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Making Research Guides More Useful and More Well Used

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Abstract

In summer 2008, a small group of Santa Clara University librarians were charged with exploring ways of making online library research guides more user friendly and interactive. In order to know how to enhance our guides, we first asked the question, "What makes a research guide useful?" What follows is a detailed process of discovery. The process started with literature on guides, which suggests that research guides, particularly general subject guides, are not well used. Examining statistics for science guides supports the contention that course-specific guides are the most well used. Interviews with students told what they look for in guides. Finally, research on platforms revealed choices for nimble creation of research guides.

Introduction

In June 2008, a group was assigned the task of examining Santa Clara University Library's online research guides and making recommendations to update and enhance the guides. The charge was to incorporate Web 2.0 technologies to fit students' changing needs and expectations. This group consisted of the librarians for business, engineering, and science as well as an information staff member specializing in technology and design.

We assumed we would add Web 2.0 technology to guides already created using the university-wide content management system (CMS). Screencasting seemed a good direction. Whether or not students receive an information literacy session, presumably they can benefit from a visual reminder of how to use certain databases. We had already examined Snapz Pro, Camtasia, and Captivate, deciding that Camtasia, while not as robust as Captivate, was easier to use.

Configuring research guides for iPods and other handheld devices provided another possibility to explore. As library resources become increasingly virtual and electronic devices become ever smaller and more portable, keeping up with or even moving ahead of the [handheld](#) ([Green et al. 2008](#)) curve seemed a worthwhile direction.

Acquiring, then learning and teaching Web 2.0 technologies to cohorts consumes time and resources. So, before picking one or two Web 2.0 technologies to focus on, the guides group determined to find out what kinds of guides were most effective, thus most warranting our attention and energy. We discovered that recent literature on research guides is surprisingly sparse, especially since online guides are now ubiquitous at academic institutions.

What the Literature Exposes

Of those articles we did examine, the three that proved most useful all conclude that subject guides are used infrequently at best. In their article, "Students, Librarians, and Subject Guides: Improving a Poor Rate of Return," Reeb and Gibbons state: "During a May 2003 usability study at the University of Rochester, test monitors observed that students typically did not use the subject guides, even though the test questions were designed specifically to be answered by the guides -- leading to the conclusion that 'students have no idea what subject guides are'" ([2004](#)).

Echoing this conclusion in "Academic Subject Guides: a Case Study of Use at San Jose State University," Staley points out that a Duke University survey of subject guide use found that, of library patrons, "53 percent had never used subject guides, and another 24 percent reported rare usage" ([2007](#)).

So why bother? Going to the trouble of creating screencasts for guides that no one looks at seemed an exercise in futility. In the sciences, especially, information proliferates at such a geometric pace, with subjects ever-dividing into smaller and more specialized niches, that a subject guide needs regular updating. If subject guides receive little use, updating efforts may be a waste of precious time. Yet, precisely because information in the sciences proliferates at such a pace, science students may need research guides more than most to find their way through a forest of information. The question was how to match their needs to the most useful product?

Apparently, one type of research guide does attract consistent use: course-specific subject guides. Surveys of guide use at a number of universities show higher use statistics for course-specific guides than for more general guides. Of the heavily used guides at George Washington University's Gelman Library, Kapur says most "are based on specific topics or class assignments, so they may appeal to students more than a broad- or discipline-based guide" ([Courtois et al. 2004](#)).

Reaching students at point of need through course-based guides is particularly appropriate for the sciences in today's interdisciplinary environment. Is the best database for a bioengineering student ScienceDirect or Engineering Village 2? What about bioethics? Research on bioethics and human cloning, for instance, spans biology, social sciences, and law. A recent question on solar water purification at Santa Clara University's information desk straddled environmental sciences and engineering. The amount of information to sift through can overwhelm students. With a research deadline approaching and a mental state reflecting stage three (confusion) of Carol Kuhlthau's [Information Search Process](#) (Kuhlthau 2004), a Bio 5 student might find it especially useful to have a research guide that reflects the information sources for the course's focus on endangered ecosystems. Did Santa Clara's statistics support that supposition?

Science Guides at Santa Clara: Statistics and More

Santa Clara University (SCU) is a four-year private university with 5,261 undergraduates registered in Fall 2007 and 3,424 graduate students in four master's-level degree programs, although none in the sciences. In 2007, the university offered 154 courses among the university's four science departments: biology, chemistry, environmental sciences, and physics. The library's research guides support science programs with a mix of subject-specific database lists, web resources, how-to guides, and course-specific guides.

To find science articles via SCU Library's [home page](#), in the left-hand sidebar a dropdown menu of databases allows students to choose databases A-Z or by subject. In the main text as well, another dropdown menu guides students to subject research guides. Each of these guides includes a link to the list of databases for that subject as well as links to general guides and course-specific guides. General guides for chemistry, for example, include web resources and SciFinder how-to instructions. Links to course-specific guides are listed under a separate subheading for speedier identification.

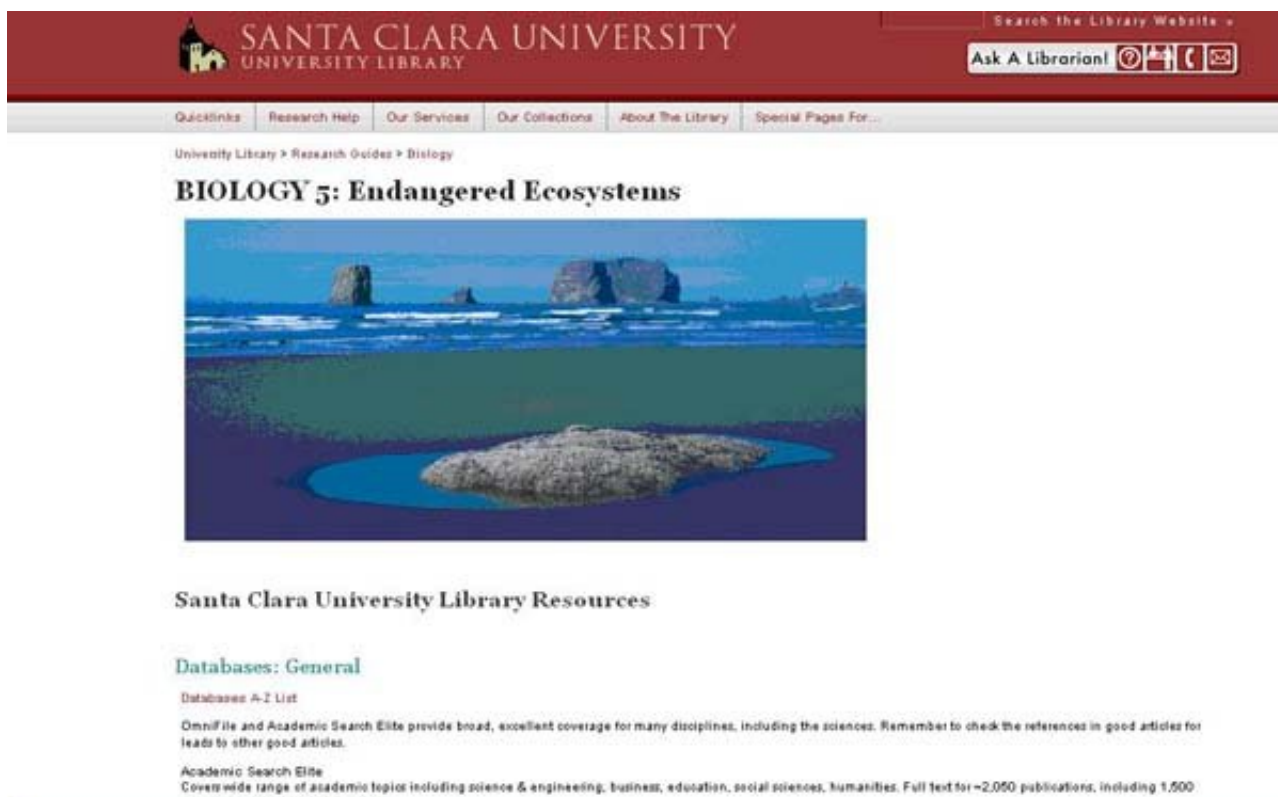
It was, perhaps, no surprise that science database lists received the greatest number of hits among the science library web pages. Biology databases received, by far, the greatest number of hits in 2007: 2,476. Database hits for the other sciences all made the top ten, as did the entrance page for each of the four departments' research guides. The only general research guide that made the top ten was the [PubMed Quick Guide](#), with 874 hits.

Next most popular was the research guide for [Environmental Writing](#) (ENV 142 / ENGL 174) with 604 hits. During 2007, 36 students enrolled in two sessions of Environmental Writing. Associated with the research guide for that course were information literacy (IL) sessions, so the students not only knew where to find the guide, but also used it during the IL sessions. Reduce the 604 hits by 36 for in-class use and perhaps a combined half-dozen or so looks by the faculty member and the librarian: say, 560. That's 16 hits per student, a strikingly high number.

[Soil, Air and Water](#) (ENV 13) had two sessions in 2007 with 20 students total, giving its 296 hits an average of approximately 13 looks per student, assuming a few looks by

others. This research guide, too, was associated with IL sessions. By contrast, the general web resources guides for biology, chemistry, and physics, which should attract a broad range of use by both students and faculty, drew 339, 396, and 353 hits, respectively, in 2007.

Two new IL sessions in October 2008 each engendered a new research guide. Not only were the guides used in the IL sessions, but the instructor -- who teaches both courses -- also put a link to each in that course's courseware module. The combination of course-specific guide, librarian demonstration *and* student use in an IL session plus the courseware link yielded results immediately. An IL session on [Endangered Ecosystems](#) (BIO 5), for example, was presented on October 3 to 40 students. Within a week, the research guide had been visited 99 times -- 59 times beyond the use in the IL classroom. And research papers and projects were not due for some weeks.



SCU Library BIO 5 Research Guide

Research guide use is gratifying, but if the greatest use is at point of need, then every course -- or at least every course associated with an IL session -- should be accompanied by an online research guide. This puts great strain on librarians, especially science librarians who serve fields where information can become superseded by better information within months, rather than years. In addition, instructors may keep courses fresh by changing focus. As it happened, the focus of a course on bioethics changed from genetic research, cloning, and genetically modified foods one year to diseases and genetic testing the next.

In disciplines dense with facts, such as the sciences, faculty may want IL sessions, but may be loath to give up precious teaching time. The high-speed pace of a quarter system compresses teaching time even more, and an hour-long one-shot may be the most a librarian can get. In these cases, online guides serve as both complement *and* supplement to course-specific IL sessions.

Scientists may even request research guides for their own research -- part of a growing trend toward more collaboration. The authors of an intriguing report on the future of libraries see an increasingly interwoven connection between librarians and researchers, as do some scientists: "One scientist sees the future role of librarians as 'aggregators, playing a Yahoo-esque role in creating large, universally accessible, hierarchically ordered lists of links..." ([Marcus et al. 2007](#)).

One unexpected benefit of course specificity is that by focusing on information that supports coursework, it is easy to see what topics have a dearth of information and which items are out of date. An IL session on conservation biology revealed collection gaps, resulting in a few crucial orders. One, *Key Topics in Conservation Biology*, warranted a rush order and was targeted for course reserves. A research guide's selected list of resources not only helps keep the collection up to date and students and faculty better informed, it also provides marketing for resources. More use hopefully equals better research and writing, thus a better "return on investment."

Such specificity across a range of courses, however, requires extreme nimbleness on the part of the librarian. Ideally, all courses associated with a course-specific IL session would have its online guide. At the least "core" courses associated with IL sessions warrant online guides.

Looking at the larger picture, the guides group had shifted focus considerably, from enhancing existing guides with Web 2.0 technology to reconsidering the purpose and effectiveness of research guides in general. If course-specific guides had become a focus, finding a way to produce them quickly and easily was the new concern.

The most obvious problem was Santa Clara's university-wide content management system, which is neither flexible nor quick. We had to find a different application. We were also looking for a system that allowed the possibility of user interaction, an essential element of a Web 2.0 world. Do users want interaction? How do students conduct their research? Where do they start? Where do they end up? The guides group was not committed to a complex study, simply an informal look at student habits to help guide what had become the research guides revamp.

What Students Want

Student employees sit with librarians and IT staff at Santa Clara's Commons Help Desk. We asked a dozen or so students, individually, to demonstrate their research pathways: not the steps librarians hoped they would take, but what they actually did. Not surprisingly, near 90 percent began with Google, sometimes Google Scholar. From there, almost all went to Wikipedia next, explaining that the user-generated online encyclopedia appeared prominently in their Google results.

The students use Wikipedia enough so that they are quite comfortable with the format. They like the plentitude of links; they are fine with the design plainness; their goals are speed and simplicity. Familiarity and consistency seemed to be key. They know what to expect of the Wikipedia format and know how to navigate quickly.

Using Wikipedia for an overview, most then went to the SCU Library home page, where they either used the catalog search box or the database lists, both in the left-hand

sidebar. Not one of the students was even aware of the research guide subject dropdown menu in the web page's center well. Clearly, web page real estate is an important part of the research guide picture.

Armed with information on student search pathways, the guides group considered wikis as a platform for research guides. Students are comfortable with the format and SCU Media Services happens to support the same free wiki software as Wikipedia: MediaWiki. Before proceeding, however, we wanted to learn what other librarians were using.

Guides Platforms: New Choices

Posing the question to ACRL's Science and Technology Section mailing list produced numerous responses from other science librarians also interested in hearing what types of research guides are most effective and how best to produce them. A few respondents mentioned using home-grown products, not an option for SCU. Those trying new models for research guides fell into two groups: those using wikis and those using [LibGuides](#), a fee-based application specifically designed for online research guides that is quickly gaining ground among librarians.

Olivia Bautista Sparks, at Arizona State University, suggested looking at North Carolina State University's Physical and Mathematical Sciences (PAMS) reference wiki. The [PAMS wiki](#) main page has a link to their SLA poster session on the pros and cons of using a wiki. Of the wiki applications in use, the most popular seem to be [MediaWiki](#) and [PBwiki](#), although [Wiki Matrix](#) offers a comparison tool for these and many other wikis.

Oregon State's Margaret Mellinger and Princeton's Steven Adams presented "Research Guides Remixed" ([2008](#)) at the 2008 ALA Conference, Mellinger using a home-grown CMS for [Oregon State's guides](#) and Adams using LibGuides for [Princeton's guides](#). Their comparison of the two systems diverged in a few crucial areas: LibGuides hosts all guides on its servers while home-grown and wikis generally stay at home. LibGuides also charges an annual license fee of from \$899 to \$2,999. But, as Mellinger and Adams point out, server space and maintenance "are not without costs," and the LibGuides fee includes technical support.

Oregon's home-grown system uses open source software and is extensible and fully customizable while LibGuides is a closed system and has limited customization. Limited customization may be a curse or a blessing, depending on your point of view. Otherwise both support chat widgets such as Meebo, catalog searches, polls, tagging, and more.

In looking at components that make a research guide system useful, the overall entrance and search can be crucial as a library builds a collection of guides. A guide system with these features was on display at the 2008 Reference Renaissance conference in Denver. University of Colorado librarians, working with IT, created [UC Boulder guides](#), which offer searching and browsing capabilities. With more than 500 guides, the search/browse features are its strength, although librarians Stephanie Alexander and Jennifer Gerke, who presented their system with its pros and cons, opined that more consistency in naming guides would improve search returns ([2008](#)).

Consistency, in general, is an important factor in guides use. As Santa Clara students said in individual interviews, they know what to expect of Wikipedia and don't have to relearn the site's navigation on each new page.

First, however, users have to know that a guides collection exists. As good as a guides system may be, without prominence either via IL classes, courseware links, or good real estate on the library's home page, they likely will not get the use they should.

In the class he teaches at San Jose State University (SJSU) School of Library and Information Science, SCU Assistant University Librarian for Technology Rob Boyd set his students the assignment of exploring and assessing SJSU's guides. Among the comments Boyd ([2008](#)) received from his students was a recurring theme, echoing Reeb and Gibbons' findings:

- "As for improvement, my first thought would be publicity. I certainly had no idea that they existed."
- "...research guides need to be advocated on a much larger scale...These are powerful learning tools...It is a shame that these are practically a 'secret' to the majority of students."

If location is the key that opens the door to library guides collection, research guides at [Loyola Notre Dame](#) and [Arizona State University](#) have library web page positions to envy.

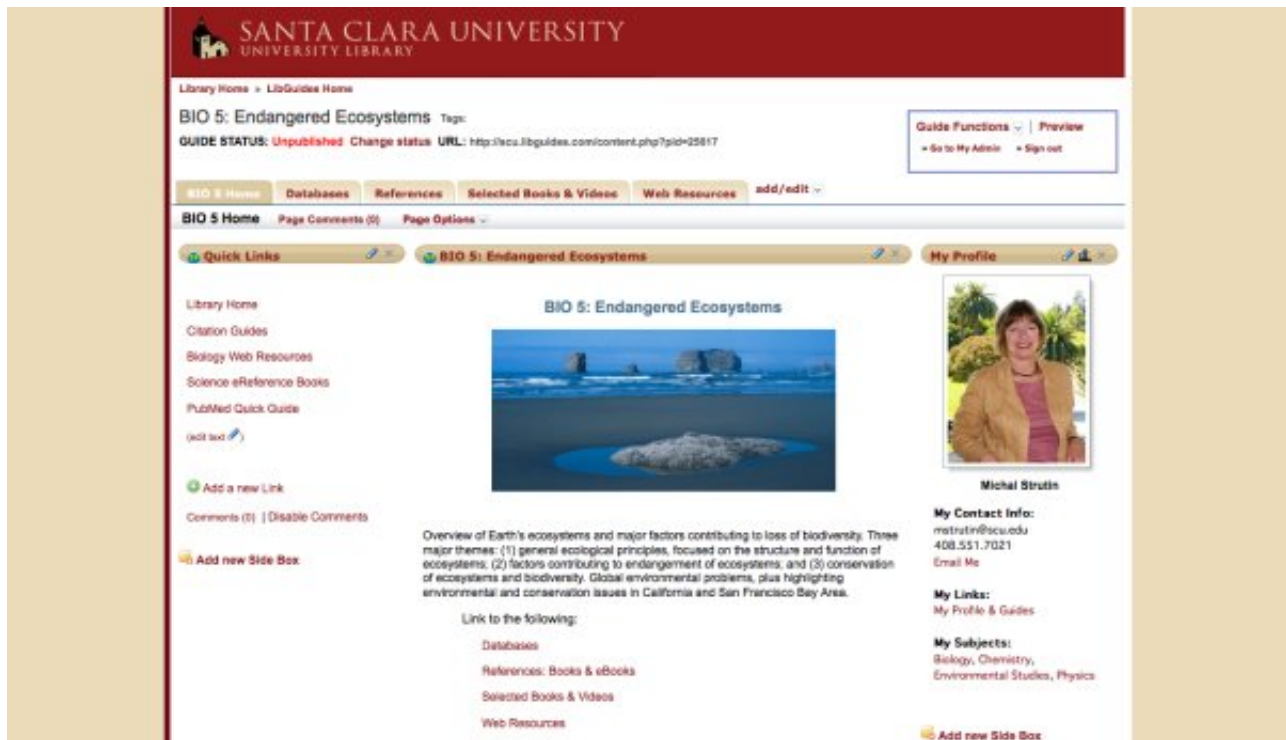
SCU's guides group moved from discussing the front end of home page location to the more immediate back-end issue of choosing a platform. Wikis have committed supporters. Chad Boeninger, Ohio University business librarian, was one of the first to promote the use of wikis, through conference presentations using his own {Biz Wiki} as a model. In addition, Boeninger's {[Library Voice](#)} blog ([2006](#)) includes PowerPoint presentations explaining wikis and their usefulness.

Norwich University librarian Meredith Farkas, who created [Norwich's wiki guides](#) system, also initiated [Library Success](#): a Best Practices Wiki. Created with MediaWiki, Library Success has a wiki page that includes the subheading for [wiki subject guides](#) with examples. The site also has a heading devoted to [guides in general](#), which offers tips for developing good subject guides. In her article "Subject Guide 2.0," Farkas points out problems with most subject guides: hard to update, not searchable, not interactive, thus precluding resource suggestions from knowledgeable users. "A wiki can resolve all three of these issues," Farkas says, "making a subject guide easier to update, searchable, and collaborative" ([2007](#)).

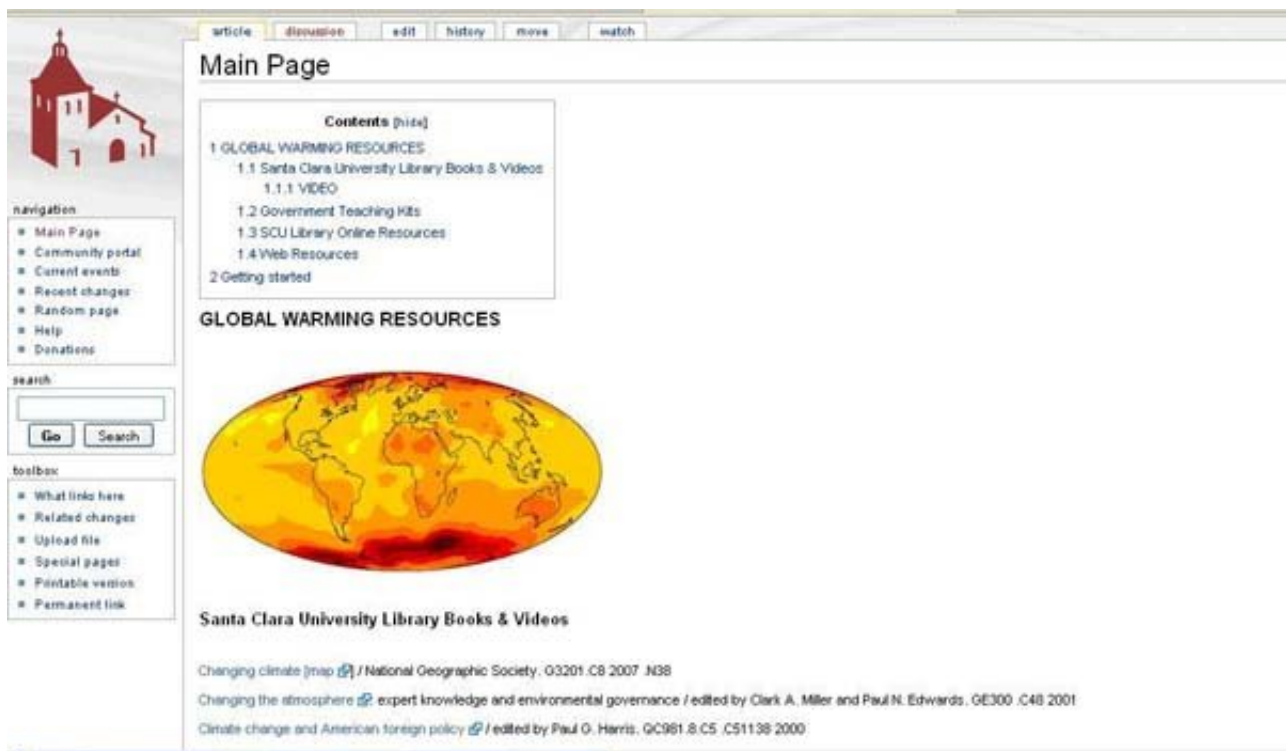
LibGuides have their supporters, too. Although LibGuides is basically a CMS, it is a system that was specifically created for library subject guides, so is library-friendly. To see what students think of LibGuides, the [Ubiquitous Librarian](#) blog presents student reviews, comparing LibGuides and Ithaca College Library's [SubjectsPlus](#). The LibGuides site itself includes [reviews](#). Although these are generally glowing -- not unexpected considering their provenance -- SCU's guides group heard glowing reports independent of the LibGuides site. Their [client list](#) is impressive.

So, which way to jump? We tried both MediaWiki and LibGuides and found that both constrain design customization. Although design constraints may not be a bad thing in

that they preserve consistency and make creation easy, both [LibGuides](#) and [MediaWiki](#) can be customized and provide information for doing so on their sites. For those determined to customize MediaWiki, Tim Ribaric tells how Brock University did it in his article, "It's Time to Use a Wiki as Part of Your Website"([2007](#)).



SCU Library LibGuides demo



SCU Library MediaWiki demo

In general, LibGuides seems easier to customize. LibGuides interface, a too-busy format of boxes, makes it difficult to know where to look, although this can be alleviated by customization. MediaWiki is plain but easy to navigate.

Perhaps the biggest benefit to choosing LibGuides is the simplicity with which librarians can add all the information items deemed useful: podcasts, videos, RSS feeds, and more boxes for more text and images. Adding so many tabs that they wrap in a double row may overwhelm students with too much information. LibGuides was designed to be librarian-friendly; while additions are easy, discretion is advised.

Search in MediaWiki is part of the basic structure: students can search all guides at once. LibGuides also offers cross-guides searching, and it is easy to add search boxesâ of the library catalog, a database, journals. Statistics and polls are also part of the LibGuides structure.

Whichever way Santa Clara University Library decides to go, these are the attributes that we believe will produce well-used guides:

- Ease of use
- Ease of creation and maintenance
- Course-specific
- Shown and used in IL session
- Linked at courseware site
- Recommended by course's instructor
- Design and feature consistency with library's other research guides
- Good library home page real estate
- Interactivity / "human face" via embedded chat

...and once Santa Clara implements a new research guides platform, we can return to the question of screencasts.

References

Alexander, S. et al. UFOs, Arabic Language and Culture, and Nanotechnology. Reference Renaissance 2008 Speaker's Presentations. [Online] Available: {http://www.bcr.org/referencerenaissance/docs/RefRenPresentation_alexander_gerke_lage.ppt}. [Accessed August 13, 2008]

Boeninger, C. Using a wiki as a research guide. *Library Voice*. [Online] Available: {<http://libraryvoice.com/wikis/using-a-wiki-as-a-research-guide-a-years-experience>}. [Accessed August 14, 2008]

Boyd, R. 2008. King Library Research Guides. Unpublished student feedback.

Courtois, M. et al. 2004. Was this guide helpful? users' perceptions of subject guides. *Reference Services Review*. 33(2):188-196.

Farkas, M. 2007. Subject guide 2.0. *American Libraries* 38(5):33.

Green, L. et al. 2008. Choosing a hand-held inventory device. *Issues in Science & Technology Librarianship*. [Online] Available: <http://www.istl.org/08-summer/article4.html> [Accessed October 2, 2008]

Kuhlthau, C. 2004. *Information Search Process*. [Online] Available: http://www.scils.rutgers.edu/~kuhlthau/information_search_process.htm [Accessed

October 5, 2008]

Marcus, C. et al. 2007. *NYC 21st Century Library Project: Designing a Research Library of the Future for New York University*. [Online] Available: <http://library.nyu.edu/about/KPLReport.pdf>. [Accessed October 16, 2008]

Matthews, B. 2008. Student reviews of LibGuides and SubjectsPlus. *Ubiquitous Librarian*. [Online] Available: http://theubiquitouslibrarian.typepad.com/the_ubiquitous_librarian/2008/04/student-reviews.html. [Accessed August 13, 2008]

Mellinger, M. & Adams, S. 2008. *Research Guides Remixed*. [Online] Available: <http://ir.library.oregonstate.edu/dspace/handle/1957/8950>. [Accessed July 24, 2008]

Reeb, B. & Gibbons, S. 2004. Students, librarians, and subject guides: improving a poor rate of return. *Portal: Libraries and the Academy* 4(1):123-130.

Ribaric, T. 2007. It's time to use a wiki as part of your web site. *Computers in Libraries*. 27(10): p.24-30.

Staley, S.M. 2007. Academic subject guides: a case study of use at San Jose State University. *College & Research Libraries* 68(2): 119-39.