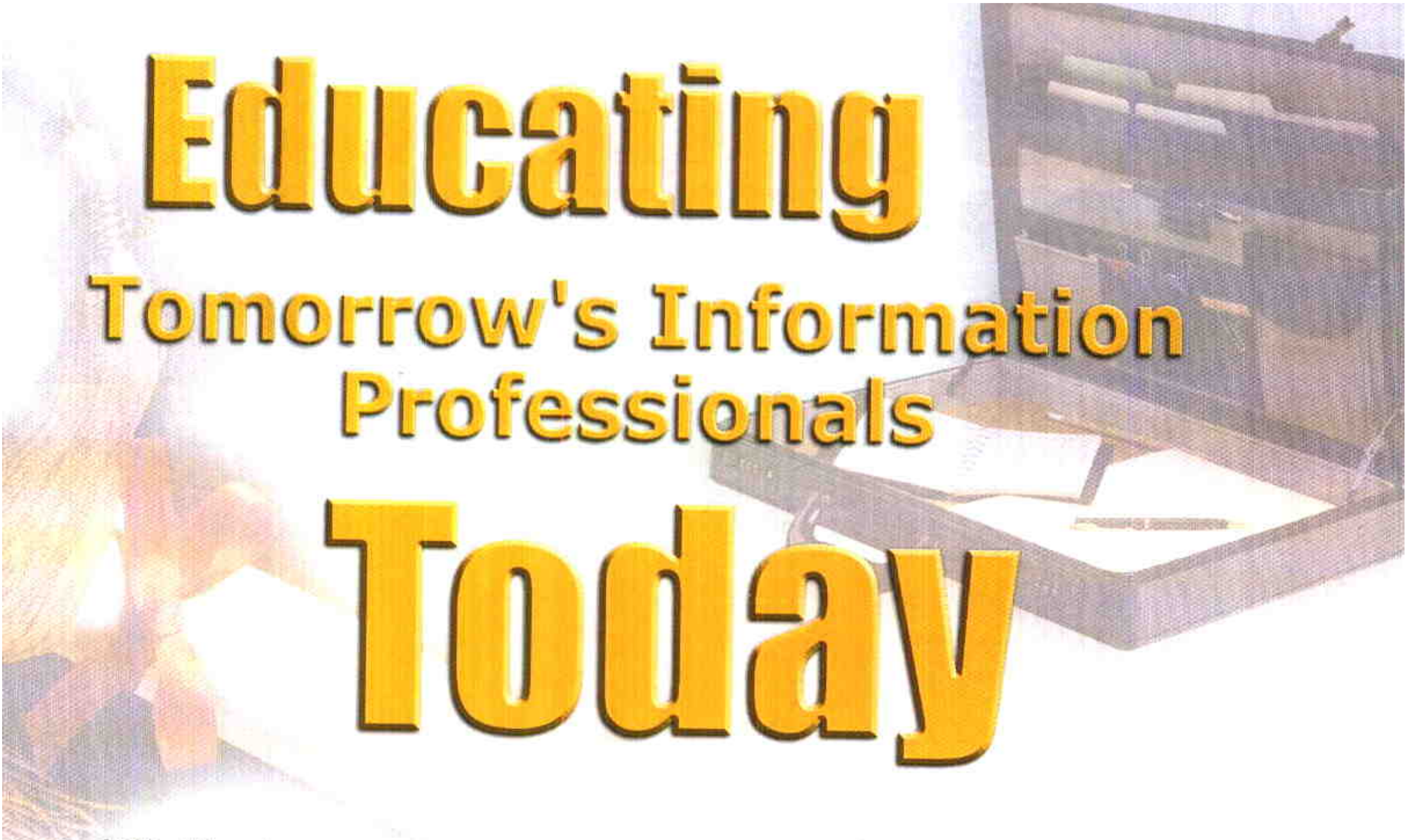




Educating Tomorrow's Information Professionals Today

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By 2017, some 68 percent of today's librarians will have retired, according to recent estimates in the news (Lynch). President and Mrs. Bush have launched an initiative through the Institute of Museum and Library Services (IMLS) to recruit "a generation of librarians." Since schools of library and information science traditionally attract second or third career professionals, the aging of the information professions is a cause for concern. In addition, many new information-related jobs outside libraries now attract LIS graduates and compete with libraries as employers.

This poses several key challenges for the 56 ALA-accredited schools in North America. (For a list, check out the ALISE site at <http://www.alise.org>.) These schools must keep curricula vital for new professionals in a variety of settings, attract enough young recruits to fill the vacancies caused by retirements and to fill new types of jobs, and provide choices and flexibility in scheduling that

appeal to full- and part-time students, both those pursuing a first career and those changing careers. It is a great time to enter the information professions, but one that poses challenges for LIS schools and employers, as a new generation of information professionals comes on the scene and prepares to tackle jobs in a variety of environments.

Studies to Identify the Challenges

Professional organizations and schools of library and information science are concerned about the challenges of recruitment and of keeping curricula relevant for new jobs in new settings and new responsibilities in old settings. Since the mid-1990s, librarian professional associations and the LIS schools have studied the future need for information professionals, the state of LIS curricula now, and how curricula should change in the future to meet new needs. In the meantime,

schools have made changes already. Recruiting more students into revitalized programs has now become a bigger challenge with the need to fill expected vacancies.

At the end of the 1990s, professional organizations (notably, the Special Libraries Association and Medical Library Association) and the private company Outsell Inc. each studied what roles information professionals will play in organizations in the future. SLA and MLA identified essential competencies needed for special librarians. These competencies, which can be translated into recommended coursework, are knowledge of:

- information resources
- information management
- information access
- information systems and technology
- research
- information policy (Tenopir, 2000)

Schools have built core curricula around these competencies, but SLA found that required coursework still focuses mostly on the first three topic areas. LIS schools in the late 1990s

were very strong in teaching traditional skills, but strove to add required courses or content that provided knowledge in the last three areas.

Outsell, Inc. found that corporate information professionals still spend much of their time providing research services, with an increased time spent evaluating and selecting content, bringing information resources to the desktop, and organizing information on intranets. But information skills, no matter how up-to-date, are not enough in today's competitive corporate environment. The Outsell report emphasized the need for corporate information professionals to keep a user-focused attitude, establish a strong information services brand within their organization, and build customer loyalty through quality services that meet users' needs (Corcoran, Dagar, and Stratigos).

Information skills are easily and frequently taught in school. Positive attitudes about selling yourself, recognizing the needs of the organization, and building customer loyalty are not as common in LIS schools — nor as easily taught. Business schools have traditionally been more successful in instilling these types of attitudes, but not just because of a course or two. Instead, such attitudes fit with a deep-seated philosophical base of business curricula and the psychology of students attracted to business schools. Such attitudes appear less often in LIS recruits and may even contradict the philosophical basis of other parts of the LIS curriculum.

Specialization in coursework can help solve some of this conflict. Drexel, for example, has a program in Competitive Intelligence in cooperation with the business school. I teach electives that cover topics like the for-profit information industry, information entrepreneurship, and business intelligence. The values and viewpoints in these courses often differ from those taught in our public library or school media courses.

Between 1998 and 2000, the W. K. Kellogg Foundation funded for the Association of Library and Information Science Education (ALISE), an examination of curricula of today and needs for tomorrow. This project, dubbed "KALIPER" for **Kellogg-ALISE Information Professions and Education Reform Project**, examined about half of the ALA-accredited schools, interviewing faculty, visiting some schools, and studying a variety of documents supplied by each school (including self-study reports, course syllabi, annual reports, etc.) [http://www.alise.org/nondiscuss/kaliper_main.htm]. Twenty educators from 13 schools conducted the research.

Unlike the ground-breaking Williamson Report in the 1920s that found library education in America to be a mess, the KALIPER scholars, in their own words, found "a vibrant, dynamic, changing field that is undertaking an array of initiatives." Curricula were changing to meet the types of needs identified by studies like those conducted by SLA and MLA. But changes in course content were not enough. KALIPER found that schools were changing when and how courses were offered to provide more flexibility and choice.

The KALIPER report identified six trends that are shaping curricular change [http://www.alise.org/nondiscuss/kaliper_final.pdf]:

1. LIS curricula are addressing broad-based information environments and information problems. Though jobs in libraries remain important in designing LIS education, most schools now also offer education that prepare students for jobs in other environments and other situations.

2. A distinct core of skills and commitment has taken shape that is predominantly user-centered. Faculty and approach may come from multidisciplinary areas, but a focus on understanding users and meeting their needs distinguishes LIS curricula.

3. LIS schools and programs are increasing the investment and infu-

sion of information technology into curricula. LIS schools integrate the use of information technology into all aspects of the LIS curricula.

4. LIS schools are experimenting with specialization within the curriculum. Since students can't learn everything in a master's degree program, schools offer specializations in areas such as archives, school media, medical librarianship, or records management.

5. Instruction is offered in different formats, providing students with flexibility, including distance education, variant scheduling, and collaborative courses with other departments or other universities.

6. Curricula are expanding into related degrees at the undergraduate, master's, and doctoral levels. New undergraduate programs are growing especially rapidly.

The KALIPER study isn't above criticism. It can be criticized for navel gazing — by using educators within the schools under examination as investigators — and for examining only those programs that either received Kellogg funding earlier for curricular initiatives (five schools) or those that volunteered to participate. Skeptics can argue that the half of the North American schools that did not volunteer for KALIPER examination may lie below the curve or that it only reports on those institutions that have kept up with the times. Although these may be valid criticisms, I think the positive aspects of the KALIPER report far outweigh such critical concerns. It provides a blueprint for success for those schools that may not be keeping up, a picture of education in a vital profession, and is an important recruitment tool.

The ALISE Viewpoint

The Association for Library and Information Science Education (ALISE) is the major professional organization for educators in schools of LIS. The president of ALISE in 2002 is Dr. Elizabeth Aversa, director of the School of Information Sciences, University of

Tennessee. I interviewed Dr. Aversa to get her take on how LIS programs must change to better meet the needs of the future. She had just returned from an invitational meeting at IMLS to discuss Bush's new initiative for recruiting and educating librarians in the 21st century. Clearly, recruiting students to fill anticipated shortages was on her mind.

Shortages may become even more acute than raw numbers indicate because she says "our students are in such demand that many are working before they graduate and stay in those organizations with an upgrade or a raise after they graduate." A great way for employers to recruit information professionals is to pick somebody with potential and support them through their education. This works now because there are so many distance-education or evening and weekend LIS programs. School districts have followed this model for several years now to ensure sufficient numbers of school librarians.

Aversa admits, "We are moving toward the top of the cycle in desirability of our graduates in both library and non-library environments." Schools of LIS must work to help fill the demand because there is "a danger we are in such demand that employers (particularly in corporate settings) will start waiving the requirement for a degree." This could have negative effects on both schools of LIS and the profession.

Turning to new opportunities for students and how revised curricula prepare students, Aversa says that students will become much more "technologically astute than in the past," particularly in the areas of networking, Internet issues, design of information products and services, and electronic publishing. She sees a big opportunity in intelligence arenas — both competitive/business intelligence and homeland and international security. LIS graduates bring skills in technology and searching along with knowledge of personal liberty and privacy issues. Aversa points out that multiple language abilities will be very useful in these jobs and in

our global information economy.

The other hot area right now may come as a surprise. Aversa points out there is "tremendous demand for librarians who will provide services to children." School library media specialists and children's librarians in public libraries are both sorely needed.

The Class of 2001

With the many openings in school, academic, and public libraries, it is not surprising that a majority of current LIS students hope to work in libraries. But their career goals, even within library settings, are quite varied. Today's LIS students are also quite diverse in their background and ages. New recruitment efforts have brought in a higher percentage of students in their early 20s who have just gotten bachelor's degrees. Add to them the returning student and second career students who have long typified LIS education and you get a rich mixture of ages and backgrounds. A majority of students in LIS programs are now part-time. Distance-education students in particular are usually part-time students, many working while they pursue their master's degree and who bring a wealth of experience to their education.

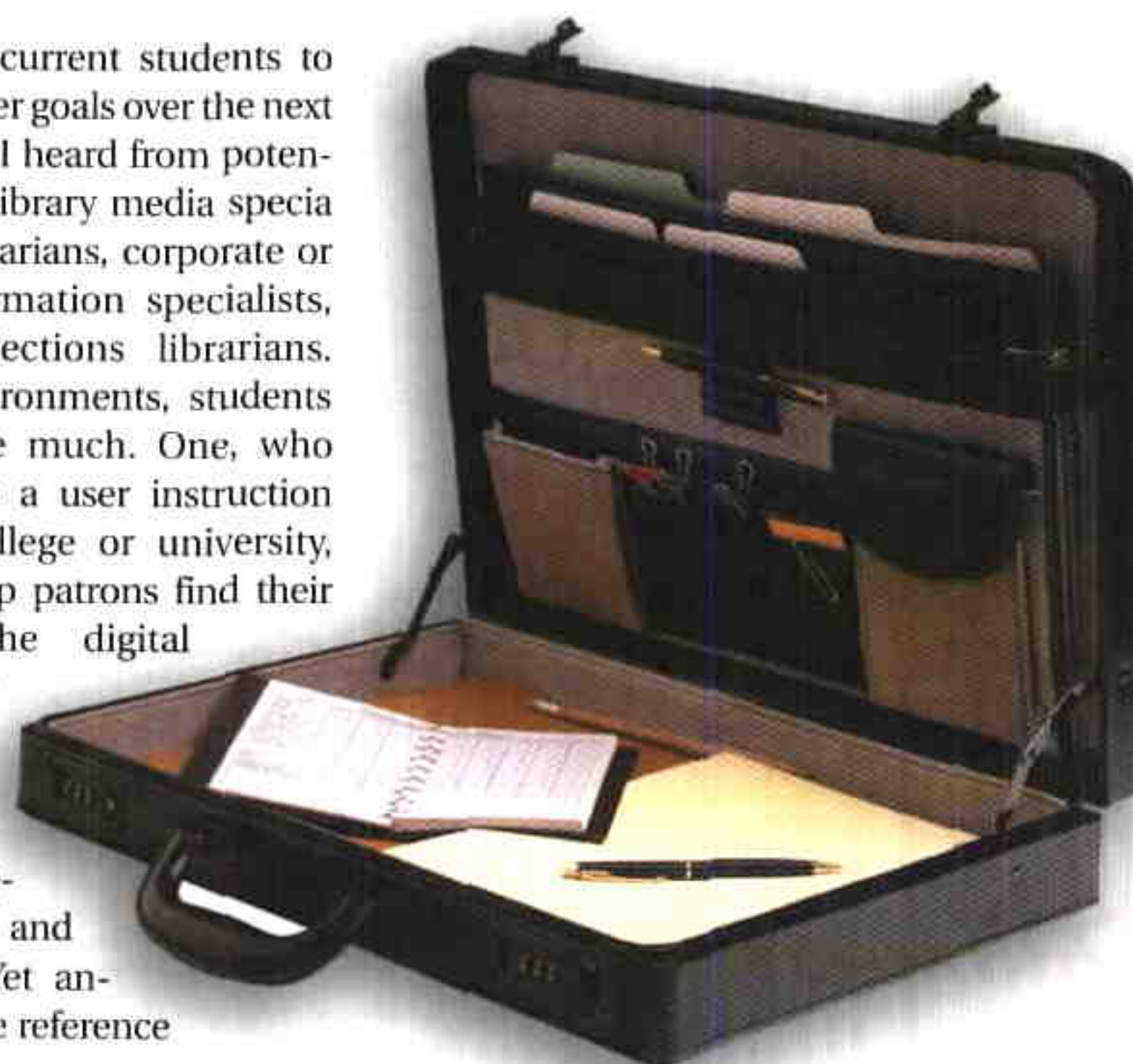
When I asked current students to describe their career goals over the next 1, 5, and 10 years, I heard from potential future school library media specialists, university librarians, corporate or government information specialists, and special collections librarians. Within those environments, students hoped to achieve much. One, who hopes to become a user instruction librarian in a college or university, would like to "help patrons find their way through the digital library." In addition, "I would like to play a part in helping a digital library create search engines and user interfaces." Yet another "came to love reference

and instruction" while doing a student practicum in a library. "However, I know that I will not be entirely satisfied until I have moved up the career ladder.... I see myself in the next 5 years moving up into a supervisory position in an academic library. I would like to be a coordinator or manager of a unit or department.... In my tenth year in the field I would like to be well on my way to becoming a director or dean of an academic or public library."

Another plans to keep her options open as she sees many possibilities. To her "the perfect government library job would entail being a researcher for the CIA or the FBI," but she is also attracted to news librarianship, with its opportunities to do indexing, abstracting, archiving, online searching, and building private databases. On the other hand, a job that offers traveling to train people on hardware and software also "could be fun!"

The careers that attract students to LIS programs aren't always what they end up pursuing. In fact, many of them come into the program without realizing all the career possibilities. One current student told me he started with an interest in special libraries, but, "as I have progressed, I realized that the skills

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New Faces, New Opportunities

Statistics on librarian shortages mostly focus on public, academic, and school librarians, and a vast majority of LIS graduates still find employment in these or the special library sector (Terrell & Gregory). Today, however, LIS graduates also have many other choices as well, and even those going into a traditional setting may find a different set of responsibilities than their predecessors. I interviewed several alumni of the University of Tennessee who graduated within the 5 years to find out what a new information professional in a company or university might face and to get their insights and advice for incoming students and for LIS faculty.



Eleanor Read was a statistician at a government laboratory when she decided to switch to librarianship. She got a position as Social Science Data Services Librarian at the University of Tennessee as soon as she graduated. It was a perfect job for Read, but one she had no idea existed in libraries. In addition to stints on the reference desk and teaching user instruction classes, she is responsible for helping faculty and students

identify, locate, and acquire machine-readable numeric data files for secondary analysis.

Read advises incoming students to "do a practicum so you can test out your new skills and see how they all come together in the real world." Courses that she found particularly valuable included those that focused on database searching, specialized reference, and Web design. The value of her LIS education goes beyond specific courses or skills. Read counsels students that "as awful as they seem at the time, make the most out of your opportunities to make presentations in class or at a research forum" and to participate in the student organizations to "help develop leadership, organizational, and public speaking skills."



Michele McGinnis was attracted to the discipline, but not to libraries. She had done some work as an independent information broker and the flexibility appealed to her. On graduation she landed a job in San Francisco as a research librarian for Kevin Kelly, founding editor of *Wired* magazine. She splits her time among "doing research related to his personal writing interests, helping him with

self-publishing projects, and administrative tasks like keeping him organized."

It wasn't just the challenge of finding, analyzing, and compiling information that attracted McGinnis to this job, but also the working environment. She admits, "I was also enticed by Kevin's tone and approach — he sounded laid back and unconventional. I'm a bit unconventional too. In most jobs one is constrained by dress codes, inflexible policies and procedures, micro-management, oppressing chains of command." Her job allows her to work independently, have no dress code, and set her own schedule — something she didn't even dare dream of before.

McGinnis says her biggest challenges have come from not taking full advantage of the technological opportunities in her LIS curriculum. She's had to learn much about troubleshooting computers and electronic publishing on the job. Of the courses she did take, she says, "Classes in information retrieval, information industry, and business intelligence were my favorites. Equally as valuable, however, were the reference classes, indexing and abstracting, and, I can't even believe I'm going to say it, the dreaded information theory class. These classes were instrumental in teaching me how to ask the right questions when faced with a query, to start with the best sources, and search efficiently and effectively."



Donna George earned her degree part-time through distance education. She landed her job as a business analyst with Ingram Book Group 2 months before graduation. A career with the information industry wasn't what she planned when she started her program. George had worked for 9 years in public libraries and started the master's degree program so she could realize her dream of becoming a public library director.

In her job, George acts as a liaison between Ingram's business unit representatives and technical developers to redesign and improve Ingram's public Web site. The job includes research to identify user needs and working with people throughout the company to identify, design, build, and test new functions. Although she says she rarely ponders "the theory and philosophical aspects of libraries," she often uses knowledge gained from classes about "systems, database structures, and how those structures interact with search and retrieval of information."

George advises students to "embrace every course, particularly those dealing with computers, searching, or any other technical subject." She cautions educators to "stay cutting edge. Even cataloging is more exciting than it used to be!"

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Jill Grogg knew from the beginning what she wanted to do with her master's degree — become an instruction librarian at a university. She had no trouble finding exactly what she wanted and is now an Instruction Services Librarian at Mississippi State University.

Grogg teaches about 40 sessions each semester, most of them course-specific instruction (best sources for History 445, for example.) She also teaches workshops on a variety of topics such

as copyright and fair use, finding full text, Internet job searching, and citing electronic resources. For many of these, she creates online tutorials and Web pages.

The courses that served her best "were ones including assignments that mirror functions I am required to perform on the job. I work the reference desk; thus I need to know about reference sources, reference interviewing, and information-seeking behavior. I am required to publish research; thus, I need to know how to conduct research and publish my findings." She believes that reading and discussing theory are essential to understand "the very fabric of the profession." She advises faculty to "give context to the profession by teaching the history of it. The information profession did not spring full-blown from the head of Zeus. It has a history, a past, and a theoretical base."



Christopher Ryland graduated in December of 2000 and took a job as a knowledge associate with Deloitte Consulting. He says the combination of job description, salary, and geographic location in Eastern Pennsylvania "were a perfect fit for me." He works in knowledge management systems, including cataloging and storing documents "within our knowledge portal for retrieval by employees and our consultants in the field. I also assist with the development

of intranet spaces focusing on hot-button business issues, as well as with the development of our KM function in general."

Chris didn't specifically have knowledge management in mind when he started the LIS program, but he was attracted to it "because opportunities for graduates had expanded" and "the Internet boom was creating a new market for information skills."

He says his responsibilities "are a combination of collection development, indexing, information retrieval, cataloging, etc. While some of the library-oriented details are irrelevant, the underlying principles of these practices can be adapted to multiple situations." His most valuable courses were electives in IT networking, database management, and information systems, though a knowledge management course would have been helpful. Chris recommends students "take a course load balanced between traditional courses and high-tech electives," because even if students take jobs in traditional library positions, "skills learned in these electives will only enhance their career options."

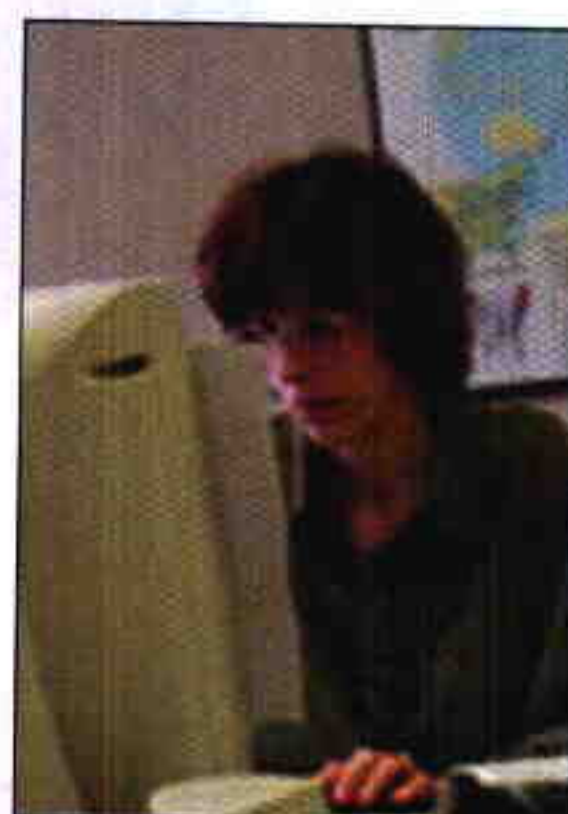


Allison Evatt became the MLIS Consultant for Dialog this year after several years as an information specialist/research analysis at Deloitte & Touche. The Dialog job uses her searching skills plus her teaching skills (she was a middle school teacher before library school) and lets her fulfill an old dream to work in sales.

Allison found the general management course especially helpful in communicating with senior executives. In her first job she worked

with senior partners at the global level and synthesized and analyzed information from a variety of sources. An elective course in business intelligence gave her experience working with real clients in the business world and gave her an edge in job seeking.

Her advice to current students is to "take a broad range of courses, include technical as well as reference type" and take management. "Think broadly and don't worry about the details so much — they'll work themselves out." Allison also reminds us all that "learning is a lifelong experience" and the master's degree just "gets you started in the right direction."



Jill Dybka is the computer systems administrator and Webmaster for the American College of Neuropsychopharmacology, a scientific organization of 600 leading brain research experts. She is responsible for the computer network, including two Web servers, an e-mail server, and multiple workstations. She also maintains (and redesigned) the ACNP Web site and handles the technical side of the organization's electronic publishing. This is Dybka's second

job — right after graduation she worked at a dot-com for 3 years as the interactive publishing manager.

Dybka says that courses in database design, graphic design, and information organization were particularly valuable to her. She also values her experience working in the school's computer labs, a practicum in electronic publishing, and volunteering to help redesign the school's Web site. Good communication skills "are also prized by any company, particularly if you can translate complex technical information into something normal people can understand."

She picked electronic publishing over her second choice, public librarianship, because she enjoys it, but also because she could make more money this way and "there's less of a pay disparity for women in this field."

Dybka advises students to be adaptable, "use your time in school to find what work really interests you," and take an "individualized approach to education." She found a job she loves and cautions, "There are a lot of people who dread going to work in the morning. Try not to become one of them."

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that librarians have of analyzing information sources, or organizing information, and in researching are vital not only in libraries but in government and private business." His new goals are "to use the skills I have acquired to begin a career in knowledge management or competitive intelligence," with the ultimate goal of being in a position that will "have an effect on strategic planning."

Another "entered the program with the idea of building knowledge that would enable me to find ways to generate significant capital through information commerce." A part-time distance-education student who will graduate this year after 6 years of study, this student brings 20 years of working with information technology to the table. He hopes to start his own company to develop information products and services or lead product development at a database company or in a knowledge management application setting, although he admits, "I may move into something entirely different."

Part-time and distance students often pursue their degrees to upgrade their skills and knowledge for advancement in their current workplace or area of employment. One theological librarian in the distance program plans "to extend my library's ability to provide information to distance- and continuing-education students who are located on mission fields around the world through the Internet," while building a "premier theological collection and reference collection." A part-time student who works full time in a corporation wants to work in a similar setting after graduation, doing more Web site and database development. "These classes helped me grow in my current job, and I believe will lead to other opportunities in the future." Another, with nearly 30 years as a public human services employee, mostly in state government, hopes to take responsibility "for assessing the effectiveness of how well information is transferred and translated for maxi-

mum benefit of citizens and employees alike," and she would like to develop better information training for state employees. She admits that as she progresses in the program she has begun considering other options "due in large part to a continuing skepticism over just how innovative or open-minded government organizations can realistically be expected to be."

In the long years of part-time study, not all hold to their initial jobs or plans. One started because she worked in a museum where "no one who knew how to develop, preserve, record, or present a collection." In the meantime she changed jobs and now is interested in "information architecture in digital and nondigital" collections. "I would like to find myself in a job where I take a large amount of information and synthesize and reduce it down to usable portions for the users — whether that is in a Web site or a museum exhibit really does not matter to me."

Variety and a world of choices are the two common themes with current students. LIS students today can pick from many different types of jobs and work environments. Some students are 22-year-olds straight out of undergraduate school, while others are middle-aged workers with a wealth of experiences. Their career goals range from technology entrepreneurship to children's librarian. It is this mix of ages, backgrounds, and career dreams that makes teaching in this field so rewarding!

All Things for All Students?

Schools of library and information science are working on keeping up with technology, planning recruitment, and revising curricula, but I wonder how LIS programs can continue to be all things for all people. How can programs provide sufficient courses and educational opportunities for those who want to become competitive intelligence specialists, children's librarians, electronic publishers, and academic reference librar-

ians? In particular, how can they do all this while maintaining or growing doctoral and undergraduate programs and bringing in new recruits for master's degrees programs?

This is the real challenge for LIS education. When new recruits come back to school they need to find a continually revitalized and diverse curriculum that will prepare them for a vast variety of jobs. Cooperative initiatives with other academic departments and with the work places through practica and other programs help. In the old on-campus environment, each LIS program stood on its own. In a distance-education environment, many opportunities emerge for sharing specialties, faculty, and coursework between LIS programs in different schools. Discussions of how this might work have just begun. *

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