

# Digital Letters

Fall 2005

Issue Number Nine

## Letter from the Editor

Welcome to the fall 2005 issue of *Digital Letters* (DL). For this issue I was privileged to get an exclusive interview with outgoing head of the UCSD Digital Library Program, Dawn Talbot. Dawn talks about her very circuitous path to digital librarianship, the challenges of working in an environment with many unknowns, and the future skills needed for this area of librarianship.

In addition, Marlo Young, shares with us a new and engaging educational technology called audience response systems. This technology is being deployed both within the Libraries and around campus and its impact is only just beginning to be felt.

Hope you enjoy!

~ Trish Rose, Image Metadata Librarian, UCAI

## Digital Libraries - Building the Plane While Flying It: An Interview with Dawn Talbot

This interview was conducted June 22, 2005

TR: Dawn I understand you'll be retiring at the end of this month and I thought it would be great to interview you before your departure about the current and future state of digital libraries as you see it. You've been head of the Digital Library Program (DLP) at UCSD for how many years now?



DT: It's 5 years almost to the day. I became Senior Associate for Digital Library Program Development in July of 2000.

TR: What was your path within libraries that lead you to take on such a role?

DT: My path to being a digital librarian was pretty circuitous. I began my career in Technical Services at the University of Sydney ending my career there

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## Educational Technology at UCSD: Audience Response Systems

Educators at colleges across the nation are utilizing a new communication device within classroom instruction that's designed to enhance teaching while facilitating peer-to-peer learning. The technology, often referred to as an audience response system, personal response system, classroom communication system, or "clickers", was developed by a former NASA engineer in collaboration with the National Science Foundation and educational researchers from several major universities.

Audience Response System technology works very similar to the audience polling capability featured on the television program *Who Wants to Be a Millionaire*. The educational technology allows an instructor to pose a question and have the students respond using a handheld clicker device. The audience response system then graphs the responses in a bar graph for instantaneous results. This pedagogical style of quizzing students electronically encourages peer-to-peer learning, dialogue, and immediate evaluation of student comprehension. Through experimentation, a leading science education expert at Harvard, Dr. Eric Mazur, has proven that this pedagogical approach improves learning outcomes.

At UCSD, courses, such as *Physics 2B*, grade course participation according to in-class audience response usage. Several instruction librarians incorporate the technology into research skills workshops to facilitate discussion and/or challenge students with specific questions. One example of a question posed in a library workshop: How do you research? A) Google B) Talk to People/Interview C) Library D) Bookstore. Student responses, which are anonymous, allow the librarian and students to compare and contrast different approaches to researching while positively positioning the library and its resources in the minds of students. Students often comment that the technology is fun, engaging, and cool.

Audience response systems are installed within

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**Interview with Dawn Talbot** *(continued from page 1)*

as the head of a branch library for veterinary medicine, botany, zoology, and agricultural sciences, leaving after a total of 11 years to move to the U.S.

When I came to the States I briefly managed the research library at the Natural History Museum in Balboa Park before joining UCSD in 1984 to develop an Information Center for the nascent Center for Magnetic Recording Research (CMRR) - a university-industry research consortium. In 1995 this position was reduced to 50% due to funding shortfalls at CMRR. At that time I assumed a 50% position at the UCSD Libraries as project coordinator for special electronic initiatives. Initially I worked with licensing issues for UCSD's growing electronic journal subscriptions. I also was the contract evaluation coordinator for the CDL/LOC Environmental Information Project - a two-year demonstration project that involved creating a topical web site designed to meet the needs of multi-type libraries throughout the state of California. I worked with University Librarian Lowell to develop the first extensive user survey for the UCSD Libraries. Somewhere in there I chaired the Portal Project Team and was interim head of the S&E Library while the department head was on assignment to CDL.

With Brian's appointment as University Librarian, development of digital library initiatives became a higher priority. Not wanting to create a separate digital library unit he utilized a matrix organization structure to build a digital library program that was integrated within the traditional library structure. Having had some experience with UCSD's early efforts to coordinate digital library initiatives, was helpful as I took on the role of senior associate for Digital Library Program Development. I had worked quite a lot with the IT department, could juggle different projects, was able to work across departments, and was a generalist with a range of experience involving technology projects. When I look back at my career at the UCSD Libraries I realize I have been involved in some sort of technology development for much of the time. I laugh to think that early on one of those initiatives was introducing fax technology into the Libraries to support fast document delivery. We even received a State Library grant to buy a fax machine at CMRR. We certainly have come along way since then.

So you can see this wasn't a very direct career path.

TR: I'm sure this is true for most librarians working in this area because it's still fairly new.

DT: That's true. I think in the future you'll find more digi-

tal librarians coming out of school with knowledge of the technologies necessary for managing digital assets and having a more focused path but the more traditional skills will still be just as important.

TR: What have you enjoyed the most about heading the DLP?

DT: I'd have to say the opportunity to constantly learn. You don't suffer from boredom in this arena. I've also had the good fortune to work with smart and dedicated staff. I also like working on projects that I see as having long-term benefits - developing library infrastructure but for the digital world. We should remind ourselves constantly that the digital library is doing what we've always done in libraries - managing content, providing access and preserving for the long term but with the benefit and challenge of new technologies.

TR: This makes me wonder how do we take everything we know about libraries into the digital arena but at the same time not be restricted by that framework?

DT: Right, that's a danger. I came into this quite naively thinking the format is different but the issues are much the same. But in reality, digital formats bring a host of new challenges. Within this new environment though one has the opportunity to bring the experience and knowledge from the traditional library and attempt to apply and adapt that model within a technology driven sphere. It's challenging trying to balance the two when at times they do not want to play well together. I think that's why it's so important to have technologists and librarians working together to solve the issues as we both have important skills to offer.

TR: Have there been challenges and/or setbacks in running the DLP?

DT: The matrix organization structure of the DLP here is challenging. Because our program involves staff whose digital library work is not their primary responsibility, it takes longer to get things done. At the same time though you are not working in a vacuum in which digital library issues are separated from the day to day needs of the library. For the past several years, our DLP has been focused on a concerted R&D effort to build infrastructure for our growing digital assets. While this is essential - the foundation if you will, it doesn't translate into immediate "products" that improve services to our users and this can be difficult for librarians who are goal-oriented and service driven. Working in the digital library arena at this point in

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**Interview with Dawn Talbot** *(continued from page 2)*

time requires one to be comfortable with ambiguity since there are few models to follow, and to find satisfaction in building for the long term.

Another challenge is related to the need for substantial IT resources. The day-to-day operations of the library can't be neglected and they also require significant IT support. This can lead to some tension in the perceived fair distribution of limited IT resources. However Brian's ability to bring in soft money has alleviated some of that tension by providing additional funding to enable the DLP to hire IT staff for digital library projects.

TR: Dawn, what DLP accomplishments are you most proud of?

DT: The strides we've made in just 5 years. In 2000 the Digital Library Innovation Team was focused on identification of content for digitization to improve access. That set us firmly on the path to building digital content. As that content started to push into hundreds of thousands of files due to the successful grants for digitization that the Libraries had garnered, we realized that while building content was important we needed to build infrastructure to manage, store, preserve and access those files. Unlike print collections, digital collections are pretty intangible – just strings of zeros and ones. This forces on us the need to use technology for even the most simple organization and access. Pretty soon we needed to decide how we should name, store and access these assets such that they will be accessible for the long term? The traditional library management systems no longer provided the answers.

Five years later this infrastructure has been realized and is starting to be implemented. We are on the brink of a new phase for the DLP– deployment. I'm also very pleased with the non proprietary, standards-based approach taken. It gives us more flexibility by creating a "generic" asset store that will enable us to apply different application layers as appropriate on top of this basic infrastructure. Looking around at other emerging infrastructures we see many similarities with our own approach. The technologies and standards selected – XML, METS, ARKs, SRB, DSpace have been sound decisions.

TR: What do you see as the focus for the DLP in the next 5 years?

DT: Well that's probably not for me to answer. Someone new will be taking the program forward and I will look forward to seeing its progress (from afar). As I said earlier this is a new phase and it will have a more public face. It is moving out of the technology development arena and I expect we will see more focus now on building the user interface – both for library staff

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**Audience Response Systems** *(continued from page 1)*

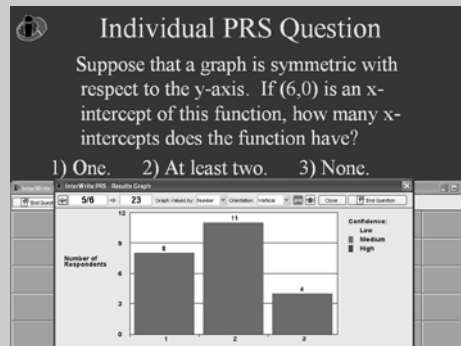
several lecture halls on campus as well as Geisel's Library Electronic Classroom, CLICS' Total Learning Classroom, and on the UCSD Libraries' Instruction & Outreach Committee wireless laptop. For more information or to learn how to use the audience response system, feel free to contact me at [m2young@ucsd.edu](mailto:m2young@ucsd.edu)

*~ Marlo Young, Undergraduate Outreach Coordinator for UCSD Libraries*



A personal response system (or PRS) allows large groups of people to vote on a topic or answer a question. Each person has a remote control with which selections can be made. Each remote communicates with a computer via receivers located around the room.

After a set time, the system shuts off and tabulates the results. Typically, the results are instantly made available to the participants via a bar graph displayed on a projector.



## UPCOMING DIGITAL DIALOGS

Monday, September 26, 2005

12-2pm

Geisel Library, Seuss Room

### DVD showing of a talk at ALA by Siva Vaidhyathan

Vaidhyathan, a cultural historian and media scholar, is the author of *Copyrights and Copywrongs: The Rise of Intellectual Property and How it Threatens Creativity* (New York University Press, 2001) and *The Anarchist in the Library: How the Clash between Freedom and Control is Hacking the Real World and Crashing the System* (Basic Books, 2004).

#### Interview with Dawn Talbot *(continued from page 3)*

and for end users to access and make use of the Libraries' digital assets. Policies and procedures will need to be developed for using the digital asset management system (DAMS) and I hope that through presentations and papers our work will become more widely known in the broader library community.

TR: Dawn, what people and ideas have inspired you in your growth as a digital librarian both at UCSD and outside?

DT: Locally, I'd have to say Brian for his vision of a DLP and his willingness to commit resources to its development. He has positioned the UCSD Libraries such that as the digital wave gathers momentum as it will, we will have a system to handle it – a system that can grow as the technologies change and improve.

The other person to whom I owe a tremendous debt is Chris Frymann. He has patiently taught me so much about new and emerging technologies that have become so important to us in the digital library world. Chris is an inspirational digital library architect. He stays abreast of emerging technologies and constantly questions how we can use them productively within the library community.

Going further abroad Cliff Lynch has always impressed me with his grasp of the big picture issues that many of us may not have even considered as we press forward into the digital arena. Cliff is one of the best "thinkers outside the box" that we have in the library community. And then there are the many colleagues of the Digital Library Federation (DLF). At the twice yearly forums I have been fortunate to attend, one hears from many librarians who are pushing the envelope and coming up with creative ways to harness this beast – the digital library. Then there are the efforts that are going on in the UK, Australia and NZ especially in the area of digital preservation. Our own colleagues at SDSC are also right up there and will hopefully with the work they are about to commence on the CHRONOPOLIS project, really make a significant contribution within the digital preservation arena.

TR: What sort of skills do you think are important for someone who is interested in focusing on digital librarianship?

DT: Well, success in the digital library arena really requires the skills of many different people – technology specialists, cataloguers and metadata specialists, bibliographers, etc. A librarian working in this area will be called upon to work quite closely in team based situations with all of these folks. Good project management and communication skills are important, as well as flexibility to explore new and different approaches that may be somewhat risky. Today, working in the digital library field is not for the librarian who wants stability, perfection, and a clear way forward but if you are comfortable with ambiguity, are excited by technology and enjoy constantly having to learn new things then this is definitely the area of librarianship to be in.

#### **Today, working in the digital library field is not for the librarian who wants stability, perfection, and a clear way forward ....**

TR: Now I'd like you to fantasize for a moment. If you were to be enticed out of retirement in the future and paid to do research in any area of digital

libraries, what issue most captures your attention that you would want to focus on?

DT: Well I'm not sure this would qualify as research but I would probably be most interested in working on a campus digital repository. I have become increasingly aware of the enormity of the problem as more and more content is born digital and those responsible for its management are starting to realize that they can't easily access their digital content let alone guarantee long term preservation.

TR: Dawn I had asked my colleagues in the DLP working group if there were any burning questions they wanted to ask you. Jenny Reisswig was dying to know how you manage to wear such fabulous shoes and still get around UCSD's "deferred maintenance" grounds without breaking your legs.

DT: (laughs) Well, that's easy to answer – I don't wear heels!