

Photos courtesy of Mary Morgan



At 100 feet long, 15 feet wide and 40 feet high, the vault in the Steelcase Library's automated retrieval system can hold up to 250,000 volumes.

Automated Retrieval System Affects Legal Research

Is the Browsing Collection a Thing of the Past?

by Pat Parker

With its automated retrieval system, commonly referred to as SPOT (the Storage Place of Treasures), the Steelcase Library at Grand Valley State University in Grand Rapids, Mich., is considered a state-of-the-art branch library by the general community. But to practicing lawyers, SPOT is more often viewed with disdain and frustration — as something totally

alien to the way law has been and should be researched. The few supporters of the system say they've resigned themselves to the mindset that in this technologically savvy age, the ARS may be the trend of the future, and the open-stack system, as they knew and loved it, will eventually be relegated to dinosaur status.

"With the ARS, you can find what you need," says Ken Hooeboom, a Grand Rapids, Mich., attorney who frequently uses the Steelcase Library. But, unlike a conventional-stack system, the computer-based ARS defeats old-fashioned browsing, Hooeboom adds. "You won't run into useful things shelved next to what you're looking at. I love to do research, and I'm a firm believer in serendipity," he says. "With computers, you get what you want, nothing more and nothing less."

SPOT: a Fast Fetcher

Automated retrieval systems for libraries are adaptations of warehouse-management software systems used for storage and retrieval of materials in private industry. Grand Valley purchased its \$700,000 system, which weighs more than 7,000 pounds, in August 2000 from Rapistan Systems in Grand Rapids, Mich.

Located behind the circulation desk, where users can watch the system through a glass window, the Steelcase SPOT uses a robotic crane to sniff out and fetch requested books by bar codes. Once a book request is made via the online catalog, the system takes about three minutes to search up to 250,000 books, locating the right volume and delivering the storage bin containing the requested volume to the robot's operator — much less time than it takes a librarian to enter a closed-stack area to retrieve a book.

New users are most often surprised at the apparent randomness of how the system stores the library's materials. Because SPOT uses bar coding to record the location of materials, books are stored in bins according to size, not subject matter. Bin space created by a book on loan is quickly filled by a just-returned item of appropriate size, regardless of that item's content.

The few libraries currently using automated retrieval systems, such as Eastern Michigan University, California State University at Northridge, Sonoma State University and the University of Nevada at Las Vegas, only store retrospective periodicals or seldom-, infrequently or never-used materials. Faculty and students are the baseline users for these libraries.

The Steelcase Library is in the unique situation of using SPOT for its current, as well as its infrequently used, collections in the several academic disciplines assigned to the ARS. This library also is unusual in that it accommodates not just faculty and students but also the members of



After requests and work orders are generated in the ARS, 4-foot-by-2-foot metal carriers are retrieved from the vault's rack and delivered to operators at the "pick-and-delivery" stations.

the Grand Rapids Bar Association, whose research needs are specific and specialized. These practicing lawyers use a mix of retrospective and current materials on a daily basis.

The Steelcase Library administration's decision to use an ARS for its circulating collection was based on the need to house the campus' criminal justice, engineering, business, social work and nonprofit administration collections, as well as the donation of the Grand Rapids Bar Association's comprehensive library. Space in this new branch library is at a premium because plans did not include a second level or expansion of the collection.

The library's reading and reference room, with dark stained paneling, stained-glass windows and a high cathedral ceiling reminiscent of an early English library, is the only vestige of an open-stack system. Even this room is shared among library users from the various disciplines represented at Steelcase. With severely limited space available for open shelving of circulating items — just 900 square feet for legal materials — the vast majority of the approximately 80,000 volumes supporting these disciplines is in the ARS.

Smart Solution for Seldom-Used Collections

Because other libraries currently employing ARS limit its usage to seldom-requested materials, their patrons' reviews of automated retrieval have been largely favorable.

The ARS at the CSU Northridge Library stores infrequently used monographs and periodical titles dating back to 1990. The library's small legal collection includes basic federal items, California law material, treatises and handbooks. Because the retrieval system is capable of storing superseded statutes and codes, it frees up campus storage. CSU Northridge administrators and users deem its ARS a rapid, cost-effective means of storage and retrieval, says Susan Parker, associate dean of library operations at the CSU Northridge Library.

According to Rita Bullard, systems librarian at Eastern Michigan University Library in Ypsilanti, Mich., the university's ARS was originally designed to store low-use items — materials older than 10 years and not charged out during the last five years. The system now is used for items older than the original 1992 cutoff date.

Both Parker and Bullard agree that the ability to conserve or maximize space, store and quickly retrieve low-use items, and shelve and reshelve materials more effectively have been recognized benefits for their libraries. Given savings in time and space that an ARS provides, it's easy to see why users enthuse about this "wave of the future."

But Grand Rapids-area lawyers tell a different story about the Steelcase SPOT.

The many moans, groans and sighs of frustration Steelcase librarians hear from its legal community center on the library's use of ARS to store all legal materials except the small number of general reference materials in the reading room's open stacks. Attorneys complain that the ability to browse is key to the research process. For example, some attorneys are unsure whether they will need the statutes from current or old volumes of legal reference books until they read the statutes from both. Other attorneys say that they prefer to roam the open stacks because it allows them to quickly review all related legal texts on specific topics, as opposed to pulling books via the online catalog, which can be labor intensive and time consuming when it retrieves irrelevant materials.

However, a minority of attorneys says that since books will be available on the Internet in the future, users should learn to adapt and use the automated retrieval system for now — admitting it does take patience and time to master.

"The problem with a retrieval system is it takes a few minutes to get one book, which otherwise one could get off open shelves," says Wally Knack of the Grand Rapids firm of Warner Norcross and Judd, who served as a member of the library committee that arranged to transfer the Grand Rapids Bar Association collection to the university. "But if a person has good computer literacy, the system works extremely well."

"You've Got to Know What You're After"

Grand Valley State University does not have a law school (though it currently is exploring the possibility of becoming a satellite campus for Michigan State University's law school), so most of the faculty and staff using the Steelcase Library are from other disciplines. Academic research needs are markedly different from those of lawyers. Faculty and student

information requirements often are not subject to the same time frames and parameters as those of attorneys. While some of the students have indicated a preference for browsing, others find that their limited research needs are met adequately with the ARS.

Some Grand Valley academic researchers do share the legal community's complaints about their new inability

to wander along open shelves. "The browsability is gone," says James Houston, Ph.D., professor of criminal justice. "When academics go searching for information, sometimes we have to sit down and literally pull each book off the shelf. With this system, you've got to know what you're after."

Amanda Tweddale, a master's student in criminal justice presently conducting research for her thesis, also considers closed-stack storage a major ARS setback. "You can't browse through journals or a whole section of books; you have to do it all on the computer," she says.

Computer Savvy Key to ARS Success

Whether users are practicing attorneys, faculty members or students, their level of computer literacy will determine how well the ARS meets their research needs. The retrieval process and the online

(continued on page 30)



Operators process the arrival of carriers at one of Steelcase Library's three operator stations and follow instructions on the screen to identify and retrieve the correct items.

catalog go hand in glove when it comes to accessing information; understanding the fundamentals of ARS means knowing the basics of the online system and being comfortable with automation.

Access to ARS materials is through the online catalog system, and interpreting OCLC records frequently does not come easily to the attorneys. Many are quick to point out that if all the legal materials were on the shelves, they would not have to endure finding a librarian to act as an interpreter; they could walk around the library until they found what they wanted. Others contend that if the library insists on a closed-stack system, the library must provide users with the information and training they need to become proficient at using the online catalog.

Tweddale often finds the catalog descriptions too brief, requiring her to call up additional books in hopes of finding the information she seeks. "If there's a weakness at Grand Valley, it's that more cross-referencing is needed," Knack says. That's a request that unfortunately would require more staff time and resources than are currently available at the library.

"The ARS requires tremendous computer literacy on the part of the user, and the difficulty exists with lawyers who aren't trained [in online cataloging] as our younger lawyers are," Knack adds. "We find that recent law graduates are used to doing things online."

Knack recently assigned two of his firm's summer associates to conduct a week's research at Steelcase and found "that they could get everything. They're computer-literate, and they were persistent in getting the materials. ... [The ARS] is fantastic for materials that are not otherwise available online, because it can store materials not readily available," he says.

Downtime a Challenge to Users

In the three years since Steelcase acquired its ARS, the library has not experienced a great deal of downtime. When the system does go down, attorneys preparing

for court can be exasperated when they discover that nothing can be recovered until the system is up and running.

Hooeboom, a solo practitioner, doesn't have access to a large firm's law library, so he relies heavily on the Steelcase Library. "When the system crashes, you're left with nothing," he says.

"Using the ARS is not as unpleasant as one would think as you become more and more literate with the system," Hooeboom adds, "but it's still time-consuming and puts you at the mercy of a well-oiled machine. If it's down, you're out."

Graduate student Tweddale likes the convenience of requesting books

from her desk in another building, but the system has been inoperable several times once she arrived in the library to pick up her requests. "The ARS is a good idea, but there's a lot of technical stuff that needs to be worked out," she says.

How Does an ARS Work?

An automated retrieval system consists of:

- A mobile crane with an extractor
- inside a secure vault in the form of
- one or more aisles lined on both sides with a rack structure
- that is compactly filled with rectangular metal bins.

The crane travels at high speeds — horizontally at more than 12.5 feet per second and vertically at more than 4 feet per second — along a rail embedded in the floor.

Steelcase Library's ARS can store approximately 250,000 volumes within 1,500 square feet, including a height of 40 feet. To shelve a comparable collection on conventional library shelves, 25,000 square feet would be needed.

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— Ken Hooeboom, Grand Rapids, Mich., attorney

Don't Get Rid of Open Stacks Yet

For the Steelcase Library's user group in the legal community, the consensus is that ARS has relevance for older, rarely used materials but not for a comprehensive law collection of current information. In keeping with the perspective that almost all legal research is available on the Internet, through LexisNexis™ or Westlaw, and that all books will eventually be obtainable on the Internet, a minority of mostly younger lawyers accepts SPOT. These users consider the case for open stacks "traditionalist" and unaccepting of their belief that all information will eventually be digitalized in some form or fashion.

The heart of the debate is and will be: When, where, how, for what and for whom will these various approaches be used? Is ARS' ideal function to act as a modern-day storage repository, or will retrieval systems ultimately replace all open-stack systems? Will online systems replace the browsing world and signal the demise of the book?

The experience of Steelcase Library patrons argues for continuance of some traditional methods of research in the legal community. Just as books in hard copy likely will not be completely replaced by e-books, open-stack systems will continue because browsability is and will stay important to users.

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