

New Support for the Research Process: Desktop Delivery of Microform Content

William H. Weare, Jr.

Indiana University–Purdue University, Indianapolis, IN

Abstract

While trying to access microform content, patrons at the Christopher Center for Library and Information Resources at Valparaiso University were often hampered by unfamiliar equipment, temperamental software, and a puzzling file management system. In an effort to address these problems, the Access Services Department launched a pilot program for the electronic delivery of microform content. It was decided to discontinue the self-service model and design a system in which patrons could request specific items from the microform collection which would then be retrieved and scanned by the staff and made available electronically through the interlibrary loan client. After describing the problems a typical user might encounter with the existing system, the author explains the solution piloted by the library, outlines the policies and procedures, reviews the outcomes, and finally draws attention to the considerable potential of such a service.

Keywords

Access, access services, desktop delivery, document delivery, electronic delivery, microform, microform content, desk service, self-service, staff service, service models

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Introduction

Although microform belongs to an older generation of technology, many academic libraries continue to house large, rich microform collections. These collections continue to be retained for several reasons. First, there is some content, such as back files of serials, large monographic collections, and unique collections of historical documents that may not yet be available online. Second, some libraries may not be able to afford to purchase online access in the current climate of budgetary restraint. Finally, some librarians object to purchasing content a second time, finding it difficult to spend money on online access when the content is already in the collection in another format.

The Christopher Center for Library and Information Resources at Valparaiso University, like many academic libraries, houses a large, but significantly underutilized collection of microform. Patrons of all types have indicated that they find the process of accessing content available on microform to be very challenging. Users have been hampered by unfamiliar equipment, temperamental software, and a puzzling file management system. In an effort to improve access to the content of the rich microform collection, Access Services, in cooperation with Interlibrary Loan, launched a pilot project during the 2008-2009 academic year to determine the feasibility of delivering articles and documents from the microform collection to users electronically.

This pilot project was described by the author at a presentation at the 24th Annual NASIG Conference in Asheville, North Carolina (June 3-7, 2009). A report of the presentation appeared in the conference proceedings, published as a special issue of *The Serials Librarian* (Weare & Langendorfer, 2010). In the present paper I will expand on that report. After a brief environmental scan and a review of the related literature, I will provide a detailed description of the problems library users experienced when attempting to scan, save, print, or send documents available on microform. Then I will describe the solution piloted by the library, outline the policies and procedures, review the outcomes, and finally draw attention to the considerable potential of such a service.

In a 2009 OCLC publication entitled “Support for the Research Process: An Academic Library Manifesto” the authors delivered a call for action that academic libraries need to take in order to “continue to play a central role in support of scholarly research and publishing.” The second of the ten items specifies that academic libraries must “design flexible new services around those parts of the research process that cause researchers the most frustration and difficulty” (Bourg, Coleman, & Erway, 2009, p. 1). The electronic delivery of microform content at Valparaiso University, as will be described in this article, is an example of a new service that addresses a part of the research process that can cause researchers frustration and difficulty.

Background

Valparaiso University is a four-year, private, independent Lutheran institution located in Valparaiso, Indiana, 60 miles southeast of Chicago. The University offers more than 70 programs in five colleges—Arts & Sciences, Business Administration, Engineering, Nursing, and Christ College (Valparaiso University’s honors college). The University has an enrollment of approximately 4,000 students from most states and more than 40 other countries, comprised of about 3,000 undergraduates, 500 in a growing number of graduate programs, and 500 enrolled in the School of Law.

The Christopher Center for Library and Information Resources opened in 2004. The four-story, 115,000 square foot, 33 million dollar facility houses the Library, Information Technology, the Writing Center, and Teaching Resource Center. The Library has 185 public access computers and two instruction classrooms with an additional 63 workstations. Collections include more than 300,000 printed volumes, about 1,000 print & microform titles, approximately 22,000 periodical titles available electronically, more than 70,000 maps and other cartographic materials, as well as thousands of sound recordings and films. The Christopher Center was the fifth library in the world to include an Automated Storage and Retrieval System (ASRS). An in-house storage facility, the ASRS houses the less frequently used portions of the collection in 1,872 various-sized bins stored on a rack system. When a user makes a request

through the Library's online catalog, the bin holding the needed item is retrieved by an automated crane and delivered to a service counter behind the circulation desk.

Although the Library provides access to a significant number of online resources, a large body of material is available only in print or on microform. The microforms room in the Christopher Center houses almost a million microform units, including approximately 600,000 pieces of government microfiche and about 325,000 other microforms including the *New York Times*, the *Wall Street Journal*, dozens of classified and unclassified journal titles on both microfilm and microfiche, a large quantity of ERIC documents on microfiche, and a number of important humanities sets such as the *Library of American Civilization* and the *Library of English Literature*. The microforms room includes two microform readers linked to two computer workstations with scanning software available for viewing, scanning, and saving documents, as well as three older generation microform readers.

The microforms room functions under a self-service model which allows patrons to operate the microform reader/printers themselves. Although access to the microforms is intended to be self-service, most users at the Christopher Center for Library and Information Resources need assistance. Fortunately, the microforms room is adjacent to the circulation desk, which provides ready access to human help when needed; a circulation manager available to assist users during all of the hours that the library is open.

Literature Review

A search of the library and information science journal literature reveals that there has been a great deal written about microforms, but little about efforts to improve access to microforms. Similarly, a search of the journal literature also yields many articles about document delivery, but little about the use of document delivery as a method of improving access to hard-to-use formats.

Most of the literature pertaining to the process of electronic document delivery falls into two groups. The first group of articles describes the development of electronic document delivery services as

an extension of traditional interlibrary loan. The second group of articles addresses electronic delivery as a service developed to meet the needs of distance education students. All of these articles describe practices and procedures that would inform the creation and development of a service pertaining specifically to the desktop delivery of microform content.

Electronic Document Delivery Services

Much of the literature of document delivery pertinent to the present topic consists of case studies or descriptions of the selection of a new product, the launch of a new product, or implementation of a technological upgrade. Dekker and Waaijers (2001) describe the re-engineering of the document delivery system at Delft University Technology Library (The Netherlands) in 1996, and the resulting developments and implementation of the DocUTrans system in 1997. Schnell (1999) describes the development and implementation of the Prospero software program at the John A. Prior Health Sciences Library at The Ohio State University Library. Sayed, Murray, and Wheeler (2001) describe how two libraries at the University of South Alabama—the University Library and the Biomedical Library—evaluated several software packages designed to facilitate desktop delivery and both selected the Prospero system. Weible and Robben (2002) describe the successful implementation of Prospero at the Information Resource and Retrieval Center at the University of Illinois at Urbana-Champaign. Bardyn (2003) describes the implementation of an electronic delivery service at the University of Texas Health Science Center at San Antonio via a three-phase pilot project, the goal of which was to deliver journal articles faster than campus mail, the U.S. mail, or the campus courier service. Rumble and King (2008) describe a service, AUBIExpress, implemented in 2000 at Auburn University designed to provide electronic copies of article and book chapters from print resources located in the University Libraries.

Library Services for Distance Education Students

Information that may be germane to the delivery of microform content can also be found in articles that describe document delivery services specifically for distance education students. Shipman,

Gembala, Reeder, Zick, & Rainwater (1998), describe a pilot test at the University of Washington Health Services Libraries to determine the feasibility of delivering electronic journal articles via the Internet to faculty and staff located at major universities and at clinical sites throughout a five-state region served by the Health Services Libraries. Dieterle (2002) describes the implementation of Library Express at the Health Sciences Libraries at the University of Wisconsin-Madison, designed to deliver easy and affordable access to articles, book chapters, and tables of contents. Fuller (2002) examines the role of interlibrary loan in distance education including the electronic delivery of full text articles and the physical delivery of items from the library's own collection. Weible (2004), writing about the provision of electronic document delivery services to off-campus students, discusses software products used for document delivery. Stressing the importance that distance education students receive library services equivalent to those on campus, Bibb (2003) cites the four-stage strategy in place at Southeast Missouri State University, one of which is the delivery of library materials to distance centers via the interlibrary loan department. The service includes the delivery of copies of items such as ERIC documents on microfiche. This is particularly significant as many of the document delivery services described in the literature pointedly exclude microform content. Behr (2008) reports on the results of a survey designed to gather information about document delivery and interlibrary loans from libraries serving off-campus populations. Specifically, the author was trying to determine which systems and processes used in traditional interlibrary loan are transferable to the delivery of materials to off-campus students. Washburn & Wages (2008) describe the development of the Books and Article Delivery Service at Brigham Young University for those enrolled in BYU's independent study programs.

Electronic Delivery of Microform Content

There are a number of articles in the literature that specifically address electronic access to microform content, all of which describe the deliverEdocs program at the University Libraries at Texas A&M University (Desai and Kaspar, 2008; McKay, Foster, and Bedard, 2007; Yang, 2004; Yang, 2005).

Desai and Kaspar (2008) offer a comprehensive account of the program. The deliverEdocs program (now called “Get it for me”) was originally devised to retrieve, scan, and electronically deliver book materials owned by the library. Although the program did not initially include desktop delivery of microform content, deliverEdocs was later expanded to include microforms. Requests for materials came through already established channels and were turned over to personnel in the Course Reserves/Current Periodicals Department. Personnel in this department scanned the documents and saved them to an appropriate drive where they could be accessed by Interlibrary Loan Services. As there had been some concern about the ability to sustain such a service, the inclusion of microform content as part of the deliverEdocs program was done on a trial basis with selected users. The program did prove to be successful; Desai and Kaspar suggest that “digitizing microform on-demand to desktop delivery opened the doors to a jungle of microform that patrons were scared to venture into,” and further assert that “material that was once lost or inaccessible has now been rediscovered and regaining popularity” (2008, p. 133.) Describing the implementation of the deliverEdocs program, Yang (2005) focuses on staff reaction to the program, resources needed for such a program, workflow, and patron reaction. In a related article, Yang (2004) describes a customer satisfaction survey administered at Texas A&M in 2003 designed to ascertain the strengths and weaknesses of the deliverEdocs program.

A Review of the Problem

At Valparaiso University, there were—prior to the change in the service model—considerable problems with microform equipment, software, and file storage. The equipment in the microforms room included two Cannon Microfilm Scanner 300 microform readers paired with two Dell PCs loaded with ImageScan software, both of which were linked to a dedicated printer. The functionality of the readers was adequate, but certainly daunting to the average user. The software was problematic. Designed for a kiosk, it did not function well on a PC. There were significant issues regarding the scanning, saving, printing, or sending of articles and documents. The arrangement did not allow users to save scanned

documents to a jump drive or to email documents or images. The software was temperamental and occasionally it caused the PC to crash. As a result of the challenging nature of microform equipment, temperamental software, and significant file management problems patrons—students, staff, and faculty—were not inclined to use this collection.

Software Functionality

Access to microforms at Valparaiso University, like at many other academic libraries, was intended to be self-service, but it is unlikely that anyone new to an academic library would be able to access microform content without assistance. Almost all patrons need assistance. Fortunately, when the new library was being planned (completed in 2004), the librarians convinced the architects of the efficacy of locating the microforms room adjacent to the circulation desk. In practice, this arrangement has meant that assistance from a Circulation Manager has been available during all of the hours that the library was open.

Consider how a patron at Valparaiso University—a first-year undergraduate, for example, or someone new to college-level research—might have attempted to access content available in a microform format when the self-service model was still in place. What follows is a detailed account of the functionality of the microform equipment and software available to patrons. The description will help the reader understand the challenges for microform users, as well as make comparisons and consider the usability of equipment at his or her own institution.

Suppose that a novice researcher has found a useful citation and has discovered that the text is available only on microfiche or microfilm. The student—with the assistance of a librarian or staff member—has located the needed microform. Having been directed to use one of the two microfilm scanners connected to a PC (the microforms room also contains three older generation microform readers), the student now needs to load the film. Again, assistance is required. Although the software does include short video clips which demonstrate how to load fiche or film, the usefulness of these

tutorials presupposes that the user has turned on the computer, logged-in, and selected the correct program on the desktop. The two PCs in the microforms room are not imaged like the other public access workstations in the library; very little software has been loaded on these two machines. There are few icons on the desktop in the hope of making it easier to locate the necessary software to be used to scan or print microform content. In this case, the configuration requires that peripherals—the microfilm readers and the printer—have been turned on prior to turning on the computer. The set-up does not work if the components are not turned on in the correct order.

Having loaded the microfilm onto the reader, the student locates the particular article or image he is looking for. He may then make a number of manual adjustments using the controls on the microform reader: for example, he can adjust the focus, change the image size, or center the image. The student then turns to the desktop and launches the ImageSCAN software. He selects a language: English, French, or Spanish. At this point, the student is prompted to enter his name; this is unfortunate, as what is wanted here is the desired file name. Some users will enter their own name, while others will enter something nonsensical—not knowing that the program is going to use this designation to name the file. In order to locate his file later, the user will need to remember the name entered at this point. On the desktop, the student then selects scan.

Generally, the captured article or image does not look very good. It is at this point that the Circulation Manager is quick to offer reassurance: the image can be cleaned up—and the printed document will look better than it appears on screen. The software provides a number of options for improving the quality of the image: de-speckle and de-skew are most useful. The process of cleaning up the image does not appear to make significant changes on the screen, but the print quality is usually much better.

Once the scan is completed, the software prompts the student to scan another image or end the session. If he chooses to end the session, he is given the choice to save or print. He may opt simply to

print rather than save; this function works fine. Although he will be prompted to pay for printing, printing from these two workstations does not in fact affect the student's print quota. If the student selects save at this point, the image is saved, but the software does not indicate where it has been saved—or what it has been named. After a moment the software returns to the opening screen of the program. This feature is problematic. Although the student is done scanning, he does not know where or how to retrieve the document he has scanned. He will need to close the program in order to look for his document. Apparently, the only way to close the program is by opening the task manager and selecting “end task.” This action returns the user to the computer desktop.

Returning to the issues of naming, saving, and retrieving documents, the installation had numerous problems. As mentioned above, the student was not prompted to name the document, but to enter his own name. The folders containing the scanned items were named at the beginning of the process using the name entered by the patron when prompted by the image.SCAN software. The student may not know what his file is called. Had the user been prompted to name the file, he might have selected a more appropriate name than his own for any images and documents he has scanned. To locate his document, the student may have to look through a number of drives and folders. Fortunately, the Circulation Manager who has assisted the patron knows the naming protocol and knows where the program has saved the file.

There are additional problems. The program ostensibly allows a user to access his email account and send the document or image to himself or to anyone else. Valparaiso University uses Novell GroupWise as the campus email client; unfortunately, the image.SCAN software does not work well with this client and thus the user cannot email the scanned and saved documents or images using GroupWise. It is also worth noting that guest users (patrons not affiliated with the University) have additional problems with this arrangement. A guest user cannot login to the campus network; nor would a guest have personal space on the network drive to which to save a file. In the case of a guest who

would like access to content available on microform, a librarian or staff member would log-in, scan, and print the document for the guest. Finally, the software is temperamental and it can cause the PC to crash without warning. The user is informed that “an error occurred while trying to scan.” The only option is to click OK, which closes the program. Regrettably, this happens with alarming frequency.

This software was designed to serve the patron in a self-service venue. Clearly, an enormous amount of assistance is required from an experienced user to fulfill a simple need for microform content. It would be challenging for someone to try to navigate this process without assistance; perhaps it would be impossible. There had at one time been an attempt to create a help sheet to guide users through the scanning process; the directions proved to be too lengthy and cumbersome. The self-service model is a disservice to the user.

The software and access problems described above are only part of the problem: even if the system worked well, it does not serve the current generation of college-age users. Students have high expectations regarding ease of use, coupled with a high expectation of instant access. Even under the best of circumstances, accessing content on microfilm is neither easy nor quick. New equipment would be welcome, but that was not the solution.

The Solution

What was needed at Valparaiso was to develop a system by which the library could provide timely and trouble-free access to the content available on microform in the collection. Hence, it was decided to abandon the self-service model: the patron would no longer need to retrieve the content himself. Originally a pilot project to see if it was possible to deliver microform content electronically, the project also became a pilot to see if it would be feasible to shift from a self-service model to a service desk model. With the cooperation of Interlibrary Loan, the pilot project was launched during the fall semester of the 2008-2009 academic year.

There were several reasons why the Access Services Librarian and the Circulation Managers decided to test the new service as a pilot project. First, to determine if the new service model would be truly useful to our patrons; second, to give the staff time to develop procedures and work out any difficulties before the service availability was widely announced; third, to give the Access Services Librarian the opportunity to develop policies based on experience rather than conjecturing what sorts of issues would need to be addressed.

Pilot studies are usually conducted with a small portion of the target population. At many academic institutions, this would mean that the pilot study group would consist of faculty and/or a select group of graduate students. There were two reasons supporting the decision to pilot the service with undergraduate students. First, it was suggested that undergraduates might be more forgiving than faculty or graduate students. Second, the length of stay on campus for undergraduates is relatively brief, so any problems with the service would be forgotten fairly quickly. At Valparaiso, there are several specific undergraduate courses in Education and English in which the use of the microform collection is required; this situation provided the possibility of ready use and feedback from the pilot users.

Policies and Procedures

A review of the procedures would be instructive for two reasons. The procedures described below may be useful to other institutions interested in implementing such a service. Alternatively, the description may help refine procedures or expand existing interlibrary lending services, document delivery programs, or services for distance learners. In the process of developing procedures for the service, the Access Services Librarian discussed the concept with his professional colleagues and the Dean of Library Services; he discussed procedural issues with the with the Interlibrary Loan Manager and the Circulation Managers who would be involved in the service.

Most of the procedures were largely integrated in to the existing Interlibrary Loan workflow. For the library's users, a web page was created using a frequently asked questions template to provide an

easily accessible source of information about the program. As the library already provided a document delivery service for distance learners, it was necessary to explain the difference between the programs. The existing document delivery service made it possible for distance education patrons to receive copies of articles from journals housed in the library; the new program was designed for on-campus students.

We used the FAQ to answer questions about who could use the new microform service, what items were eligible for delivery, how to place a request, how to retrieve the requested item, any limitations of the service, and information about cost. As discussed above, only undergraduate students at Valparaiso University could use the service during the pilot stage. Only items from the microform collection are eligible for delivery. Requests would be made through ILLiad, just like regular interlibrary loan requests. Some requests may be initiated during a database search. For example, ERIC documents that are not full text online can be requested from the ERIC (via EBSCO) database by selecting the “Request via interlibrary loan” link at the bottom of the record. Alternatively, a user could locate an article or document available on microfiche or microfilm, make a note of the author, title, and relevant citation information, and then manually enter this information into the ILLiad request form. Either approach enable students to request material from the microform collection using the same process as they would for any ILL request.

The procedure is relatively straightforward. The Interlibrary Loan Manager, recognizing that an interlibrary loan request might be in the microform collection, locates the item, removes it from the storage unit, and gives it to the Circulation Manager overseeing the implementation of this service. The Circulation Manager may scan the requested item herself, or give it to a student assistant to scan. Each scanned document is saved as a TIFF and stored in a shared folder on a web server. The Interlibrary Loan Manager reviews the document for legibility and completeness and moves it into the document delivery queue as if it was a filled interlibrary loan request. The patron is notified by email of the availability of the document; the patron can then log into his ILLiad account to access the requested item.

A short turnaround time would be key to the success of the new program. Requests were to be processed within one business day, ordinarily a weekday in which classes are in session. The policy stated that if a request is received by noon, Monday through Friday, the item(s) would be available in 24 hours or less. If the request is received Saturday, or Sunday, the item(s) would be available by 5:00 p.m. on Monday. Noting that this is a pilot project, the online FAQ requested that the patron “be patient with us as we work out the details.” Finally, if it was found that the library did not own the material requested, it would be requested via interlibrary loan from another library; this might take longer than one business day.

It was decided that there would be no limit placed on the number of requests that a patron could submit. However, the policy stated that requests for more than ten articles at one time would require additional processing time and thus might not be delivered within one business day. These guidelines were implemented so that all of the users would have their requests processed in a timely manner. The FAQ also indicated that if a patron needed many documents from the microform collection, a Circulation Manager would be happy to show the patron how to use the microform equipment.

It was also decided to set a 40-page limit per article or document. The FAQ indicated two alternatives for large documents. Should the user request a very large document, the title page and contents would be scanned, forwarded to the user, and the user would be asked to select the chapters or sections needed. Or, it was again indicated that a Circulation Manager would be happy to show the patron how to use the microform equipment; this would enable the patron to view the chapters and sections, and select those that he would like to have scanned and delivered.

For those needing further assistance, contact information was provided for the Access Services Librarian and the Circulation Manager overseeing service. Patrons having questions about ILLiad and

Interlibrary Loan were referred to the “Answers to Frequently Asked Questions about Interlibrary Loan and ILLiad.”

Outcomes

The pilot project proved to be a success, and the Access Services staff agreed that the desktop delivery of microform content should continue to be offered. This program was successful on two levels. First, the process worked: the new service was relatively simple and it was not likely to be very taxing on the circulation or interlibrary loan staff. Second, the shift from a self-service model to a service desk model was successful. This transition may seem like an odd direction to move in, but as the Circulation Managers were already helping most of the patrons with the microform equipment, it was easy to abandon the so-called self-service approach.

With the trial period over, the service is now available to all students, faculty and staff. To improve the service, the Access Services Librarian identified several short-term goals: formalize policy, assign specific duties to specific staff members, and strengthen collaboration with the Interlibrary Loan Services staff. It was apparent that there was also further work to do, particularly with marketing.

Volume

Very few patron made use of the service. According to statistics kept by the Circulation Manager overseeing this service, the library only delivered “five or six” documents during the pilot. However, the Interlibrary Loan Manager reported that numerous requests from patrons for materials to be borrowed from other institutions were actually filled using materials from our own microforms collection. Perhaps unaware that the library owned the needed item on microfilm, patrons occasionally request articles and documents via interlibrary loan. Rather than direct the patron to the microforms collection, the Interlibrary Loan Manager has for some time simply been scanning the requested document and filling the patron’s request. In actuality, there had been many of these transactions happening for quite some

time, but this had not been identified as electronic delivery of microform content, nor was the circulation staff involved in retrieval or scanning.

Problems and Limitations

Two types of problems were encountered with the new service: those of a technical nature and the failure to market the service to all users.

The technical problems described at length above did not go away when the service model changed. The equipment and software issues described above were problematic even for staff members who had several years of experience with the microform readers and the software. Nor did ongoing issues related to image quality disappear with the advent of the new service. Capturing a good, clean copy of a microform image is significantly more challenging than photocopying or scanning a paper document. The quality of the image is, of course, controlled largely by the quality of the image that had been captured for the microform.

A more significant problem was marketing. Initially, there was no formal marketing of this new service—because it was a pilot. In hindsight, once the service had been launched and the policies and procedures established, the new service could have been announced publicly. Unfortunately, we waited until the end of the 2008-2009 academic year to make the service available to all students, staff, and faculty. Informally, some marketing did take place. The liaison to the Departments of English and Education attended departmental meetings and informed the disciplinary faculty of the service; he made it clear that although the service was being piloted with undergraduates, faculty requests would be filled. Additionally, he also explained the service to students in numerous library instruction sessions, including sessions for 12 English classes and all three sections of an introductory course required of all potential education majors entitled, “Introduction to Teaching and Field Experience.”

There are many venues for marketing new library services. In their article about selection and implementation of Prospero, Sayed, Murray, and Wheeler (2001) suggest several ways in which they

promoted their new document delivery service: writing an article in a library newsletter, mounting an exhibit at an information fair hosted by the library, and attaching a printout with information about the service to every interlibrary loan article picked up from the library. There are also lessons to be learned from the launch of the deliverEdocs program at TAMU. Yang (2004) related several alternatives for marketing the service: advertisements in the campus newspaper, flyers distributed to the colleges, and announcements sent via campus listservs. However, it is worth noting that a survey of registered deliverEdocs users found that only 12.5% of survey respondents learned of the service through these means; more significantly, patrons learned of the service because it was recommended by a friend or colleague (29.6%) or by a library staff member (20.8%) (p. 82). When the Dean of Library Services at Valparaiso University announced the availability of this new microform content delivery service at a university faculty meeting at the beginning of the 2009-2010 academic year, faculty endorsement was positive and audible.

New Equipment

In the process of addressing challenges in accessing microform content, Access Services also drew attention to the richness of the microform collection. The Dean of Library Services responded by expressing renewed interest in updating the equipment. A number of available equipment options were investigated. A sales representative from RMC Imaging was invited to bring a microform reader/printer to campus for a demonstration. Following the presentation, the reader was left with the Access Services Department to work with and evaluate. The staff was impressed with all that the equipment had to offer. At the end of the 2008/2009 fiscal year the Dean gave the go-ahead and the library purchased a viewer/scanner manufactured by S-T Imaging.

The ST200X product allows for viewing, printing, and capturing digital images from microfilm, microfiche, ultrafiche, and micro cards. Scanwrite, the software that accompanies the new equipment, offers more advanced options for cleaning up documents and images, as well as for saving and storing

files, than had the ImageSCAN product offered with the original Valparaiso implementation in 2004.

With the new equipment and software, a user can save documents in a variety of ways: burn a CD, save it to a flash drive, save it to their own space on a campus drive, or simply print.

The new equipment was not installed in the Microforms Room, but on the circulation desk, adjacent to a busy thoroughway. It was located there for a variety of reasons. Placing the scanner on the circulation desk put the equipment in close proximity to the circulation staff with the idea that proximity might promote use and speed the learning process. The equipment was also placed on the desk as a way to expose the equipment to view; it was hoped that exposure might help introduce the new equipment and our new service to potential users. The scanner was also located in an accessible area where a patron could be invited to use it with some help and supervision if they chose to do so. Self-service would continue to be an option for some users. The option would be an attractive option for a number of faculty—especially in English—who used the older microform equipment regularly. The new equipment may be relocated to the Microforms Room at a later date.

Conclusion

The desktop delivery of locally-owned materials to campus users is not a new service. Many libraries offer this service, but those eligible to use the service varies: some libraries offer the service to faculty only, while other offer the service to distance education students only. The types of items available for delivery also vary. The literature search indicated that microform content often is not included in a document delivery service; given that access to microform content can be especially challenging, this is unfortunate. The delivery mechanism for electronic content varies as well. Sometimes print articles or images are physically delivered or e-mailed; increasingly, the service is offered through existing ILL software, so that scanned documents are only available to the patron for a limited period of time.

With continuing advances in technology and the increasing demand of patrons for improved access to information, forward-thinking librarians continue to pursue methods for improving access to information. Making the large quantity of microform content easily available is one such service. The availability of print-based materials in any format via electronic delivery is a vital service for library users. Some libraries have already—or will eventually—repurchase this same content in an electronic format. For those libraries that cannot or will not purchase this material in another format, desktop delivery via channels already established by interlibrary loan provides an excellent way to meet the patron demand for improved access.

This service has considerable potential. The library at Valparaiso could explore the possibility of expanding this service to include the delivery of content from materials housed in the Automated Storage and Retrieval System (ASRS). This in-house storage system currently houses a back file of journals (the most recent five years of journals are accessible in open stacks), some government publications, and a selection of less frequently used materials from the Law Library. Delivering microform content to the desktop is a good first step toward developing a full document delivery program for locally held materials.

This program may work well in a number of other settings. Certain types of academic libraries (such as medical libraries and law libraries), where delivery of the information may be more important than teaching users to locate the material themselves, would benefit from offering this service. As some large academic libraries move an increasing amount of materials to high-density, off-site storage locations, an electronic delivery service for microform content might make it possible to relocate entire microform collections out of the library to an off-site storage location. The same system could work very well for consortial storage.

Making microform content available through desktop delivery is only one of many possible steps toward developing easier access to print-only resources. It is a welcome replacement for the traditional cumbersome process of self-service access to microforms.

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