

Squeezing Librarians Out of the Middle

Gender and Technology in a Threatened Profession

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Abstract: The labour process in North America's libraries is greatly affected by technological change and the libraries' predominantly female workforce is particularly vulnerable to displacement and deskilling. Interviews with employees of major public and academic library systems in the United States and Canada suggest that library workers, especially women, feel little control over decision-making involving the introduction, integration and use of new technologies. Themes of futility and frustration in their descriptions of the work environment suggest that women are often marginalized in the social relations of technological change in libraries. This work is supported by a generous grant from the Social Sciences and Humanities Research Council of Canada (no. 410-95-0185).

1. INTRODUCTION

Few female-intensive professions have been as profoundly affected by technological change as librarianship. The extraordinary rate of change in the capacity to digitize information and continuous improvements in networked communications have resulted in a radical restructuring of librarians' workplaces and their professional roles, raising serious questions about the future of the profession. For instance, within a single year, nearly two-thirds of a group of surveyed librarians reported substantial changes in their job responsibilities [1]. Surprisingly, given the intensity of technological change in all facets of library operations, there has been little effort devoted to the study of technology and gender relations in library work, even though in North America approximately 80% of professional librarians are women and the overall library workforce is predominantly female.

In comparison with other professional groups, librarians exercise relatively little control over their principal knowledge domain. In the past, when the professional territory of librarians consisted primarily of organizing and managing access to collections of books and serials housed in libraries, this lack of control was of little consequence because the profession had few competitors. However, with technological developments that permit the almost instantaneous transfer of huge amounts of data nearly anywhere in the world, information is no longer captured exclusively in static collections of printed materials. It is now a major commodity and, as a result, a number of other occupational groups have colonized the information sector. As Abbott points out, "perhaps the central issue in library technology lies in its relation to the competing sources of expertise" [2, p. 435].

Librarians have argued that in order for the profession to survive, it is essential to reposition in order to take advantage of the new opportunities available in the information sector. Some suggest that the future success of the profession depends on abandoning the label "librarian" in favour of more contemporary-sounding occupational titles such as "information manager," "information retrieval specialist," "webmaster," "database manager," or "systems analyst." This represents only the most recent attempt to shed the librarian label. Earlier efforts were made to substitute the word "information scientist" for librarian, a strategy mocked by one critic who observed that "information science is librarianship practiced by men" [16]. Nowhere is the pressure to rename more evident than in university departments that prepare graduates for library and information work. For example, the School of Information Management and Systems at the University of California - Berkeley (formerly the School of Library and Information Studies) proposes to abandon the American Library Association's accreditation process for its Master's program, claiming that its new curriculum is more generic than the traditional preparation for librarians and is designed to educate a new type of professional; someone skilled in locating, organizing, manipulating, filtering and presenting information. Ironically, these are the very skills that form the foundation of librarians' work. So, what is behind the move to recast the identity of librarians? Are the proposed changes to education for librarianship substantive or merely cosmetic? Elsewhere, I have argued that the repeated effort to dress up librarianship in a more powerful (masculine) package is really an attempt to disguise the field's female identity [3]. There is little to suggest that the most recent call to rename the profession is driven by any new motives.

Over the past three decades there has been a significant shift in employment in the information workforce, away from growth in the occupational cluster referred to as "public information disseminators," i.e., librarians and archivists, toward a greater number of "private information

service providers,” which include groups as diverse as lawyers, accountants and computer systems analysts [4]. This shift has involved the movement of resources away from the provision of care and service, from the public domain to the private. In this transfer of responsibilities from one sector to another, how do women librarians fare? A study of restructuring in Canadian libraries suggests that in response to budgetary constraints senior managers are attempting to reduce labour costs by initiatives such as phasing out lower-end clerical positions (almost exclusively staffed by women) through technologically-assisted self-service initiatives such as automated check-out systems [5]. Other job duties are also being realigned. For example, para- or sub-professional staff (mostly women) are assuming responsibilities taken from the portfolios of front-line professionals (again, mostly women). The net effect of restructuring is that “at the high end of the organizational pyramid, librarians will become a more compressed group, assuming roles as generalist managers responsible for a wide range of functions but without much opportunity to specialize in either function or subject and with little opportunity to participate in front-line service interactions with patrons” [5, p. 577]. This study suggests that, at least in Canada, women are being displaced, down or even out, at every level within the library workplace, while librarianship as a whole is being outstripped by other occupations in the information sector.

The apparent decline in librarianship seems at odds with the boom in the information sector and the growing need for skilled information workers. Part of the difficulty may lie in the social determination of what counts as “skill.” According to Grint and Gill “skill is not some objectively identifiable quality, but rather is an ideological category, one over which women were (and continue to be) denied the rights of contestation. Women are concentrated in jobs which are deemed unskilled and, conversely...those occupations in which women constitute the majority of workers come to be seen as relatively less skilled than those dominated by men” [6, p. 9]. Because women “do” librarianship, it attracts little status in the occupational world and is seen to require less skill than other information professions. Furthermore, “because caring labor is associated with women, cultural sexism militates against recognizing the value of the work” [7, p. 39]. As a result, the women who practice librarianship, especially those whose work involves the caring functions of direct service to patrons, are seen to be less skilled than their male colleagues, especially those whose work is focused on systems and/or management functions.

The undervaluing of women and women’s work of care in librarianship occurs concomitantly, and in conjunction with technological change. Advertisements for technology products directed at librarians reveal “evidence of a gendered division of tasks among library specialisations, with

women being confined to the seemingly less important and mundane jobs while men are increasingly making their presence felt in the more glamorous jobs dealing with computer networking and integration" [8, p. 155]. Women are also depicted in technology product ads in library trade journals "in order to convey the notion of simplicity in product use" whereas men are portrayed as "deep thinkers who are connected to the future" [9, p. 718]. These marketing methods reinforce strong cultural messages about the roles of women and men in relation to technology. For instance, in sales of household appliances, Cockburn and Ormrod [10] reported that "white goods," such as washing machines and stoves that are intended for domestic work, i.e., for women, are promoted by emphasizing their ease of use. In contrast, "brown goods," such as televisions and VCRs that are intended for leisure and entertainment, products described as the equivalent of "male jewellery" are promoted by emphasizing their complexity.

If women are relegated to the simplest and most routine applications of new technologies in product ad campaigns and men are depicted as skilled and powerful leaders, even when the ads are directed at predominantly female audiences, what happens to workers employed in the environments in which these technologies are used? Pain, Owen, Franklin and Green explain that when automation is brought into areas of clerical work where women predominate "the systems engineer, with his scientifically based tools, tends not to consider workplace relations and career structures to be elements of the design. The 'natural consequence' of his designs is therefore a reproduction of gender divisions from the engineering domain to the clerical" [11, p. 15]. In the implementation of new systems, then, certain forms of knowledge and those who are seen to possess this knowledge (usually men) are credited as "expert" whereas knowledge arising from women's experiences and the women whose work is to be changed by the technology are accorded no expert status. For instance, during the implementation of a new automated system in City Libraries, a major public library in the UK, Green, Owen and Pain [12] observed that although the input of female staff did affect the final design of the system, their experiences were often minimized by senior (usually male) colleagues. And, just as in the tableau depicted in ads for technology products in which women have a marginal presence, the women workers in City Libraries did not participate in the all-male "techies club." By congregating, often after regular working hours, to share their enjoyment of computer play, the techies reinforced "particular kinds of masculinities through shared understandings and the creation of what could be considered an elite language, which contributes towards the maintenance of a traditionally male power-base" [12, p. 145].

To understand more about how technological change is intertwined with gender relations in the library, the study described in the remainder of this paper explores the experiences of library workers as new technologies are integrated into their work.

2. METHOD

Permission was requested from the directors and chief librarians of six major library systems to visit their institutions in order to conduct interviews with staff about the ways in which information technologies affect their work. Interviews were conducted with 71 library staff members (22 men and 49 women) who represent all levels of the library organizational hierarchy in three public library systems and three university library systems located in Ontario, Ohio, and Michigan. The participants (32 from the public libraries and 37 from the university libraries) were asked about their work and how technologies are integrated into and affect their work activities.

The tape-recorded interviews were transcribed and the resulting text analyzed by clustering the participants' observations by theme. The focus of this paper is on the respondents' descriptions of the ways in which new technology products are introduced into their library systems, the extent to which they are able to affect the integration of these products into their own work, and the impact of technological change on their careers.

3. RESULTS

A number of respondents characterised library workers as drowning in a change process initiated by administrators or computing systems experts who fail to understand the "on-the-ground" realities faced by the staff. Consider, for example, the observations of a woman librarian who is the manager of local systems in a very large library:

The people involved in the administration and planning are out of touch with the realities faced by the staff who have to implement and use these technologies. Money becomes available for some new technology and so they decide to get it and implement it before the last thing's been fully integrated. As a result, all too often, there's no follow through on the details and staff find themselves trying to deal with yet another new technology before the last one's been fully absorbed.

The sense of imposition implied in this description of the change process was repeated by other women and men who hold positions of lower status in

the library. Others described the abruptness of change and its consequences. For example,

We didn't have any choice in it. It was brought in and we just had to use it, and that was it [female library technician]

The computers were brought down here and my old one was just unplugged and this one was plugged in and goodbye Charlie [female librarian]

With respect to control over the technological change process, 30% of the respondents felt they lacked control, 23% felt they exercised considerable control, and 31% qualified their answers, saying they had control or influence over certain decisions involving technological change in their areas of responsibility but little or no influence over others. The proportion of women who felt they had little or no control (35%) was considerably higher than the proportion of men who described themselves this way (18%). Indeed, 41% of the men, as opposed to only 14% of the women, felt they had a significant impact on the process of integrating new technologies into the workplace.

Unlike most of the women respondents, a number of the men used language that signifies personal power and control in relation to the change process. For instance,

If it's a technology I'm familiar with, or even if I'm not, but I can get familiar with it, I can affect it by being open to showing it to other people [male library assistant]

This man's relatively junior position in the organizational hierarchy suggests that his absolute power in the technological decision-making process is probably not substantial. Nevertheless, he is obviously confident about his ability to have an impact and his remarks are in sharp contrast with comments by women who hold similar positions.

Respondents with more senior positions in the library acknowledged their greater influence over the change process but, again, the male respondents tended to use language reflecting greater personal power.

In contrast, women in influential positions in the library tend to qualify and contextualize their power within their job roles or their background skills and experience, thereby attempting to legitimize their power rather than simply claiming it.

I sit on a number of committees...and I will have a voice in how we introduce some of the technology...there would be a great deal of input as to how it's introduced, when it's introduced, and what we are going to use in order to introduce it...all of those kinds of decisions involve my position [female division manager]

When situating themselves in the technological change process, respondents frequently claimed affiliation with certain groups or constituencies thereby distinguishing themselves from outsiders, i.e., the “other,” in what was sometimes explicitly described as a power struggle. The terms “we” and “they” were used to signify the actors who initiate or impose the technology versus those who receive or react to the technology. In the following examples, the insiders, “we,” are the group upon whom the technology is imposed (library staff, professional librarians, or the entire library system) and “they” are computing systems staff, management (inside or outside the library), or product vendors.

our ability as librarians ...has really weakened in terms of our ability to make changes in how something is being implemented. The lack of local control ...is a concern [female department head]

In the next example, the insiders are the technology leaders and the outsiders or “others” are those who must be persuaded to adopt and use the technology:

I brought in [a new technology] and I sent out a message to all the campus librarians and staff saying, “if anyone wants to come, we’re going to have a couple of demonstrations,” and that’s when they came. *They got to come and play with it and that’s how they got their input.* ...Some were saying, “over our dead bodies” ...some people, especially in the union, just decided this was not something they wanted to believe in so we spent a lot of time trying to explain to *them* and we went over again why we were doing it and short of saying, “I will sign in blood that you will not lose your job.” ...it was basically not our intention, and “blah, blah, blah.” [male department head]

Here, the term “play” is used to describe the technologists’ strategy for persuading others to adopt particular products, as well as to provide input. It is an important term because it is associated with childhood and distinguishes the activity from work. The intent in using the term is to convey the ease with which the product can be used, thereby trivializing any resistance. In effect, its use establishes the intended “players” as less powerful than the technology implementers and childlike, i.e., in need of guidance. In other words, it affords no legitimacy to any reluctance to adopt the technology, even in the context of potential job loss. This use of the term play is in stark contrast with the “players” who were members of the all-male techies club in City Libraries described by Green, Owen and Pain [12]. There, play conveyed a sense of power as only the club members had the competence to engage the technology as a toy.

Seventeen percent of the respondents indicated that adapting to technological change was essential for survival in the workplace. Interestingly, most those who made these comments were men.

Eighteen percent of the participants believe that technological change will have a negative impact on their own or others' careers:

I think that people with a sense of technology or know how to do specific tasks will probably be promoted faster than old-line people who are more book-oriented and collection-oriented...That knowledge inside-the-head or sort of experienced-based knowledge is less respected than technological knowledge...You're going to have an increasing split between front-line service and management. I may be stronger than the norm in my grasp of technology so I may not personally suffer, but personal experience based on knowledge of the collection (books) is not respected anymore and it's really technology that's respected as if they've missed the message that it's a tool, it's not an end [male public librarian]

This perceived lack of respect for the core professional knowledge of librarianship on the part of managers was echoed by another respondent who said:

Technical change has meant that there are always new projects to work on, so I can always, even in the same job title, find a new project to work on. But it's shaping the library profession and the library as an employer in ways that have a real serious impact on career progression, like wiping out lots of jobs. It's not just technology but also part of the trend of, not just libraries, but in so many professions and industries, of converting to a sort of business management model at the top and worker bee model at the bottom and taking out the level of what used to be the professionals.

The attitude that the work of an organization is sort of generic, that you can plug a manager in and they'll manage whatever kind of work we do, trivializes the idea that there's any knowledge or expertise of librarianship *per se*. What I see is librarians squeezing out the middle. There will always be lots of work to do in libraries and there will always be this class of managerial business people at the top, but I don't know what's going to happen to librarians. [male department head]

4. DISCUSSION

The experiences of the library workers who took part in this study are similar to those of workers in other sectors in which technologies have had a

significant impact on work processes. The library workers' observations support Burnell's [13] conclusion that technological change is generally associated with a realignment of job content in a way that relegates women to the bottom of the job hierarchy. Clement [14] proposes a blueprint for managing technological change that supports an "authentic" empowering of lower status workers, especially those who work in female-intensive environments. Others, too, recommend an inclusive approach to systems change, such as Green, Owen and Pain [12] in their application of the Human-Centred Systems approach in City Libraries. However, Green et al. found that true inclusion of library assistants in design teams proved difficult, "the enthusiasm developed as a result of their study circle work was in danger of being dissipated by a lack of energy and clarity from the managers involved in the process" (p. 143). In the present study, there is little evidence that user-involvement models of systems change were seriously applied. Rather, in the major academic and public libraries included in this investigation, library workers, especially women, felt they had little control over the implementation of new technology and its integration into their work.

An analysis of library-directed advertisements for information technology products suggests that "the clean, pleasant world of work that the new information technologies promise is at odds with the work environments of many library workers" and that the technologies portrayed as being used by men are accorded higher status than those used by women [15] (p. 17). The effect of technological change in libraries may, then, be to push or squeeze professional librarians out of their direct service roles and to move women's work down (and possibly out) of the hierarchy of labour in libraries. This migration of women's work may prove problematic, not only for the workers whose opportunities for professionally recognized and compensated employment decline, but for members of the public who are the beneficiaries of women's work of care. In libraries, the work of care is manifest in the support of free access to materials of all types, as well as education for library users who need to acquire skills to retrieve relevant information. If the better-educated female library workforce is edged out of the information sector, children, students, and low-income people stand to lose a great deal. To the extent that professional care work in publicly-supported libraries disappears and is replaced by technologically-assisted user self-service in public institutions and private sector information workers who offer information and retrieval, but for a price, the universality of access to information that is supposed to accompany the revolution in information technology may be compromised.

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