

# **Crying Wolf: An Examination and Reconsideration of the Perception of Crisis in LIS Education**

Andrew Dillon and April Norris

Recent discussions of education for library professionals have strongly criticized the state of most Library and Information Science (LIS) schools, which are portrayed as techno-centric, male-dominated, and out of touch with the needs of practitioners. In the present essay we examine the major claims for a new crisis in LIS education and conclude that the data do not support most of the popular criticisms made of this field. Instead, the notion of crisis is best understood as indicative of a moment of change and an opportunity to significantly affect the long-term future of the field.

## **Crisis? What Crisis?**

For more than a century of formal education for library professionals, there have been many arguments and counter-arguments concerning the nature and content of curricula. Most recently, but not for the first time, the term 'crisis' has been applied. The current debate was sparked by Michael Gorman, president of the American Library Association (ALA), who ran for election, in part, on a platform of addressing this presumed crisis. The crisis call was taken up within the editorial pages of *Library Journal*, where the editor, John Berry, suggested that deans of LIS programs were too quick to defend the status quo and were unable to prove Gorman's claims of a crisis incorrect, a rhetorical sleight-of-hand that required the accused to prove their innocence.<sup>1</sup>

But crisis is nothing new for the LIS field. While the closing of Clark Atlanta University's program in 2005 was the first announced this century, some 22 schools have closed their doors over the years (almost 30% of all LIS programs founded in North America), 14 of them alone in the darkest period of the field's history between 1981 and 1994. Two books published around this period examined in detail the problems but failed to agree on the causes or solutions. Ostler placed part of the blame on the lack of suitable leadership within the field and the failure of schools to market themselves adequately.<sup>2</sup> Paris placed the blame more on the lack of status and connectivity many LIS programs experience in their home universities,

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which renders them easy targets when administrations seek to demonstrate fiscal responsibility.<sup>3</sup>

What distinguishes the present crisis from the many others we have faced is its emergence at a time of relative stability and even growth for LIS programs, which contrasts sharply with the environment studied by Paris. The market for current graduates is considered to be expanding as retirements loom, new technologies have pushed issues of access, use, and organization of information to center-stage, and funding for faculty research and student recruitment has been greatly increased. Yet, rather than raising optimism about the status of the field, critics continue to cite curricular problems, lack of relevant research, gender inequity, and an obsession with technology at the expense of people as problems that educators fail to adequately address.

Gorman specifically lists 14 negative points that run the gamut from a dearth of library-relevant research within LIS programs to the much-noted graying of the profession.<sup>4</sup> Not all of these are directly related to education or even under the influence of LIS schools, but there are three central themes for the current crisis consistently mentioned in his claims that we shall examine in detail in this paper:

1. Librarianship has been pushed out or otherwise negatively affected by the incursion of information studies or information science-oriented faculty into most LIS programs, and as a result there is a lack of research on library issues, since schools have given all their attention to technologically oriented research questions.
2. A gender divide exists which places female faculty on the library side of the scholarship divide, with the potential for schools to become male-dominated as library education is replaced by information science/studies education.
3. The curriculum of most LIS programs fails to address adequately the education of librarians.

The term 'librarianship' is employed in Gorman's paper without formal definition. As the current president of the American Library Association duly notes, even the ALA seems to have difficulty defining librarianship adequately, hence any claim that this field is under threat falls prey to the

problem of determining just what is threatened. For present purposes we will treat librarianship as being a commonly understood label for the work of credentialed practitioners involved in management and provision of services within a library or similar setting. In so doing, we will not explicitly deal with the ongoing discussions of paraprofessional status within librarianship, other than to note that current ALA discourse suggests that librarians are partly defined by the performance of non-routine duties in their professional roles. In the final section of the paper we argue that the lack of formal definition is an indicator of the dynamic nature of the profession and that claims of a host-parasite relationship between librarianship and information science are misleading and represent a failure to recognize the shift in the practices and needs of librarianship within a technology-rich cultural environment.

### **Casting Libraries in Opposition to Information**

Perhaps the primary argument in the latest round of crisis calls is that information studies or science (and both terms are used interchangeably in many schools) has become dominant in contemporary LIS education at the expense of librarianship. The argument is based on a belief that the field has shifted from a focus on libraries as spaces, where ordered collections are overseen by skilled professionals who serve as guides to users, to a focus on computational aspects of retrieval, where digital access interfaces people directly, and remotely, with unfiltered information. Gorman takes the field to task for turning its back on the needs of practitioners and for uncritically accepting what he terms the “urban myth” of a world of “fantastic schemes for virtual libraries and the world’s recorded knowledge available on the Web.”<sup>5</sup>

The leap from paradigmatic dominance of information science over librarianship to the evangelization of urban myths by LIS educators is never well substantiated, and it is not clear that any evidence exists to make this case. While the rapid emergence of a billion Internet users has not lessened the use of libraries according to ALA’s most recent data,<sup>6</sup> it has changed the nature of people’s interactions with books, media, and related information resources. Blogs, Wikis, email, e-books, Amazon.com, online magazines, chatrooms, listservs, Web sites, etc. are relatively new features of the information landscape that people are embracing with rapidity. Indeed, the impact of new digital information spaces has led some conservative reviewers to speculate that reading as we know it may be shifting before our eyes.<sup>7</sup> Few would have imagined this world when Houser argued that information science was really just another term for library science.<sup>8</sup> Few could have foreseen major National Science Foundation (NSF), Defense Advanced Research Projects Agency (DARPA), and National Aeronautics and Space Administration (NASA) investment in digital library research initiatives, or the massive growth of electronic resources easily searchable directly by

the public from their homes and laptops. Yet, these developments have occurred, and people's information-seeking behaviors have altered in a manner which suggests strong support for seamless and self-sufficient access to information beyond the walls of traditional physical libraries.

Certainly one can paint an overly optimistic (or even pessimistic) view of how the Internet will impact society, and there is a technologically deterministic streak in much popular and journalistic writing that markets the digital future as inevitably eradicating books and traditional libraries. Nielsen, labeled the 'guru of Web page usability' by the *New York Times*, predicts the death of legacy media such as paper and the mass adoption of reading on screen in preference to paper by 2008, with high-end users already shifted by 2003.<sup>9</sup> However, such myth-making of virtual libraries almost never stems from LIS schools or their faculty. It is perhaps more accurate to note that LIS faculty are among the most vociferous critics of such simplistic arguments made in favor of digitization.<sup>10</sup> The voice of reason in the face of this digital hype is much more likely to come from LIS faculty critically examining the issues, providing a much-needed counterpoint to the proponents of an inevitably paperless world.

The more complicated claim to unravel relates to paradigmatic dominance, which implies that information science has taken over library education, and in so doing, has pushed the concerns of libraries aside. This casting of the field into two divided camps is nothing new, but it is no longer clear that this division reflects the reality of many LIS programs.<sup>11</sup> Miksa offers a more nuanced analysis of the competing paradigms within LIS. In his argument, there is one view that conceives of libraries as social institutions (which includes, but is certainly not completely defined by, the library side of LIS) and another which places greater emphasis on information movement as a system of human communication. It is the latter that is often labeled 'information science' and assumed (mistakenly) to rest on an analysis of technological conditions. From the information movement viewpoint, libraries are part, but only part, of the system. Indeed, Miksa is quick to distinguish between the real intellectual structures within LIS and the more simplistic commentaries on the field that tend to emphasize superficial historical divisions. Even allowing for paradigmatic differences, Miksa notes, the need for institutions such as libraries to handle the record of human knowledge is widely recognized by all in the LIS community.<sup>12</sup>

Miksa articulately demonstrates that the claims for technological perspectives dominating LIS are misguided, but his argument is based on logical and historical, rather than empirical, analysis. To that end, it is important to ask what type of data we may use to gain an accurate representation of the field.

Gorman points directly to the research output of LIS schools, stating: there is a dearth of research in US LIS schools that is dedicated to the real needs of real libraries. This is the result both of the divorce between information science-oriented faculty and practicing librarians and of the fact

that LIS schools in the USA tend to be part of large universities that value (and reward) pure research over applied research.<sup>13</sup> Few prisoners are taken here. Faculty output is described as “arid and inaccessible,” while practitioners are said to produce “naïve ‘how we did it good’ reports.”<sup>14</sup> While expressed in rather cut and dried terms, this argument about research output can at least be examined through data. One can reasonably assess what LIS research output exists and whether any of it relates to the concerns of libraries and practicing librarians by examining the literature of the field.

Since the boundaries of what is and is not LIS have never clearly been drawn, there is no single method for approaching this question, but we have some guides. The ISI *Web of Knowledge* contains a list of more than 50 publications that it categorizes as dealing with Library and Information Science research. This is certainly not an exhaustive list, but inclusion in the ISI listing is at least indicative of a journal’s impact, history, and reputation. A significant proportion of these journals are clearly dedicated to information science and address technological issues (e.g., *The Journal of the American Society for Information Science and Technology*, which is considered one of the top journals in the field), but the list also contains such journals as *College and Research Libraries* (a highly ranked journal if judged by impact factor), *Government Information Quarterly*, *Journal of Academic Libraries*, *Library Quarterly*, *Library Trends*, and others. The stated aims of these journals include providing a venue for “critical trends in professional librarianship, including practical applications” (*Library Trends*) with a “commitment to informed research in all areas of librarianship—historical, sociological, statistical, bibliographical, managerial, and educational” (*Library Quarterly*).<sup>15</sup> Clearly research journals focusing on libraries exist. Furthermore, such journals, regardless of impact factor, seem to be important for gaining tenure at LIS schools. Nisonger and Davis surveyed 37 deans and directors on their views of publication venues that were considered important in gaining promotion at their schools, producing results that revealed considerable overlap with the ISI rankings.<sup>16</sup>

Existence, however, is not sufficient proof of relevance, thus we must consider the contents of such journals. Even a quick examination reveals that they contain papers that are definitively library-centric. For example, in the last year of *Library Quarterly*, there have been papers on First Amendment issues in public libraries, development of children’s digital libraries, corporate library impact, The USA PATRIOT Act, collection evaluation, and more.<sup>17</sup> During the same period, *College and Research Libraries* published work on collection development, citation characteristics, gender issues in library leadership, and information literacy instruction.<sup>18</sup> *Library Trends* covered library and librarian impact on communities, library media programs, electronic publishing, and public library funding.<sup>19</sup> This is but a short sample; the contents lists for these and related journals are extensive and deal with many issues currently at the forefront of practitioners’ work. Furthermore, unlike many of the professional magazines oriented specifically to practitioners, these papers are

frequently authored by faculty from the very LIS programs accused of ignoring librarianship.

One strong indicator of the prospective health of library-relevant research can be obtained by examining the doctoral dissertations produced in the field, since it is here that the next generation of scholars and faculty demonstrate the fruits of their education and the orientation of their research. Without polling every doctoral-granting LIS program for a record of recent dissertations, it is not possible to get the full data set, but certainly there are indices worthy of attention that can be readily determined. In the following tables, we offer a sampling of thesis topics obtained by examining the production of dissertation work within the field from our own school for the last five years (Table 1), followed by Eugene Garfield—Association for Library and Information Science Education (ALISE) Doctoral Dissertation Awards, which reveal that, at least as far as award winners are concerned, research into library-related issues is the norm, not the exception (Table 2).

While far from a complete analysis, these data cast serious doubts on the claim that there is a lack of research relevant to the needs of libraries and librarians being conducted in LIS schools. The substantially library-ori-

**Table 1**  
**Recent University of Texas School of Information Doctoral Dissertations, 2000–2005.**

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**Recent School of Information Ph.D. Dissertations**

Hermina G. Anghelescu, 2000, *Public Libraries in Modern and Contemporary Romania: Legacy of French Patterns and Soviet Influences, 1830–1990.*

Durk Hyun Chang, 2000, *Knowledge, Culture and Identity: American Influence on the Development of Library and Information Science in South Korea since 1945.*

Soyeon Lee, 2000, *Organizational Culture of an Academic Library.*

Jens-Erik Mai, 2000, *The Subject Indexing Process: an Investigation of Problems in Knowledge Representation.*

Cecilia Lizama Salvatore, 2000, *Community, Institution, and Identity in the Chamorro Speech Community: An Ethnographic Study of How They Shape Information Seeking Discourse in the Library.*

Wanda Kaye Jackson, 2001, *Interactions Between Information Overload and Managerial Roles—An Exploratory Study.*

Jon Arvid Aho, 2002, *Using Reference in the Work of Eusebius of Caesarea (ca. 260–339) to Understand the Collection of the Library of Caesarea.*

Grete Maria Pasch Valdes, 2004, *Identifying, Selecting, and Organizing the Attributes of Web Resources.*

Kevin Rioux, 2004, *Information Acquiring-and-sharing in Internet-based Environments: An Exploratory Study of Individual User Behaviors.*

Bob Strong, 2005, *Undergraduates' Information Differentiation Behaviors in a Research Process: A Grounded Theory Approach.*

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**Table 2**  
**Eugene Garfield—ALISE Dissertation Award Winners 1996–2005.<sup>20</sup>**

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**ALISE Dissertation Award Winners**

**2005**

Paulette M. Rothbauer, "Finding and Creating Possibility: Reading in the Lives of Lesbian, Bisexual, and Queer Young Women," University of Western Ontario, 2004.

Betsy Van der Veer Martens, "Theories at Work: Functional Characteristics of Theories That Facilitate Their Diffusion Over Time," Syracuse University, 2004.

**2004**

Samuel E. Trosow, "Information for Society: Towards a Critical Theory of Intellectual Property Policy," University of California, LA, 2002.

Kalpna Shankar, "Scientists, Records, and the Practical Politics of Infrastructure," University of California, LA, 2002.

**2003**

Karen Frances Gracy (UCLA), "The Imperative to Preserve: Competing Definitions of Value in the World of Film Preservation", 2001.

**2002**

Soo Young Rieh, "Information Quality and Cognitive Authority in the World Wide Web," Rutgers University.

Bradley R. Taylor, "The Effect of Surrogation on Viewer Response to Expressional Qualities in Works of Art," School of Information & Library Science, The University of Michigan.

**2001**

Patricia Coit Murphy, "What a Book Can Do: Silent Spring and Media-Borne Public Debate," School on Journalism and Mass Communication, University of North Carolina at Chapel Hill.

**2000**

Cheryl Cowan Buchwald, "Canada's Coalition for Public Information: A Case Study of a Public Interest Group in the Information Highway Policy Making Process," Faculty of Information Studies, University of Toronto, 1999.

Patterson Toby Graham, "Segregation and Civil Rights in Alabama's Public Libraries, 1918–1965," School of Library and Information Studies, The University of Alabama, 1998.

**1999**

Hong Xie (Rutgers), "Planned and Situated Aspects in Interactive IR: Patterns of User Interactive Intentions and Information Seeking Strategies."

**1998**

Mary K. Chelton, Rutgers, "Adult-Adolescent Service Encounters: The Library Context." Elizabeth Yakel, Pittsburgh, "Record Keeping in Radiology: The Relationships Between Activities and Records in Radiological Processes."

**1996**

Danuta A. Nitecki, University of Maryland, for "An Assessment of the Applicability of SERVQUAL Dimensions . . . for Evaluating Quality of Services in an Academic Library."

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ented research that wins ALISE awards suggests that the next generation of LIS faculty, and, crucially, those who are evaluating them, recognize library-related research topics as central to their professional expertise.

More difficult to counter, and impossible for us to deal with here for space reasons, is the argument that the research output of faculty lacks applicable relevance for practitioners. One might, with justification, state that relatively little LIS research is so highly theoretical, especially when compared to other work in the humanities and social sciences, as to be inapplicable to the field, but this is not the crucial issue. More importantly, it is doubtful that trial by practitioner is ever the best measure of any scholarly research. While it may be common for librarians to complain of the relevance of many scholarly articles, this represents an assumption about the purpose of research, and one that is not unique to our, or even any, professional field.<sup>21</sup> We would note only that while research must ultimately be tested in the context of practice, to engage solely in localized problem solving that satisfies the immediate practical issues facing librarians today would be to reduce scholars to consultants and threaten the status of LIS schools in the eyes of the academy, surely an activity more likely than any other to force schools into crisis.

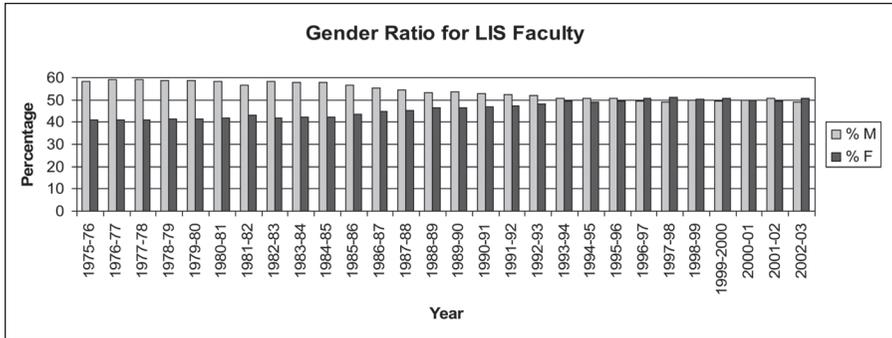
### **Gendering the Instruction of Library or Information Science**

Past assessments of gender shifts in LIS faculty have attributed, in part, the impediment of women's progress as key academic contributors to the movement towards a scientific profession.<sup>22</sup> Referencing Hildenbrand's study,<sup>23</sup> Gorman asserts, that there is a growing gender divide in LIS schools between 'informationscience'-oriented male teachers and library course-oriented females [sic] teachers. Further, that as female library-oriented teachers retire they are likely to be replaced by 'information science'-oriented teachers.<sup>24</sup> While it is true that women's participation in library education has changed over time, and their faculty status and influence over education have seen periods of decline, recent data may denote a movement away from the masculinization of faculty and the gender stratification of faculty ranks.

To gain insight and baseline data into the gender distribution of LIS faculty, we examined the ALISE statistical data for faculty demographics over the last 28 years.<sup>25</sup> The pattern indicates that over the last decade there has been a steady trend toward equalization of gender among LIS faculty from a near 60:40 male to female ratio to virtual parity (slightly favoring females) for the last five years (see Figure 1).

Even more noteworthy is the shift in gender ratio taking into account the undulating change in the total number of full-time faculty. In 1980 the number of full-time faculty was 722 with a gender ratio of about 60% male to 40% female. After a low point of 562 in 1987, the full-time faculty numbers

**Figure 1**  
Faculty Gender Ratios, 1975–2003.



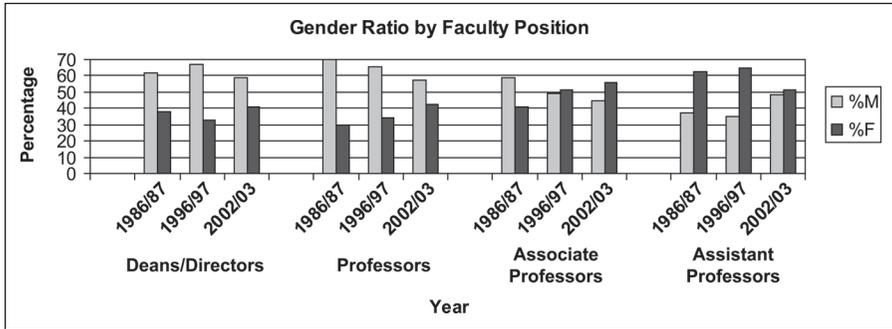
have increased to 758 in 2002, surpassing the totals from two decades ago, with a ratio of 49.2% male to 50.8% female.

If LIS is becoming a science-oriented discipline, as has been claimed, then this trend is in sharp contrast to such disciplines as engineering or computer science, where the failure of schools to attract and maintain female faculty has also been likened to a crisis. In recent years, the NSF has funded numerous research initiatives focused on discovering ways to improve gender equity in the sciences. A developing NSF program known as ‘ADVANCE: Increasing the Participation and Advancement of Women in Academic Science and Engineering Careers’ reports that “[d]espite advances made in the proportion of women choosing to pursue science and engineering careers, women continue to be significantly underrepresented in almost all science and engineering fields, constituting only approximately 25% of the science and engineering workforce at large, and less than 21% of science and engineering faculty in 4-year colleges and universities.”<sup>26</sup>

Obviously, this is just a quantitative summary of the available data, but it contradicts the claim that LIS is in danger of becoming male-dominated; however, it does not address the issue of rank stratification. That is to say, LIS programs may be hiring equal numbers of female and male faculty, but gender division may still be prevalent at the senior levels, with all the negative effects this may have on females at the lower ranks. By examining the gender ratios of deans/directors, professors, associate professors and assistant professors as reported in the ALISE statistical data, we found that currently all senior positions do not exhibit gender equality (see Figure 2). Certainly the percentage of female faculty is increasing at decanal and senior ranks, and this may be a reflection of lag between more equitable hiring at the junior ranks and subsequent promotion, but females do not yet attain the uppermost ranks at a level that would be expected by chance alone.

Interestingly, balance is apparent in the previously female-dominated

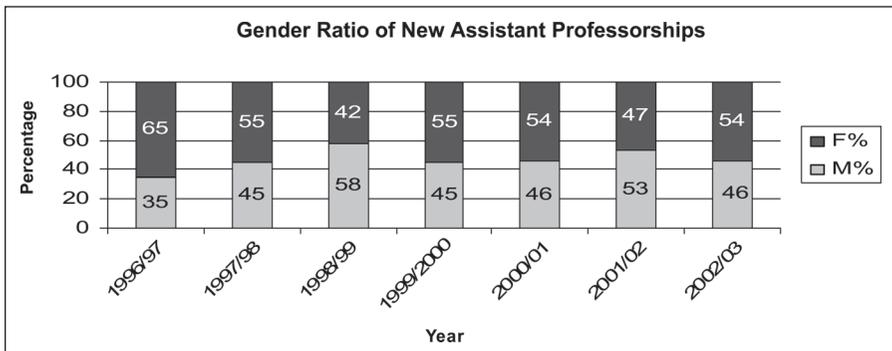
**Figure 2**  
Senior Faculty Gender Ratios, 1986–2003.



rank of assistant professor, which may provide some important clues to long-term trends. To determine whether the shift in assistant professorships is due to female faculty being promoted (as would be expected statistically) or if the number of female assistant professors is constant but being exceeded by new male hires (presumably teaching male-oriented information science), we again examined data from the ALISE reports. These results indicate that since 1997/1998, the ratio between male and female new assistant professors has fluctuated each year, but remained within an averaged 10% on the whole (see Figure 3), with the total number of new hires averaging 51 per year for a 6 year period. At this level of granularity, the data suggest that the gender shift appearing across ranks is largely influenced by the promotion of female faculty, not the over hiring of male faculty at the junior rank. Notwithstanding any possible glass ceiling effects, we anticipate that greater equalization of gender at all ranks should occur over the next decade.

While these data points cannot tell the full story, LIS faculties appear to

**Figure 3**  
Assistant Professor Gender Ratios, 1996–2003.



be evolving towards greater gender equality and certainly offer a model of balanced recruitment compared to other disciplines, but is it still possible that divisions exist within the curriculum such that certain areas of study are disproportionately taught by one gender?

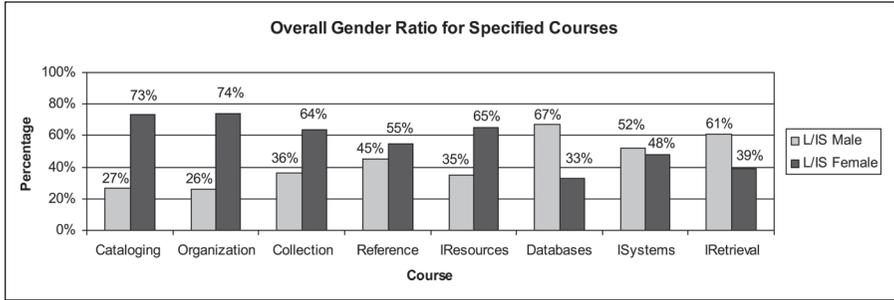
To explore the magnitude of gender division within curricular offerings, we sampled and evaluated the male to female teacher ratio of a collection of courses categorized as either male or female in their orientation. The courses chosen reflect only conventional assumptions and findings reported by Hildenbrand on course-gender relations, cross-referenced with Gorman's article and a review of curriculum components we conducted in 2004.<sup>27</sup> The result was a selection of courses commonly taught in the majority of curricula that might be expected to demonstrate gender-specific tendencies (there can be few hard and fast rules here, but without such an operationalization, there can be no empirical analysis). These were three "male-oriented" information-science courses (database design and management, information systems, and information retrieval), three "female-oriented" library science courses (cataloguing, collection development, and reference) and two wild cards (organization of information/knowledge and information resources).

The information was extracted from the Spring 2004 Web-based course schedules provided by 34 ALA-accredited programs. Note that this is data from one semester. Ideally one would need to determine the number of instructors who offer a section of each course over a two- to five-year period to see if these patterns are sustainable, but unfortunately, there is rarely enough information on each school's Web site to determine this clearly. There is much room for more detailed data collection by researchers strongly interested in this matter.

At first glance, it appears as though females are teaching several of the typically defined library-oriented courses, and males are teaching the information-oriented courses in disproportionate numbers. Cataloging and collection development are taught by females at more than twice the rate at which males teach these subjects, while the identically opposite pattern is found for courses on databases. But this trend is not absolute. Take for example, the information systems and reference courses. Both of these course types might arguably be defined as 'male' and 'female' respectively, and yet in this data set they share nearly a 50/50 distribution across gender (see Figure 4).

Gorman states that male teachers are encroaching upon LIS and are replacing female teachers, and concludes from this that the replacement of females brings with it the replacement of library science with information science.<sup>28</sup> Not only is the encroachment argument contradicted by the data, this conclusion is debatable when one compares the ratios of the classically defined 'male' courses to the ratios of the classically defined 'female' courses. What the Spring 2004 data indicate is that while females dominate several courses as expected, several of the stereotypical 'male' courses of information systems and information retrieval do not share the same trend.

**Figure 4**  
**Male to Female Ratio of Gender-Oriented Courses Sampled**  
**in Spring 2004.**



There are currently more female faculty teaching information science-oriented courses than there are male faculty teaching library-oriented courses. The implication is that females are contributing to the development of LIS education by teaching *both* library science-oriented courses and information science-oriented courses.

### **Curriculum Needs for Librarian Education: Renovation vs. Innovation**

While the data we have examined thus far would seem to counter the crisis view of LIS education that is being argued at this time, there remains a concern that, regardless of research output or faculty make-up, the education of librarians may not be best served by current LIS curricular offerings and requirements. Again, there is nothing new to this concern. Steig has reviewed the history of education in this field from its inception and presented evidence that practitioners have long felt that educators were out of touch with practice, a concern echoing in the field since the first qualifications were discussed.<sup>29</sup>

It is commonly accepted that the origin of contemporary library education is found in the recommendations made in the 1923 Williamson report. Built on a previous survey conducted by Alvin Saunders Johnston, the Williamson report was commissioned by the Carnegie Corporation to address the perceived host of inadequacies in library education and training. The report was, and still is, recognized as being largely influenced by Williamson's strong belief in the relationship between a profession's development and graduate-level education.<sup>30</sup> In fact, Williamson's most influential recommendation was to extract library education from the library environment and align it with universities, allowing the library schools to contribute to and profit from the intellectual environment.

In terms of curriculum, instead of definitive recommendations on course content, Williamson promoted a scientific approach to defining library ed-

ucation's knowledge domain. He saw the reliance on the needs of the constituency and response to status quo as (at best) a weak foundation for any profession in want of a future.<sup>31</sup> This argument seems to have won few supporters within the professional ranks then and is prescient of contemporary discussions.

Over the last decade, the analysis of core curricular requirements has become a major focus of the field. In 1992, the Kellogg CRISTAL-ED task force began reconstructing the University of Michigan's (UM) LIS curriculum. A preliminary step was to determine if a conceptual core of knowledge and skills existed for the field. The conclusion was that an LIS educational core did exist, and it included five components:

- organization of information,
- information systems analysis and design/delivery tools,
- evaluation,
- users and access, and
- management and professional competence.

The curriculum planners championed the argument that the values of librarianship (service, access, and cultural preservation) were significant elements of the future and aspired to provide their graduates with "broad competency and a holistic view of information systems."<sup>32</sup>

Several years later, the KALIPER study (1998 through 2000), funded by the Kellogg Foundation, reported findings on current trends in LIS education. Six trends were identified, three of which (trends 1, 2 and 3) relate to curriculum development in terms of course content, but only two (trends 1 and 2) speak to the development of core constituents. The study did not acknowledge specific core components per se, but rather documented the LIS knowledge base as incorporating the "cognitive and social aspects of how information and information systems are created, organized, managed, disseminated, filtered, routed, retrieved, accessed, used, and evaluated."<sup>32</sup> Even this list, lengthy though it is, is hardly exhaustive as it leaves out preservation as a direct concern. Yet, these attributes are considered to form a cohesive knowledge base when explored from the perspective of the user. The KALIPER study suggests this user-centeredness, which now pervades LIS schools from mission to measure, is a quality that distinguishes the LIS profession from all other information professions.

In a more recent study, Markey examined 56 curricula and, using the schools' course descriptions and syllabi, identified five course categories in a typical LIS core:

- Organization
- Reference
- Foundations
- Management
- Research Methodology or Information Technology.

Markey concluded that “curricula remain strong in traditional coursework that seeks greater understanding of users, their information-seeking behavior, and the sources and services that libraries provide to users.”<sup>34</sup> While Markey’s analysis is thorough, it should be noted that the level of agreement across programs can vary significantly. Most obviously, programs vary in the number of course requirements. While many require five core courses, currently at least two leading programs required less than that (e.g., the University of Michigan requires four courses and the University of Illinois requires two courses). Furthermore, unique offerings in schools are common outside the core (e.g., the University of Texas offers significant options in archives and conservation). Notwithstanding this, there appears to be a general consensus on what a modern LIS curriculum should contain, at least from the perspective of the providers. For those who believe that each school is a law unto itself, the data indicate otherwise.

Interestingly, not only is there a relatively standard set of core offerings across programs, but the set is close to the recommended core advocated in Gorman on the basis of an analysis of the activities of a librarian reported in Aundunson et al. That report calls for education for proficiencies in information organization and retrieval, the promotion of culture and knowledge, knowledge of literature, the organization and management of libraries, and information technology. Indeed, Aundunson and colleagues emphasize that knowledge organization and information retrieval will be the major responsibilities of professional librarians in the future, with general expertise in management theory beyond the library setting also being expected.<sup>35</sup> The words ‘beyond the library setting’ were also employed by Pettigrew and Durrance in the KALIPER report,<sup>36</sup> and it may be that this language triggers a strong reaction in traditionalists who equate it with a discarding of libraries rather than an extension of library practice to a broader domain. However, comparing core requirements and recommendations mentioned in Gorman with those derived by CRISTAL-ED, KALIPER, and Markey, it would appear that there is close agreement among all parties of what is required and, furthermore, most schools are now delivering on it.

### **Shifting the Debate: Crisis as a Moment of Change**

The latest crisis call has been examined in terms of three major themes articulated in Gorman’s “Whither Library Education?” essay and echoed in library online discussion groups repeatedly since. In each case, the data we can bring to bear on each theme suggest that, at best, any claim for a state of crisis in current LIS education is overstated. If any crisis exists, it is not reflected in these indices.

However, the eternal existence, imaginary or otherwise, of crisis in LIS education must itself be indicative of some underlying state of affairs that shows no signs of fading. It is the present authors’ view that at the heart of the current discourse lie two issues, one contemporary, relating to the tech-

nological revolution overtaking our field; the second longstanding, relating to quality control. In combination they offer two facets of the conception of crisis as it pertains to our field.

There is clearly deep concern with the rapid emergence of information technology and its impact on all of our relationships to recorded knowledge. The critical position is often couched in a library versus information science argument, which bears little or no resemblance to the real trends affecting our field and no longer adequately provides an axis that leverages meaning in contemporary schools or careers. Technology has permeated all we do in this field; it is foundational for the discipline in the twenty-first century, not a component that can be ignored or taught separately, under the heading "information science," in our schools. At a time when there is greater interest among outsiders in central concerns of ours such as organizing large amounts of data, easily retrieving needed documents, or preserving our cultural records in a digital space, the formal positioning of libraries apart from information science is a rhetorical displacement activity, taking our attention from the important issues and into an argument over labels.

By equating information science with technology, or technological studies, Gorman and other popular writers in the field create a self-fulfilling prophecy when they argue, in an age of massive technological advancement, that we are witnessing a surge of teaching in technology-oriented courses. Such developments are inevitable. However, these developments are not the intellectual equivalent of a conscious decision by LIS faculty to ignore any library issue that is "not amenable to a technological solution."<sup>36</sup> Rather, when the Internet has given rise to easy access to previously unimaginable amounts of information from one's own location; when cheap, widely available information and communication technologies are used by everyone across multiple task domains; and when students arrive in LIS programs familiar with and skilled in the use of such routine technologies, it would seem difficult to justify any other response from LIS programs than one of embracing the tools and the opportunities for study and use they enable. That LIS programs seem to have managed this transition gracefully speaks volumes. If there are criticisms to make here, it might be that LIS programs have failed to grasp fully the opportunity to stake a stronger intellectual claim on this terrain.

The significance of technology in LIS curricula parallels that of technology in professional practice. Graduates expect, and are expected by employers, to be familiar with current technologies. This is apparent in all areas of professional service, from special libraries to youth services.<sup>38</sup> We agree with Sutton, who noted that this movement reflects a sensitivity of LIS schools to the needs of professionals and "failure . . . to increasingly incorporate technology into instruction would be to steadily distance [the schools] from the needs of its traditional profession constituency."<sup>39</sup> Furthermore, since the history of LIS is replete with claims that our field is not about technology, it is about people, then one wonders why any advance in

technology should be such a source of concern to people who actually understand this?

If the field is, as it seems, always in some perceived state of crisis, then perhaps something else is at work. The quality facet of the crisis issue is far less discussed but no less important to understanding the state and status of LIS education at this time. While accreditation is considered the bulwark for ensuring standards, there exist significant discrepancies between the quality of research and educational experiences offered across accredited programs. Similarly, there exist considerable discrepancies in quality of students admitted to and graduated from LIS programs. It is difficult to quantify these issues, however, since discussions of quality and admissions standards are among the most divisive topics raised in faculty deliberations or practitioner discourse, and there is almost no vehicle for their formal treatment in the literature and conferences of the field. Every school believes its graduates are as good as any, and it would be hard for them to stay in business if they stated otherwise, though few schools outline in any detail their expectations for admission on their Web sites beyond a GRE score, a 3.0 GPA, and a few reference letters. Most schools consider their tenure and promotion standards comparable to other schools, even if their central administrations think otherwise, and despite being the intellectual home of bibliometric analysis, there remains considerable disagreement over what constitutes a high quality venue for scholarly output by LIS faculty.

This lack of attention to quality considerations runs deeper than many would admit. Insularity as a trait of LIS schools and the broader yardsticks of a quality education and research are rarely acknowledged. Buckland notes that the idea of an LIS school even offering a course on the basis of it being interesting to non-LIS students would be considered an anomaly, so stuck are some schools in a narrow view of what professional education involves.<sup>40</sup> His may be a provocative perspective not shared by most, but Paris noted that the school closures she studied revealed in several instances a faculty overly concerned with influencing professionals rather than other faculty, and her case studies include several damning quotations from university presidents about the low standards of productivity that were tolerated in their library schools.<sup>41</sup> Together, these point to a benchmarking of ourselves, as a discipline, against incomplete and perhaps inappropriate criteria, placing emphasis on indices that do little to further our intellectual growth or enable us to truly assess what progress we are making in educating the next generation of library and information professionals. Without these, the field avoids engagement with a broader discourse community that might expose our ideas and our research to more critical assessments. Could it be, as King argues, that the only real crisis in this field is a crisis of confidence?<sup>42</sup>

The term 'crisis' can have positive associations when used to refer to turning points or decisive moments. Used accordingly, there may well be a crisis in LIS education at this time but it is not of the form reflected in most

current discussions of the field. This is an unstable time for LIS programs with name changes (almost one-third of the ALA-accredited programs now make no use of the word 'library' in their names), major technological impact on curricular offerings, shifting demographics in our student and professional bodies, and the increasing interest in digital library concerns by other (often better funded) disciplines, the graduates of which are now entering our faculty ranks. It is a time when even the necessity of the master's degree for librarians is questioned by those within the profession.<sup>43</sup> But these are also times when the major concerns of LIS professionals, such as the organization and management of information, the digital divide, the level of literacy in our society, and freedom of access to public information have become mainstream issues for our culture. This may be a once in a century opportunity to convince those in power that the field has a real contribution to make. The crisis we face is less to make research more relevant to local concerns of practitioners, or to revamp once more a set of core classes or accreditation standards, but to demonstrate our authority as a profession in dealing with information issues at both theoretical and practical levels, within academia and beyond. This is a crisis in the sense of it being an opportunity and a turning point, and in that sense, it should be welcomed, if we truly believe we, as a profession and a discipline, have something substantial to offer. To that end, the importance of a large professional society such as ALA in framing public debate and understanding cannot be underestimated, and it is there, rather than crying wolf about an educational crisis, that we believe more attention might usefully be given.

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