

The Embedded *Library*: How the University of Arizona Libraries are Taking it to their Users

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In the mid-2000s, the University of Arizona Libraries, confronted with the fact that students and researchers were increasingly bypassing library websites as part of the research process, began to conceptually rethink its customer service model. Dean Carla Stoffle has articulated this new model as “Everywhere you are, the Library” – that is, organizing and building our services and resources to be where our users are and do their work, with the stuff they need, when they need it. Using the terminology of the day, one could see this as a kind of “embeddedness” of the library and its services. This concept of “taking the library to the user,” where effective, not only gives us nearly 100% penetration of the UA student market, it also engages the teaching faculty within their instructional context, providing a firm foundation for any further faculty/librarian instructional collaborations.

The thrust of our efforts to put our services and resources where the user is, when they need it, has been in integrating the library into the campus course management system. More and more, the CMS is where students “are.” CMS integration can be a daunting task and our experience at the University of Arizona has been no exception; our first attempts at CMS integration began in 2006 and are only now really beginning to pay off. There are a number of key reasons for this. Before we could become embedded in our campus CMS there 1) had to be “a” primary campus CMS to begin with (we had more than a half a dozen being used), 2) we needed to have good relations with those who would manage a central CMS (we didn’t), 3) faculty had to be using it (most weren’t), and 4) the faculty using it needed to be receptive to the library intruding into their instructional space (most were wary of us being there at best).

A “CMS Program” that we initiated around this time consisted of a suite of related projects intended to address the problems noted above. As part of this programmatic effort, we mended relations and began collaborating with the campus units responsible for CMS management. We then worked to establish the technical infrastructure to ensure single sign-on authentication (so that students would have seamless access to all authenticated library and campus resources once they signed on to the CMS). Because students were dissatisfied with the plethora of different systems faculty had them using, we leveraged this dissatisfaction to compel faculty to reduce the number of systems they were using. We also employed a carrot and stick approach to entice (and pressure) faculty to either begin using (if they weren’t using one already), or move over to a single, centrally supported CMS. As part of this effort, we discontinued our support of our distinct ereserves server, and required all faculty to use (or move to) the central CMS if they wanted us to provide scanned articles or book chapters for their classes. We also started a streaming video service that we only offered to those who agreed to make the streaming content available through the central CMS. Lastly, we were able to get our original library “widget,” with links to core library resources and service, added to each student’s default CMS home page. [See Figure 1]

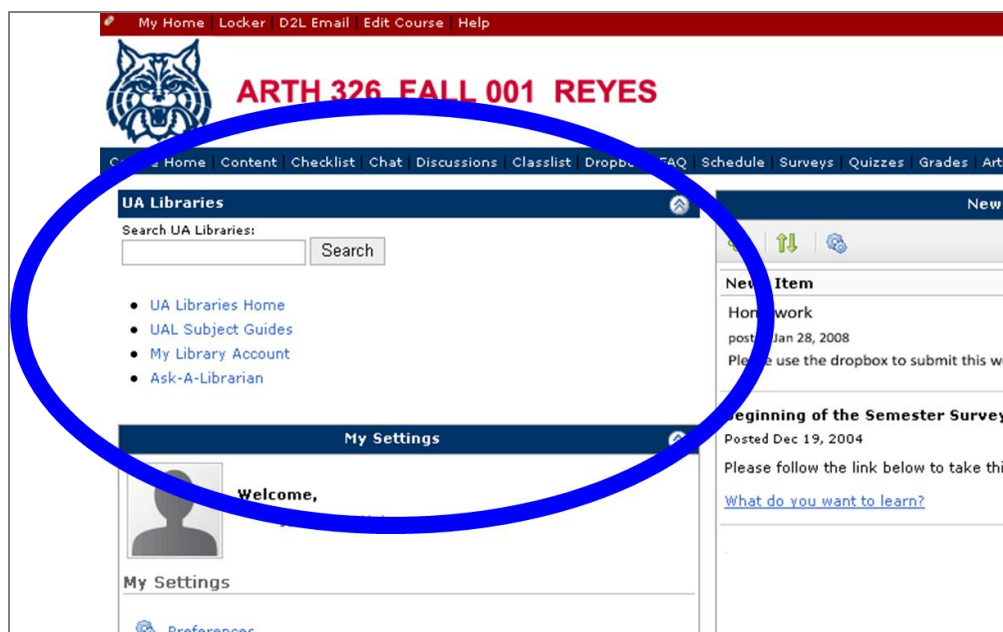


Figure 1 - Original Library “Widget” on Student CMS Home Page

While the strategies we used to move faculty and campus over to a single, centrally supported campus CMS were largely successful (only our business school and a few smaller programs are still using separate systems), and our streaming video service and service to supply scanned readings from our collections are heavily used, our attempts to meaningfully embed access to the library in the CMS were less successful. We found that our library “widget,” while embedded in the CMS, was too small, was relegated to a page on the CMS where it was largely overlooked (a student’s CMS “home page,” instead of the individual course sites where most of their virtual class time was spent), and did not provide students with library resources and services tailored to their specific research and learning needs.

With this limited “embeddedness” in place, the Libraries continued to advocate with others on campus for stronger centralized instructional support, especially support (both technological and pedagogical) for online and hybrid learning. This advocacy, along with the growing importance of supporting online and hybrid learning, eventually resulted in a new, centralized unit (the Office for Instruction and Assessment [OIA]) under the Vice Provost for Academic Affairs, and a new opportunity for the Libraries to become more meaningfully embedded in the CMS campus-wide. After negotiations with the Vice Provost and others in OIA, we were given an entire “tab” within each CMS course site through which to expose tailored library services and resources to students.¹ One requirement from the Vice Provost and OIA was that faculty have the option of removing the tab from their course sites, if they wished. Additionally, those managing the CMS servers and infrastructure asked that, for security purposes and in order to make managing our content more seamless, we host all the content from these

¹ While we largely use the term “SuperWidget” (both internally and externally) to refer to this new access point and the content that is made available through the CMS, we call it “Library Tools” on the navigation bar within the CMS. We initially called it “University Libraries,” but changed it to “Library Tools” after doing usability testing with students.

pages on the library's servers, and use an iframe to make the page appear to reside within the CMS. [See Figure 2]

The screenshot shows a CMS interface for a course titled "ARTH 326 FALL 001 REYES". At the top, there is a navigation bar with links for "My Home", "D2L Email", "D2L Help Pages", "Locker", and "Logout". Below this is a course header with the course title and the University of Arizona logo. A "Library Tools" tab is highlighted with a red circle. The main content area is divided into several sections:

- Find Articles:** This section lists several databases: "Art Full Text", "ARTbibliographies Modern", "Art Index Retrospective", "ARTstor", and "Bibliography of the History of Art (includes RILA & RAA)". Each database has a brief description of its content. An "All databases" button is located at the bottom of this section.
- Search the Library Catalog:** A search box with a "Search" button and a link to "Advanced search".
- Library Services:** A section with links for "My Account", "Equipment Lending", "Group Study Rooms", and "Interlibrary Loan". An "All services" button is at the bottom.
- Fine Arts Library:** A section displaying "Today's hours 8:00am-6:00pm", the address "1017 N Olive Rd., Music Building, Room 233", a "Map" link, and the phone number "(520) 621-7009". A "More detailed hours" button is at the bottom.
- Research & Writing Tools:** This section contains links for "Finding Library Materials", "Avoiding Plagiarism", "Citation Style Guides", and "Writing and Citing with Refworks". Each link has a brief description of the tool. An "All tools >" button is at the bottom.
- Ask a Library Question:** A chat box with a "Type here to chat." input field, a "Send" button, and a "Contact us another way >" button.

Figure 2 – SuperWidget Page in CMS

This new library tools "tab" is now in every CMS course site on campus and pushes out library resources and services, some of which have been specifically tagged as relevant to the particular discipline of the course site they appear in. Currently, only databases and a few other categories of content are tailored to the particular disciplinary/course context, but in the near future, we will be adding greater granularity, potentially down to the individual course level.

In the event that a course guide has been specifically created for a course by one of our librarians in consultation with faculty,² the content from that guide is made available through the appropriate SuperWidget course page in the central box.³ [See Figure 3]

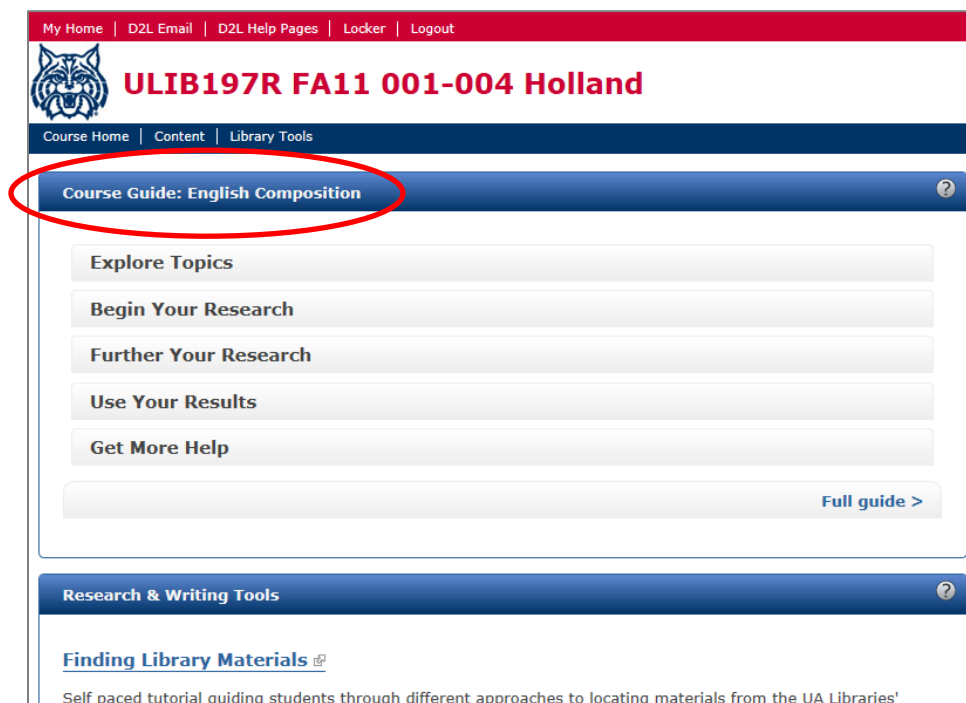


Figure 3 – Course Page Contents Embedded in the SuperWidget

A preliminary study of how the use of these kinds of course pages by students differs, depending on the access point used (through the Library Website, or through the CMS SuperWidget page), has revealed that not only was the content in course guides accessed three times as much through the CMS SuperWidget page as through the website, but the pattern and duration of use also spanned the entire semester, and seemed to align with times when one would expect research to actually be taking place. In stark contrast, the use of course guides directly from the website was concentrated on a narrow period of time a few weeks into the semester (most likely coinciding with in-class library instruction sessions, or the instructor introducing the course guide in class).⁴ [See Figure 4]

² We are currently using a modified version of the Library à la Carte software to create our course guides.

³ To save space, only the headers for the various “tabs” from the course guide are presented to the user in this box. When clicked on, the resources provided on a given tab are displayed under the header. The full guide can be opened up in a separate window by clicking on the link in the lower right hand corner.

⁴ For more information, see Erica DeFrain’s *Living the Future 8* Poster Session, available at: <http://arizona.openrepository.com/arizona/bitstream/10150/221691/1/ltf2012-defrain.pdf>

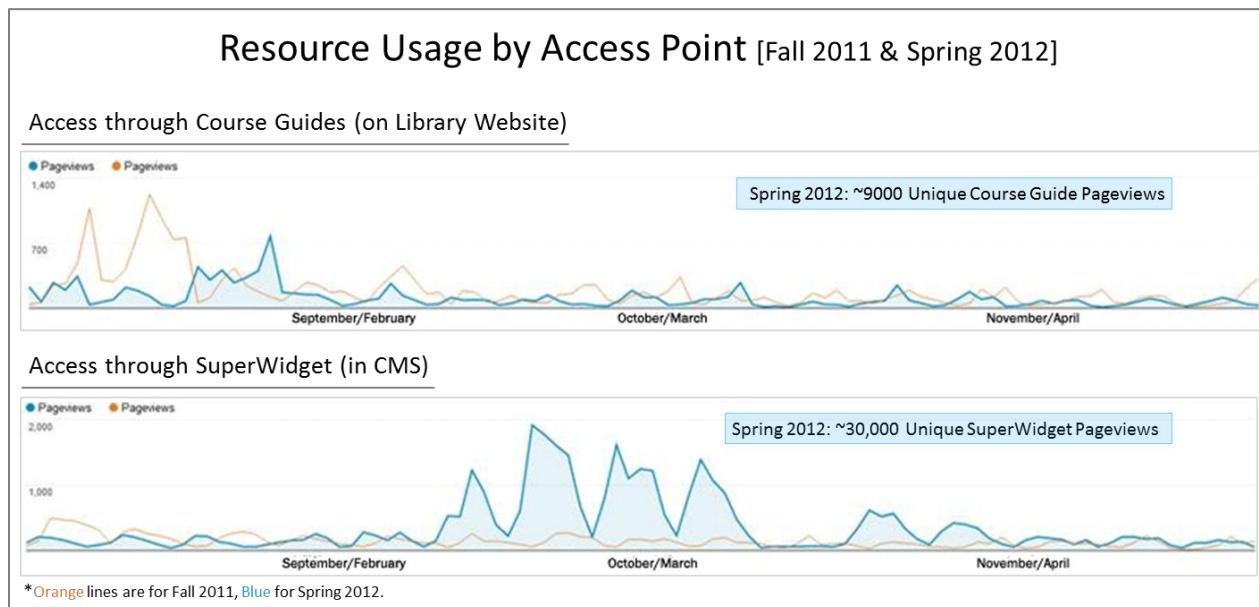


Figure 4 – Course Page Resource Usage by Access Point⁵

In the near future, in order to refine the content and user interface for our SuperWidget pages, we'll be performing a number of different needs assessment activities, including conducting focus groups with instructors and students, and iteratively analyzing Google Analytics data to understand which services and resources are (or are not) being used and then adjusting what we offer accordingly. Over the summer we'll identify additional content to tag and push out through the SuperWidget (library or university services, FAQ content, other help resources developed by librarians, etc.), and add customization options that will allow librarians or individual faculty members (within set parameters) to add, remove, or reorder content down to the individual course level (i.e., change databases; add books, journals or websites; suggest particular tutorials or help resources; or remove entire categories of content and expand others). We also plan to monitor these kinds of changes in order to improve the overall profile for specific disciplines, levels, groups of students, or even individual courses. This kind added customization will also increase our ability to recognize and react to instructor needs or preferences, essentially making the SuperWidget not only a tool to push out library services and resources where and when students most need them, but also a venue for needs assessment, marketing, and communication with our teaching faculty.

Another benefit of the comprehensive nature of this effort is that it will allow us to get iterative snapshots of how students are actually using specific library resources and services at the college, discipline, and course levels. While use does not necessarily correlate with value, having this kind of data to share with our university administration can help show how we are supporting instruction and student learning, and the degree to which that support is being taken advantage of. It can also be used to inform departments or instructors about which resources or services their students seem to value.

⁵ The usage numbers for Fall 2011 for the SuperWidget were low due to the tool not having been exposed within all CMS course sites or marketed to faculty or students.

With this kind of data, and additional analytics gleaned through the campus CMS, we may also be in a better position to collaborate with teaching faculty to design and conduct research studies to look for correlations between the use of library resources or services and student retention or success.

Successfully embedding the library, its resources, and services into the campus CMS may help us to:

- Increase student discovery of and access to library materials;
- Improve campus (faculty and student) awareness of library resources & services;
- Reach the entire student “market” with resources and services largely appropriate to their specific course needs;
- Establish a solid foundation and venue for more in-depth librarian/faculty collaboration;
- Free up librarian time that is currently spent doing iterative work to allow for more time and focus on “Cadillac” services, programs, or resources for higher need or high impact areas

But success can also be disruptive. Success embedding the library in the campus CMS may require us to retool other library services or even to rethink existing service models. Giving students seamless access to the library resources and services they need within their online educational milieu may result in a reduced or changing need for some of our other major services or resources. How will having a carefully crafted, embedded course guide for every course on campus alter (or even eliminate) the need for our traditional online course or subject guides? While it may be unlikely to completely address all the needs currently met by these tools (or serve all the same customer groups), it will still undoubtedly overlap with a large portion. This kind of success may also offer us new opportunities. How else, for example, might we utilize the corpus of organized content created for the SuperWidget in other areas or services, or for other user groups? Could we use much of this content to populate newly reconceptualized subject or disciplinary guides? Could we leverage this model of pushing targeted resources out to our users, where they are and when they need them, to other groups or to other virtual venues? To faculty, departments, or research units? To student services units, advisors, etc.? And lastly, with less time required for the iterative work associated with individual course guide creation or modification, to what new or critical work will instructional librarians turn?