructional PDFs, video tutorials and online website tours.

The main visual feature on the training page is the Webinar Calendar. This calendar web part is updated monthly from vendor alerts such as email and RSS feeds.¹³ Special vendor webinars just for lab staff are regularly scheduled and also posted to this calendar. Recently, IEEE Xplore and Jane's Online trainers have scheduled webinars with Sandia.

The right hand sidebar of the training page contains video tutorial links. The topmost list contains in-house screencast tutorials and video-recorded workshops. Screencast tutorials are made using Camtasia software and include scripted instructional walkthroughs of common library tasks such as locating SAND reports (technical reports generated by Sandia staff) and checking your library account.

Recorded Training Sessions

Recorded at Sandia

[SAND Report Search video tutorial](#)
Runtime: approx. 2 minutes with narration. Find out where to find SAND Reports, how to find and request SAND reports, and why some SAND Reports are hard to find.

[Sand Report Search Tutorial - PDF version](#)
This PDF version of the SAND Report Searching tutorial includes hyperlinks.

[SAND Report Search Training Video](#)
Runtime: approx. 15 minutes. Recording of a live SAND report information session.

Catalog Basics
Runtime: approx. 4 minutes with narration. Find out what the library catalog is, where it's located and the basics of finding a book and getting it delivered to you.

Your Catalog Account
Runtime: 1 minute, 35 seconds with narration. A brief introduction to using your library account: how to log in, how to see what books you have checked out, and how to renew books online.

[Jane's Online Training Video](#)
Vendor tutorial of the Jane's Online database system. From January 2010.

The Latest Self-Paced Tutorials from our Vendors

[EBSCO Host - Video Tutorials](#)
Concise video tutorials for databases such as Business Source Corporate and much more.

[IEEE Xplore - Video Tutorials](#)
Short video tutorials you can view on your next coffee break.

Figure 10: Video Tutorials web part

The second list in the right column contains “the latest self-paced tutorials from our vendors.” Many database vendors now offer video tutorials. EBSCOhost, IEEE Xplore, Jane’s Online, ScienceDirect and Web of Knowledge tutorials are currently listed on the Training page.

An Alerts Services subsite was implemented in January 2011 and is linked from the Training page. This subsite lists vendor alerts services by type of alert and method of delivery.

The screenshot shows the 'RSS Alerts' page with a navigation bar and a search box. The main content is divided into two sections: 'Setting Up RSS Alerts' and 'Resources Offering RSS Alerts'.

Setting Up RSS Alerts

Really Simple Syndication provides an easy way for you to read the latest postings to your favorite Web sites. Many Web sites offer RSS Feed subscriptions so that whenever new content is published, such as an updated news article, you receive a summary or the full article automatically.

The fastest and easiest way to add RSS Feeds is by using Internet Explorer. Here's how:

1. When you browse a web page that contains RSS information, the orange RSS symbol appears next to the Home button in the top right navigation bar in Internet Explorer. The symbol will be gray if no RSS information is on a web page.
2. Click that orange RSS symbol. A list of all available RSS feeds on the web page is displayed.
3. Click the RSS feed that you want to add.
4. When the RSS feed page opens in Internet Explorer, click "Subscribe to this feed."

The new RSS feed is available in Internet Explorer and Outlook.

For more information see [Microsoft Office Outlook Help](#) and [HowTo...RSS Feeds](#).

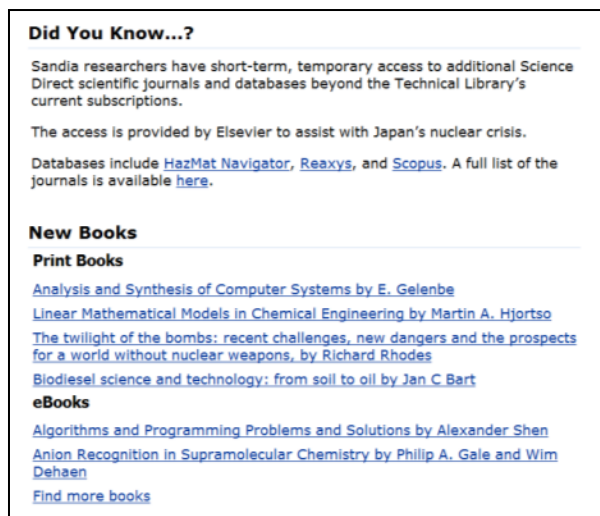
Resources Offering RSS Alerts

URL of Resource	Alert Service	Description	Alerts Available
American Chemical Society (ACS) Journals Search	ACS RSS Feeds	ACS Publications has over 40 RSS feeds for its journals. You can also subscribe to RSS feeds of your searches by following the instructions at the bottom of the Search Tip section on the Journals Search homepage.	New Content/New Title Alerts, Search Alerts, Table of Contents Alerts
Annual Review	Annual Review RSS Feeds	Subscribe to a variety of RSS feeds to get the latest updates on Annual Review content.	New Alerts, Search Alerts, Table of Contents Alerts
Books24x7	RSS Feeds	Books 24x7 RSS Feeds allow you to receive lists of titles straight to your desktop.	New Content/New Title Alerts, Search Alerts, Subject or Topic Alerts
Business Source Corporate (EBSCO)	One-Step RSS Search and Journal Alerts	Set up search and journal alerts to view via an RSS reader.	Search Alerts, Table of Contents Alerts
CIA World Factbook	CIA Library RSS	Receive notification of updates to the World Factbook and other information from the CIA Library.	New Content/New Title Alerts, News Alerts
E-CommerceHub	EBusinessOne, Videos Personalization, Features & Functionality, Jingles, Jukebox	Create a Personal Account to set up RSS feeds or sign up to receive weekly email alerts when new documents matching a saved search you set up are added to the database.	Search Alerts
Energy Information Administration	EIA RSS Feeds	EIA has a variety of RSS feeds offering news and alerts on various topics.	New Content/New Title Alerts, News Alerts
Genes of IIA (EBSCO)	One-Step RSS Search and Journal Alerts	Set up search and journal alerts to view via an RSS reader.	Search Alerts, Table of Contents Alerts
IEEE Xplore	IEEE Alerts Manager	Users who are signed into their IEEE Xplore Personal Account can choose to receive regular notification of recently posted content including a direct link to the table of contents for the latest issue of a journal or magazine, and saved search alerts.	New Content/New Title Alerts, Search Alerts, Subject or Topic Alerts, Table of Contents Alerts
Journals (EBL)	Citation Alerts	Set up an RSS feed or sign up to be notified by email whenever a document of your choice is cited by a new article.	Citation Alerts
Jane's Online Research Library, Information Science and Technology Abstracts (LISTA)	Jane's RSS Feeds	Jane's has a number of RSS feeds available. Subscribe to get news and updates for individual titles or specific topic areas.	Subject or Topic Alerts, Table of Contents Alerts
Library, Information Science and Technology Abstracts (LISTA)	One-Step RSS Search and Journal Alerts	Set up search and journal alerts to view via an RSS reader.	Search Alerts, Table of Contents Alerts
MEDLINE (EBL)	Citation Alerts	Set up an RSS feed or sign up to be notified by email whenever a document of your choice is cited by a new article.	Citation Alerts
McGrawHill	RSS Feed	Subscribe to be notified when someone adds new titles to McGrawHill, the Technical Library's new tool that lets you catalog the books at your desk and lend them to others.	New Content/New Title Alerts
National Science Foundation (NSF)	RSS Feeds and Podcasts	Sign up to receive news, information, and alerts for new publications from the National Science Foundation.	New Content/New Title Alerts, News Alerts
Open Source Center (OSC)	OSC, New Register	Email subscriptions and RSS feeds for Open Source Center products are available to members. See the "New to Register" link for information on getting an account.	New Alerts, Subject or Topic Alerts
Osteo InfoBase (OSA)	OSA Alerts Services	Create a custom alert or subscribe to one of OSA's standard table of contents alerts via email or RSS.	Search Alerts, Table of Contents Alerts

Figure 11: RSS Alerts page

Marketing with the Library Website

In addition to the library news and announcements blog, other web parts on the home page help promote library resources and services. A web part named “Did You Know...?” features a new library service or a reminder of an existing library resource. This web part is changed every three weeks.



Did You Know...?

Sandia researchers have short-term, temporary access to additional Science Direct scientific journals and databases beyond the Technical Library's current subscriptions.

The access is provided by Elsevier to assist with Japan's nuclear crisis.

Databases include [HazMat Navigator](#), [Reaxys](#), and [Scopus](#). A full list of the journals is available [here](#).

New Books

Print Books

[Analysis and Synthesis of Computer Systems](#) by E. Gelenbe

[Linear Mathematical Models in Chemical Engineering](#) by Martin A. Hjortso

[The twilight of the bombs: recent challenges, new dangers and the prospects for a world without nuclear weapons](#), by Richard Rhodes

[Biodiesel science and technology: from soil to oil](#) by Jan C. Bart

eBooks

[Algorithms and Programming Problems and Solutions](#) by Alexander Shen

[Anion Recognition in Supramolecular Chemistry](#) by Phillip A. Gale and Wim Dehaen

[Find more books](#)

Figure 12: Did You Know and New Books web parts

Under the “Did You Know...?” web part on the home page, the New Books web part lists the latest print and electronic books added to the library collection.

The Future

In February 2011, Sandia National Laboratories upgraded from Office SharePoint Server 2007 to SharePoint Server 2010. The upgrade gives site owners a variety of new tools to enhance user experience.

Plans for the future of the Technical Library website include the following new features, some already in development:

- Web parts that make use of the tagging and rating abilities in SharePoint 2010.
- More integration of the website and library catalog.
- Content designed for users of Sandia-owned mobile devices, such as Blackberries and iPads.
- Improved site design.
- Enhanced ability for users to customize their view of the homepage and select sub-pages, and to add additional library-created web parts to pages.
- A series of current awareness blogs on various popular research subjects at Sandia.

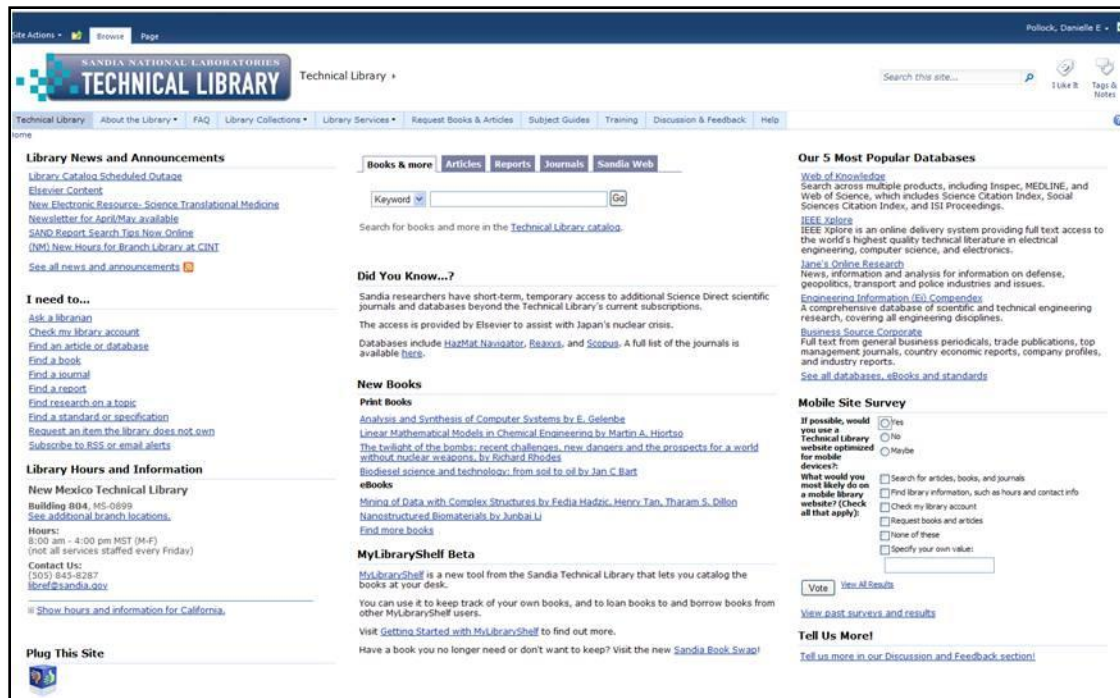


Figure 13: Technical Library homepage in SharePoint 2010

User feedback is now an essential part of the Technical Library's website design process. The Web 2.0 features in SharePoint allow library customers to offer immediate and continuous feedback on new features, products, and services, which can be readily adapted to better fit user needs.

A platform that enables library staff to update content without the need for coding allows for greater responsiveness to online library users and helps ensure accuracy and timeliness of information. The creation of a dynamic, customer-facing library website has enabled the Sandia Technical Library to be more future ready than ever before.

Acknowledgements

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Endnotes

¹ Microsoft SharePoint® is a registered trademark of Microsoft Corporation.

² Krug, 2010, 32.

³ Sy, 2009. For more information about SharePoint capabilities and features, see Microsoft SharePoint 2010, <http://sharepoint.microsoft.com/en-us/Pages/default.aspx> (accessed April 14, 2011).

⁴ Microsoft, “Product Information: Office SharePoint Server 2007.” <http://sharepoint.microsoft.com/en-us/product/2007/Pages/default.aspx> (accessed April 14, 2011).

⁵ Dahl, 2010; Diffin, 2010; Herrera, 2008; Houghton-Jan, 2008; and Kim, 2010.

⁶ Dalzell, 2010; Dalzell and Gupta, 2010; Kammerer, 2009; and Weldon, 2010.

⁷ Library of Congress. *myLOC*. <http://myloc.gov> (accessed April 14, 2011).

⁸ Spencer, 2004.

⁹ Kupersmith; and Hepburn, 2008.

¹⁰ See Nielsen, 2007 on the increasing usefulness of breadcrumbs as a navigation aid. The MOSS 2007-style breadcrumbs, while not native to SharePoint 2010, were popular enough that the web team added them back to the site utilizing SharePoint Designer.

¹¹ Murphy, 2007, 11.

¹² Microsoft SharePoint Designer is a development tool that allows web designers to further customize SharePoint, beyond the options allowed from the browser, with little or no coding. For more information, see Microsoft SharePoint Designer page: <http://sharepoint.microsoft.com/en-us/product/related-technologies/pages/sharepoint-designer.aspx> (accessed April 14, 2011).

¹³ Nariani, 2010.