Challenges for Distance Students and Distance Librarians: Taking Advantage of the Online Environment

Julie Pohlman, Susan Skrien, Julia Sollien, and Emily Waitz

Is it a library if there's no building, no cataloguers, no reference desk? The Capella University Library is an online only library serving a population of adult, distance, and primarily graduate degree students. In this paper we will identify the unique challenges that have presented themselves to our library and the opportunities we have discovered not only in problem solving but differentiating ourselves within the organization and the traditional mold of the academic library.

Capella University is an accredited, postsecondary university established in 1993. At present we have an FTE of 9421 with 83% of those learners pursuing master and doctorate degrees. The average age of a Capella learner is 40, with 90% taking classes part time, 64% female, and 42% are learners of color. The Capella learner chooses from over 1020 courses offered quarterly in 22 different programs.¹

The Capella University Library was created in January of 2007. Prior to this, library services for the university were outsourced to another institution that provided basic support such as access to academic databases, interlibrary loan, and limited reference as-

sistance. The formation of a library from the groundup has allowed Capella to become a resource that is targeted to meet the unique needs of its learners and organization, free of history or constraint.

While most academic institutions serve some sort of distance student and function as an online library to many² what distinguishes the Capella Library is that we are entirely online; resources are purchased and accessed electronically only; services we provide are designed to be delivered remotely without the necessity of face-to-face interaction. Not only is the learner's only contact with the library occurring remotely, but their contact with all of the university is undertaken in the same manner. Our continued existence as a library and university is dependent upon our ability to successfully function in this environment.

The experience of our staff and the research we conduct allows us to identify the primary areas that challenge the library to deliver successful outcomes. The learner's access to resources must be navigated without effort, relevant to their research pursuits and easily accessible with their technology and skill level.

Julie Pohlman is Supervisor of Access Services at Capella University, e-mail: julie.pohlman@capella.edu; Susan Skrien is Manager of Reference and Instruction at Capella University, e-mail: susan.skrien@capella.edu; Julia Sollien is Director of Library Services at Capella University, e-mail: julia.sollien@capella.edu; Emily Waitz is Head of Technical Services at Hamline Law Library, e-mail: ewaitz01@hamline.edu

The information literacy competencies of our learners can be augmented by the library and the principles translated into our instructional activities. Finally, the library needs to take advantage of the opportunities our university environment provides in order to advance our services and become a more effective resource for the learners.

Access to Resources

The accessibility of resources in the online library is a critical component to the education of the online student. It is the methods of access, the types, hours, or technology that influence and focus the role that access plays in the mission of the library. For the students at Capella University access is tied to three main issues: convenience—is the full text available now, without further clicking and searching?, content type—are the materials peer-reviewed?, and accessibility—do I need to download a plug-in, will it work on my Mac? The challenge for our library has been to address these issues in a manner consistent with our environment and keeping in mind that the experience a learner has with the library can make the difference between academic success and failure.

To ensure convenience for Capella learners we rely on library staff to enhance the functionality of common software and database features. The compatibility of the resource with our link resolver, the ability to create persistent links, and the accessibility of the resource to those with disabilities are all critical considerations in our selections. Any resource that does not meet these needs requires careful examination by library staff. While we cannot always pass over a resource when it does not meet our criteria, we can be proactive in developing a means to address these deficiencies. For example, when a resource is not compatible with our link resolver we develop a specialized marketing plan that incorporates elements like guides, tutorials, talking points, website presentation and education for outside staff like faculty, learner support, or course developers. When a resource doe not support persistent linking we consult with courseroom editors to create effective, consistent instructions to be delivered across the courseroom that instructs the learner how to access the article. A resource that presents challenges for students with disabilities necessitates our collaboration with Capella's Disability Services department so we are prepared to provide alternatives such as manually tagging a pdf, locating alternative access points to the material or even providing a physical copy.

It is important that the resources in our library are not only convenient to our learners, but that the content adheres to their program requirements and their research needs. To meet this challenge the Library has established systems to review collection additions and removals routinely, throughout the year. There are research trends within an academic discipline, what is a hot topic today may not be so tomorrow. We find that maintaining a pertinent collection allows us to be nimble in a changing environment while operating with a stable budget. One of the great benefits of electronic content is that you can cancel it today and get it again tomorrow.

Our collection decisions are made incorporating input from all areas of the library. We compile usage data on resources, statistics from reference and interlibrary loan transactions, lists of required course materials, and assemble input from liaison librarians who possess the subject matter expertise and in-depth knowledge of the degrees and specialization of their schools. In the last two years this process has lead us to add 11 new resources, discontinue 4, 2 of which we had for only a year, and dealt with 5 that changed platforms or had major alterations to their interface. Reference and Liaison librarians provide title list analyses for collection additions and cancellations and create instruction plans for design or platform changes. Access Services librarians provide analyses of interlibrary loan requests and quarterly course permissions for insight into journals and books that are in high demand by both learners and schools. Table 1 shows the number of strategic journal purchases we have made for Interlibrary Loan and Course Permissions over the last two years as well as an estimate of the cost the library will save annually with these additions to the collection.

Tailoring resources to our learners and programs and providing marketing and instruction on them when necessary guarantees our collection is the most effective for our learners.

The assurance of accessibility to our online resources would not be possible without the technological competency of our librarians. Capella has a centralized IT department. The separation of the library from IT means major resource related issues need to be mediated by the library, with necessary resolutions communicated to IT if necessary. Being an online in-

TABLE 1 Annual Journal Purchases by Interlibrary Loan and Course Permissions Requests						
	Requests	Cost of Requests	Estimated Annual Savings			
Interlibrary Loan						
2007	250	1,1208.9	2,773.9			
2008	100	4,839.4	571.6			
Course Permissions						
2007	4	2,089.68	534.68			
2008	8	1,983.6	1,983.6			
Total Estimated Annual Savings			5,863.78			
Source: Capella University Library, Access Services						

stitution, both the staff and resources that we provide are held to a higher standard by our learners in reacting to problems, upgrades and changes with services and content.

Department statistics, 2007-2008

Many of our adult learners last attended school 20 years ago and face a steep learning curve in order to "catch up" with many of the major transformations libraries have been through. Learners may require guidance understanding how databases work, what the features offered mean and how they are used. Our librarians must assess the learner's needs without the benefit of visual cues or similar frame of reference. All Capella library staff are knowledgeable in addressing technical problems and working toward quick resolutions with operating systems, browsers, cookies, or pop-up blockers. We create guides that are designed to address specific research techniques or common technical issues. We maintain a collection of answer templates for librarians to send out that address more rare, but still repeated questions such as trouble shooting adobe pdfs, or technical requirements of an e-book database. All librarians have access to our vendor contact information and training on what to convey to ensure problems can be resolved in the absence of point staff. Reference meetings contain dedicated time to address technical issues so staff are comfortable with questions on special features of databases and are up to date on any technical issues. The ability of our reference librarians in understanding the technology challenges of our learners has put the library in the position of being a trusted asset.

All of the access challenges we have encountered have provided us with an opportunity to distinguish the library as a source of expertise for Capella learners. By identifying criteria that affects our particular population in access to resources we are able to make the library even more convenient for our learners. Exploring ways to make our collection malleable ensures that our collection content continues to grow with the research and markets of today's learners. Finally, by developing the expertise of our staff in the resources of our collection and the navigation of technological minefields have increased our customer service and learner satisfaction.

Information Literacy & Instruction

Capella University library considers the same questions as most academic libraries as we plan information literacy and instruction strategy and activities: How can we impact the learning experience? How do we partner to meet our goals? How can we completely integrate into the curriculum on a university—wide level? How do we know we are maximizing our instruction opportunities and that learners are benefitting from the activities?

As with most institutions our learners do not come to us seeking instruction in skills, concepts, or opportunities for competency building. Librarians in brick and mortar institutions often have to rely on one-shot visits to a professor's class or a visit to the library to deliver research and information literacy instruction. At Capella we have a distinct advantage in delivering library instruction and information literacy competency development opportunities because of our university's curriculum and course development process and by using technology to drive content to learners.

When our services were brought in-house we stated our commitment to supporting academic success and program completion with integration of library research and information literacy instruction into the curriculum and courseroom. We spent over a year gaining an understanding how programs and coursework are developed, designed, implemented, and continually improved at Capella, and experimented with various ways of delivering instruction in key concepts and skills. Spending time exploring different models showed some immediate dividends, which we were able to leverage as we worked with departments across the university to determine how

to include the library in the curriculum, course development and delivery process. When a librarian was embedded in sections of a course we saw a correlation between their presence and a 13% increase in the number of 'A' grades students received in that course. Another librarian noted that at certain points in the quarter questions about a particular assignment about the scholar-practitioner model increased by 100%, from 10% to over 25% of calls. By embedding a guide in the course we saw call volume stabilize at about 14% for this assignment.

Currently we are piloting an information literacy initiative in partnership with our curriculum and course development departments. We meet with faculty and curriculum specialists in the planning phases of new graduate programs to identify where and how information literacy outcomes can be embedded into the design of the entire program. This includes integrating our Information literacy competencies, which are very similar to the ACRL competencies but were developed with our curriculum specialists, into the program-level outcomes and competencies for the entire academic program.

When the new program curriculum is created, we will move to the next phase which includes working closely with course developers to assist with designing courseroom assignments that incorporate both the subject matter and the Information literacy competencies. Our partnership with these departments and inclusion in the development process will allow us to influence when to teach what, where to integrate information literacy competencies within the sequence of classes, and to assess competency achievement with whatever assessments are used.

In addition to determining if it will be possible to roll out this level of in-depth integration and inter-departmental cooperation into a scalable solution for all programs in development or review at Capella, we expect to prove that integrating subject-specific coursework with information literacy outcomes improves student's demonstration of complex information literacy concepts and research skills. We will use a variety of assessments and evaluations to measure the effectiveness of these integrative methods in enabling achievement of information literacy competency. A recent article posited "While librarians continue to be included in the teaching mission of the university on a course-by-course basis, it is still rare that the inclusion of the librarian is integral to the mission of the

course or the curriculum in any major way." If this pilot is implemented university-wide, librarians will be an integral component of curriculum and course development processes at Capella.

While we work with partners across the University to integrate information literacy into programs and coursework, library research instruction occurs at point of need and enables self-service transactions. The constant challenge is identifying the points of need. Data analysis has been a critical element for tracking these points.

Capella librarians each have subject level expertise in a specific discipline, but all librarians participate in providing general reference and instruction services. As they complete a service transaction they enter data in a database. Subject librarians then analyze the data (learner demographic, type of transaction, course or assignment) for their subject area and as a result have developed data-driven insight into learner needs which is then used as part of an overall strategy to develop targeted, point of need instruction. As an example, when the Human Services librarian identified a significant number of reference questions about a particular assignment, she created a guide that was embedded in the course so learners could have access to a resource any time of day or night.

Librarians have access to all course content in real time so that they can immediately investigate issues they uncover in the course of their reference or liaison work. Based on their evaluation of issues, librarians work with each other and courseroom staff to provide both short term and long term solutions to problem assignments or research needs. When librarians received numerous calls about problems accessing material in LexisNexis, they discovered the instructions in the courseroom were misleading and worked with the instructor and courseroom staff to correct the problem. The instructor posted amended instructions immediately, and the librarian worked with the course development staff to make a permanent improvement to the instructions in the courseroom.

Early on we recognized the value of designing reference and instruction materials that could be easily leveraged as our learner population grows. Use of these materials would ensure consistency of message across transactions and interactions whether the library was directly involved or not.

Research instruction is delivered in the form of standardized guides and tutorials that run the range from the general, such as *How to find a Peer Reviewed Article*, to an assignment specific guide like *Finding Clinical Evidence*. Both general and specific guides are embedded into the courseroom at critical junctures, supporting faculty work and learner success. Sometimes a librarian suggests a guide or tutorial, sometimes courseroom staff embed them as they see a need.

Likewise, the same tactic is employed with staff reference resources; we have developed templates for the more common and a knowledgebase for the less common answers to questions. Both are utilized to deliver a consistent, branded experience that mirrors library instruction in the courseroom, and vice versa. For example, the scholar practitioner assignment specific guide noted above is leveraged not only in multiple sections in the courseroom, but is also linked on our library website and used during reference transactions.

By leveraging data and a template approach to deliver instruction in the courseroom and via reference transactions, we were able to save hundreds of hours and thousands of dollars, while getting critical instruction to the learner quickly and efficiently. Table 2 presents reference statistics from 2008 that show use of pre-written drafts in response to specific assignment reference queries saves our team at least 121 hours per year.

As with technological competence, another challenge that became an opportunity to deliver an exceptional service experience was identifying and responding to the additional level of complexity in delivering

TABLE 2 Reference Draft Use by Assignment Jan-Nov 2008					
Assignment Draft	Use	Staff Hours Saved*			
Whitman	31	7.75			
Scholar-Practitioner	290	72.5			
Middle Adulthood	33	8.25			
BronfenBrenner	80	20			
Kohlberg and Erikson	39	7.75			
Reflective Practice	12	3			
Total	485	121.25			
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Source: Capella University Library, LibStats data, 2007-2008

a service without face-to-face interaction. Our learner interactions are via phone or e-mail so our librarians have developed and refined their descriptive abilities both verbally and in print to communicate more effectively with learners. Many of our learners have not used a library in years, let alone electronic databases, before they matriculate. How would you describe to a student over the phone how to export a citation from a database they have never been in, or seen the likes of, before speaking to you? Working with visual cues such icons, colors, headings was the obvious first choice, but we have learned to also consider maximization of browsers, frequent verbal progress checks as we work with a learner, and utilization of technology, such as SnagIT and Breeze to minimize misunderstandings and miscommunication.

The absence of in-person learning opportunities has not hindered our online library's ability to teach research skills and information literacy competencies. Rather, it presents us with opportunities to modify our approaches and to develop our skills to support learner success in this new tradition of education. We develop measureable results to demonstrate the benefit of incorporating library research and information literacy instruction into the curriculum and course development process. Data is used to identify points of need and serve as indicators of our success in reaching learners. We explore ways to leverage resources for multiple uses while maintaining a consistent experience. Finally, we recognize the need for additional skills and techniques in our environment and incorporate them so that they are now business as usual for staff and learners.

Contribute to University Environment

No academic library exists as an insular entity and Capella is no different. The challenge we face is transforming the view of the library as a place that circulates books to an entity that plays a role in the academic achievement of our learners. A resource that both contributes to and profits from the broader operations of our online university. A mutually beneficial association allows the library to undertake a number of services that might not have been possible without the contributions of more specialized departments. To be an effective member of the online education experience, the library actively seeks ways to incorporate itself within the overall education process at Capella.

^{*}Total hours saved based upon an estimate of 15 min to answer per question

The most important relationship the library has nurtured is that with the centralized course development team at Capella. The partnership we have undertaken to deliver information literacy competencies has the potential for far reaching implications to the education process at Capella. We have also had the opportunity to develop more immediate solutions to learners' needs in the courseroom. Liaison librarians have been able to utilize data from reference transactions, their knowledge of school initiatives, and their professional training to advise on courseroom assignments while the Course Permissions librarian has collaborated to create a high functioning syllabus of course materials and a process for quick resolutions to access issues.

Capella librarians are valued for their expertise in their subject areas and schools. In an average quarter the Capella library could touch up to 100 courses in some way. This collaboration with course development includes liaison librarians creating assignment specific guides that are embedded in the course, such as those found in Table 2, collaborating with schools and faculty to rework assignments and providing consistent library and research messaging across all courses.

The Access Services department has been successful in undertaking process changes both in the library and with course development. Our collaboration has developed a successful process to make methodical link changes across the entire courseroom. In 2008 we were able to coordinate the systematic swapping of 162 links across 42 courses, most with multiple sections, when a vendor switched platforms for the delivery of their content. The success of this undertaking is evidenced by the absence of inactive link notifications. The Course Permissions librarian maintains the links and permissions in the courseroom to guarantee the learner experiences no problem. In addition to this tracking, a process has also been established between the library, course development and the book-

store whereby the course permissions librarian verifies the content in coursepacks on a quarterly basis. For material that is found in the library we coordinate the removal from the coursepack and making the change to the courseroom. Table 3 shows the results and savings this process has made for the learners since it began in 2007.

Two departments that have empowered the library to maximize its effectiveness at Capella are Marketing and Information Technology (IT). These centrally administered departments provide specialized services that otherwise the library would have to undertake with considerably less expertise and infrastructure. IT maintains the library's proxy server, website and provides general technical services like hardware and software maintenance. They also possess experience with content management solutions and website design that the library can utilize to guide our decision making processes. By removing these obligations from the library staff, we are able to focus on content and services, and IT can focus on avoiding and resolving major technical issues for the entire university.

Our partnership with Marketing has empowered the library to reach Capella learners in a more targeted, systematic manner. In 2008 we created a specialized library information e-mail campaign that targets learners reaching specific milestones in their programs: first quarter, second quarter, and the beginning of the comprehensive examination period. This collaboration guarantees we reach all learners at a particular stage of their program and that they all receive the same, helpful information to succeed academically. Table 4 shows a small sample of the data marketing is able to provide on the campaign in a quarter.

In addition to this larger campaign, marketing also assists with developing our brand, incorporating library information in regular university mailings, formatting customized signatures, and connecting with our alumni.

The expertise of the library staff at Capella is not limited to collaboration opportunities with other departments. It also extends to providing many of its core services to members of the business organization. Librarians are available to consult with staff to conduct research and provide reports that support the operations

TABLE 3 Coursepack Readings Removal by the Library							
	Q4 2007	Q1 2008	Q2 2008	Q3 2008			
Courses changed	19	15	1	1			
Readings changed	54	33	1	6			
Per coursepack cost	\$190.43	\$97.92	\$0.93	\$21.28			
Quarter learner savings	\$7,040.67	\$4,849.52	\$102.30	\$551.46			
Source: Capella University Library, Access Services department statistics, 2007-2008							

TABLE 4 Library Marketing Awareness Campaign Pre-comps E-mail Results					
Quarter	E-mails Sent	Total Opens	Unique Open Rate		
Q2	361	386	59.05%		
Q3	472	456	54.16%		
Source: Capella University Library, Q2 Library Awareness Reporting, 2008.					

of the university. Typically these services are utilized by academic assistants up to the CEO. The instructional activities of the reference team have also been available to company staff. In 2008, librarians provided 12 informational seminars and established routine training opportunities for course development.

Collaboration across university departments allows the library to develop a more integrated role in the education process of the Capella learner. The identification and collaboration with personnel involved in creating and maintaining courses provides the library with the opportunity to utilize our data and skill to improve the courseroom experience. Employing the specialized expertise of departments in our organization allows the library to focus on its core mission while promoting our own expertise allows these other departments to do the same.

Conclusion

The online only library can and does exist. The Capella Library has been able to successfully deliver many traditional library services such as reference, information literacy, interlibrary loan and access to academic books and journals to our entirely distance, online student population. The Capella online library faces a number of challenges in regards to access to resources, information literacy and instruction, and our integration into the university environment. By embracing these challenges when we develop services and resources we gain the unique opportunity to differentiate ourselves from traditional perceptions.

We seek in-depth understanding of our particular learner base and deliver services that they display a need for. We make our collection malleable and rely on our staff to possess a technological competency to address the common issues that can arise in a online only environment. The creation of measurable results to evaluate success with instruction and information literacy allows us to evaluate both the learner and

library's progress. We also use data to indicate new service needs and keep our eye out for opportunities to leverage resources for an improved online experience. The library seeks out ways to collaborate with other departments in the university to maximize the effectiveness of both the library and the operations of these departments. Meeting the challenges of our online only environment has given the Capella Library the opportunity to make a measurable contribution to our university goal of delivering a superior learner experience.

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