automation systems are not perfect, don't try taking them away from library media specialists! When surveyed on why automation is important to school libraries, several school library media specialists wondered why the question would even be asked at all. Automation systems are an expected technology in schools today. Several respondents expressed the idea that since teachers in content areas have the current technology of their fields, so should librarians. For example, math teachers are not using the abacus, so why should librarians still be using card catalogs? So goes the thinking!
This article reports the results of a survey of 164 school library media professionals from 28 states who responded to a survey about their use of library automation software. The states with the largest number of respondents were California, Minnesota, Illinois, and New York. The responses represent the use of 23 automation vendors' products; six automation vendors were the most frequently identified:

- Alexandria
- Athena
- Dynix
- Follett
- Sagebrush
- Winnebago

Female respondents (92 percent) outnumbered male respondents (8 percent) considerably; 75 percent of the respondents had a master's degree in library science or similar program; 24 percent had a minor, endorsement, or certification in library science or school library media. The remaining 1 percent included paraprofessionals or clerks and two who received doctorates in education. Two respondents were National Board certified. The range of years that respondents reported working as a library media professional is displayed in Table 1 above.

This article is presented in three parts. "Getting Started" is concerned with how respondents learned to use their system, why automation is important, and what role user groups play. Part two, "Features in Use," discusses automation system features being used, including some creative uses for reports. Part three, "The Future," reports on satisfaction with current automation systems, which emerging automation technologies are being used, and what the respondents would like to see automation vendors develop.

**GETTING STARTED**

Frequently, new school library media specialists enter their first media center position without having much experience working with an automation system. Some have had an introduction in a college class or during an internship experience. Many, like me, learned on the job. Those who acquired an automation system after having worked with a card catalog would have to be very desperate before agreeing to go back to using 3 x 5 catalog cards. I can still feel the thrill of knowing I would never again alphabetize and file! However, I keep a small stack of catalog cards to show the old technology to my cataloging students.

<table>
<thead>
<tr>
<th>Number of years working as a library media professional</th>
<th>Response Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-5 years</td>
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</tr>
<tr>
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</tr>
<tr>
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</tr>
<tr>
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<td>12%</td>
</tr>
<tr>
<td>More than 20 years</td>
<td>25%</td>
</tr>
</tbody>
</table>

Initial Training Experience

The survey question about automation training allowed respondents to indicate multiple ways they received training. As a result, the responses to this question allowed the percentages to exceed 100 percent. The majority of respondents taught themselves how to use their automation system (62 percent). Fifty-two percent had some vendor training and a combination of vendor training in conjunction with another person who provided initial training. Only one respondent indicated automation training had been available to them in a college course.

As an educator of school library media specialists, I have struggled with the question of how to expose students to a wide variety of automation systems. My classroom lab provides student access to several automation systems commonly found in school media centers. Not being able to offer a course in automation, I require my cataloging students to catalog in more than one system. Students may also explore automation systems on their own outside of class time. Agreeing with the survey responses below, I feel automation is an essential tool for both the media specialist and students in any school.

**Importance of Library Automation**

Reasons given in the survey comments for needing automation fell into two categories: benefits to students, and teachers and efficient and cost-effective operation.

- More time to work with students and staff.
- Speed up searching for students and teachers.
- Better access to the collection—higher achievement.
- More in tune with how students interface with other information sources.
- All other libraries use automation; students need to be prepared for the world outside school.
- Allows easier sharing of resources with other libraries.
- Enhances consistency in the collection, streamlines circulation.
- Time savings of clerical tasks.
- Ease of maintenance, statistics, overdues.

In addition to the general benefits of having an automation system, respondents expressed the following ideas when asked about the impact of automation on elementary media centers:

- Elementary schools have much higher circulation than secondary buildings.
- Students catch on fast and can search even if they can barely read.
- Automation supports state standards for technology skills.
- Provides the searching and access skill development students need to be successful in secondary school.

Table 1

<table>
<thead>
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<td>12%</td>
</tr>
<tr>
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<td>25%</td>
</tr>
</tbody>
</table>
Please respond to the following automation features to indicate your current and potential use.

<table>
<thead>
<tr>
<th>Feature</th>
<th>Currently not available</th>
<th>Would use if available</th>
<th>Use frequently</th>
<th>Use infrequently</th>
</tr>
</thead>
<tbody>
<tr>
<td>Collection mapping (system generated reports)</td>
<td>16%</td>
<td>25%</td>
<td>22%</td>
<td>37%</td>
</tr>
<tr>
<td>MARC maintenance (correcting punctuation, changing subject headings, global editing)</td>
<td>11%</td>
<td>41%</td>
<td>28%</td>
<td>20%</td>
</tr>
<tr>
<td>Spell checking (in MARC records)</td>
<td>17%</td>
<td>55%</td>
<td>12%</td>
<td>16%</td>
</tr>
<tr>
<td>Reports (overdues, new books, etc.)</td>
<td>7%</td>
<td>2%</td>
<td>81%</td>
<td>9%</td>
</tr>
<tr>
<td>Statistics (usage, collection, etc.)</td>
<td>6%</td>
<td>4%</td>
<td>70%</td>
<td>20%</td>
</tr>
</tbody>
</table>

- If the system is picture-based for subject areas, even the youngest students easily access it.
- It is a great motivator for students to learn to spell and to seek books.
- It is another way to allow students to correctly search for information in a controlled environment, on a controlled database.
- Elementary students use computers even before starting school.
- Elementary students are eager to learn, and what better way than getting the technology at their fingertips?

Among media specialists, it is easy to justify the necessity of an automation system; however, sometimes administrators are not as aware of their value. The above list should be helpful to those looking for a way to “sell” the idea of automation.

**User groups**

A user group can provide a means of training and support as well as updates on new system developments and a way to provide feedback to the vendor. User groups can be formed locally, regionally, or statewide, or they can exist “anywhere” online. State and national library media conferences usually have some vendor interest group meetings. Thirty-one percent of the survey respondents indicated they belonged to a user group of some kind. Those who did not belong gave the following reasons:

- None close by.
- Can’t find one online.
- Did not get enough useful information when I did belong.
- Only vendor group meetings at conferences.
- Already get a newsletter from the vendor.

Most automation vendors do indeed also provide some type of newsletter. It was from a vendor’s newsletter tip some years ago that I got the idea to have students do self-checkout with a DOS system. From being involved with a user group, I have identified two reasons to belong. One is problem solving. If you have a problem, someone in an active group is likely to have a solution. The second is library media specialists sharing ways they have found to use their system creatively.

**FEATURES IN USE**

Automation system features are constantly being developed by vendors. There was a time when a library automation system had the following basic features: administration, circulation, cataloging, and OPAC. Inventory features were quickly added, followed by acquisitions, serials, WebPac, and interlibrary loan. Today, an abundance of advanced features are becoming common, such as multimedia and image links and remote patron access for renewing and reserving materials. This survey asked about only a few of the current and emerging automation system features.

**Current and Potential Use of Selected Automation Features**

This survey found collection mapping was either done using statistical reports or a vendor product outside of the automation system. A number of respondents indicated they did not know how to do collection mapping or whether their automation system could help with the mapping.

Approximately one-quarter of the respondents indicated they use a third-party MARC correcting utility or download vendor records to improve the quality of their MARC records. Many respondents did not have this feature and indicated it would be highly desirable to have the ability to correct MARC records and spelling.

Most respondents use their automation system to generate a variety of reports. Several respondents credited the ability to generate reports with assisting in maintaining or improving funding, staffing, and administrative awareness. There were also comments about a number of problems with reports. Table 2 above reports the responses to questions about use of specific automation features.
Links to School Library Automation Vendors

Alexandria/COMPanion Corporation  
http://www.goalexandria.com

Auto-Graphics, Inc.  
http://www4.auto-graphics.com

Book Systems, Inc.  
http://www.booksys.com

CASPR Library Systems, Inc.  
http://www.caspr.com/

Chancery Software, Ltd.  
http://www.chancery.com

Dynix  
http://www.dynix.com

Follett Software Company  
http://www.follett.com

Gateway Software Corp.  
http://www.gsw.com

Innovative Interfaces, Inc.  
http://www.iii.com

Kelowna Software, Ltd.  
http://www.k4l.com

Mandarin Library Automation, Inc.  
http://www.mlaisolutions.com

On Point, Inc. (TLC Total Library Computerization)  
http://www.onpointinc.com/

Sagebrush Corp. (Accent, Athena, Winnebago Spectrum)  
http://www.sagebrushcorp.com

Sirsi Corp.  
http://www.sirsi.com

Surpass Software  
http://www.surpassSoftware.com

TLC—The Library Corporation  
http://www.TLcedlivers.com

VTLS Inc.  
http://www.vtls.com/

Statistical Reports and Their Creative Uses

The survey responses indicated automation-generated statistical reports are used for reporting media center activity to administrators, printing bibliographies, collection development activities, deselection of materials, inventory, and overdue reports. The list below represents survey responses that show creative use of automation statistical reports.

- Customized report for each class period to record students using the media center. They sign in using their ID card.
- Keep track of faculty use of media center.
- Keep track of reading trends.
- Export patrons and sort by first name to identify a student when only the first name is available.
- Print overdues sorted by locker number and notice to lockers.
- Students cannot attend dances, prom, or games if they have overdue materials. Office works closely with us.
- Material type reports to help redesign shelving arrangement.
- Inventory used to document theft rate on equipment.
- Sixth graders track and chart usage by material type.
- Reports on graduating or moved students.

Automation System Reports

Respondents were asked to rate how well their automation system generated reports. The 6-point rating scale choices were excellent, satisfactory, fair, unsatisfactory, cannot do, and have not tried. The categories for rating are listed below, followed by some representative respondent comments.

**Excellent or Satisfactory**

- Ease of generating reports 68%
  - Some reports are confusing.
  - Sort options are not versatile enough.
- Flexibility of generating variety of reports 66%
  - What I need is often not available.
  - Can't run during the school day.
- Customizing 46%
  - Difficult process.
  - Cumbersome.
  - A lot of effort to accomplish.
  - Takes more time than is available.
  - Can customize and save, but saving is too limited.
  - Customizable templates are great, but we need more.
- Vendor customizing 39%
  - Getting help by phone is difficult; e-mail works somewhat better.
  - Tied to vendor's schedule for getting custom reports.
  - Didn't know if vendor would provide customization.

**Automation System Management**

While most of the respondents performed system management themselves, frequent notations were made about assistance being available from a technology support person. In a few cases, one media professional in the district managed systems at all buildings.

- Managed by the respondent 49%
- Centrally managed 28%
- Managed by a vendor 3%
- District, regional, or building technology person 20%

**THE FUTURE**

**Embracing Advanced Capabilities**

Of the 144 responses to the question “Should we embrace the advanced capabilities?,” few were hesitant about embracing new features in automation. There was a definite focus on meeting patron needs and expectations, staying abreast of new technology, and reducing the management time of media center staff so they can work with patrons.
Table 3

<table>
<thead>
<tr>
<th>Feature Description</th>
<th>Currently have</th>
<th>Want in near future (1-3 years)</th>
<th>Want in distant future (4 or more years)</th>
<th>Great idea but not realistic for my site</th>
<th>Would never consider</th>
</tr>
</thead>
<tbody>
<tr>
<td>Schools Interoperability Framework (SIF)—permits different K-12 instructional and</td>
<td>13%</td>
<td>25%</td>
<td>27%</td>
<td>25%</td>
<td>10%</td>
</tr>
<tr>
<td>administrative programs to share data without requiring vendors' intervention</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value add-ons such as book reviews and book jackets</td>
<td>9%</td>
<td>32%</td>
<td>22%</td>
<td>29%</td>
<td>9%</td>
</tr>
<tr>
<td>Personalized Web site for each patron (may include new materials notices based on</td>
<td>3%</td>
<td>13%</td>
<td>15%</td>
<td>41%</td>
<td>29%</td>
</tr>
<tr>
<td>interests and needs, other information to help the user make choices similar to</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Amazon.com or eBay</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Federated or integrated searching, which allows single inquiry of subscription</td>
<td>7%</td>
<td>29%</td>
<td>34%</td>
<td>23%</td>
<td>7%</td>
</tr>
<tr>
<td>databases, Internet, and library catalog</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vendor remote management of your automation system</td>
<td>11%</td>
<td>8%</td>
<td>12%</td>
<td>16%</td>
<td>54%</td>
</tr>
</tbody>
</table>

As enthusiastic as the responses were, there were concerns about the costs involved in adding new features—not only the cost of the additional software but also the cost of hardware. There was some concern expressed about getting systems that are too complex to learn and operate and that may need too much support. Some respondents stated their automation systems currently have too many features that are not used. The importance of evaluating needs and resources before purchasing was an overriding theme. Here are the concerns expressed in the survey about added features:

- Cost.
- Improvement for the user.
- Improvement for administration tasks.
- Meet the needs and expectations of the users.
- Media Center is often the technology leader.
- Not if it is "bells and whistles."
- Not if it means upgrading existing hardware.
- Not if it is going to complicate use of the system and take more support.
- Training needs.

Emerging Technologies

Respondents frequently indicated unfamiliarity with new/emerging features. Many liked the concepts but were concerned about added costs. The cost of add-on features to basic automation systems was a constant theme throughout the survey responses. The choice of “Not realistic for my site” was most often a cost issue. Comments about moving to the Schools Interoperability Framework (SIF) standard indicated the importance of this standard to schools with highly mobile populations and indicated the potential time savings in maintaining student data files. Federated searching raised comments about losing the identity of the source of information because students do not differentiate. There was also concern about the quality of searches. However, a number of respondents noted they either already had the service or were scheduled to add it. Personalized patron Web sites as a feature of automation systems raised questions about privacy, how this feature would work, and how the feature would be maintained. Table 3 above displays the responses to the questions about new features.

Features Vendors Should Develop

Within the survey, many opportunities were provided for comments. Here are respondent comments aggregated into seven categories:

- Ease of use for patrons
  - Reserves entered by students
  - Multi-catalog searching
  - Spell checking for searching and as part of base system rather than an add-on
  - Options for setting search strategy
  - Truncated searching
  - More user-friendly, patrons and staff, intuitive interfaces
  - Video clips, book jackets, reviews
  - Interlibrary loan functions
  - Database access (federated searching)
  - Feature similar to NoveList’s ability to search beyond one author

- Ease of use for media center staff
  - Inventory ease
  - Easy entering of student pictures
  - Screen print easily
  - All patron information on one screen
  - Single screen for all circulation transactions
  - Sound Alerts for functions
  - Seamless transition between modules of the system, fewer password levels
respondents who desired to be involved in conversion were frequently cited as a reason for not changing systems. Respondents identified the following reasons:

- There is little difference between systems.
- Costs are satisfied with their current system. This may indicate a feeling that there is little difference between systems. Costs involved in conversion were frequently cited as a reason not to change systems. Respondents who desired to change systems identified the following reasons:

- System is clumsy and counterintuitive, not user-friendly.
- Pricing for add-on services.
- Support: less expensive.
- Internet OPAC included for same price as non-Internet system.

Costs
Alternative licensing schedules: district rather than building.
Pricing for add-on services.
Support: less expensive.
Internet OPAC included for same price as non-Internet system.

Support
Local representatives who can assist.
Better tech support.
Online help.
Training materials to support training of students and staff.
Opportunities for dialogue concerning new features.
Training on-site costs too much.

Special requests
Check for duplicate MARC records and provide a way to combine duplicate records.
Free or low-cost MARC record access via the Web.
Integration of collection database with online ordering sites, download “on-order” files directly into database.
Textbook integration.
MARC records spell checking.
Check cross-reference links to see if active.

Satisfaction with Current Vendor
Most respondents indicated they would stay with their current vendor because they are mostly satisfied with the automation system they currently use. A noticeable number or respondents felt their satisfaction or dissatisfaction with their automation systems was irrelevant because they were not included in any decision-making about their automation system.

The problems of conversion to a new automation system seemed to deter some respondents who were unsatisfied with their current system. This may indicate a feeling that there is little difference between systems. Costs involved in conversion were frequently cited as a reason not to change systems. Respondents who desired to change systems identified the following reasons:
- System is clumsy and counterintuitive, not user-friendly.
- Would like a more K-12 friendly system—but like the advanced features of our system that are not in others.
- Current vendor unable to deliver on many of the things they said they'd be able to do.
- Not a good company, terrible customer service, or technical problems.
- If I had the money, I probably would not stay with current vendor.

In both my careers as a school library media specialist and as a school library educator I have noticed great variances in the use of and knowledge about library automation systems. I commonly have one student in my cataloging course who works in a district that has not yet automated its catalog. Recently I worked with a new library media specialist who had worked in her school for 6 months before getting someone to help her learn how to use the automation system. At the other extreme I have students in my courses who have automation systems with many of the newest features. These students' comments about the automatic updating of student records from the district registration and records database, and their discussion of whether or not to allow students to access online book reserves seems like a distant dream for my students who are still working with DOS-based automation systems.

This survey has helped me obtain another perspective about the expectations and feelings of library media specialists for their library automation systems. The results will provide another base for discussion in my courses and for further research.

Barbara Fiehn is an assistant professor at Northern Illinois University, College of Education, Department of Educational Technology, Research and Assessment. She teaches online searching and school library science classes including MARC cataloging and automation. She may be reached at bfiehn@niu.edu.