Abstract: Over the past several years the Medical Sciences Library, Texas A&M University has been working hard to make as much as possible of our journal collection available to our users electronically. Service quality assessments and focus groups sent a clear message to us that our users want to be able to access full text articles from their desktops, at work and at home. As a result of our success in providing online resources, we have seen definite changes in use patterns that have significant implications for how the collection evolves.

We have systematically collected use information for our collection since the early 1980’s. Over the past year we began analyzing our use data. We compared historical data to the data we collected from 1995 to the present, examining trends in the use of print journals, comparing online usage to print usage, and calculating cost per use figures for all of our journal titles. Our data reveals several consistent trends: Print usage is now often only 10-25% of what it was 3 years ago. Print usage is declining not only for those titles with electronic access, but also for those available only in print. Many print titles with electronic access availability have cost per use ratios that do not support retaining the print subscriptions. We have also begun an analysis to compare these trends in the 3 major subject areas of our journal collection: biomedical research, clinical human medicine and veterinary medicine.

Analysis of this data led to several conclusions and actions: We have set forth on a new path for developing the collection that converts a significant number of our print journal subscriptions to electronic format only. We have targeted groups of print titles for enhancement with electronic access. In order to support this growing emphasis on electronic resources, we have redefined one of our positions to be dedicated full time to serials and electronic resources, a Serials and Electronic Collections Coordinator. We continue to gather user feedback and suggestions concerning our move to electronic journals. Sharing our data usually leads our users to the same conclusions. The road to an electronic journal collection has been quite smooth, paved by our use data.

My purpose today is to share with you our experience in moving toward an electronic journal collection. I will be presenting not only the process and the results, but also some background information about the Medical Sciences Library, the reasons behind the choices made in the process and some of our expectations and plans for the future.

Background

The Medical Sciences Library, Texas A&M University, is one of only a few health sciences libraries in the United States whose collections encompass both veterinary and human medicine. We serve one of the largest American Colleges of Veterinary Medicine and a geographically distributed Health Sciences Center, which includes a College of Medicine, a School of Rural Public Health, a Graduate School of Biomedical Sciences, a College of Dentistry, an Institute for Biotechnology, and several nursing programs, as well as the biomedical information needs of all Texas A&M undergraduate and graduate students, local practitioners, and the community. We are one of several campus libraries who work collaboratively to provide information resources to our clients. We accomplish our support of the Health Science Center through an Alliance of nine independent libraries scattered across
Texas. We function as a resource library in the National Library of Medicine Region 5, and are the only veterinary library in Texas and several surrounding states.

A brief presentation of our collection numbers and staffing trends will reveal much about the collection directions we have chosen. We maintain about 1,700 current print serial titles, which is down from a high in the early 1990’s of over 2,000 titles and have a total volume count of about 120,000. We subscribe to about 1,500 online journal titles, and through collaborative efforts with the university library, we are able to provide our clients with access to over 7,000 full text journals and over 60,000 electronic resources. Recent trends in staffing also underscore the change in the nature of the collection. Over the past two years we have added 2 positions: a Database and Digital Collections Librarian and a Serials and Electronic Collections Coordinator. This past year we also received about 10 percent of the time of one of our reference librarians, an informatics specialist, to help us manage and analyze our collection data.

The selection and collection evaluation process for serials is a collaborative one, which involves an Information Resources Council, made up of all our librarians and other staff with collection responsibilities, as well as input from our clients, both individually and as members of focused collection task forces. We have been collecting data on the use of our journal collection for over 20 years. Use data was first collected with a sampling technique; by 1990 every journal volume and current issue use was recorded through our integrated library system. Since 1990 we have employed a cost per use comparison as a basis for identifying potential cancellation candidates.

The Challenge

We have conducted journal evaluations nearly every year since 1990 to eliminate high cost and low use journal titles from our collection. By 2002 there was minimal fat left to trim from our collection. We were already working cooperatively with other campus libraries to trim any duplicate subscriptions. We were faced with a flat collection budget and had expectations of about 10% inflation on our $825,000 journal expenditures. Client demand for desktop access to more full text journals was increasing. Through collaborative licensing with other campus libraries, we had access to the Academic Ideal package and ScienceDirect package since 1996. In 2002 we added electronic access for all Wiley journal titles, all Dekker titles, all Kluwer titles, the complete suite of Nature titles, American Psychiatric Publishing titles and Blackwell Synergy package. We had also begun to add online access for our most heavily used print subscription titles whenever possible. At the end of our fiscal year in August 2002, we had access to over 1,500 full text journals. We needed to find about $100,000 to cover inflation and to provide some dollars for new subscriptions in 2003.

The Process

At the Medical Sciences Library, rather than follow the publisher package approach for print cancellations, we decided to look at all current subscriptions and to rely on
our use data to help us make cancellation decisions. We developed several categories of possible cost saving measures: cancel campus print duplicates whenever possible; cancel print subscriptions for those titles with a high cost per use and limited use; and, cancel subscriptions and move to online only to save the additional access charge assessed by publishers for print plus online combinations (usually 5-15%) as well as the ancillary charges involved in handling the print issues and binding (We estimated binding costs alone at $15 per volume.). The Information Resources Council (IRC) met to develop cancellation guidelines and criteria for each of these categories. Factors considered in the cancellation of print campus duplicates were the subject area of the journal and our collecting level for that subject, the availability of online, and the cost per use for the title. The ceiling established for cancellation consideration of a print title, regardless of online availability was $20 per use and fewer than 50 uses per year. The IRC developed several factors to consider in evaluating print cancellations and the move to online only: cost per use of greater than $20; print usage of less than 50 times per year; online content that was the same as print or augmented, including supplements; subject area of the journal and our collecting level for that subject; the quality and stability of the online source; any licensing restrictions; and, guaranteed archival rights. Armed with these guidelines, we undertook an analysis of our trends in journal use, especially since 1995, calculated cost per use figures for all of our journal titles, and compared online usage to print usage. We also discussed and planned several methods to communicate our cancellation decisions to our clients. Neon colored labels were placed on the covers of journal issues for any title being considered for cancellation. The text of the labels was:

Online access is available for this title. Due to low use of print issues, we may cancel print and retain online access only.

Send your comments to Esther Carrigan, at 845-7540 or ecarriga@medlib.tamu.edu

This information was also shared with our clients through our library newsletter and e-mail messages. We placed a comments box near the current journal stacks to solicit input from print users. When the last current issues of a cancelled title were pulled for binding, the journal slot was replaced with a bright colored sign giving the journal title and the phrase “Converted to Online with 2003.”

The Results

Our data revealed several consistent trends:

- Use of all print journal volumes declined steadily since 1996.
- Use of current print journal issues plunged from the average yearly usage level of 22,000 during the years from 1995 to 2000 to a level of only 11,000 in 2001 and 2002.
- Total use of current print issues in 2002 was just over 11,000; total use of online full text was over 600,000.
- Title level comparisons between print and electronic usage often indicated online use more than 10 times that of print.
• Print usage was declining not only for those titles with online availability, but also for those titles available only in print.
• Many print titles with electronic access available had cost per use ratios higher than $40 per use.

Here are some title level examples of this data:
• Brain Research, historically a very heavily used title and a ScienceDirect title, had on 42 print uses in 2001 for a cost per use of over $400.
• The journal Science, available online for several years, is still used in print nearly every day. Its online use is about 5 times that of the print, but the cost per use for the print is only $1.28.
• The use of Mycologia, a title with no online availability, dropped to only one use in 2001. Its cost per use was $150.
• Veterinary Immunology and Immunopathology, a ScienceDirect title, had 23 print uses and 317 online uses. Its print cost per use was $7.00; its online cost per use was only 51 cents.

Cancellation decisions were made and the information shared with our clients. We cancelled a total of 309 print titles: 270 were conversions to online only and 39 were print only cancellations. Negative responses were minimal. We received only one e-mail message asking for 7 titles to be retained in print and one request for a complete list of all titles cancelled for 2003. For the first time ever, with our 2003 subscriptions, we spent more money on electronic full text journals than on print journals. We expect that trend to continue and to accelerate.

The Future
We have plans to compare usage across broad subject categories of our journal collection: biomedical research, clinical medicine, and veterinary medicine. Let me use the data from our 2003 subscription review cycle as an illustration. Clinical medicine is the largest category of our journal subscriptions. Nearly 51% of these titles were available online. Cost per use in clinical medicine titles ranged from a high of $2,875 (American Journal of Industrial Medicine) to a low of $2.87. Biomedical research is the next largest category of our journal subscriptions. Those fewer subscriptions, however, carry the highest price tag. Over 71% of these titles were available online. Cost per use ranged from a high of $4,172 (Journal of Immunological Methods) to a low of $1.28. Less than 13 percent of our titles in veterinary medicine were available online. Cost per use ranged from a high of $480 (Tropical Animal Health and Production) to a low of $4.00. We hope to continue this linking of our subscription and use data so that we can identify use trends in broad subject areas. These will help us prioritize possibilities for new electronic subscriptions and assist us in developing retention guidelines for our print journal collection. We have much to do in this arena. We are also exploring how best to regularly incorporate vendor and publisher online use data.

We also plan to review this data to consider its implications for our collection development policy. For example, consideration of the subject of a journal and our collecting level in that subject resulted in a virtual “protected” status for veterinary medicine titles and the titles in the closely related subjects of parasitology and reproduction. Veterinary titles also tended to fall on the lower end of our cost per
use spectrum. However, our data did reveal that print titles in primatology, one of the subjects under the veterinary medicine umbrella, received little use. We plan to follow-up with our clients to determine whether this subject area is still important to them, and to update our collection development policy accordingly.

As we face the 2004 subscription cycle we anticipate another flat collection budget. We continue to receive requests from our clients requesting the addition of electronic access for print subscriptions or for new online subscriptions. They are also beginning to suggest possible publisher package deals and electronic backfiles. We will need to find dollars to cover publication inflation and to address client requests for new titles and new electronic access. Undoubtedly, we will have hard choices to make and stumble over rocks in our path to online journals. But we hope that once again, we can use our collection data to help to pave the way.

Bibliography