
The Information Age versus Gender Equity? Technology and Values in Education for Library and Information Science

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ABSTRACT

THE LIBRARY PROFESSION PROCLAIMS ITSELF to be a proponent of both the Information Age and of equity for women and people of color. Yet certain features of the Information Age appear to be inhospitable to the goals of gender equity and there is a long history of gender stratification, with men favored for top positions in the profession. Structural changes brought about by the Information Age may foreshadow a resurgence of inequity. This discussion looks at the changing character of education for librarianship in the Information Age, emphasizing faculty and students in the emerging curriculum. Relative support for Library Science and for Information Science courses, measured using faculty distribution in the two areas, is examined.

INTRODUCTION

Librarians and library educators today vociferously proclaim their support for computerization, digitization, and the Information Age; they also claim to support equity for women and people of color¹ both in their constituencies and within the profession. Yet the Information Age, product of the global economy, with its assault on the public sector, the taxes that support it, and government regulations, including Affirmative Action, does not seem to provide a hospitable environment for the emphasis on equity that has characterized library ideology for decades. In addition, library education played a vigorous role in gender stratification (and racial segregation) historically, and current social attitudes continue to

identify men with technology, the keystone of the Information Age. All these factors suggest that it is a good time to examine the potential or actual place of gender stratification in library education today. Unfortunately little research is available to illuminate the confrontation between computerization and equity.

Researchers may be discouraged from examining these topics by both the ideological nature of the issue and the lack of data. That is, it is difficult to write about the social and political costs of library automation when its benefits are obvious and are emphasized in professional literature. Any questioning or analysis leaves one vulnerable to the dreaded, and career-destroying, label "technophobe." In addition, data are inadequate for the emerging conditions and are often poorly defined. This article will examine gender issues in the emerging education programs for library and information science (LIS). An overview of both the historic role of library education in gender arrangements and the gender-technology links in society provide context for an analysis of evolving curricular patterns. The article concludes with suggestions for those concerned with gender (and racial and ethnic) equity in the Information Age.

LIBRARY EDUCATION AND GENDER STRATIFICATION

Gender stratification, or the over representation of men in leading positions and in major specialties, has been present in librarianship since its "feminization," or the emergence of a female majority; library education has often encouraged gender stratification. In the early years, from the 1870s through the 1930s, men were widely believed to have managerial talents that women lacked and this belief was used to justify favored placement for men. Many women shared the common stereotypes and felt that men were needed at the top for the good of the profession. Some may have believed, mistakenly, that the large-scale entry of men into the profession would raise the salaries of all (Williams, 1995, pp. 160-63).

Library history reveals both the ideological arguments and structural arrangements that were used to support male domination. The ideological arguments are based on an identification of males with positive qualities like professionalism, leadership, or technical skills. Women are identified with a lack of professionalism, leadership, or technical skills.² Melvil Dewey, famous for recruiting "college-bred women" into his training program in the 1880s, warned them that the top library positions would go to men (Vann, 1978, p. 109). Leaders like Herbert Putnam echoed this sentiment (Weibel & Heim, 1979, pp. 57-66). American Library Association (ALA) President Ralph Uveling in 1945 urged returning (male) veterans to use their education benefits to pursue library education and enter the top slots in the field ("Growing Shortage of Librarians Seen," 1945, p. 9).

Structural changes in library education, presented as reforms which would clearly benefit the whole profession, also supported gender stratifi-

cation. The work of the Carnegie Corporation and Columbia University economist Charles C. Williamson dominate this area. Williamson was appointed by the corporation in 1918 to do a report on library education. In a secret memo, he emphasized that consideration “be given to the need of checking the feminization of library work as a profession” (Brand, 1983, p. 45). The report addressed two aspects of the problem. First, it stimulated the establishment of elite programs at Columbia and the University of Chicago, anticipating that these programs would develop male leaders. Second, the report also attacked practices identified with the Pratt Institute program, which served an almost entirely female student body. Williamson believed that the program was overly influenced by library employers and was essentially clerical in nature. He recommended that the material covered be taught to young women high school graduates in programs run by major public libraries (Brand, 1996, p. 263).

Historian Ellen Condliffe Lagemann observed of Williamson’s report that it intended to “foster a bifurcation not different from that which existed between (male) school administrators and (female) teachers, between (male) doctors and (female) nurses. It would be difficult to read the Williamson study without concluding that fostering hierarchical segmentation by gender was one of its goals” (Brand, 1996, p. 263).

The Carnegie Corporation awarded fellowships to train library leaders from 1929 to 1942 which went disproportionately to men. An anonymous Carnegie officer wrote, “the chief purpose of the grants was, and I think is, to attract men into the profession . . .”. Gender, not merit, was clearly the desired quality as the same person complained that earlier selection committees had been “too conscientious” and this resulted in awards or appointments that were “overwhelmingly feminine”—i.e., given to women (Sullivan, 1996, p. 439).

Not surprisingly, Alice Bryan, writing in 1952 on the results of a survey of public libraries funded by the Carnegie Corporation, found “not a single, but a dual career structure for public librarians differentiated on the basis of sex—an accelerated library career for the minority, composed of men, and a basic library career established within considerably lower limits for the majority, who are women” (Bryan, 1952, p. 86).

In reviewing this history, one is struck by how diligently this gender hierarchy was constructed. Scholars and philanthropists were as likely to be moved by the conventional wisdom and stereotypes as were the public. The establishment of library programs in great universities certainly seems like an advance for the profession yet, with gender favored over merit, it clearly masked privilege for the few.

Much more research is needed on the roots of gender stratification in librarianship. What kind of leaders did it recruit? How did they differ from other librarians in terms of social class, race, ethnicity, sexual orientation, disability, and personal characteristics? In addition, it would be

interesting to find out, both geographically and in terms of professional specialization, where gender stratification was most successful and where least so.

Library education and librarianship seem to be good places to test the jobs available, gender available theory of gender stratification or segregation (Reskin & Roos, 1990, chap. 2). According to this theory, employers have a queue of ideal employees. Middle-class, white, heterosexual, able-bodied men with degrees from good universities and lacking negative personal characteristics may be the preferred candidates. If these are unavailable, perhaps due to the low salaries offered, how far down the queue will employers move before accepting women of any race or men of color? Clearly historical and contemporary patterns of employment need fuller investigation.

COMPUTERS AND GENDER

As men were long identified with leadership, and leaders were deemed necessary to improve librarianship, so today it appears that male identification with technology offers a way to improve librarianship by favoring men once again. A long tradition in the Western world identifies men with technology and women with nontechnology or nature. This is part of conventional wisdom, a general assumption built into much traditional scholarship on the history of science and technology. In this history, as elsewhere, women's contributions have often been overlooked or forgotten. This is largely a function of the definition used in traditional scholarship in the field, a definition that favors inventions and discoveries related to industrial activities and excludes those from areas in which women made their contributions—horticulture, cooking, and so on (Wajcman, 1991a, p. 137). Thus a new screwdriver is part of the advance of technology but not a new baby bottle.

More recent studies of science and technology emphasize their social construction. One scholar calls technology "frozen class relations," prompting a feminist scholar to revise that phrase to "frozen gender relations." That is, technology is examined as a cultural artifact that embodies and supports existing gender relations as surely as do prescriptive writings such as child-rearing manuals. Industries founded on new skills are sex-typed and those identified with men develop a "workplace culture" that "expresses and consolidates relations among men." This becomes an important "factor in explaining the continuing exclusion of women" from this work (Wajcman, 1991b, p. 30).

The question of women and computers seems clear-cut: women are depicted as passive users while men are active agents in the computer world (Dilevko & Harris, 1997). Ada Lovelace (1815-1855) and Grace Hopper (1906-1992) seem strange, eccentric exceptions. The conventional wisdom holds that female avoidance of computers is responsible for

this state of affairs, while feminists point to a climate designed to drive women out of computer labs with their socially constructed "masculine culture" (Wajcman, 1991a, pp. 150-55). Certainly the percentage of computer science degrees going to women is falling despite the large and growing demand in this field (Harmon, 1998, p. D6; U.S. Dept. of Education: National Center for Education Statistics, 1991, p. 272; 1997, p. 234).

Lovelace and Hopper can be seen as profiting from unusual opportunities—no one even knew what a computer was when Lovelace agreed to "program" one and Hopper was trained during World War II when all available personnel, including women, were used. Contrast the opportunity available to them with the policy of libraries increasingly to hire outside experts in management and in technology rather than develop such expertise among their own personnel (Harris, 1992, pp. 136-39).³

The old saying, "information science is library science for boys," may have considerable truth. One recent study of the library workplace indicates that men are disproportionately employed as computer specialists and in the higher levels of library computer administration and, therefore, make more money. The same study shows a slight and growing improvement for women (Corbin, 1992, p. 43). It is unclear what impact today's library education programs will have on the improvement of women's position. How many of those employed as library computer specialists today—women or men—achieved their skills in the irregular fashion that is more likely to offer opportunity to those lower down the queue? Will formalization of computer training narrow or increase the gender gap? This is an area that needs more investigation.

LIBRARY EDUCATION, THE INFORMATION AGE, AND GENDER STRATIFICATION

Library and information science education has responded to the Information Age in a variety of ways, both ideological and structural. Name changes are probably the earliest and most familiar changes. While the addition of "information" to the titles of the programs is a step toward greater inclusiveness, the eradication of "library" is the opposite. It disguises the gendered nature of library and information work by severing the historical connection with library work and its female workforce (Williams, 1995, chap. 1). It is noteworthy that "library" and its variations are not shunned by architects of the digital library or by major vendors such as Lexis Nexis with its clusters of databases called "libraries." The erasure of library also symbolizes a change in emphasis from literature to information, from public good with direct state support, to private profit with indirect state support, from service or education orientation to market orientation, and from content to container.

Structural changes involve the curriculum, but curriculum changes often have demographic implications. Professional educators and

academic administrators have long known that curricular changes bring demographic changes. That is, requirements for admissions or degrees attract some populations and drive off others. Such changes also affect populations available for faculty positions. An awareness of this aspect of curricular reform is missing from the writings of its enthusiastic supporters like the Kellogg Foundation with its Human Resources for Information Systems Management (HRISM) initiative (see <http://www.si.umich.edu/HRISM/>) which has funded major curricular change. It is also missing from a recent study of information science (IS) graduates' perceptions of the adequacy of their curriculum (Parks, 1997, p. 27). Just as moving library education to research universities seemed to be a great advance for the profession as a whole, but had a secondary goal of limiting women's roles in the profession, so too, reinventing library education in the age of automation seems like an excellent idea. Our history suggests, however, the need to be vigilant about the impact on women—faculty, students, and librarians—and members of racial and ethnic minorities. Some sources already report a decline in female enrollment in LIS programs in recent years, linking it to computerization of the field (Murphy, 1997, p. D5).⁴

In order to determine the relative commitment of the fifty LIS programs in the United States with ALA accredited master's degree programs to library science (LS) and to information science and to determine the demographics associated with this commitment, the *Directory of the Association for Library and Information Science Education, 97/98* was examined. The number and gender of faculty in assistant, associate, and full professor ranks listed with codings for six typical LS courses and those with codings for six typical IS courses was ascertained. Adjuncts, visiting ranks, and assistant or associate deans without academic rank were omitted. Clearly the presence of full-time faculty in these regular ranks represents a commitment to a subject area. There is no control over the accuracy of the codes chosen or assigned. The data in the directory represent a snapshot of conditions at one time. The data are arranged in the directory by school so it is possible to determine which schools have several faculty identifying with an area and which have none.

It can be readily seen (Appendix A) that more faculty code themselves for typical IS courses than for LS courses. Of the 387 selecting codes for IS courses, 113, or about 29 percent, are women. Of the 329 coding themselves for typical LS courses, 201, or about 61 percent, are women. Information on age of these faculty, both IS and LS, would offer an indication of likely retirement dates for each group. Further information of value would include salary and prior work experience.

Among the fifty programs, one group of six is especially interesting. These schools offer separate non-ALA accredited master's degree programs, oriented toward high technology, often in information science or telecommunications, in units that originated as library education programs

(Appendix B). Today, 50 percent of the top ten rated library education programs, according to the 1996 *U. S. News & World Report* rankings (1996 *Graduate Rankings—Library Science: US News*), or 40 percent of the top ten in the White survey of 1992, offer these degrees (White, 1993, p. 176). These programs attract a largely male student body, with only one school showing a majority of female students. Three of these programs are larger than the library education program given in the same institution. This may be due to their greater age. The faculty, recalling figures from Appendix A, is more likely to be male. Graduates with these other high-tech degrees appear to find employment primarily in the private sector or at least in nonlibrary settings upon graduation, though precise data are not readily available (Parks, 1997, pp. 28-31). It is not clear to what extent, if any, these programs duplicate those available in other units like business or computer science departments on their campuses. Again, the issue of demographics arises: who is attracted to these programs as students? As faculty? How do they compare with those studying in similar programs in other units on the campus? These programs are clearly a successful product that has found a market and that evidently could not find another more compatible campus home.

Very little data or literature illuminates the relationship between these other master's degree programs and those that continue to prepare students for LIS careers. But it appears that faculty will be heavily weighted toward IS, with fewer full-time appointments going to library science despite LS frequently having the larger enrollment.

A more recent trend is for ALA's Committee on Accreditation (COA) to accredit information science degrees too. At one university, a new degree, Master of Information, offering four options for majors in LIS, archival work, and two other more IS oriented majors has received accreditation from ALA's COA. Other schools are planning to have their IS programs accredited by ALA. This calls into question the belief that IS degree holders go to non-library type positions, as at least these two schools seem to want or need the famous phrase "ALA accredited master's" attached to their credential. (Would a corporation hiring an artificial intelligence expert care about ALA accreditation? There are fine and lucrative careers in computer science with minimal academic qualifications, as computer science departments are finding to their chagrin [Bronner, 1998].) Does this mean that a significant number of graduates of IS programs are seeking employment in libraries? Another school, one with two IS oriented master's degrees, is said to be planning a common core, which raises the question of who will teach this core, if they have, as is so common, weighted their faculty with IS people?

As information science courses are increasingly emphasized, other courses are dropped or shunted aside, incorporated into other offerings, or taught by adjuncts. The judicious use of adjuncts is valuable—

bringing new perspectives to the classroom, offering the students an opportunity to interact with a skilled practitioner, and saving the school money. There can be little doubt, however, that when a course is taught largely or exclusively by part-timers, there has been a declining commitment to that curricular area. Adjuncts appear to be used more extensively in LS areas than in IS areas and, when adjuncts are used in IS, they are more likely to be giving courses also available from full-time faculty in regular ranks. Adjuncts are even widely used in many of the core LS areas in which there are numerous employment opportunities within librarianship.

Cataloging and children's and youth services fall into the category of courses with a large adjunct teaching staff. Both are traditionally even more female-intensive than the field as a whole. At the dawn of the computer age, many cheerfully predicted the demise of cataloging. It has, of course, turned out that cataloging is of increasing importance with the proliferation of formats and data sources. Nine schools show no regular faculty member coded for classification and five show none coded for subject cataloging. As the youth population booms, it seems foolhardy to downplay this vital area of service; others are only too willing to take over the lucrative preparation and credentialing of school librarians. Three schools show no regular faculty member coded for school media centers/libraries. In addition, since student interest in this field is traditionally high, the one full-time regular faculty member in this area in twenty schools may be unduly burdened.

Two other important library science courses often slighted are collection development and government publications. A dozen schools show no faculty member coded for the former and sixteen schools are similarly without a faculty member for the latter. Yet the use of World Wide Web resources has heightened the complexity of professional tasks in both areas.

In schools with independent information science masters, the use of adjuncts in lieu of regular faculty for library science courses seems especially pronounced. For example, one such school shows seventeen people coded for Information Systems: Information Resources Management. Of these, seven are in regular faculty ranks but no regular faculty are coded for Subject Cataloging or Government Publications. Another lists six people, four regular faculty, coded for Information Systems: Information Resources Management, but offers no regular faculty in school media centers/libraries. Clearly faculty resources are used to support the non-ALA accredited master's more than the LS degree.

Despite the talk about diversity and multiculturalism, the changing American population, and ALA's evident commitment to these goals as shown most recently in the Spectrum Initiative, courses on racial and ethnic issues are evidently rare, as few faculty are coded for them. The

ALISE Directory 97/98 shows no code indicating a course on women. (Such courses may, however, be given in a "special topics" course.) The code for Ethnic Groups is shared with Cultural History, making it difficult to know if the faculty member is doing one or the other or both. Nineteen schools with ALA accredited master's programs in the United States show faculty coded for this topic. Of these, six schools have only part-time faculty so coded.

It must be recalled in reviewing these data that most students in LIS are commuters—rarely traveling more than fifty miles to attend classes—so they have little choice but to attend programs that offer little commitment to librarianship if that is all that is available. There are reports of students who have completed information science oriented degree programs enrolling in distance learning or summer session courses in subjects mentioned frequently in library job announcements.

These data raise serious questions and invite further investigation and discussion.

RESPONSE TO THE INFORMATION SCIENCE EMPHASIS

Response to the decline in commitment to library science courses is varied, diffuse, and largely unofficial. So far ALA and COA have shown no significant response to these emerging trends in LIS education. The increasing collaboration with the National Council for the Accreditation of Teacher Education (NCATE) so that school media specialists may be educated in programs accredited by NCATE and "recognized" by ALA (Miller, 1989)⁵ and the accreditation of IS programs certainly suggests a declining commitment to the historic function of accrediting library education programs. Not surprisingly, an ever-growing number, evidently believing that ALA and COA do not vigorously defend librarianship, question their role. Numerous examples can be found that illustrate this. The recent resolution on library education presented to the ALA Council, stressing the need for accreditation to be reserved for those programs committed to preparing students for library work, was discussed with vigor on the ALA's electronic membership forum. The upcoming summit on library education in 1999 is designed to allow discussion of issues surrounding LIS education in the Information Age. COA appears to fear loss of LIS programs through closures by parent institutions—yesterday's problem—more than today's threat of loss of LIS content through erosion.

Also silent on the changes in LIS education is the large feminist contingent within ALA and ALISE. Having concentrated on either the placement of women in top managerial positions or on cultural issues, ALA's Committee on the Status of Women in Librarianship and the Feminist Task Force of the Social Responsibilities Round Table have ignored curricular changes in LIS education.

There are some critical voices indicating how library service suffers because of a lack of adequate library education in new graduates. F. W. Lancaster (1992), a leading expert on computerized information retrieval, has faulted library educators for over-emphasizing machine applications or the information science side of the curriculum. He found that this misplaced emphasis reduced library service to mediocre levels, as new graduates are deficient in the fundamentals of librarianship. Among these fundamentals are a "philosophy of public service, the ethics, the need. . . for a reference librarian to have some knowledge of what is happening in the world. . ." (pp. 104-05). An emphasis on technology, however, may help LIS faculty identify with colleagues in other university departments and distance themselves from the poorly paid (and largely female) workforce in libraries. Such behavior is consistent with the findings of researchers who studied faculty in university schools of education. These researchers found that education school faculty preferred to identify with their higher-status university colleagues than with their graduates—i.e., lower status and largely female classroom teachers (Clifford & Guthrie, 1988, pp. 162-63).

Some library practitioners complain about the lack of preparation of recent graduates, echoing Lancaster. For example: "It is difficult—nay, impossible—to find entry level 'librarians' who know how to conduct a reference interview, work with students. . ." (S. Kamm, personal communication, July 7, 1998). Libraries have responded in a variety of ways, some of which threaten a revival of apprenticeship training. Some libraries evidently engage in extensive on-the-job training of new graduates. Many libraries appear to be replacing higher-paid librarians with lower-paid paraprofessionals. While this is undoubtedly related to the budgetary constraints faced by so many libraries today, it may be encouraged by perceived skill deficits among LIS degree holders. The poor job market in recent years for humanities graduates has provided a ready pool of capable paraprofessionals. These latter, even more likely than librarians to be women, are also good candidates for local training. *Library Mosaics*, the journal directed at library support staff, shows the range of tasks carried out by paraprofessionals in a variety of libraries. These include original cataloging, reference work, and bibliographic instruction. To some critics this reflects the de-skilling of professional tasks that many find typical of computerization. While these paraprofessionals will acquire basic skills, few will be candidates for promotion into administration without a degree.

With the increase in largely female paraprofessionals, we come full circle as the kind of library education that Williamson envisioned in the 1920s appears to be developing. A core of informally trained paraprofessionals, mostly women, performs tasks formerly thought of as professional, many involving delivery of service, while college and university programs will prepare a mostly male group for elite positions. Employers who are so

inclined will be able to move up the job queue/gender queue readily while those not so inclined may have little choice. The potential for Lagemann's "bifurcation" is indeed evident (in Brand, 1996, p. 263).

NEXT STEPS

Unfortunately, many faced with these facts take a passive stance and assume the inevitability of such developments.⁶ For those who remain committed to traditional values of librarianship, including equity, and who also wish to see librarianship modernize and computerize, there are several steps that can be taken. These include data collection and alliance building.

More and better data are needed at every level. Definition is a major issue here. The division between "traditional" and "nontraditional" is especially problematic. Indeed, the question must be asked if such a division is meaningful today? Today it is traditional for LIS grads to search databases, to construct them, to use LANs, and to construct Web sites. The traditional versus nontraditional distinction is used in the widely read and cited *Library Journal* annual report on placement and salaries for the class that graduated in the preceding year. It appears, however, that the criterion for distinguishing traditional from nontraditional refers to place of employment with for-profits such as vendors counting as nontraditional (V. L. Gregory, personal communication, July 29, 1998). Yet it is by no means clear that all librarians in for-profit organizations are doing essentially different things from those done by librarians in, for example, academic libraries. Many for-profits, including vendors, have employed librarians even before widespread computerization. (It appears that place of employment will be dropped as a criterion for "traditional versus nontraditional" in forthcoming issues.) In addition, "use of technology" is another measure used to distinguish traditional from nontraditional. Again, it is unclear what this means, since many low-level clerical jobs require hours at a workstation. School library media specialists are found to "use technology least," yet they are hired to teach and to be curriculum and materials experts. Clarification is needed (Carson, 1997).

ALA, ALISE, and others professing an interest in LIS education and in diversity issues should be pressured to expand their data collection activities by covering more topics and by defining data more carefully. *Racial, Ethnic and Sexual Composition in Academic and Public Libraries*,⁷ an ALA Office for Library Personnel and Resources publication providing detailed statistics, begun in 1981 but languishing in recent years, must be restored. LIS programs, professional organizations, and individual libraries or information centers should be encouraged to collect and publish data, even if they only reflect the local scene or provide a case study. Students can design and participate in these studies, learning about research design and statistical analysis as well as about the politics of the profession.

Foundations have a special obligation to investigate the demographic implications of their reforms, as the history of foundation intervention in library education shows significant anti-woman bias. They must reconcile automation and equity issues so that reforms involving heavy emphasis on automation do not become an excuse for a heightened gender (and racial and ethnic) stratification.

In addition to this demographic data, a more accurate picture of where our graduates are employed is needed. The kinds of jobs and skills needed and requested by employers should be investigated.

Further data on resource distribution between information science and library science elements, whether there are separate degrees or not, is much needed. Faculty data should include salary differentials and appointment types—adjunct, full-time, tenure track, visiting, lecturer, and so on. Data on student perceptions in both these programs are also needed. Neither LS nor IS students should be socialized into the idea that librarianship is secondary to information science or that a male-intensive program is better than a female-intensive one. The impact, if any, of the programs attracting mostly male students on the kind of student registering for the library science program should also be researched. Place of employment and type of job for grads of both IS and LS concentration is needed. Data on resource distribution between these different programs should be routinely assessed in accreditation decisions.

Alliance building has two aspects—internal and external. Far too few LIS faculty have contacts on their own campuses or network with faculty in other departments. These are especially important in these days of merger mania. External alliances with other professionals and with constituents seem to be the only reasonable strategy to defend library traditions, including the search for equity, while adapting to change. It is important to note that the Information Age as a product of the global economy has, through policies such as privatization of formerly publicly supported activities, adoption of the market model, and heightened income inequality, created many potential allies for librarians. Schools and universities, hospitals, museums, and parks—and their numerous users—face circumstances similar to those faced by libraries and their users. Traditionally, library organizations have eschewed politics, but passive acceptance of an Information Age in which values like equity are overshadowed is itself a political act: it represents support for the status quo.

Historians of women have taught that many great movements in history, like the Renaissance in Western Europe and Westward Expansion in North America, were experienced quite differently by women and men. In fact, women suffered a relative decline in status and power in relation to men in both these periods (Kelly-Gadol, 1987).⁸ But no one wants to repeal the Renaissance or roll up the frontier. Similarly, no one wants to ban the Information Age, but many want to ensure that women do not

suffer the decline in status in today's high tech environment that they did in those earlier periods. Specifically, those in the LIS community interested in equity issues must be vigilant that enthusiasm for the Information Age does not promote an upsurge in historic inequities.

NOTES

- ¹ Although the focus of this article is on gender relations in the changing world of library education, much of the argument is relevant to racial and ethnic relations.
- ² No profession welcomes women except under unusual conditions such as a wartime shortage of men or, as in the early days of librarianship, salaries too low to attract men. Therefore, in an atmosphere where commitment to Affirmative Action declines, the loss of professional positions in librarianship means a decline in women's access to professions generally.
- ³ This situation is analogous to the computer industry leaders who prefer to lobby for changes in the immigration law, permitting the entry of fully trained foreign computer scientists, to upgrading the skills of their own workforce.
- ⁴ The fact that this prediction of declining female enrollment was linked to an ancient and cruel stereotype of "spectacled spinsters" makes the motivation of the sources suspect.
- ⁵ Miller explains in the cited article that sharing accreditation with the National Council for the Accreditation of Teacher Education (NCATE) resulted from a concern about the inability of ALA-accredited programs to prepare the necessary number of school media specialists. What ALA did to encourage these schools to expand in this area is not clear.
- ⁶ Among other things, this passivity is ahistorical. Times change, economies expand and contract, generations with different sets of experience mature. Such changes cause some institutions to grow and others to shrink. Where are the elite schools at Columbia University and the University of Chicago today? The distinction between "library science" and "information science" fades more with each passing year as more children are schooled with computers, trained by school media specialists. The largest block of members in the American Society for Information Science (ASIS) remains librarians. Is a merger of ALA and ASIS a possibility?
- ⁷ *The Racial, Ethnic and Sexual Composition of Library Staff in Academic and Public Libraries* was first issued in 1981 and had thirty-nine pages with an additional ten pages of appendices. Since 1986 it has been scheduled to be issued every five years as *Academic and Public Librarians: Data by Race, Ethnicity, & Sex*. The most recent edition however was issued in 1991 and consisted of twelve pages only.
- ⁸ They were also experienced quite differently by different racial and ethnic groups. A history of the end of the frontier written from a Native American perspective would look quite different from the traditional Eurocentric account.

APPENDIX A

Number and gender of full-time faculty in tenured or tenure track ranks coded to teach selected technology-oriented and selected library science courses in U. S. schools with ALA-accredited Master's degree programs.

Data from the ALISE *Membership Directory*, 97/98

Selected information science courses:

	<i>Male</i>	<i>Female</i>	<i>Total</i>
03 Information Systems/ Information Resources Management	49	21	70
06 Artificial Intelligence/Expert Systems	28	8	36
23 Information Systems: Analysis, Design, or Evaluation	83	37	120
35 Computer Programming	28	6	34
36 Database Design or Management	36	24	60
37 Automation and Computerization	50	17	67
	<hr/>		
Total	274	113	387

Women comprise approximately 29 percent of those in full-time regular ranks coded to teach these courses.

Selected library science courses:

	<i>Male</i>	<i>Female</i>	<i>Total</i>
11 Classification	21	29	50
13 Subject Cataloging	16	31	47
28 Collection Development	21	28	49
33 Reference or Information Services	37	51	88
55 Government Publications	18	10	28
66 School Media Centers/Libraries	15	52	67
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Total	128	201	329

Women comprise approximately 61 percent of those in full-time regular ranks coded to teach these courses.

APPENDIX B

Schools with LIS programs offering other, non-ALA accredited Master's degree on an aspect of Information Science or in Telecommunications. Enrollment (both FTE and numbers) is shown by gender for the ALA accredited degree and the "other Master's" undifferentiated by specialization.

	<i>ALA FTE Number</i>	<i>Percentage Female</i>	<i>Other FTE Number</i>	<i>Percentage Female</i>
Albany, SUNY at School of Information Science and Policy	120.2 190.0	71.8 75.8	6.3 11.0	48.0 45.5
Drexel College of Information Science and Technology	124.4 214.0	80.4 80.8	134.9 293.0	35.0 34.8
Indiana School of Library and Information Science	268.5 387.0	72.6 74.7	41.8 58.0	65.6 67.2
North Carolina, Chapel Hill School of Infor- mation and Library Science	130.0 144.0	73.7 78.5	49.7 62.0	45.0 41.9
Pittsburgh, University at School of Infor- mation Sciences	138.6 207.0	73.7 77.8	182.4 279.0	32.5 34.8
Syracuse University School of Infor- mation Studies	72.5 153.0	80.7 80.4	142.8 219.0	40.5 40.6

Source: Data are from the ALA Web site <http://www.ala.org/alaorg/oa/uslis.html> and from the ALISE Library and Information Science Education Statistical Report, 1998. Thanks to Jerry Saye for the opportunity to view the data in advance.

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