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**The Professional Labour Process
in the Academic Library:
A Political Economic Analysis**

By

Janet Carson, B.A., M.A., M.L.S.

**A dissertation submitted to
the Faculty of Graduate Studies and Research
in partial fulfilment of the requirements for
the degree of**

Doctor of Philosophy

Department of Sociology and Anthropology

**Carleton University
Ottawa, Ontario
May 9, 2002
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Chair, Department of Sociology and Anthropology

Thesis Supervisor

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Carleton University
May 3, 2002

Abstract

This dissertation is about changes and continuities in professional labour in an established cultural institution, the contemporary university library in Canada. Within a political economic framework, it details a historically-specific situation in which intellectual work is affected by an expanding knowledge base, economic strictures, new information technologies, and the globalization and commodification of information resources and services.

The problem is grounded in the lived experiences of Canadian academic librarians, and their insights about forces that enable or inhibit change in their workplace. Although motivated by the range of possibilities for information organization and dissemination in service to their institution, these librarians express concerns about the rapidity and pervasiveness of technologically driven change in their work, and the constraints of economic, institutional, and larger social forces that impinge on it. Inherent in these structural concerns are central issues about the value of the work done by academic librarians, and the extent of power they exercise in the professional workplace. While the popular claim is that in the new “information age” the expertise of librarians is more valuable than ever, the evidence suggests a diminution of authority over their work due to forces outside their control. This contradiction invokes a critical examination within the social totality.

The dissertation investigates these concerns by examining the nature of their expertise and workplace relations over the past three decades that represent the post-industrial workplace. It analyzes changes in expertise and control of professional labour *within* academic libraries by looking at qualitative interview data, and statistics about work and labour process. It determines little evidence from indicators such as salary and relative rate of attrition that suggests greater proletarianization than has existed over that period. It establishes that responsibility for major changes to library work are shifting to forces *outside* the institution. Changes in professional expertise are interrogated in an analysis of qualitative information on graduate education for information studies over the last three decades from university calendars, with findings about the value of work and re-professionalization. The impact of the external labour market is examined through ads for academic library positions. The most significant shift of control in many aspects of labour in libraries is attributed, through data on ownership, monopolization, and cooperative library retaliation, to increasing corporate control of publishers and electronics vendors.

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Chapter 1: Introduction and Problem Statement

Professional librarians have been integrating new technologies into their daily work for over two decades, and are continuing to deal with their impacts on the labour process in the age of electronic information. In the diffusion of technology through their work, librarians have followed the experience of production, clerical, and technical workers in other occupations, as well as that of their fellow library workers among the support staff. They are also sharing this transformation with professionals in other cultural institutions, and with other knowledge-based professionals. (McDonald: 1995) In libraries since the late 1970s, computers and electronic networks have become an integral part of the library functions related to the production, documentation, dissemination, and evaluation of information resources. (Crawford and Gorman: 1995; Borgman: 2000) In addition to changing the means of production, the digitization of information is changing the nature of the knowledge base itself, in electronic formats such as computer files, at remote locations, and on the Internet. In many cases information resources are accessible only electronically and for a fee, as a commodity. Transformations in the production and volume of information resources, along with social and economic changes over the past quarter century, have also affected the nature of expertise required by professional librarians and their authority in the workplace. The working situation of librarians in the post-industrial society is particularly unique to the professions in its total immersion in all aspects of information generation and use. Their occupation involves the comprehensive grasp of an increasing range of electronic information resources, a critical understanding of their applications, and the pro-active development of them, as well as the

straightforward use of them and mediation of their use for others. The philosophy and functions of contemporary academic librarianship, in the context of changes mandated by technology and globalization, are summarized in Appendix I.

In the university, the digitization of knowledge-based resources is welcomed as a way to reach a wider volume of students and maximize the efforts of teaching staff, as evidenced by numerous articles in journals on university teaching and learning. (For example, Loughheed: 1998; Marx et al.: 1998) According to early advocates of the promises of technology and intellectual capital, this new knowledge-based digital world can level the playing field for users of information resources by situating them in a new “knowledge class”. (Bell: 1973; Gouldner: 1979; Hirschhorn: 1984) As partners in the teaching and learning process, university librarians share in these objectives and the work they generate. Most assessments to date of professional library work in the information society have focussed positively on change and innovation, and covered operational implications, such as new forms of reference services (Piktin: 1995; Hawkins and Battin: 1998) or new telecommunications capabilities. (Brown: 1996; Graubard and LeClerc: 1998) There has been less emphasis on how librarians are to undertake this mandate for the electronic delivery of their classical service in an economic climate of retrenchment and privatization. (Adams and Birdsall: 1998) The digitization and telecommunication of information are challenging librarians, therefore, to maintain their expertise in all aspects of information service, to integrate technology into their work life, and to deal with unanticipated changes in social relations in the library.

The problem of the dissertation is rooted in a concern for the nature of post-industrial changes in the professional labour process in the academic library, because there are discrepant claims among sociologists that have implications for the present and future state of the labour process of professional librarianship. Optimists claim that the labour market for knowledge workers is exceeding the boundaries of conventional librarianship, giving groups such as librarians the potential to capitalize on their intellectual or technical qualifications, or both, in more creative ways than before. (For example, Albert: 1995) Realists refer to the possibilities for the re-professionalization of librarians, by giving primacy to new information and communication technologies in their skill set, or by capitalizing on the growing market orientation of information work. (Abbott: 1988; Brint: 1994) Critical scholars admonish us about the diminution of the profession, with aspects of their labour increasingly appropriated by paraprofessionals or technicians, or commodified or controlled by agents outside the institution. (Freidson: 1986; H. Schiller: 1996) Their arguments about the de-professionalization of librarianship use the same reasons as the optimists, the primacy of information technologies and the forces of capitalism. For the pessimists, the integration of information technologies and systems into the professional library labour process aggravates the routinization, deskilling, and alienation already present in their work, or is in danger of their setting in.¹ The labour environment of market capitalism requires externally driven compromises in professional work that has traditionally been motivated by cultural and intellectual concerns internal to

¹ A physicist turned scientific editor attributes professional career dissatisfaction to lack of control over the political component of their creative work: "Disillusioned lawyers, doctors, financial analysts, journalists, teachers, social workers, scientists, engineers and other highly educated employees are looking for a deeper understanding of why their lives are stressful and feel incomplete." (Schmidt: 2000: 4)

the institution or intrinsic to librarians. These compromises result in the devaluation and commodification of their work, and consequent reduction of their professional powers.

These theoretical concerns were embodied in the actual experiences of librarians in working Canadian universities, which I obtained through participant observation and interviews between 1998 and 2000. My qualitative information supports these theoretical positions about the potentials for a new kind of professional work with information and communication technologies, nevertheless fraught with serious concerns about their deskilling aspects. I perceived that the librarians' sense of control of their work appeared to be shifting, with decreasing emphasis on the mastery of intellectual capital and growing emphasis on versatility with tools.

The tension between professional opportunity and labour process realities provides the area of enquiry of the dissertation, which has two thrusts. The dissertation first examines changes in the labour process of professional academic librarians in Canada as characteristic of knowledge workers in the "information age". It then demonstrates how these changes cannot be fully understood without the consideration of forces external to the university library, which have become increasingly salient due to new communication technologies and the globalization of information production. It further identifies and explains the tensions and areas of intersection between the two contradictory sociological phenomena of professionalism and the labour process, in the historical experience of the case of Canadian academic librarians at the Millennium. This is demonstrated through the situation of an historically specific knowledge-based labour situation, within the theoretical and methodological framework of political economy. The case of university libraries, with its relatively high component of professional workers situated among

academics, paraprofessionals, and technical staff; with its predominance of women; and with its focus on intellectual work in a provincially-based cultural institution, is an excellent case for illustration of the disposition of a form of “labouring culture”.²

Why Study Librarians?

In addition to providing a particular approach to a larger social phenomenon, this category of professional workers offers an interesting set of social characteristics. The library is one of the first professional locales to integrate technology in almost every aspect of the work and at every staff level. This presents the obvious issues of professional staff deskilling and re-skilling, with implications for changing power relations within the institution. In the larger context, changes in skilling also affect library information service, university education, and cultural capital for Canadian citizens. Librarianship has historically been situated in a knowledge-based cultural institution, whose foundations are being challenged as information and culture are being commodified. The profession has always been gendered, with a “four-fifths minority” of women. (Smart: 1975) Research on the gendered nature of professional library work can be generalized to other female-dominated knowledge professions. (E. Smythe et al.: 1999) Issues of ethnicity and ethnic equality in library work may similarly be generalized to professions with equivalent credentialling and occupational status. (Prather: 1998)

² The concept was developed by historian Michael Denning to document the unacknowledged debt of the American labour movement in the early XX century to cultural workers such as newspapermen and film industry workers, and the resultant impact of mass culture on American engagement with this movement. It shows the mutual constitution of labour and culture. While university librarianship, involved with a more elite population of professionals and “privileged” students, is not constitutive of mass culture, the interaction of labour and culture is a key concept.

Most important for this dissertation, professional librarianship has not been comprehensively studied within this framework in the literature of sociology. Goode examined the growth of librarianship as a profession but his study predated the diffusion of information technology into the labour process. (Goode: 1961) Almost three decades later, Abbott addressed the introduction of microform and computer technologies to library work, and recognized the potential of information as a resource. He further observed that the library profession, among others with “intellectual jurisdiction”, is being permeated by a diffuse category of information scientists who will “oversee commodified professional knowledge executed by paraprofessionals, serving elite clients directly themselves.” (Abbott: 1988) His work on librarians is based on secondary sources and is only part of a chapter on the information professions, which in turn is only a component of his study of the division of expert labour. Brint located librarianship among the less prestigious female-dominated “helping” professions, but promised a more “assertive” stance for the profession if it “took advantage of its strategic location in the ‘information economy’.” (Brint: 1994) His observations on librarians were illustrative remarks in a much broader political economic study that stressed the influence of market forces and political culture on professional labour. Herbert Schiller asserted that the informational and educational functions of librarianship were being privatized and commodified, and the social service ideals of the profession eroded, due to structural economic forces. In contradiction with Brint, he believed that professionals were “deluded” to think that their status was enhanced by expertise with the technological systems of information rather than its social function. (Schiller: 1996) In this work about the compromising of the social good, Schiller used examples chiefly related to American

communication and information industries, and inspired the need for formal study of the Canadian library profession. Winseck shared Schiller's concern with the increasing cost of information resources for users in Canadian university, corporate, and public libraries. He was also concerned with decreasing staff resources, which aggravate the professional staff shortage by attending more to the policing of information and less to its dissemination. (Winseck: 1998) As with the other contemporary writers, Winseck used librarians' information work as an illustration in a larger study. The studies of Abbott, Brint, Schiller, and Winseck on professional labour and information work in an electronically-based work environment agreed on the commodification of the information product, and the ensuing threats to the professional labour process and the uses of information as social good. Their treatment of librarians was cursory, and of academic librarians, negligible. Past writings suggest that there is scope for the comprehensive sociological study of the power relations of a professional group of "information workers" or "knowledge workers" in late capitalist society.

A multifaceted approach to the social ramifications of technology, professional deskilling or re-skilling, and the changing locus of information control in the library is inadequately represented in the research literature on information studies. Research in library and information science tends to focus on professional competencies such as technical mastery, bibliographic expertise, program delivery, and administration rather than the underlying social principles, as mentioned above. Topics with a social orientation, such as diffusion of the Internet (Marchionini: 1995) and information policy (Branscomb: 1994; Varlejs: 1996), have received reasonable attention. An important bridge between

librarianship and sociology was provided in Buschman's 1993 collection of critical perspectives on information technologies in librarianship. (Buschman: 1993) Its essays by librarians and educators addressed important economic, political, social, and educational considerations, such as intellectual freedom. It insightfully suggested that contemporary library work had a larger context by pointing to critical positions on commodification and culture by Wasko and Mosco, Herbert Schiller, and Dan Schiller. (Wasko and Mosco: 1992; D. Schiller: 1988; H. Schiller: 1989) Birdsall's collection of reflective, trenchant essays asserted that electronic librarianship was a myth to rationalize the uncertain technological impact on libraries and imply a better future regardless of the social causes. Social, cultural, and political forces, he believed, exerted stronger and more serious consequences. (Birdsall: 1994) While his perceptions did not sufficiently probe the economic realities, his book also bridged the gap between the technical, social, cultural, and political aspects of library work. In 1998, librarians Harris, Hannah, and Harris issued the most comprehensive discussion to date of the relationship between librarianship and the post-industrial era, including coverage of theories of work and technology. (Harris, Hannah, and Harris: 1998) Though its cultural and policy orientations were American, its coverage was of librarians in general, and its perspective did not include the labour process, the book situated librarianship intellectually and socially from a perspective outside the profession. The dissertation expands the above approaches by focussing the field of enquiry on the professional labour process in Canada, stressing changes over time, and tailoring the research to academic librarians.

While certain experiences in the labour process can be attributed to individual mental states or work styles, or to particular management decisions, the dissertation research shows that the motivating forces operate outside the library site. Library budget reductions, staff attrition, and conversion to information technology are driven by administrative policies in the institution, provincial government agendas, the national economy, commercial priorities, and international competitive forces. Libraries are one of several cultural institutions shaped by state policy from the top as well as the consumer-driven education and lifestyle factors of the clientele, as Schiller argued about the museum. (H. Schiller: 1989) The dissertation research assesses the variety of determinants on professional information work, with emphasis on the interaction of technology, and the use of the “technological fix” as an antidote to organizational downsizing.

Why Political Economy?

On the economic and perhaps most dominant level, financial strictures and other economic variations in the 1980s, 1990s, and the Millennium have meant less funding for library programs and salaries. Government underfunding correspondingly affects the labour process in areas such as the professional labour market outside the institution and the relations of production and control of information workers within it. Economic factors invariably interact with political ones in a political economic analysis. On the political level, the “more with less” university policies characteristic of this period directly affect policies of library operations. These often have consequences for social relations in the workplace. Change in the relations of production is seen in organizational

downsizing, flattening, and re-engineering. More serious in a labour process analysis are changes which have implications for professionals' control of their work and others' recognition of it through institutional rewards structures and individual respect. Local university library policy is also informed by policy at the provincial and even federal levels, particularly in relation to information policy, network funding, and cooperative resource sharing agreements.

On the sociological level, transformations in knowledge-based professional work can be theorized in terms of changes and continuities in "information work" and phenomena concerning work in the service sectors. These changes also reflect new paradigms of professionalism characterized by monopolization of the market for expertise and increased interaction with the market economy (Larson: 1977; Derber: 1983; Brint: 1994), and with boundary and status changes associated with professionalism (Abbott: 1988). I argue that changes such as deskilling, re-skilling, and the commodification of skills are often a result of the above economic and political forces that interact with structural organizational change.

On the cultural level, the "knowledge explosion" from the diffusion of new information and communication technologies and the proliferation of information resources has motivated changes in the value placed on expertise, skill levels, and work processes for professional information workers and their paraprofessional colleagues. The cultural setting for fundamental shifts in the academy includes the changing orientation of the university, the perception of knowledge as cultural capital, and the increasingly

relativistic view of knowledge. In the area of the university as a cultural institution, there is a strong awareness that the university is moving away from public education toward corporatism. Tudiver documents the gradual process in Canada of its losing public wealth to private stakeholders, with consequences for academic labour, such as the loss of intellectual property. He recognizes that, from a corporate perspective, course delivery is labour intensive, and is therefore increasingly being assigned to part-time faculty, captured in computerized courses, and threatened by online universities such as Phoenix University.³ (Tudiver: 1999) Turk observes how entrepreneurialism in Canadian universities is being marked by corporate logos and language, user-pay systems, and the contracting out of services. (Turk: 2000) In Turk's collection, Cohen notes the effects on academic labour of the increased trade in educational services resulting from the General Agreement on Trade and Services and the North American Free Trade Agreement. (2000: 123-141) In the United States, Aronowitz regrets the blurring of boundaries between learning, education, and training, which result from the increasing administrative control over decisions made by faculty, and further stratify the American education system. (Aronowitz: 2000)

Other cultural influences impact on the university. Counterbalancing the entrepreneurial thrust is the maintenance of cultural capital. Bourdieu theorized that cultural resources are a form of symbolic capital, generating accumulation, exchange, and power relations on a social level. (Schwartz: 1997) In terms of non-exclusionary dissemination in the academy, established educational perspectives and procedures involving women and

³ Phoenix University is an online university based in Phoenix, Arizona, with a campus in British Columbia.

minorities are scrutinized for political correctness. (Richer and Weir: 1995) On the epistemological level, the rational, modernist view of knowledge is being challenged by the postmodern critique. Postmodernism is actually a collection of theoretical positions that reject reasoned academic discourse, meta-narratives, and rational (government) solutions in favour of relativistic, irrational, experiential, and constructivist approaches. (Ritzer: 1997) While the dissertation focusses on structural relationships based on empirical evidence, these cultural foundations help to understand the perceptions of the planners and consumers of post-secondary education and information services.

Using data from the economic, political, sociological, and cultural perspectives on labour, the dissertation therefore demonstrates that the changes in the professional library labour process are explained in the totality in which it operates. These labour process issues do not work in isolation. Workers in cultural institutions, such as museum professionals (Rottenberg: 2001), journalists (McKercher: 2000), and archivists (Cox: 1994) have been similarly confronted with the tensions between culture and the market. (Dorland: 1996) Labour process changes in libraries are often applicable to other “semi-professions”, or those which restrict the full expression of expertise and authority through bureaucratic or hierarchical structures, have shorter periods of study, and lack of full autonomy for their practitioners. Such professions include teaching (Macdonald: 1995; Yeatman: 1995; Sinclair, Ironside, and Seifert: 1996; Troman: 1996; Wotherspoon: 1998; Wotherspoon: 1999; Loveless: 2000); nursing (Wolf: 1993; Olesen and Bone: 1998); social work (Toren: 1969; Humphreys and Dinerman: 1984; Hugman: 1996); pharmacy (Novek: 1998); and accounting. (McDonald: 1995) It is characteristic of many semi-professionals

to undertake continual self-definition, justification, and re-invention, rather than develop and extend their competencies as trained and socialized. (For example, Marshall: 1936; Marshall: 1963; Etzioni: 1969) The female-dominated professions face issues dealing with the gendering of labour, with competing perspectives on feminism, and with vulnerability to domination and deskilling. (Wacjman: 1991; Witz: 1992; Davies: 1996; J. Webster: 1995) With workers in the organization of knowledge and the development of electronic information systems, such as computer analysts and programmers, librarians share technology-related experiences and concerns. Findings about the labour process of librarians, therefore, can be generalized to highlight important social questions in a knowledge-based economy, such as the value and marketability of expertise, and its grounding in consumer power or producer control.

The dissertation also demonstrates that the practitioners in this knowledge profession are an excellent example of the social relations that constitute knowledge work. It draws upon the intersection of two theoretical traditions in sociology, professionalism and the labour process in a knowledge-based society. It emphasizes the case of library labour in a political economic framework that includes the operation of sociological, economic, political, and cultural factors.

Sociological Relevance

Over the ages, and particularly during the 1990s, the labour experiences of librarians in the academy have embodied ongoing sociological problems related to the professions,

status, and power. The introduction of new information technologies and the broadly based impacts of globalization on these relationships have resulted in additional issues and approaches to theorization and research. Both continuing and new questions emerge in the dissertation analysis. Continuing questions include the institutional basis of the profession, its semi-professional status, and its interrelationship with social and economic forces. Questions that prompt rethinking include the nature of professional expertise, the orientations of social responsibility, the importance of the work being done, and those to whom the labour activities are accountable.

Continuing questions

Librarians' work has been institutionally based in various kinds of libraries, associations, and post-graduate schools. Their work has been defined by the institution of which the librarians are part, plus the parent institution, the university.⁴ The dissertation integrates this institutional identification by considering the pace of social and economic changes in the university, which accompany market capitalism, and which have equally affected the work of librarians. (Note especially the critiques of Slaughter and Leslie: 1997; Rhoades: 1998; Tudiver: 1999; and Horn: 1999) Typical situations affecting daily work life include the intertwining of budgetary decisions about electronics with campus practices and policies about computer systems, interconnectedness, and standards. Typical critiques include the extent to which these cost-benefit decisions are driven by forces outside the university library.

⁴ Traditionally, the mission and goals of libraries have been defined by parent institutions such as the municipality, the school, or the corporation. Contractors and freelancers have had minimal impact, but are increasingly employed in the practices of decentralization and outsourcing.

In sociological terms, the profession has been considered one of the semi-professions, because it is characterized by a hierarchical structure, bureaucracy, and the subordination of its goals to the parent group, the university.⁵ The librarians can work independently in relation to generating the catalogue, maintaining circulation systems, and helping patrons; but the big decisions about budget have had heavy involvement from faculty and university administrators. The dissertation considers that, while librarians have gained more control over their spending over the past two decades, this autonomy is being threatened by new economic and technological considerations.

The profession has been and still is female-intensive. According to survey and graduate program information obtained at the end of the 1990s, the proportion of women has not significantly changed over time, 70% to 80%. The dissertation inquires into the implications of the gender imbalance for professional workers in the academic library.

Within the above structural conditions, economic and social changes have trickled down to libraries. In the new information economy, less money has meant constant strain upon the conditions of work and the materials with which to work, cramping the operation of the profession and testing its resilience. The dissertation questions whether the universal availability of information has removed the monopoly of librarians as experts in knowledge. It is concerned that, with budgetary strictures, the international networks of information sources, and the lack of information quality control, librarians are losing their gate-keeping function. It posits that this may be due to the aggressive operation of

⁵ The reasons are detailed in Chapter 2.

marketers in the library, the outsourcing of library functions, the aggregation and selling of information in packages, and the need for libraries to justify services on the basis of cost-benefit.

Developing questions

The above questions extend into the electronic information age issues that have historically affected the library profession and the institution. In addition to revisiting sociological continuities through the labour process experiences of a specific group in a new era, the dissertation also examines perceived discontinuities. In knowledge-based professional work, the most likely area to examine is the evolving nature of expertise. With changes in the production, volume, and consumption of information resources, the cognitive base is also changing. The dissertation queries whether it has been significantly elevated or diminished, and whether technological facility is being mistaken for intellectual understanding. Part of these ambiguities can be clarified by understanding that information and knowledge are on a continuum of cognition that progresses from electronic bits and bytes, through data, information, knowledge, and wisdom. The higher levels of cognition involve social understanding, which consists in the ability to integrate and use the knowledge in society. As eloquently phrased by T. S. Eliot, “Where is the wisdom we have lost in knowledge; Where is the knowledge we have lost in information?” (Eliot: 1934:[7]) In this vein, university education is committed to fostering critical thinking and understanding, and librarians strive to mediate the acquisition of knowledge and information in collaboration with this goal. This leads to the changing nature of professional social responsibility.

Traditionally, social responsibility in the academic library has involved the guaranteeing of good information service. The dissertation recognizes that the provision of information service has expanded to include the diffusion of external influences, such as unsolicited electronic information, upon library service policy and upon the quality of work performed. They do this with practices such as the electronic filtering of information. Information technology has provided librarians with a way to make day-to-day work more efficient, and has enabled better telecommunication with its clientele and wider access to information resources. It is ironic that sources of progress for librarians, such as the digitization of information, are also forces of intrusion, such as control. The implications of “intrusion” are elaborated in the dissertation, and illustrate forces that motivate librarians to shift from description to prescription in the provision of information services. Also considered are the ways in which academic librarians, through the educational process, help strengthen the cultural capital of society. The social responsibility role of librarians is therefore considered in terms of new challenges, such as the implications of technology, rather than the traditional client services model.

The importance of professional library labouring efforts and the value of professional service are also under challenge, because the stability of the institution is under scrutiny and professional library services are no longer exclusively provided by professional librarians. Some of these information resources are derived from electronic sources outside the institution, whose authentication is often unclear. This new “authority” outside the institution appears to be stimulated and sanctioned by the marketers and advertisers, who manipulate public opinion. There may be a causal relationship between

entrepreneurs and impressionable young student users. If this is truly the case, the value of librarians' work is at best perceived as supportive or dependent, or at worst degraded due to the invasion of market capitalism into the cultural sphere. This has implications for changes to the degree of the power and control of librarians, to the extent they had any. Taking that into account, library educators argue that the profession is redefining itself, especially in relation to new information and communication technologies and the growing importance of information management.⁶ Their optimism is supported in the information studies research literature. (Bloch and Hesse: 1995) The dissertation scrutinizes within the political economic critique the claims typical of library educators.

Research outline

The dissertation begins with the theoretical situation of the problem in the contexts of professionalism, the labour process, and their intersection in Chapter 2, Theoretical Development and Literature Review. The chapter concludes that no single theoretical position encompasses the contemporary labour process issues of Canadian academic librarians, nor has any research addressed the process in its entirety. Given the absence of a comprehensive problem statement, I use the ethnographic techniques of participant observation and in-depth interview to further define labour process issues peculiar to professional academic librarians. These are specified in Chapter 3, Observations and their Development, as aspects of skill and control over their work. Beginning with a grounded definition of the problem, Chapter 4, Methodology, details the process of summarizing institutional information about academic librarians, complementing this

⁶ The viewpoint of library educators is presented in the chapter on professional education and socialization.

with detailed labour process information mined from the qualitative information, and building upon it with findings from outside the institution. The institutional and qualitative data about Canadian academic libraries are synthesized, with trends, in Chapter 5, Findings: Professional Labour Process Within the Academic Library. They are complemented in Chapter 6, External Impacts on the Labour Process in the Academic Library, by information on professional credentialling, the labour market, and agencies, such as database producers, that commodify, appropriate, or influence professional knowledge work. This analysis shows that the skill factors are more important than authority factors for professional academic librarians, but that skill alone does not ensure much power for librarians. Further, it shows that technology has become an important component of the knowledge base for librarians, and has enabled agencies outside the institution to appropriate their functions as well as their expertise. These findings and discoveries are summarized in Chapter 7, Insights and Conclusions.

In the dissertation, evidence from library workers themselves elaborates claims in library literature and library schools about the robust nature of the profession of information studies. The grounded evidence, however, also provides serious contradictions and points of contestation for the future of the profession. Substantive issues such as changing expertise and loss of control of the knowledge base to entrepreneurs are problematized in terms of the labour process. The theoretical argument is more clearly understood in terms of larger changes in late capitalist society. Using the case of academic librarians, it isolates what is relevant to information work. The relevance

extends from librarianship, to professional information work, to information work, to cultural industries, to service work in general.

I was drawn to this study through my own life experience. I am a professional librarian with extensive work in various functions of an academic library, as well as some government consulting. When I first arrived at the university library that was to be my home for over two decades, one of my early impressions went counter to my formal education for the profession, and I blurted, “Why are we expected to do so much clerical work!” I may as well have uttered that the Emperor had no clothes. I was roundly told by more senior librarians that this *was* professional work, and that these putative “clerical” functions *may* require judgment that was best made by a qualified specialist. They may as well have said, “This is librarianship, honey!” There are many discrepancies between professional expectations and labouring realities, which are never adequately reconciled. In my own case, I undertook a dissertation where I could integrate my own professional experience in the academic library with my sociological education. The research has taken me through the theoretical underpinnings of labour in libraries and related historical experience. It has helped me provide some answers, which I hope will inform other professional workers.

Chapter 2: Theoretical Development and Literature Review

This chapter contextualizes the problem statement and argument of the dissertation in the theories of professionalism, the labour process, and their intersection, and develops my theoretical position through a critical review of the literature. It derives useful insights from those studies at the intersection, and concludes that additional, context-specific input is needed to theorize the professional labour process in the academic library.

The Problem in Theoretical Context

The dissertation examines the labour process of a historically specific case of Canadian academic librarians. It undertakes the investigation because of conflicting claims about the robustness of the profession amidst technological and social changes in the “information society”. The electronic format and enormous volume of information, which are present in most aspects of academic library labour, have appeared variously to enhance or diminish it. Additionally, my case study provides a quintessential example of a category of knowledge workers that has been broadly characterized as the new middle class or the knowledge class. (For example, Bell: 1973; Gouldner: 1979; Ehrenreich and Ehrenreich: 1979; Clement and Myles: 1994) Work in libraries is not only based on the possession of specialized knowledge, but also concerned by definition with the dynamics of knowledge about information. It is performed within the cultural institution of the academic library, where structural constraints related to power and policy interact with

cultural goals related to an educated citizenry.⁷ Librarians are categorized as professionals by virtue of occupational schemes⁸, academic unions⁹, and graduate school programs. The question that generates the dissertation research is the degree to which the labour or the workers within the Canadian academic library are being affected by technological and social change. This invokes the more important question of whether the changes constitute simple deskilling, re-professionalization, or a new formulation of the status quo where librarians appear to have no strong labour power. The labour situation is interrogated to specify the power relations that make this possible. The case of Canadian academic librarians demonstrates that the practitioners of this knowledge profession are an excellent example of the social relations inherent in professional knowledge work.

There have been no comprehensive sociological analyses of the labour process or work in libraries. Contemporary labour process studies are often not specific to an occupation. (For example, Offe: 1985; Abbott: 1993; Burris: 1998; Smith and Thompson: 1998; Vallas: 1999) Others employ another theoretical framework. For example, Kohn uses a social psychological perspective, Casey a subjective perspective, and DuGay a post-structuralist perspective. (Kohn: 1983; Casey: 1995; DuGay: 1996)

⁷ The tension between the interests of culture and politics in the field of communications is delineated by Golding.

⁸ There are detailed Canadian, American, and international classification schemes, respectively titled the *Standard Occupational Classification, 1991* (Statistics Canada: 1993), the *Dictionary of Occupational Titles* (U.S. Employment and Training Administration: 1991), and *International Standard Classification of Occupations: ISCO-88* (International Labour Office: 1990)

⁹ In most Canadian and American universities, librarians are affiliated with faculty or similarly recognized as academic staff. (Canadian Association of University Teachers: 2001; Rhoades: 1998)

The dissertation thus draws upon two theoretical traditions that intersect around the topic of professional labour: the tradition of professionalism as a sociological concept, and that of labour process in a knowledge-based institution. Within a political economy framework, they are problematized through the case study of professional librarians, and analyzed in terms of evidence about library work and labour process. Since this chapter shows some theoretical differentiation about the labour process in knowledge-based professions, the precise theoretical basis of the dissertation and problem formulation are based on the historically-specific input from librarians. The dominant issues are grounded in the lived experience of Canadian academic librarians at the point of production, through the observations and interviews in Chapter 3, where they are re-conceptualized as labour issues. The theory at the nexus of professionalism and the labour process is also refined through this grounding. The input from librarians is necessary, because they are the only ones with sufficient information about the process in which they work, and this detail enriches the theory. This theoretical perspective enables the investigation of social changes in professional academic library work and labour process since the diffusion of new information and communication technologies throughout all areas of the work. It also provides a basis for explaining *how* this is happening. The findings about changes and continuities in the professional labour process also provide insights about the “knowledge class” and its relationship to knowledge workers in an “information society”.

A political economic analysis of the labour process of professional work is the best framework for the integration of themes and problem issues in the traditions of both

professionalism and labour process in post-capitalist society. First, the literature of professionalism is examined, to elicit themes related to knowledge work and the commodifiable value of this expertise. Second, the extensive labour process literature is narrowed to the power and status relations of knowledge workers. Last, the intersection of these two traditions is depicted in the labour process situation of professional workers. Of particular interest is the extent to which the contradictory nature of the new middle class, as articulated by Poulantzas and Wright, is based on changes in its skill, authority, and ownership dimensions, and the relevance of those dimensions to the value of the work and workers' control over it. (Poulantzas: 1977; Wright: 1985) With this theoretical focus, a framework that more specifically applied to the situation of academic librarians at the point of production is constructed in the two succeeding chapters on theory refinement and methodology.

The Literature of Professionalism and Knowledge-based Work

The theory of professionalism is generally considered incompatible with that of the labour process. (Burris: 1993; Brewer: 1996) Professionalism suggests the application of discipline-based abstract knowledge to value free, altruistic work for the general benefit of society through the practice of education, health, law, spirituality, science, and other outlets. (See also Marshall: 1936) In an ideal-typical environment, its elite interests remain above the mundane concerns of leave, benefits, and technological change with which labour process is frequently preoccupied. Altruism is associated with the classical social responsibility thesis of professionalism, where the profession of expertise and application of a knowledge base are expected to rise above the capitalist concerns of

power, control, and profit, or the mundane concerns of pleasure and lassitude. Parsons' analysis summarizes this classical position and its theoretical antecedents. (Parsons: 1939; Parson: 1968) The quality control of work was achieved by self-monitoring through guilds or by state protection through regulation. An important social outcome of this structure was social closure, which was effected, differentially across professions, through requirements of education, the guild or equivalent, and the state. (Parkin: 1979)

This functionalist mode dominated till seriously challenged in the 1970s. At that point, profit and power factored into the understanding of professional practice, or were recognized as influential forces. The concept of professional power was first used to good extent by Johnson. (Johnson: 1972) The professional's ability to constitute and control a market for their expertise was traced historically by Larson, and the sale of labour as a commodity in a market economy to an employer or customer was advanced by Freidson. (Larson: 1977; Freidson: 1986) These perspectives are theoretically compatible with both labour process phenomena and political economic analysis. The dissertation advances that the social responsibility mode, while theoretically insufficient, has influenced the education and practice of librarians for over three decades. This ideal-typical construct is contested by the political economic theoretical approach, which suggests the operation of other forces such as the market imperative, competing theoretical paradigms, and the conflict of these forces with professional ideals. It is also contradicted by the grounded theoretical input from the interviews with librarians, which shows a definite increase in tension at the point of production that relates to control.

The theoretical discussion begins with an examination of the fundamental concepts in professionalism, and isolates aspects that lend themselves to labour process. It situates professional work in its economic as well as social contexts, where the market-oriented theoretical insights of Larson, Freidson, Brint, Abbott, and Derber are strongly applicable. Part of this discussion includes an historical overview of professional labour. This coverage is not a simple chronology or taxonomy, but a tracking of the historical continuity of production relationships, particularly their continuities and their disjunctions in relation to the market value of professional expertise or knowledge, and their authority relations in the workplace. It then examines labour process literature, and focuses on information work, expert labour, and the interaction of new information and communication technologies with skill and process. It interrogates the concept of professional work, and isolates aspects that are problematic for the political economy of labour. These include the automation of the knowledge base, the removal of control of the knowledge base from the professional group, and the weakening or degrading of the professional worker through forms of authority embedded in the workplace.

Many of the impacts upon contemporary professional information work are found to be structural, and associated with enduring issues of administrative and power relations within the institution. They include constrained structures of reporting, the increasing reduction of fiscal support, the limited protection of professionals through legislation or regulation, and changes in boundary definition or mechanisms of closure. (Collins: 1979; Abbot: 1988; DiPrete: 1988). They can be theoretically understood within the historical management practice of work rationalization, as stated by Weber, refined by Edwards

and Littler, and critiqued by Vicki Smith. (Gerth and Mills: 1958; Edwards: 1979; Littler: 1982; V. Smith: 1997) Other impacts are also structural and associated with the workers' control of their situation, but aggravated by the contingent labour climate of late capitalism. They include the contracting out of labour ¹⁰, the increasing employment of contract or part time workers, and the downsizing of the organization, which often remove the knowledge base from full professional control and have a proletarianizing effect. One strategy resulting in the deskilling of librarians' work is the merging of it with that of quasi-professions such as computer programmers, on the basis of technological convergence. These impacts are theoretically understood within power-based class theory, as formulated by Braverman and refined by Wright and Clement and Myles. As with rationalization thesis, the class-based thesis represents many continuities of past relational situations.

The most important forces impinging on the labour process in post-industrial society, however, are external to the institution. They involve the new international market economy characterized by increased competition, cheap international labour, the deconcentration of the establishment, and the rise of vertically integrated conglomerates that provide products or services to the organization. These changes represent continuities based on the criterion of power relations for the workers. They involve, however, discontinuities because of changes in spatial relationships due to telecommunications and organizational deconcentration, and the increased commodification of information and labour. The sociological insights in the area of

¹⁰ Library contract work may be done by independent librarians or other agents.

professional work are tracked historically for enduring relevance or timeliness due to innovations in technology or the global market. These include the skepticism of Goode and Marshall about the validity of librarianship as a profession; the controlling aspects of technology as integrated into capitalist production per Braverman; the substitution of intellectual goals with instrumental ones (D. Schiller: 1999); or the control of cultural production by corporate interests. (H. Schiller: 1989) They conclude with questions about whether productive advances in intellectual labour have truly been made in the information age, and what the threats are. The theoretical discussion also points to solutions to the problem, by looking for research on the political socialization of librarians through their education, and on proactive social action.

As mentioned above, the dissertation is based on the intersection of theories of professionalism and the labour process. It examines and problematizes the case of professional labour within labour process theory. In both cases, the theoretical framework fits into Mosco's conception of political economic analysis with its inclusion of history, social totality, moral philosophy, and social praxis. (Mosco: 1998) Following the examination of theories and research relevant to professionalism and the labour process, gaps for the study of librarians as information workers are identified. The problematic or contradictory issues of professional labour in academic libraries are found to need fuller identification, which is most accurately derived from the voices of the librarians themselves. These theoretical refinements and problems are clarified in the lived experiences of Canadian librarians. With the theoretical framework developed in this chapter as a foundation, they are depicted in the following chapter, Observations and

their Development. This derivation of historically-specific problems also contributes to theory and research in the labour sphere of professional knowledge workers in cultural institutions.

The sociology of the professions has been theorized for about one hundred years and cuts across the major traditions of sociology. In fact, it embodies different sociological traditions and perspectives. (McDonald: 1995) Theoretical and empirical works on professionalism increasingly address knowledge work. At the points of its intersection with labour process theory, it addresses expert labour, by theorizing power relationships and the control of work. The following discussion of the tradition of professionalism isolates aspects relevant to information services and the labour process. It addresses knowledge work, the status of information workers, the economic influences on cultural institutions, and the semi-professions.

Librarianship is considered a profession because of its specialized knowledge represented by a postgraduate degree in library or information studies. It is also a job category for positions in university, school, public, government, industry, and other specialized libraries. Its status in the “hierarchy” of professions is tenuous. It has been designated a “semi-profession” by some sociologists because, while its knowledge base is specialized, its practitioners are driven by the needs of the clientele rather than possess the authority to dictate to them. Lack of autonomy is another reason for this designation. How do we look at, or interrogate, the professionalism of librarians with a view to the post-industrial social situation? Is conventional professionalism being challenged by a new form of

expertise in the manipulation of new information and communication technologies? A first step is to look at classical theorists to determine what still applies to librarians, what can be contested, and the nature of challenges such as market imperatives, gender-oriented analysis, and post-structuralist perspectives. In their definitive studies, Parsons, Larson, Abbott, Freidson, and Brint include good histories that situate professionalism, and Larson and Freidson provide particularly good histories of professional labour. With these as background, one can look to the present situation of professional work in information professions, and note the aspects that are new, those that represent continuities, and issues still under debate.

The study of professionalism has overlapping themes, which can be roughly broken down into traditions of functionalism, bureaucracy, Chicago School ethnographic, power-based class, and post-structural. They are summarized below and assessed in the context of knowledge-based professional labour.

Professional knowledge work in a functionalist perspective

This grows from the work of classic sociological theorists who emphasized the value-free, altruistic, moral role played by professionals such as doctors, clergymen, and lawyers. Among early classical theorists, Durkheim noted the moral rules, collective consciousness and common good underlying professional practice in his lectures at the end of the nineteenth century (Durkheim: 1957), and thus contributes to the foundation of the social responsibility thesis of professionalism. From their initial practice as professionals at the turn of the century, librarians have taken this role seriously, and have

traditionally valued being guardians of knowledge. Parsonian functionalism included the idea of professional indifference. In the present times, this guardianship role remains relevant in the academic library. Librarians are – or try to be – gatekeepers in areas such as quality control of web-based information that is produced in the public domain. Insofar as they can, they advise students against information that is not relevant for academic needs because it is not scholarly sound. With the assistance of campus computer centres, they can arrange for the blocking through electronic filters of pornographic or distasteful information such as hate literature.¹¹ Filtering is also a matter of principle, and librarians are loath to intrude on the right to access information in spite of their competing guardianship role. Another important side of the social responsibility role of professionals is their ability to be critical both of the social applications of the information they mediate and of their own practice. Professional practitioners vary in the degree to which they can or are willing do this.

Librarians have consistently provided disinterested service in the absence of personal viewpoints and with an emphasis on user needs. Thus, they fall historically into the categorization of professions by Carr-Saunders and Wilson, plus Anderson, who made a distinction between service-oriented professions such as teachers and nurses (they did not include librarians) and the highly autonomous, eminently qualified, and highly protected doctors and lawyers. (Carr-Saunders and Wilson: 1933; Anderson: 1964) This categorization and polarization is important because it situates librarians near the bottom in the hierarchy of professions. For this dissertation, it also provides departure points for

¹¹ It is surprising how many students claim to need pornography for “research purposes”!

distinguishing problems that emerge from the nature of their knowledge base, their degree of autonomy in the organization, their situation within the institutional hierarchy, and the attachment of their power to market forces. Changes in these traditional characteristics, in the form of a more diffuse knowledge base, loss of autonomy, and subordination to market principles, are early indicators of deeper problems in the professional labour process.

Other functionalists whose classic work is relevant to the present situation of librarians are Goode, Marshall, and Etzioni. All have addressed the group of professions into which librarianship falls, which Etzioni has termed the “semi-professions”.

Characteristics include (1) being part of a hierarchical structure within an organization, (2) having less professional autonomy, (3) being female intensive with concomitant part-time work and non-supervisory roles, and (4) not being easily able to be critical or to make major decisions on issues without censure. Before the introduction of information technology in libraries over three decades ago, Goode questioned whether librarianship had the characteristics of a true profession according to sociological criteria. He believed its professional stature was suspect, because librarians normally respond to client or management demand rather than assert their professional wisdom, as would doctors or lawyers. That is, others define their goals for them. It is interesting that the arguments made by Goode over thirty years ago are still true for the profession today, and may contribute to its further diminution in the face of external threats. In spite of his writing before the major economic recessions of 1973 and 1988, before library automation, and before the globalization of information and the commodification of information, Goode's

concerns have not been thoroughly answered by the profession, nor have they been completely dismissed.

In the age of knowledge work and information technology, Abbott developed a major analysis of the professions from a contemporary interpretation of the functionalist perspective. After surveying theories of the professions, including neo-Marxian and market-oriented approaches, he positioned professions as part of a web of systems in his study, aptly titled *The System of Professions*. These systems are subject to internal influences related to ambiguous boundaries between the duties of professionals and non-professionals, and to administrative changes in hierarchies or span of control. They are also integrated with external influences such as labour market variations and the intervention of the state or professional associations. He also provides a sociological explanation for the development of new professions and the appropriation of professional roles by subordinate technical or clerical staff. Of particular theoretical relevance to academic librarians are Abbott's concepts of boundary definition, turf wars between professionals and paraprofessionals, and the evolution of new professions, in this case, the "information scientist" and the "knowledge manager". Professionals such as information scientists have become a category of information workers in two instances. They emerge when librarians abandon or do not seize the opportunity to perform roles such as computer programming and analysis; consequently technical professionals such as computer scientists appropriate it. They also emerge when a market need for knowledge management occurs where none existed before, and where that market is outside a formal library structure. Though his orientation was to the system rather than

the social totality, Abbott does suggest concerns that are given voice in the qualitative data in the following chapter. Many aspects of his analysis are accommodated within the framework of this dissertation.

The functionalist view of professionalism can be synthesized to three general areas that apply to the labour process in academic libraries: the “repository” of expertise, the provision of service, and the guardianship of social citizenship. These are achieved, respectively, through education, professional practice, and professional ethics. The state also plays a role by supporting the professions and granting them the mandate as the only legitimate providers of their service ¹², but its role is less central for librarians than for fee-based or licensed professions. ¹³

1. Expertise

As mentioned above and detailed in Appendix I, librarians have a body of knowledge about the collection, organization, cataloguing, storage, and retrieval of information. The essence of its cognitive base is therefore the science of classification and documentation. This is consistent with those theorists who claim that a body of knowledge and training characterizes a profession. Being generalists, responsive, and non-autonomous, librarians have tended to be regarded as “lesser professionals”. They are also faced with the expectation to perform work that is *infra dignum*, and with the appropriation of some of

¹² Recent studies of state involvement in professional practice have a more negative view, and present effects such as increased bureaucracy. This is embellished in the concluding chapter.

¹³ Teachers in Ontario now have a college to regulate themselves, but the Province of Ontario appoints about two thirds of their board. Thus, the College is not a self-regulating body as originally envisioned.

their skilled work by paraprofessional or technical staff with college certificates or extensive in-house training.¹⁴

2. Service

This applies to all functions in library work but most predominantly to the reference aspect, where librarians answer reference or information questions, instruct users in bibliographic and research skills, and generate print and electronic finding schemes. In these aspects, service is closely related to expertise. This dissertation is also concerned with the social responsibility aspect of the service ethic. This ethical aspect includes, in the electronic information environment, the filtering¹⁵ of information that violates the Criminal Code of Canada on the one hand, and, on the other, the right to information provided by the Access to Information Act and the Canadian Charter of Rights and Freedoms. In a debate on filtering in academic libraries which I attended at the 1999 Canadian Library Association Conference in Toronto, over two thirds of the participants voted not to filter. On the other side of the dilemma associated with library service principles, many patrons abuse their right to information. Both positions are exacerbated by the enabling powers of information technology, which enhances access to distasteful and exploitative information as well as that which is cultural and educational.

¹⁴ This is also true of doctors working with medical technologists, and dentists with dental hygienists.

¹⁵ Filtering involves the electronic blocking of distasteful information, such as pornography and hate literature, by the university computer centre from entering its computer systems.

3. Social trusteeship

Librarians as “guardians” or keepers of knowledge traces back to the earliest incarnation of the librarian, and the practices of chaining books to keep them safe, locking up books that may be controversial, and censoring the ideas in them in conformity with political or religious ideologies. Before literacy was general (in the eighteenth century in England), the librarian was one of the few categories of literate people, and, like the clergyman and teacher, was thought to have some credibility and trustworthiness, as well as being learned. The image of integrity has persisted to the present day, and the dissertation tests this social trusteeship orientation through sources from both the librarians, the library educators, and the labour market.

For social responsibility in a contemporary setting, consider the activism of Canadian librarians. Their issues of professional rights and responsibilities are integrated with those of faculty in their collective agreements or handbooks, and not singled out. For the last decade or more, their unions or staff associations have been justifiably concerned principally with salary and benefits. If librarians went on strike, the clientele would generally “make do” with the services of support staff, if they could distinguish at all between the two classes of workers. The chief social responsibility issue, beyond that of censorship, which has been around for centuries, concerns information access, and the monitoring of users of the Internet to ensure that they do not retrieve illegal material within the institution. Another is the provision of equal access.

The most important aspect about functionalist theory for this enquiry is the fact that many working academic librarians were educated and socialized in the 1960s and 1970s, a period where functionalist views of professionalism were dominant. Thus the critical mass of academic librarians still dominating the workforce have been imbued with social responsibility, a dedication to service, a professional disinterestedness, and a commitment to its role in the parent organization. Additional evidence from Canadian academic librarians about professional socialization is provided by in the following chapter on problem refinement. The importance of professional engagement is elaborated in the concluding chapter. On a more abstract level, functionalist theory in professionalism has informed knowledge work, and continues to do so, by allying professional work to structure, to the clients, and to a corpus of knowledge – all of which are changing in the post-industrial setting. The relational nature of these aspects is highlighted in the discussions that follow of theory in other traditions of professionalism and in the labour process.

Professional knowledge work in a bureaucratic perspective

If librarianship fits tidily into a sociological concept of professionalism, it fits the bureaucratic tradition.¹⁶ In the academic library, professionals are organized, along with non-professional and administrative staff, into a hierarchical structure, a large university library. The library in turn is normally accountable to an academic vice-president within

¹⁶ Most of the earlier work on professionals was concerned with fee-for-service professionals rather than those associated with large bureaucracies.

the university system. In the last decade or two, most academic library structures have flattened considerably, and some have tried project management or participatory management schemes.¹⁷ Personal accountability for one's work is absorbed into the structure, which results in lack of individual autonomy. Bureaucratic systems of rules, regulations, and procedures are exemplified by cataloguing rules, acquisitions routines, electronic systems development, and even reference desk procedures. Position-based systems of hierarchy result in status differences within the library. Outside the library and within the university, there is a hierarchical relationship between librarians and faculty.¹⁸ The bureaucratic view owes its genesis to Weber's theory of rationalization for control and his discussion of the rules in the medical profession, as elaborated by Berlant. (Berlant: 1975) Weber also articulated the theory of social closure, where, applied to the library world, professional credentials such as the Master of Library Science (MLS), Master of Library and Information Science (MLIS), or Master of Information Studies (MIS) distinguish the professional from the technical or support staff, and where unions ensure that professionals occupy certain positions. Bureaucratization accounts theoretically not only for status and power, but also for occupational mobility and market control.

The bureaucratic perspective on academic library professionalism can be synthesized into three general theoretical areas: social closure, rationalization, and hierarchical

¹⁷ Carla Stoffle described her administration at the University of Arizona Libraries as egalitarian and collaborative, at a Canadian Library Association Conference session I attended in Victoria in 1998.

¹⁸ This stratification is partially accounted for by the union-based recognition schemes in most Canadian academic libraries for professional librarians, which are analogous to the faculty promotion schemes of assistant, associate, and full professor. There are also less tangible status differences between librarians and faculty.

relationships. Social closure is achieved through educational credentialling, and often complemented by certification through professional or state standards and procedures.¹⁹ Bureaucratic rationalization and hierarchical relationships are achieved through organizational structures, which have been facilitated by the integration of technology into its processes.²⁰

1. Social closure

Following in the Weberian vein are theorists such as Parkin, Collins, and Murphy who have adopted its social closure and credentialism. (Parkin: 1979; Collins: 1979; Murphy: 1988) However, as Abbott and others have pointed out, today's boundaries have become blurred. Further, a positional analysis is not applicable to changing professions or to the labour process aspect of their work, because it does not theorize the inherent power relationships. In a recent dissertation about the status claims of the new profession of judicial educator, Connor contests the characteristics of the traditional service model of the professions with the neo-Marxian model of power and control. (Connor: 1998)

2. Rationalization

Edwards provides a basic explanation of how rationalization establishes control in an organization. (Edwards: 1979) In libraries, rationalization is done formally through job descriptions and organization charts. Also important to a labour process orientation are

¹⁹ This is not so for librarians in Canada, except for Quebec. Those in Quebec are members of the Corporation of Professional Librarians of Quebec, which has the sole legal authority to enable a practitioner in Quebec to use the title "professional librarian".

²⁰ Predicted by Marx, this was updated by Miliband for post-industrial society in *Divided societies*, and there are roots in Ellul's concept of *technique* in work.

less visible forms of worker pressures within the structure, such as expectations to work collaboratively or in teams instead of autonomously. (V. Smith: 1997) These sometimes derive from the characteristics that women bring to their work. (Hearn: 1982; R. Harris: 1992; Hochschild: 1989) Female work situations are consistent with those suggested in the theory of the semi-professions, such as the incorporation of professional workers into a hierarchical scheme. Technology also plays a role in organizational rationalization, and its impact on gender may work two ways. First, as mentioned above, the integration of technology into organizational structures enables more strictures and greater control through the rationalization of procedures. (Burris: 1993) Second, since computer-related jobs have traditionally appealed to males, technological expertise could enhance the power held by the minority of males in the library. This possibility is tested in the interviews.

3. Hierarchical relationships

The bureaucratic view is nominally the most appropriate to the structural situation in which academic librarians work. It positions and describes ways in which librarians are constrained in their everyday work life, and the role gender has played within the context of semi-professional theory. Its orientation to status does explain perceived or superficial differences that are not strictly related to social class, such as the near-reverence accorded to anyone with strong computer or web management skills. However, it lacks explanatory power for historical continuity or the experience of workers undergoing organizational transition. Relational class theory, is better for critically examining how

those with computer skills, for example, might hold any professional power. The professional-managerial class of Ehrenreich and Ehrenreich is a useful construct here.

Professional knowledge work in the Chicago School ethnographic perspective

Fundamental qualitative research on the professions was undertaken by the “Chicago School” sociologists from the 1920s to the present. (Fine: 1995; Abbott: 1999) Based on ethnographic research on social groups by University of Chicago academics and students, the School produced substantial research, often in an urban setting, to provide a better social understanding of professional groups such as medical practitioners. (Glaser and Strauss: 1967; Becker: 1960; and Hughes: 1958) For the dissertation enquiry, the Chicago School tradition provides more than seminal research on professional workers or examples of qualitative research techniques.²¹ It informs the derivation of theory and problems from data where structuralist or positivist methods alone are inadequate. Its grounded theoretical approach is used to develop and sharpen the dissertation problem in Chapter 3. The ethnographic approach provides a means for deriving not only dense descriptive data but also historical specificity for social groups in a particular setting, which is demonstrated in Chapter 5.

There are recent works that extend or depart from classical Chicago School research. Hertz and Imber apply this research to the study of elites, and note the integration of the researcher with the subjects, for example, the “sort of cultural gap” between academic

²¹ For the approach in this dissertation, the enormous contribution of the Chicago School to symbolic interactionist theory is not applicable.

sociological researchers and subjects such as business elites. (Hertz and Imber: 1995)

Strauss and Corbin present ethnographic studies on the professional knowledge and practice of various health science fields, on experiences of the ill, and on the professional/technical overlap in the use of technology in professional practice. (Strauss and Corbin: 1997)

Vallas documents a variety of ethnographic methods in his compilation of studies on change in workplace institutions. (Vallas: 1999)

These models suggest that the changes undertaken in the library profession can have at least partial explanation through qualitative examination of lived experience. The tradition has been criticized for being overly empirical, a-historical, and devoid of theory, which would not suit a political economic project. Notwithstanding this possibility, some Chicago School sociologists have employed its naturalistic methodologies and theorized their studies within a structuralist, labour process perspective. A useful theoretical and methodological model is Burawoy's landmark study, *Manufacturing Consent*, which integrates the biography and history of his subject at the auto plant. It provides a foundation for the further qualitative, political economic study of professionals and workers in general.²² Research of the Chicago School and qualitative research in similar modes thus provide a rich tradition in the qualitative study of work as well as a methodology for deriving tentative problems that might not be evident from structural or aggregated data. This tradition also enables the triangulation of grounded with quantitative or public findings, where there is a need for more comprehensive data.

²² Since I designed and undertook my research, Burawoy published *Global Ethnography*, which detailed the extended case method, and the relationship between microcontexts and macroprinciples such as rationalization or commodification. (Burawoy: 2000; Gottfried et al.: 2001)

Professional knowledge work in a power and control perspective

A unifying concept in this collection of views that I label “power and control” is conflict.

It is often associated with a Marxian view, which is historical and critical. It is also process-oriented, and concerned with relations of productions at the workplace. The power and control perspective incorporates the historical importance of market monopolization for the professions, where their labour power and expertise have quantifiable value that is more important than the outputs of their labour. Krause, for example, noted that the semi-professions are at a disadvantage in an advanced capitalist world because they have not developed “guild power”. (Krause: 1996) Many changes to academic librarianship can be problematized within this perspective. Against the backdrop of the commodification of information that was once held as a public good within the academic system, many changes are happening to knowledge workers. Deskilling, de-professionalization, re-professionalization are the most obvious processes within a downsized and restructured institution. This may either free professionals to do more creative work or it might do them out of a job. For example, Sherwood shows how the clergy of various denominations have re-professionalized as other groups, such as funeral directors, moved in to take over many of their services, such as funerals, and moved them from the church to other sites, such as funeral homes. (Sherwood: 1994)

In libraries, the control over the creation of the product, once in the domain of the professional practitioner, is being absorbed by publishers, database developers, or even vendors. These agents are external to the institution, and generally to the profession, and indirectly control what is bought through their monopolization of the book, periodical,

and database market. Inside the organization, downsizing often results in professional library work being given to paraprofessional or technical support staff, which results in struggles of control.²³ The power and control perspective on professionalism thus provides a crucial theoretical link to labour process theory, with the issue of control being the axis. It is also process-oriented.

Professional knowledge work in a post-structuralist perspective

As the one above, this perspective on professionalism is actually a collection of perspectives. It departs from the structured analyses in the Durkheimian, functionalist, Weberian, or Marxian modes, or even the empiricism of Chicago School researchers, because its premises reject unified systems of knowledge in favour of local knowledge, irony, parody, and *bricolage*.²⁴ Postmodernist approaches include the analysis of text, historical experience, or personal experience, often from a reflexive standpoint. For professionals, postmodernism does address questions of power and status, but bases them in the discourses of knowledge. The Foucauldian interpretation, as elaborated in Larson's adaptation in her later work, is based on the concept of the discourse of a discipline, rather than its cognitive base or professional practitioners. (Foucault: 1972; Larson: 1990) Inherent in the generation of this discourse are factors that attribute power to those who utilize the discourse. Power, is thus derived from the discourse of knowledge rather than the institutions from which disciplinary knowledge is produced, the structures within which its professors operate, or the relationship between

²³ This happened in many professions, such as engineering, dentistry, the law, and medicine.

²⁴ In conventional usage, *bricolage* refers to putting odds and ends together, as seen with crafts that children do.

credentialling and privileged positions in the social division of labour.²⁵ Another major post-structuralist theorist whose work is relevant to professionalism is Bourdieu, who attributes symbolic power to education and its cultural capital. Cultural capital is, in turn, one of many forms of capital that include economic, social, and symbolic. Education is important to individuals and groups on many levels, because it is, equally, inherited capital, a learning process, a knowledge base, and an institutionalized credentialling system. His concept of *habitus*, which includes inherited capital plus collective historical experiences, contributes to an explanation of class differences. (Bourdieu: 1984; Swartz: 1997) The importance of these post-structuralist viewpoints is that they offer new ways of explaining things that determine professional power in a knowledge-based environment. One criticism is their ability to provide answers to questions that the evidence from discourse does not cover, for example, *how* the practitioners exercise the power they hold through the discourse of their discipline. Another is their exclusive grounding in the subjective. One must also understand the reasons these conceptual approaches are singular for dealing with knowledge work and cultural capital. Larson concludes that “all the levels of questioning will have to be covered in the end.” (Larson: 1990: 45)

Assessment of theories of professional knowledge work in relation to libraries

All five above perspectives provide a theoretical understanding of the profession of knowledge work in a cultural institution. The functionalists provide the concept of

²⁵ Larson’s perspective is useful because she did a baseline work on professionalism in 1977, and because, in her own theoretical development, she moved beyond her power- and market-based approach to a Foucauldian perspective.

professional indifference, a characteristic that has been sustained over time by librarians as their commitment to service. They also articulate the altruistic role of professing their craft for social betterment, which is seen in library work in the maintenance of expertise in a knowledge base of increasing complexity due to new information and communication technologies. While some of the applications in the social trusteeship and expertise-based interpretation of professionalism have changed with new social trends such as the decentralization of information resources and electronic modes of access, it has remained fairly constant over the past half-century in the library environment.

In contrast, the neo-Weberians introduce a more categorical structure, with their concepts of boundary definition, social closure, and bureaucracy. Boundary definitions, however, are becoming even less defined between professionals, paraprofessionals and technicians, making social closure less conclusive, as mentioned above in relation to the work of Collins and DiPrete. Status mechanisms are important to this perspective, but are becoming less consequential where organizational relationships, to give an example, are skewed spatially because of decentralization and virtual electronic networks.

The inability of the functionalist and bureaucratic perspectives to fully incorporate phenomena involving new structural, spatial, or electronic relationships gives rise to the possibilities of the power and control perspective, and which provides a better explanation of relational issues in a contemporary setting. Bureaucratic organization has certainly endured through recent changes in the library, and new information and

communication technologies, in particular, have made it possible to diffuse bureaucratic procedures and hierarchies more widely. The counter-claim is that decentralized communications enhances “power” for staff by giving everyone equal access to computers and removing immediate supervisor oversight. This sense of worker independence does not refer to true power in terms of class relations in the workplace, and it masks the embeddedness of bureaucratic routines and surveillance within technological systems. More accurately, changes in relations of professional power are associated with claims that the jobs are being enriched, re-engineered, or proletarianized. Professional deskilling, involving the separation of conception from execution, and proletarianization, involving the removal of decision-making powers, are part of a vigorous theoretical debate, which is elaborated below in the discussion of labour process perspectives.

To problem identification and modes of obtaining detailed labour evidence, the perspective of grounded description makes a strong contribution, although it lacks the breadth to explain the complexity of social forces that are operational. In the course of explaining how librarians continue to have jobs in the academy, in contrast with teacher-librarians who are being downsized, post-structural theories with explanations that go beyond the categorical may contribute in an environment with vanishing boundaries.

Within the literature on professionalism, the problem in the dissertation is best theorized through a multifaceted analysis of aspects related to knowledge work. They include social responsibility, expertise, boundaries, and bureaucratic control. Academic

librarians appear to maintain a strong sense of social responsibility in the face of declining resources and an increasing diverse student body. The reasons are probed. Professional expertise is changing due to information technologies and globalization. Whether this expertise is being intensified or routinized, the future survival and stability of the professional are examined. The boundaries around the profession are undergoing modification, and the impacts for social closure are important to professional status and power. The relationship between bureaucratic control and information technologies is clarified. Whether changes in structural and spatial relationships are strengthening management control or diffusing it, the individual professional worker is being affected.

These questions involve labour, and are hard to answer without an appreciation of the dynamics of the professional labour process. In particular, the power of professional library expertise in an intellectual knowledge base and the controlling aspect of the bureaucracy in which the work is done need theorizing *beyond* description of their professional characteristics. The analytical approach of political economy enables this. Being concerned with value of work and sense of control, it is necessarily grounded in the power and control perspective, informed theoretically by bureaucracy theory, and assisted methodologically by grounded theory.

The Literature on the Labour Process in Postindustrial Society

This literature juxtaposes two landmark works and theoretical positions about post-industrial labour: Bell's idealism about a new knowledge class with intellectual workers and Braverman's pessimism about the deskilling of labour in late capitalist society. The

following discussion addresses their relevancy to information work within a cultural institution. Beginning with the concepts of labour process involved in service work, it addresses professional work, professional information work, knowledge-based work in cultural industries, and applications to librarianship. It is useful to recognize the distinctions between the various aspects of in the continuum of cognition delineated in the Introduction. They range from computer bits and bytes, progressively through data, information, and knowledge, to wisdom, with the defining characteristics being application in social context and human judgment and integration.

In 1973 Daniel Bell predicted the rise of a new knowledge economy based on the increase of service jobs and the importance of knowledge and information technology to the economy and to the whole social order. (Bell: 1973) In the following year, Harry Braverman admonished, to the contrary, that labour was increasingly being degraded by the forces of monopoly capital. (Braverman: 1974) Braverman asserted that new technologies were strongly instrumental in reinforcing bureaucratic rationalization, the division of mental and manual labour, worker alienation, and other processes of control. The critique of work and the labour process during the past twenty-five years has evolved between these polarities. (See especially Littler: 1982; Hall: 1983; Erikson and Vallas: 1990; Knights and Wilmott: 1990; Gamst: 1995; McDonald: 1995; Smith and Thompson: 1998; Wardell: 1999) The volume of commentary and critique attests that labour has been at the crux of major social change, whether related to structures of opportunity or measures of self-determination.

The optimistic position: A new knowledge class of professional knowledge workers

Bell's optimistic vision of the viability of a knowledge class includes some key concepts that are applicable to knowledge-based institutions such as universities or their libraries. They include notions of credentials, social responsibility, the primacy of service work, the key role of information technologies, and the eradication of class boundaries. The impacts of these social predictions related to knowledge and social class are elaborated in important critiques by Vallas, Myles and Turegun, and Vicki Smith. (Vallas: 1988; Myles and Turegun: 1994; Smith: 1997) Bell's conceptions are relevant to professional labour in the following ways:

1. Credentials and their social role

The "new class" of early proponents such as Mannheim and Gouldner is conceived to be dominant in a contemporary knowledge society. It includes professionals by virtue of their education, credentials, and social role in information-based professions. This "class" is also so designated because of the preponderance of its intellectual labour within a service environment. New information and communication technologies are seen to actually shape the development of this class, and not simply to serve as forces that enable its growth. While designated a class, the knowledge class is intended to remove traditional class boundaries that are inherent in the relationship between owners and workers. Thus, in a Utopian and not very realistic vein, it was to *transform* class structure, though the details of implications for workers were not worked out. The limitations and problem areas in the new class concept hinge around what was omitted or

generalized, and are covered in the next two items, new information and communication technologies and the eradication of boundaries.

2. New information and telecommunications technologies

The role of new information and communication technologies in this scheme is contradictory. On the one hand, the centrality of technology supports the scientific, technological, and knowledge-based orientation of this class, because technology, even as envisioned by Bell in 1973, facilitates universal access to information resources. On the other hand, the visionaries failed to note that this same mode of electronic communication also intensifies bureaucratic control of the workers through control of the electronic systems with which they work.²⁶ Ultimately most electronic systems within an institution are associated with a commercial agency, and subject to corporate control on a large or even international scale. The academic library is an excellent case of a locale where this is occurring. In facilitating access to information resources, the library profession is caught between fulfilling its social responsibility role by providing quality information from scholarly sources, and being vulnerable to the corporate control of its information resources. Information technologies that liberate individuals by democratizing access to information resources, in the exercise of social citizenship, also ultimately control these individuals through monopolistic ownership of information providers. We thus have to contest Bell's idealistic predictions and look at issues of control around technology. In the post-industrial library environment at the Millennium, the corporate control of information resources and the presence, or lack of, critical

²⁶ This was also advanced above in the discussion on bureaucracy in the theory of professionalism.

approaches in adopting them are investigated. This is achieved through the grounded, internal, and external evidence in Chapters 5 and 6.

3. Eradication of boundaries

Bell's new concept of knowledge class, based on the primacy of knowledge and knowledge work, has contradictions that have implications for class theory in general, as well as for the labour process. There are theoretical problems inherent in the implied uniformity of the group of intellectual workers, and in the use of knowledge as a single determinant of class. To address the uniformity question, there is irony in the concept of a "new class". While it is meant to eradicate entrenched class boundaries, it ends up being a large undifferentiated "class" which will eventually create new relationships, new boundaries, and new subclasses, particularly in the workplace. Implications for stratification include changes in educational benchmarks and employment opportunities, which are then based on technological expertise (Bell's "new intellectual technology") rather than the disciplinary or professional expertise that is integral to the sociology of the professions.

The characterization of class by a single determinant has more complex implications. In a relational concept of social class, knowledge or skill is only one component, which is not necessarily the primary one. Fundamental class relations theory includes the two components of authority and property, and skill is a recent consideration due to the increasing primacy of knowledge as capital. This is theorized and discussed below

within the contemporary notion of “contradictory class location” for the new middle class, which recognizes skill as constitutive but not exclusive.

Four concerns, with questions, emerge from this view of intellectual work. They concern the intellectual basis of social class, the notion of social class as an independent variable, the variant meanings of the “knowledge” aspect, and the absence of a relational conception of social class. First, if the basis of class were exclusively intellectual, economic factors would be minimized (F. Webster: 1995), and would fail to address important labour process issues for librarians in that sphere. Second, if class were an independent variable, as is suggested in the Bell view, it could not explain process issues or account for relationships of control. In a relational concept of class, it is theorized as a dependent variable, constituted by economic and control factors in the workplace, as well as by skill. (Clement and Myles: 1994; Wright: 1997) Third, there is uncertainty about what is meant by knowledge, information, intellect, and skill, the distinctions among which were highlighted at the beginning of the chapter. The problem does not lie in its definition, rather, its implications for the workplace and its relationship to the labour process. It is an oversimplification to imply that power derives only from intellectual attributes, because it also comes from relations in the workplace, as well as other sites such as the home. (Hearn: 1982; Clement and Myles: 1994)

The fourth theme, the neglect of a relational concept of class in the knowledge class construct, is also embedded in the first three themes. Its absence is particularly conspicuous, because the very concept of labour process is built upon relationships, with knowledge, skill, or expertise a component. Thus, a simple view of the “knowledge

class” is inadequate for understanding the forces affecting the often-contradictory labour situation of professional librarians. This is another reason for the development of the dissertation problem through the input of historically-specific interviews with information workers at the work site. The focus away from a positional knowledge class toward a relational labouring class leads logically to the second general theoretical perspective on labour, Braverman’s critical viewpoint, which accommodates a political economic analysis.

The critical position: The deskilling of post-industrial labour

This section synthesizes the key concepts in Braverman’s pessimistic view of post-industrial labour. It elaborates the work of deskilling theorists and other critical labour process proponents such as Burris, and Aronowitz and DiFazio. (Burris: 1998; Aronowitz and DiFazio: 1994) In this body of work, many aspects are appropriate to knowledge workers in a cultural institution, while others are not. With Canadian academic librarians in mind, labour process concepts have been organized thematically to include five theoretical areas. They are the extension of the deskilling and proletarianization theses, the dynamics of labour power in information-based institutions, the role of rationalization and bureaucracy, the gender factor, and the labour market. They are not mutually exclusive, and interact with new information and communication technologies.

1. Deskilling and proletarianization

According to Braverman, deskilling is the separation of mental and manual work in capitalist production. (Braverman: 1974) It is where work that has become standardized

is assigned to less qualified staff. (Esland and Salaman: 1980) In the post-industrial workplace, new technologies and work formations are resulting in other forms of changes in skilling, such as re-skilling and re-professionalization. (Littler: 1982) Technological change also results in a different division of labour. Labour market segmentation is another outcome. (Whalley: 1984) Deskilling, however, is the most common, because of the combined impacts of technology and rationalization on the organization of work. Its centrality to the labour process in a service economy is evident by the range of ideological successors to Braveman. (For example, see Vallas: 1988; Meiksins: 1994) In relation to academic librarians, their principal theoretical concerns include work assigned to less qualified staff, increase in work of a technical rather than professional nature, job fragmentation, and loss of decision-making power due to administrative decisions or technical innovations. Deskilling is often associated with either specialization or bureaucratization, and in these areas intersects theoretically with Weberian theory of rationalization. While useful in explaining shifts in work experience with which the dissertation is concerned, the deskilling argument needs additional dimensionality to theorize intellectual labour in post-industrial society, for example, a clearer depiction of what constitutes skill in the first place.

Braverman predicted that the deskilling phenomenon would extend up the occupational ladder, from production and clerical work, through the highly skilled work of office administrators and technicians, toward professionals. Derber introduced a more sophisticated analysis for the deskilling of professional labour in his technical and ideological proletarianization argument. (Derber: 1983) Technical proletarianization

refers to loss of control of the means of labour, or process of the work itself, and involves how a job is done. In the library context, this might involve issues in the management of time due to the need to learn about a new technological product. Ideological proletarianization refers to a more major intrusion, the loss of control over the ends of labour, or goals and social purpose of the work, and involves management appropriation of control. In the academic library, this might include outside influences on the purchase of electronic and software systems, or the multiple forces affecting the administration of intellectual property, information access, or privacy rights. Murphy took issue with Derber's technical and ideological, or weak and strong, versions of professional proletarianization. He claimed that professionals were not becoming like workers, since they still held relative degrees of status and rewards. For ideological proletarianization, he substituted the concept of bureaucratization of professionals, with the important phenomena being formal rationalization and social closure. Formal rationalization mechanisms included the legal system, through a credentialling system; bureaucratic organization, through a centralized university system; and the capitalist market, through the transformation and specialization of professional expertise. (Murphy: 1990) In certain areas detailed by Derber and Murphy, librarians have always been proletarianized or bureaucratized. Clearly, the case-specific experience of academic librarians is needed to clarify how this has been so, and, more significantly, how this is changing with technological requirements and international markets. Local information clarifies also whether the work is being deskilled, proletarianized, or re-professionalized.

2. Relational dynamics

In this theoretical perspective, labour process theory is connected with the concept of class as relational. The two most important dynamics, the value of the work and the power held by the workers, are based on class positions at the workplace. In the academic library, we are interested in the extent to which the emphasis in value is shifting from intellectual toward technical contributions. Skill or cognitive base represents an important component of class relations, but it is often in opposition to the power of production forces, even in an intellectual institution. In such an institution, managers, specialists, and support staff are part of various power relationships based on authority and skill. Specific control aspects that are important to professionals include control over the knowledge base or the creative aspects of work, which are functions of professional autonomy. It is important to recognize that the struggle to retain control is increasingly happening outside as well as inside the workplace. That is, the control of work is migrating from the “bosses” within the institution to agencies outside it, where the imperatives of corporate or other institutions dictate the decisions of professionals. In the age of what Sussman calls transnational capitalism, the major power controlling global production is transnational corporations. (Sussman: 1997) Further, the post-industrial labour process is best understood in light of theory on the interaction of new information and communication technologies with external as well as internal control processes. The intensifying power of information technologies is critically discussed in the research of theorists on the political economy of information communication. (For example, Noble: 1995; H. Schiller: 1996; McChesney, Meiksins and Foster: 1998; Sussman and Lent: 1998; D. Schiller: 1999; Mosco and Schiller: 2001)

3. Rationalization and bureaucracy

As Murphy has argued, bureaucracy in the professional workplace is associated with proletarianization and with control factors, although it is more commonly associated with Weberian rationalization, and the “iron cage” of bureaucracy. Visible bureaucratic practices, such as hierarchies and rules, are manifestations of Derber’s weak proletarianization thesis. The controlling aspects of engrained rules, standards, and norms are often associated with structures of power. Ritzer refers to the “velvet cage of McDonaldization” in the post-industrial, post-Fordist, and postmodern society. (Ritzer: 1993) According to Littler and Wardell, bureaucratization includes a range of practices, such as job characteristics, division of labour, and relations outside the organization. A bureaucratic interpretation of workplace control is often rejected by neo-Marxians because of its association with Weberian theory. Yet there is nothing incompatible between the neo-Weberian and neo-Marxian perspectives, as they are complementary, use similar data, and are characterized by the same experiences for the worker. Edwards integrates the two traditions in *Contested Terrain*, (Edwards: 1979) Littler in his labour process work, (Littler: 1982) and Livingstone in his *Recast Dreams*. (Livingstone: 1996) Bureaucratization has always been a factor in professional work within organizations, as shown above in theories of proletarianization and the semi-professions. In fact, in knowledge-based work, the bureaucratic aspects of the labour process intersect with those aspects in theories of professionalism. Informed by those aspects of bureaucracy that are relevant to academic libraries, this dissertation concentrates on the labour process aspects. It questions whether bureaucratic forces merely “support” and reinforce

deskilling, or whether they provide a separate effect, and recognizes the interaction of economic and global forces outside the organization with the relations of ruling inside it.

4. Labour and gender

There is a sociological tradition that addresses the gender factor in the labour process, and a smaller, specialized body of research on gender and professional labour. Theorists such as Witz, and J. Webster address the reproduction of patriarchal relations in the workplace. (Bradley: 1989; Witz: 1992; J. Webster: 1995) In their landmark cross-national study on gender in the labour process, Clement and Myles demonstrate that gender is constitutive of changes in post-industrial labour. Theorists on semi-professions such as nursing, social work, and librarianship suggest that gender compounded by bureaucracy accounts for their low status and power, as was suggested in the Introduction. For the case of academic librarians, the dissertation notes that the profession has been female-intensive for most of the twentieth century, and tests the importance of this gender imbalance with input from workers at the point of production.

5. The labour market

The labour market is an increasingly important constituent of the labour process, in consideration of trends in late capitalism toward the marketing of service work and the commodification of information. The labour market is a force that operates along with the changing nature of jobs, the bureaucratizing nature of the organization, and the internationalization of capital and labour. It is actually a combination of forces acting both within and outside the organization. Internal labour market activities include

promotion, transfer, and merit rewards. External labour market forces include the potential offered by employment agencies, job ads, recruiters, and information from personal web pages and job search sites on the Internet. In addition to these activities, which directly impact the worker, the labour market includes more theoretical aspects such as the economic climate for certain professions, the recruitment appeal of certain professions, and training. The internationalization of the labour market is a phenomenon that has been enabled by communication technologies and the reduction in the power of the state over the labour force. (Castells: 1996) The international labour market not only decentralizes production and services, but also fragments the organization and destroys worker solidarity because of the absence of unions or worker protection legislation.

There are contradictory claims today about the labour market opportunities for professional librarians. Arguments for a weak labour market for librarians are contradicted by claims that the “new breed” kind of librarian is successful in the job market, because s/he has technical skills such as web page creation, electronic instruction techniques, and knowledge management. The national job market for librarians competes with the United States one, and ultimately relates to economic policy and the North American Free Trade Agreement, which allows the cross-border flow of educational labour between Canada, the United States, and Mexico. These factors are also related to the political climate, which eases or constricts the flow of services across national borders. They are also related to the adequacy of the professional knowledge base, organizational downsizing or restructuring, self-promotion on the part of librarians, the dominance of technical over intellectual expertise, and other factors. Within the

social totality, the work may change beyond expectation. The bureaucracy may become too stultifying. The job market may fail professionals. Few labour opportunities may remain for those with information expertise. In the labour process there is normally some form of resistance. Unions for professional workers have certain degrees of leverage for changes in labour process, although their strength and efficacy varies. These factors are covered in Chapters 5 and 6, respectively on internal labour process findings and external forces on labour.

Common threads

Common to many of above labour process aspects is the dominant fact that, in the context of the academic library, or other cultural institutions, control is migrating from inside to outside the institution. In the 1980s, Schiller gave us an early warning about corporate influences on the museum in *Culture, Inc.* Rottenberg discovered, using Habermas' principles of universal public access, that the commodification of information is part of a broader trend to commercialization within museums, undermining their role as public institutions. (Rottenberg: 2001) In the case of relations of production, many stresses between groups within the academic library are due to external pressures, either from library management, university administration, collection development consortia, publishers, or vendors. Challenging the value of expert work is the general trend within the academy to contract out the work and treat expertise as a commodity, as noted earlier by Slaughter and Leslie, Rhoades, Tudiver, and Turk. While personal service contracting at a professional level is not conventionally done in the academic library ²⁷, work such as

²⁷ This is sometimes done for staff development or downsizing projects.

cataloguing is outsourced, and documentation services in electronic indexes and bibliographies on the Internet is provided at no cost from remote web sources. It is often not clear who does the “labour” for the product on the web, though, in the past, publishers and database vendors who market their products to libraries have been to some extent responsive to the input and suggestions of their clients.²⁸ Thus, the increase in control by forces outside the sphere of the worker has become a major labour process issue, which is theoretically informed by the strong proletarianization thesis. The weak proletarianization thesis may also involve some indirect control on everyday decisions and expressions of authority.

The reasons for these shifts need to be examined. They have been attributed to globalization, international competitiveness, or the “pull” of new information technologies, that is, on “progress”. The deeper analysis in the dissertation reveals the operation of commercial forces, often sanctioned or overlooked by the state, which exploit the economic downturn and technological shift to further their capitalistic objectives.

The integrative position: Knowledge work and the labour process

In view of the problem statement of the dissertation, neither the theoretical position on professionalism alone, nor that on the labour process, can fully encompass all theoretical aspects of this specific case study of professional intellectual labour. An integrative perspective is necessary. There are contemporary sociologists and political economists

²⁸ When vendors come to libraries or conferences, they note with interest the suggestions of their potential consumers.

who have critically developed one of the above sets of positions, thoughtfully theorized the best of both, or problematized issues. The dissertation draws from these discerning theorists to locate professional library work between Bell's promises of a new knowledge class, Braverman's admonitions of degradation, and the structures of professionalism. The key contemporary theorists for the development of the argument in this dissertation are Clement and Myles, Mosco, Perrolle, Livingstone, Roma Harris, and Brint.

1. Relations of ruling in the post-industrial workplace

Clement and Myles explain changes in post-industrial society in terms of the labour process and gender. (Clement and Myles: 1995) They expand the perception of the labour-capital relationship by comparatively situating workers cross-nationally, and regionally in Canada, within political regimes. In their analysis of the post-industrial labour process, they note that national policies often trade off high salaries with high employment rates and social benefits of workers. They also employ a methodology that includes interview data along with large-scale survey for large social class groups, such as the old and new middle classes. Relevant to this dissertation, they theorize and research the political economy of the new middle class, such that it can be followed up with the case of academic librarians. What they do not show, because of the general nature of the survey, is how and why it happens for this sub-group of the very large knowledge class. And, as the methodology chapter argues, more finely focussed instruments are necessary to bring out this information.

2. Framework for a political economy of communication

Mosco provides a conception of political economy of communication that provides a theoretical framework integrated with a methodological approach, both of which are viable for the problem in this dissertation. (Mosco: 1996; Mosco: 1998) His disciplinary focus is on communications, wherein the knowledge work of cultural institutions is situated. His approach emphasizes the historical and moral nature of enquiry, the importance of addressing the social totality, and the role of social praxis. In this respect he shares the approaches of early moral theorists such as Adam Smith, and contemporary path-breakers such as Herbert Schiller and Dallas Smythe and his concept of the audience as a commodity delivered to advertisers. (Smythe: 1981; Smythe: 1993) His tripartite conception of social class as categorical, relational, and formational informs the historical location of professional librarians, the extent of their power, and the options for action. His “rethinking and renewal” of a political economy of communication suggest, for critical enquiry in the “information age”, the entry points of the commodification of the labour process, spatialization from technological networks, and structuration in the relationship between librarian and the library.

The concept of commodification is important for the dissertation because it problematizes the commodification of *labour power in information work*, as well as the more commonly recognized commodification of information. The costs of information in the public sphere have steadily increased due to high prices for electronic information and a decline in purchasing power, and generated consternation and reaction by librarians. The commodification of professional expertise by entrepreneurs and technicians, and thus, its

appropriation are less obvious. Spatialization takes note of the asynchronous nature of new information and communication technologies, which allows for the globalization of production, and thus, a geographically dispersed labour market. It also allows for more corporate agencies to control and monopolize the production and the product.

Structuration affords a perspective on class and power structures, and the degree to which social actors, or librarians, and institutions, the library, are mutually constitutive.

Mosco's political economy also allows for the consideration of policy studies and cultural studies. Academic library labour, being part of the academic structure actively involved with the development and use of new information and communication technologies and in danger of losing control of its "means of production", can be analyzed within Mosco's political economic perspective.

3. The future of intellectual work

Perrolle problematizes various aspects of intellectual work in the "information society", and focusses on the proletarianization of professional work. (Perrolle: 1986) Her central argument is that the work, particularly the knowledge base of elite workers such as physicians and lawyers, is being de-professionalized. She combines theories derived from Marx, Weber, cognitive scientists, and postmodernists to explain this. The proletarianization of professional work, or "intellectual assembly lines", is partly due to bureaucratization and rationalization, a phenomenon described as early as 1979 by Edwards to understand forms of control in the workplace. She projects this loss of workplace control into the "information age", and suggests that the knowledge bases of professional practitioners are being appropriated with the assistance of electronic

digitization, reproduction, and distribution techniques not available in the past, such as “expert systems” on CD-ROM. Her comments are prescient, because her information technologies of the 1980s have been surpassed in the 1990s and the Millennium by the multitudinous information sources on the Internet, and the concept of information repository has matured to a network of information sources. More important, however, she identifies the migration of expertise from the professional to the machine, where it can be managed by a non-professional, accessed by a lay person, and produced by a Philistine [my term]. Further, she suggests that, with the loss of traditional measures of social class among professionals, such as expertise, symbolic measures will predominate, as is claimed in postmodern social theory.

By introducing many provocative ideas from a wide range of theoretical traditions, Perrolle was suggesting that the “intellectual assembly lines” phenomenon was complex and could not be summarized by a single theoretical position or solution. She does follow up one of her threads, in a case study on the use of information technology in engineering, which suggests that technology facilitates the deskilling of that work by enabling professional work to be done by paraprofessionals. (Perrolle: 1991) While she credits management with having the “push” to promote information technologies in the workplace, she also accords much “pull” to the capabilities of these technologies, and thus deflects her analysis somewhat from the social.²⁹

²⁹ She was first trained as an engineer in MIT before receiving her doctorate in sociology.

4. Theorizing a case study of labour experiences

Livingstone's study on class change in an Ontario town dominated by a large steel industry is exemplary for my project for many reasons. (Livingstone: 1996) First, it interrogates the theoretical literature dealing with social class from a labour perspective, and demonstrates that it is possible to ground a study without rigid allegiance to either the historical materialism of Marx or the economic stratification of Weber. Livingstone shows that it is possible to apply the best from each, because the data that are analyzed in respect to class analysis are similar. Likewise, this dissertation does is not caught between polarities, in this case, between an extension of the simple deskilling of productive labour and an extension of rationalizing bureaucracy, but is informed by insights from both, without compromising theory. In fact, as Livingstone and others show, it uses various manifestations of class theory productively for a new form of work in a changed means of production, in this case, knowledge work strongly mediated by new information and communication technologies.

Second, Livingstone's study considers gender in his analysis. In that respect it is consistent with the gendered theorizing of social class of Clement and Myles.

Livingstone deals primarily with the working class while Clement and Myles concentrate on the service classes. Third, Livingstone employs qualitative methodology along with macro-level economic statistics to analyze changes in social class related to changes in the industrial economy. He also builds on qualitative information, which will be followed up in Chapter 4. He thus integrates theory with methodology in a way that gives a fresh and in-depth insight. He takes historically specific information to derive

“universal” relevance, and provides, in some aspects, a model of what this dissertation will accomplish for a small segment of the growing group of knowledge workers.

5. Professional labour and gender

As noted in the Introduction, it has been claimed that women have been most eligible for service-oriented professions. This has been evident in libraries throughout the twentieth century in the ‘housekeeping’ facets of the job, particularly acquisitions and cataloguing, and the “responsive” aspects of reference services.³⁰ It has also been claimed that women are suited to the emotion work attached to recent configurations of reference services with students with deficient backgrounds, returning dropouts, mature students, students not proficient in English, and outside users from high schools and the community at large.³¹ The labour experiences and treatment of women in libraries are complex, and characteristic of other female-intensive professions and working women. (Armstrong and Armstrong: 1978) Women are easier to cut back, under-employ, hold back from promotion, and deskill. At the same time it has been documented that many women do not want full-time work or heavy responsibilities, due to family pressures or socialization to be supportive. (Simpson and Simpson: 1969; Duffy and Pupo: 1992; Duffy, Mandell, and Pupo: 1989; Epstein: 1999)

³⁰ Kerslake and Liladhar provide an interesting expansion on the feminization of library work in the United Kingdom, in terms of discourses in career novels, such as *A Library Life for Deborah* (1957) and *Molly Qualifies as a Librarian* (1958). While the context was chiefly public libraries, most of the work non-professional, and the literary level junior, the novels reinforce the stereotypical characteristics of domesticity, willingness to serve, orderliness, and “‘regulated’ sexuality” of librarians, and suggest that masculinization of the more senior levels was taking place. (Kerslake and Liladhar: 1999)

³¹ The sociological origins and dynamics of emotion work detailed by Hochschild are useful background for this aspect of library reference work. (Hochschild: 1989)

Specific to libraries, Harris, whose academic credentials include social psychology, information studies, and university academic administration, argues that women have long felt “second-rate” due to the above reasons. (Harris: 1992) She considers a trait analysis for examining women in academic libraries. She discovers the increasing marginalization of librarianship is due to the fact that it is a women’s profession. Moving to a feminist standpoint, she encourages women to acknowledge the female nature of their work and retain aspects of the work that are uniquely their own, rather than aim for equality under terms set by the patriarchy. Harris is the first after Goode to address academic librarianship seriously, and she explores several theoretical venues through a feminist lens. Her treatment of the labour process is limited. The dissertation follows up her references to the retention of control of the knowledge base, work within a bureaucratic organization, and new forms of library work in a labour process context.

6. The market for expert labour

Many theorists of the professions have commented on the competing interests of altruism and the commercial motive, as capital grows in predominance over labour. Most academic librarianship is done in an institutional structure, where profit is contrary to the service ethic. However, work within that institution is now being fragmented into modules and given a price, where before it was part of the overall budget. Cataloguing is being outsourced, enhanced reference service is fee-based, some interlibrary loans now have associated costs, and, most importantly, electronic sources and systems are more expensive than print. The service components may add up to a new market-oriented situation for the profession as a whole. Larson was the first to recognize market

monopolies so forcefully. Having done an historical study of the medical profession and situating it in sociological traditions, Larson claimed that the physicians gained true power only when their expertise was recognized in the marketplace. This orientation was pursued by Brint, who associated it with the political and cultural orientations of professional practitioners.

Brint was specifically interested in differences *within* the professional stratum, and found that an orientation to the market was a key distinguishing characteristic, in addition to the commonly accepted characteristic of intellectual background. (Brint: 1994) He found a relationship between the economic orientation and political attitudes of expert workers ³², such as the importance of profit or confidence in the corporation. By minimizing the “new class” basis of professionalism, which is derived from the possession of knowledge and intellectual capital, he preferred to recognize the political and cultural differences within the professional stratum. He thus moved beyond the functional and power-based theories of professionalism to incorporate the role of expert labour in the market. His conclusion was that professionals are presently in the stage of becoming market-driven. He also demonstrated the professionals have a reciprocal impact on policy, due to their credibility or power. Brint located librarianship among the less prestigious female-dominated “helping” professions, but promised a more “assertive” stance for the profession if it “took advantage of its strategic location in the ‘information economy’”. The value of Brint’s work was to provide the background of a market-based view of

³² For Brint, expert status includes those with a bachelor’s degree and higher.

professional labour, and synoptically situate his perception of librarianship within it.

While he suggested that the profession might be enhanced by expertise with the technological systems of information, and neglected its cultural function, he gave vision to a situation in which information professionals are engaged.

The impact of market forces for academic librarians lies at various levels. It is evident in the development and sale of commercial electronic information products by vendors.³³ Its impact is evident in the packaging of librarians' knowledge in an electronic "expert system"; in contracting out work to vendors; and in relying on other information resources. There are two concerns for professional labour about the commercialization of information products and services. First, the librarian will be thought to be obsolete, and any shortcomings of electronic alternatives are minimized due to the motive to save staff costs. Second, the substitute systems are often designed by people with technical rather than intellectual skills, while those with higher-level expertise are being subordinated to the limitations of the system. This is another manifestation of bureaucratic rationalization and incarceration in the iron cage.

Theorizing the Professional Labour Process

The literature traditions and their interrelationships have been detailed above, and provide a suitable theoretical framework for professional library labour issues. Librarians provide a good case for in-depth research, because they are a classic information or *knowledge-*

³³ Vendors are often librarians who move to companies for a career change after gaining valuable experience in institutions in the public sphere.

based profession, and *historically* reliant on new information and communication *technologies*. They are thus prototypical. All professions are *vulnerable* to deskilling, re-professionalization or change. Post-productive labour and professional knowledge work are difficult to reduce to theoretical models meant for productive labour in a structuralist environment. Today, the labour environment is still structured, or bureaucratic, but, contradictorily, has more complex networks that defy structure along with the strong forces of corporate control that reinforce it. The dissertation thus becomes involved in social incompatibilities involving the continuity of a structured labouring environment and the disjunctions of a widely decentralized, anarchic electronic communications environment. The decentralization of communications suggests a greater range of resources for library workers and their university clientele. Yet, as Sussman has indicated, where there is technology there is embedded politics, for example, in the funding of the physical and educational infrastructure, and in the struggles of control between corporate interests and governments over policies on technological development. (Sussman: 1997) Therefore issues of universal access to information and technologies of freedom must be viewed in the context of government and the marketplace, as well as a reserve of information resources and systems.

What is happening to librarians might eventually happen to other professions. The reasons include bureaucratization, the relaxation of state regulation or increase in state control, the growth in worker involvement in the interest of “democratization”, an increase in corporate control, its female intensive nature, or a shift in gender balance. Librarians are also at the intersection of cultural and technological orientation, and their

struggle represents a larger tension within cultural professions such as education and industries such as publishing. The intersection of the theories of professionalization and the labour process provides a conceptual setting for the situation certain finite problems:

1. shifting skills in the organization, storage, management, and dissemination of information. This introduces questions of expertise factors and professional status, by problematizing the question of expertise, and pursuing whether the diffusion of new information and communications technologies, and the emphasis of skills in dealing with them, are cases of professionalism or re-professionalization. Do “hybrid” professions fit the classic sociological characteristics? Is the profession still intellectual or cultural?
2. relationships within and outside the institution. This introduces labour process factors such as commodification and control. Emergent questions are the extent to which information technology and globalization affect these processes, and changes to the relationship between labour and capital.
3. collective status as an information-based profession or “industry” within the cultural industries. When professional library workers have a collective identity and some association in political spheres, such as policy-making or funding arenas, they have greater collective clout.
4. work with technologically-based information as both product and means of production. This introduces issues of whether the electronic and expansive nature of

information represents a social disjunction, and, if so, in what way. How does the analysis of this information profession help understand the information society?

The following chapter develops the central labour issues of a historically-specific case through grounded theory. The input from librarians is necessary, because they are the only ones with sufficient information about the process in which they work. The departure points are the nature of skill and authority that characterize professional library work, the value accorded to the work, and the degree of power held by the librarians at the point of production.

Chapter 3: Observations and their Development

This chapter advances the theoretical discussion and literature review on the intersection of professionalism and the labour process in the previous chapter, and makes them specific to the case of Canadian academic librarians. It develops the problem through grounded theory and refines the hypothesis. The methodological aspects of this process are expanded in Chapter 4.

Rationale

The grounded information from the librarians, conventionally viewed as data, is presented in this chapter for two reasons, to further refine the research problem and to provide direction for the methodology. To elaborate the first organizational objective, the research problem related to the labour process of academic librarians in the “information society” was provided in the Introduction and given theoretical background in the preceding chapter in the context of a literature review. There still, however, remained areas that were undefined for research on librarians, such as the role of the state, certification, self-regulation, unions, and gender, which play an important role in many other professions and semi-professions. Because of its commitment to an analysis at the point of production, the dissertation relies on the inclusion of grounded information from the workers themselves. To elaborate the second presentational objective, the dissertation methodology is contingent on the refined problem development, and detailed in Chapter 4.

This chapter develops the problem through the presentation of ethnographic workplace information derived from observations and particularly interviews, which are captured in print and on tape. The raw information is categorized and presented at the beginning of this chapter, in terms of issues facing libraries. It is re-categorized according to labour process themes, which are subsequently problematized. Since many problem aspects also constitute data, the qualitative data are recapitulated and expanded in Chapter 5.

In its analysis of the labour process of academic librarians, the dissertation concentrates on how the labour situation of a specific group of professional knowledge workers embodies social changes characteristic of late capitalist society. The changes converge on three central themes. First, the nature of this labour change in the professional library environment is varied and uncertain, and workers are still in the process of making sense of it. Second, while the commodification of information has been experienced over the past decade, the commodification of the labour process is also happening, but has not been as widely recognized, nor has its political and economic significance. Third, following from the notion of commodification of the labour process, the *control* of labour and workers is shifting to forces *outside* the cultural institution, which is again a phenomenon that contributes to a political economic perspective on intellectual labour in a cultural institution. These social continuities and changes in the work of academic librarians can thus best be interpreted in an analysis that considers its sociological, economic, political, and cultural contexts within a historical framework. The site of research is the university library in Canada. Through the voices and observations of its professional workers, specific problems are developed in this chapter.

Problem Definition: Librarians' Experiences and Voices

The dissertation derives the problem in context from the lived experience of Canadian academic librarians through two qualitative research techniques: my preliminary observations in a single university library workplace over two years, while working there, and my in-depth interviews with the librarians themselves. I have twenty-five years' experience as an academic librarian at Carleton University, and a network of professional acquaintances and contacts across Canada who provided a "reserve" of resources. I interview 20 librarians from three provinces, and follow a sampling strategy that is informed by grounded theory methodology, beginning at a certain locale and moving to new libraries or categories of interviewees when the issues began to be repeated, or saturate. The interviews begin with an open-ended question about factors that foster or inhibit change in academic libraries today, move to related topics, and cover labour, with my discreet probing if necessary. This methodology is detailed in Chapter 4.

The observation and interview strategies set the research agenda by eliciting professional concerns specific to academic librarians, within the critical framework of the political economy of the labour process and of cultural professions. These two techniques for problem definition are complementary. The unobtrusive observations set the scene without participant involvement or conscious agenda-setting. They suggest tentative problem categories as a basis for the interviews in the next phase. The interviews enrich the observation insights by redefining or changing emphasis on the tentative categories. Based on an open-ended question and expanded by a set of probing questions directed at the labour process, they allow the participants to speak for themselves. My observations

provide a sense of the workplace. The semi-structured interviews convey both heart-felt and reasoned issues that helped refine the problem and suggest labour questions.

In addition to problem definition the observations and particularly the interviews provide an important contribution to the dissertation by articulating changes in information work practices in the 1980s and 1990s from a grounded perspective that cannot be obtained through existing secondary sources. When analyzed, they also formulate labour process issues that are central to the dissertation.

Preliminary observation data

My observations of workplace environments, individual behaviours, and social interactions are grouped into three categories that suggest areas of preoccupation or tension for professionals: (1) the relationship between librarians and para-professional staff; (2) the reduction or redirection of staff; and (3) an engagement with the transformative “forces of production” in the information resources with which they work.

1. Professional staff relations

The professional-paraprofessional relationship has had a long-standing and sometimes fractious history in libraries. It varies with structures of authority and stratification patterns in these libraries, and with the militancy of the occupational groups involved. For the labour process researcher, the real or perceived inequities causing the observed tensions are more than conflict resolution challenges for managers, or descriptive examples for writers with an activist agenda. They are outcomes of the division of labour

between professional and paraprofessional staff in Canadian academic libraries, and can be interpreted in historical and comparative perspective. They reflect professional alienation, impediments to mobility ³⁴, occupational closure, and the permeability of job boundaries, all of which have theoretical contexts that were presented in Chapter 2.

Professional expertise and skills, an important source of their identity and power, are interrogated and contested. Specialist is pitted against generalist or manager, scholarship against technical wizardry, and re-professionalization against proletarianization.

McFarlane had unexpected findings his study of professional engineers. The more “professional” they were, the more likely they were prepared to do technical or lesser work without considering it “beneath them”. The less “professional” they were, the more likely they were to be annoyed with having to do the work of “others”. (McFarlane: 1961) Thus the professional-paraprofessional relationship embodies many sociological issues: the constitution of structural factors, the pervasiveness of class conflict, and the workings of labour process phenomena such as alienation and the labour market.

2. Staff reduction

The second preliminary issue revealed through the observations is staff rationalization. Judging from their appearance of being very busy or frustrated, library staff reveal that they were often expected to “do more with less”. This affects the professional sphere, where highly qualified personnel frequently have to absorb clerical or technical work into their regular workload due to the reduction of clerical staff and the popular management trend of flattening the organization. In addition to their own work, they may have to do

³⁴ In the last quarter century, librarians have had to face increasing lack of upward mobility, along with flattening of organizations, and failure to recognize the contribution of specialists in preference to managers.

that of someone who has left. In the deployment of their time, professional staff, in particular, appear to be polarized between performing knowledge-based information service and familiarizing themselves with technology-driven aspects of the Internet and other electronic products such various e-mail venues. This reinforces the tension noted in the above discussion of the professional-paraprofessional relationship. For the forthcoming investigation, the overload of work suggests the problematic areas of loss of specialization, diminution of authority, and changes to the nature of professional expertise, all of which have theoretical foundations in professionalism and labour.

3. Expanding knowledge base

The third observed issue concerns the changing professional knowledge base, which is associated with the contemporary “information explosion”. With a greater number of formats for a wider range of academic information needs, this change in the means of production adds complexity to the professional challenges of organizing, culling, managing, and communicating information. Since this “expanding information universe” also makes it impossible to keep current, many staff feel inadequate unless they have a command of their knowledge base, especially since they have been socialized through their education to be the experts. Consistent with the second observational category, most of this “knowledge” upgrading appears to be in the direction of familiarity with technologies and information systems rather than more extensive disciplinary, bibliographic, or analytical knowledge.

Changes in the conventional knowledge base are felt more acutely when major decisions about the organization and retrieval of information are made by agents external to the institution or the profession, such as commercially based designers of databases, or well-intentioned but inexperienced technicians.³⁵ For librarians, the consequence is loss of control of the knowledge base. This loss of control is intensified when the standardization and rationalization of electronic documentation systems, traditionally functions of information professionals, are implicitly controlled by major software developers or publishers. This signals to the critical analyst that a larger force is controlling information production, as suggested by Ritzer and by Sussman in the previous chapter, and that this system of control in the academic library environment needs to be uncovered. Thus, the stability of the professional knowledge base in a transformative environment characterized by an electronic means of production interrogates not only job skill characteristics, but also authority. This third category again embodies both professionalism and the labour process.

Summary of preliminary observation data

From the preliminary participant observation data, I infer that the labour environment of academic librarians is markedly predominantly by rapid changes, or transformations.³⁶

On a superficial level, these changes are evidenced by an apparent decrease in professional entitlements, such as opportunities for mobility within the institution. On a

³⁵ In the manufacturing environment, Alic discovered that, "despite the veneer of employee involvement, the design of work remains firmly in the hands of technical experts, who report to management," and "with the computer-based logic of newer production technologies more difficult to grasp for both shopfloor employees and management, the dominance of technical experts can only increase." (Alic: 1990: 316)

³⁶ The term "transformation" has many meanings, depending on its economic, social, cultural, or simple technological context, as will be clarified as the dissertation develops.

more problematic level, the changes suggest uncertainties for librarians about skill and about authority. Uncertainties about expertise and knowledge base are perceived to be due to the new technological innovations associated with rapidly expanding information resources and the requisite techniques for organizing and retrieving them. Uncertainties about loss of control appear to be over decisions in their work, and generated by forces within and outside the library. From my perspective, professional staff do not appear completely attuned to relations of ruling in the workplace. Proactive behaviour, in the form of striving for finite recognition or control, may be more characteristic of library support staff, who associate new work responsibilities and changes with objective measures such as credit in a job description or rewards through salary.

In addition to uncertainties, this “transformative” environment is characterized by inconsistencies, such as conflicting claims about positive and negative consequences of an automated information environment. Another inconsistency reflected through the observations is whether information technology enables professional library staff to value their work better, or provides a reason for management or support staff to devalue the contributions of librarians in favour of those of other classes of workers. The opposition of professional job enhancement and job proletarianization is an area of contestation in the professional labour process, and is problematized and investigated in the dissertation. The participants’ focus on technology as the “driving force” points to the commodification of electronic information products. More important and less obviously, it suggests a commodification of the labour process that is part of a similar process. All three observed categories, the issue of skilling, the diminution of resources,

and the transformative effects of new information and communication technologies, thus contribute to the problem development in the three central themes mentioned at the beginning of the chapter. These preliminary insights support the first theme of the inconsistencies of change, and the second of the commodification of the labour process, and imply a link between change and the labour process. They also point to the third theme, the origin of changes in control in forces outside the institution. The next phase enlarges these preliminary insights.

Interview data: “Librarians talking to librarians”

The core of my grounded research and problem development is the in-depth interviews. They are designed to elaborate the above observations, correct false leads, elicit additional ideas, and guard against the researcher reactivity that is inevitable when I am both the researcher and also a librarian and a colleague of those observed. In these twenty semi-structured interviews, my observations in a single labour environment are enriched by the articulation of the professional working experiences of classically-trained librarians with an average of twenty years' experience, including the management insights of one chief librarian. Two exceptions are recent information studies graduates.

The interviewees address the factors that foster or inhibit change in the way libraries work, in answer to an open-ended question to that effect. The response rate of 100% affirm their need to be heard, as well as their wish to be cooperative. This was especially encouraging since they had no preparation time and were given an open-ended

question.³⁷ There is unexpected congruence in most of their responses. Out of twelve categories, three general themes emerge: economic or structural factors impinging upon academic libraries, factors associated with information technology, and a collection of social factors external to the institution. The first two of these three interview themes are the same as those from my preliminary observations.

1. Economic or structural factors within the library

Economic stringency and other constraints on library operations are identified most frequently as inhibitors of progressive change for librarians, or reasons for altering library work in negative ways. The short answer for many respondents was, “Money!” Connected with fiscal concerns were personnel-related issues such as excessive workload, staff shortage, and inability to hire. Staff in particularly short supply are systems personnel, who design information systems, improve commercial systems, and train staff to maximize them. Related to staff funding shortage is the lack of general economic and budgetary resources for books, electronic information materials, and improvements to the building. The perceived support for information technologies does vary among the universities. A representative of a well-endowed university provided this perspective:

“Money is a two-edged sword. More money has been spent in the central system on information technology and the IT Department, and siphoning people off other departments, and is growing. We are not downsizing. The [public computer databank area] has 52 new, free computers on top of

³⁷ In arranging the interviews I gave the respondents a general sense of the topic.

82, funded by public money and donor money. It is easier to get outlets than lighting improvement! There is a great commitment by this university. If it's technology, it's OK. If you say the thing is technology-related, you can get it...Money is not being spent on staff."

Another structural aspect often inhibiting change or needing to change is library management style, which is regarded as entrenched and outmoded. Some call this inhibiting force as "the institution", and are forthright about its shortcomings. A section head reflects:

"The structures of [my university] work against the meaningful participation of librarians in critical decision-making [related to the budget]. This university has an extremely hierarchical and old-fashioned idea of management....It would be better if there were consultation, or committee representation. I have been on so many committees, but even committees have become isolated from other librarians. There is almost non-existent communication!"

A former chief of a small library asserts:

"The institutional will to change and existing structures [e.g. entrenched position categorizations] have inhibited our ability to see those innovations through the translation of that will throughout the organization, so that each can see outside the box. Translate these through the rules and regulations of bureaucracy, which has been my experience. Having been there, I'm quite happy not to do it anymore."

The management of contemporary academic libraries also involves so many decisions and overlapping considerations. A senior manager recognizes that:

"Even managers and university librarians cannot make decisions without looking at overlapping areas: technical needs, service considerations, economic realities, political issues...leaving no right choice for library managers."

Another dimension of these structural constraints involves interlibrary relationships such as joint ventures, consortia, and documentation standards, and the compromises that are

required to enjoy their collective benefits. Thus, this comprehensive theme of economic and structural constraint reinforces and rounds out the observations on staff tension and staff shortages in the preliminary phase of the research. Underlying the issues related to staff shortage, institutional inadequacies, and fiscal limitations is the divisive effect of information technology and its effect upon staff. This is the second major controversial area found through the interviews.

2. Technological Revolution

New computer and telecommunications technologies and their diffusion to staff and patrons are regularly identified as the most evident change in this collection of issues.

This category is not as differentiated as the first. The most dominant aspect of technological change is the speed and pervasiveness of that change, especially the growth of Internet-based information resources. A librarian who works with technology summarizes the situation:

“Every time you slow down or get out of the stream, technology keeps moving; it just doesn’t stop....Developers and programmers cannot maintain the pace and are replaced. The human element that makes it fast is constantly regenerated. It is hard enough to stay on top of one thing, let alone everything, and how they interrelate. One can’t keep up for a long period of time.”

A danger of this, warns another, is:

“We have become infatuated with technology and process rather than content...We do clerical work, both in the traditional sense, and now with technology. We’re pretty expensive help.”

A second aspect is the continuous learning curve for mastering these technologies, against limitations of time and the availability of mentors or teachers. A reference and instructional librarian articulates this for many:

“I have been close to tears if help with technology was not available. We should not be embarrassed, or made to feel stupid.”

In an environment restricted by lack of institutional support, self-taught or self-motivated staff are considered to be the most successful, because they transcend the ignorance gap, “ramp up mid-career”, and are dependent on no one. One solution is having the right attitude:

“I don’t get worried about it any more. If you miss a couple of generations [i.e. two months], you can get back in.”

Related to the revolutionary and unfamiliar aspects of new information technologies is the third aspect of technological change, its association with age. “Age” actually implies recency of training, which usually refers to librarians in their late twenties or early thirties. Respondents normally believe that recent information studies graduates arrive to the job with high computer literacy, or, at the very least, comfort with an electronic information environment and willingness to do things differently. This perception is captured in the contribution of a middle-aged male respondent, who admits:

“My colleagues who are no longer young lack energy, dynamism, and ability to find new solutions.”

A younger counterpart cynically admits:

“It’s technology that gets everyone in....It’s locked solid. You’re not getting in there till the forthcoming wave of retirements....[New librarians are] refreshed, recently trained, have enthusiasm for the profession, and are closer to the student population. “

The question is whether the references are mostly to attitude or to concrete skill deficiencies, and to what extent these are attributable to labour process phenomena.

The implications of technological change upon work thus then to centre on changes in skill requirements, the need for additional training, and feelings of insecurity in an expansive and electronically mediated information universe. These are all related to the cognitive dimension of professionalism, as well indeed of other classes of work.

Expertise or skill is also an aspect of the labour process. This re-introduces the question of the deskilling and re-skilling of professional library work, and the projection of Braverman's basic deskilling debate to knowledge work, a female workforce, new information technologies, and a global economy. If technologies are mere tools, their increase in value over intellectual capital represents a degradation of professional intellectual work. This would support the views of some respondents that historically the profession has been burdened with too much clerical work, with the trenchant utterance, "We have exchanged one form of clerical work for another!"

Taking a more optimistic interpretation, information technologies represent an important layer of skills added to the complex mix of capabilities that characterizes the contemporary "super librarian". Contemporary information professionals possess more than credentials at the master's level in information studies. They also bring knowledge of at least one academic discipline at the honours or masters level, foreign languages, and research methodology, plus ability in communications, interpersonal relations, teaching at various levels, and staff training. Some librarians believe that many of the negative impacts of technology in the workplace may be temporary roadblocks during a

transitional phase, and will be removed by the next “generation” of librarian hirings.³⁸

This may be true, but there are more critical interpretations of this argument. From another perspective, there is a danger of “myth-making” about the new, omnipotent breed of librarian, with consequences for devaluing the work of long-term professionals in various ways or re-staffing to suit different management interests. Also, the “extinction” of librarians who possess a sense of history and literacy may provide negative input to re-engineering. Where labour is concerned, the stakes involve more than technology. By focussing on the skill dimension of professionalism, respondents lose sight of another important dimension, that of authority or power. At this stage it appears that changes in authority relationships bring the potential consequences of loss of control of one’s work, and diminution of its value in favour of the centrality of technology.

When interpreted in a labour context, the interview responses in this category show that technology is more than wizardry, and is associated with both staff expertise and with relations of authority in the workplace. In addition to being integral to labour process, these expertise and authority factors point to the third area mentioned by librarians, the social climate.

³⁸ There will be more hirings when the present “bulge” of librarians retires, as noted at the Millennium. (Chapter 6)

3. Social factors outside the institution

According to interviewee responses, the third thematic area affecting change in academic libraries is actually a collection of factors associated with “societal change” or “the social structure”. These include outside forces such as the economy, and the more specific influences of various groups that impact on the work of librarians. Unlike the first interview category, which includes internal fiscal strictures, this involves the general economic, social, and political climate of late capitalist society. An example might be the increasing availability of distance education, which has impacts for funding, resources, and staffing. In contrast with the other two categories, there is no strong agreement about specifics for this one, which provides interesting areas of contestation that invite further analysis. In the area of major social forces affecting or inhibiting change in libraries, respondents use neither specific concepts nor contextual situations. They refer to phenomena such as a “climate of change”, “different landscape”, or “constancy of change” to represent progressive forces, in contrast with inhibiting forces such as “entrenched boomers” or “neo-conservative economy”.

On the organizational level, library work is strongly oriented to library clients and other actors in the university setting. There is no single conception of student clients, though they are generally perceived as having high expectations for speed and immediacy. Many librarians feel that they must sustain the media-saturated environment to which the students are accustomed, or provide such an environment for those from economically or socially deprived backgrounds. There is concern for the polarization of student literacy in terms of “information-rich” or “information-poor”, suggesting that there are larger social

class issues connected with literacy in an educational context. As other important constituents in the university, faculty and unions have an impact on librarians, but interviewees make too few comments for generalization. It is clear, however, from the few existing remarks, that faculty, like librarians, may be characterized as “enthusiastic” or “entrenched” about the dynamics of contemporary libraries, and thus capable of supporting or retarding library development in times of transition.³⁹ In truth, faculty are not perceived to understand what a professional librarian really does, from either a negative or positive viewpoint:

“Few have seen us in our professional role, for example, instructing a classroom of students in bibliographic research skills. Those who have not seen us in our professional role would not suspect that this is our role. They think we’re there to help students to find books.”

or,

“Those who do come to us are impressed, especially with electronic technology. For a library seminar for his class, one professor requested, ‘I want you to do what you do...I want you to dazzle with all that computer stuff.’”

The effectiveness of unions depends on their composition, as librarians are normally a minority within a larger group. The presence of faculty or support staff as the majority group in the library makes a great difference to the advancement or minimization of professional causes.

Conspicuously absent is mention of the gender imbalance among librarians, so I probe the topic in later interviews, particularly with the men. One male responded, “Oh, you’re

³⁹ These are *not necessarily* mutually exclusive.

going there!” This suggested he either did not expect it or thought it was irrelevant to the discussion. While it is conventionally assumed that library managers are more frequently male, male respondents refer to working for female bosses or normally finding it congenial to work alongside women. Young men normally feel that gender is not an issue, but view women as strong or compatible associates:

“It doesn’t bother me at all. I have no objections working with women. I have no objections working *for* women in positions of authority. I have worked in all-male environments before, and would choose women. A whole different dynamic. Best with a mix.”

One middle-aged male, a competent and accomplished librarian with no reason to be cowed, felt that the women in his library and his union were as formidable as any male! Both genders view that males are more inclined to enjoy working with technology. In francophone institutions in Quebec, respondents noted that there is a balance of males and females in the workplace, and less polarization of the sexes. In all my interviews, however, there is marked silence on any stated relationship between gender and power.

The articulated information shows that the gender factor provides little conclusive input on the question of change in the labouring environment, from the workers from my sample. The females do not introduce it as an inhibitor or a facilitator of change. The males downplay it, indicate they are not uncomfortable with their minority status at the working level, or do not own that men are more likely to rise to management.⁴⁰ This contradicts the popular perception that men are a dominant minority. (Smart: 1975)

⁴⁰ Survey information on the gender of academic library managers is not easily available, but it is estimated that, among the university librarians of CARL libraries, from one half to two thirds are male.

Thus, while the gendering of the labour process is normally integral to a political economic analysis, the defining subjects do not acknowledge the issue. It is therefore not problematized in the dissertation, though gender balance is noted where the data are available.

Under the rubric of social factors, this third category of interview responses signals that librarians possess a general sensitivity to societal change, along with cultural dynamics, the modification of library services, and the interplay of library clients. Interacting with these changing forces, whether stated or implied by respondents, are telecommunications technologies and gender. These social forces are related to the above two categories and help constitute them.

Summary of interview data from the librarians' perspective

The in-depth interviews show that librarians have strong opinions about the present and future state of their work. Their willingness to share their insights was confirmed by the energetic and articulate expression of their views. The three themes summarized above, economic/structural constraints within the institution, the technological revolution, and major social forces impinging on the institution, are a synthesis of the lived experiences of academic librarians, and provide useful input to the dissertation problem on the professional labour process. These three themes are complementary, and provide early insights. First, is the perception that most structural constraints are economic in nature, and equally affect the individual worker, the institution, and interlibrary and other external relationships. Second, is the problematic nature of professional skill in a

changing environment characterized by technologically mediated information resources, and a possible connection between skill and relations of authority. Third, is the degree to which apparent cultural changes, such as omnipresent technologies, increased speed, and shifting time, that are popularly perceived as “lifestyle” disjunctions are actually social continuities when analyzed within a relational paradigm. However, to be used in a labour process analysis within a political economic framework, these insights must be transformed to labour process phenomena.

Interview Data: Labour Process Interpretation

As their personal views and experiences show in the consolidation above, academic librarians have deeply-held views about the importance of their own professionalism and its challenges. They place an overwhelming emphasis on skill sets, and provide examples such as keeping abreast of increasingly sophisticated technologies, responding to a greater diversification of patron needs, and juggling the many facets of an expanding knowledge base. While commitment to service is a dominant preoccupation in both public service and technical service arenas, there is no expressed clarity about what constituted professional expertise within changing means of production. Nor do they articulate how they might claim the *value of their expertise* for patrons and other staff. Further, the interviews do not reflect much sensitivity or concern about the degree to which librarians *control* their work, although control of time is mentioned as an increasingly common problem. In spite of their comments on the structural and social factors that enable and inhibit change in academic libraries, their contributions need to be

assessed in terms of the *social relations of the situation*. Otherwise, in the words of one perceptive interviewee, “We are librarians talking to librarians!”

The emergent grounded categories in the qualitative phase of the research can be located within the theoretical positions in the previous chapter. The categories related to professional labour in libraries are consistent with the Clement and Myles framework for analysis of the relations of ruling in the post-industrial workplace. (Clement and Myles: 1994) In their cross-national study of post-industrial work, Clement and Myles used *job skill* and *degree of control* as the prime aggregate dimensions in their operationalization of class. These categories also conform to two of Wright’s three dimensions of the knowledge class, those of skill and authority, as property is not relevant to workers in this labour setting. (Wright: 1997) The power of expertise also fits to a certain degree into neo-Weberian analyses of professional work, for example, status-based theories of credentialling and exclusionary theories of closure. As noted in the discussion on theory, Weber is important to professional information work not only for his coverage of occupational closure, but also for his articulation of the theoretical foundation of bureaucracy, which is enhanced by the diffusion in organizations of technology such as highly structured electronic documentation systems. The concept of bureaucracy is also important to the more abstract phenomenon of workplace control, as seen in the writings of Edwards and Littler. These grounded categories ultimately connect to an analysis of the degree to which librarians lack autonomy in their work. They support the theoretical foundations of this dissertation in the intersection of professionalism and the labour process.

In view of the wide dimensionality of job skills covered in the interviews with librarians and earlier observations about skill and power relations at the point of production, I reorganize the library-based categories into areas of skill and authority, to provide a better understanding of social relations in the workplace.

Skill

The interview data reflect librarians' concern with many dimensions of the skill or expertise aspect of the professional labour process: knowledge base, complexity, service ethic, esteem, rewards structure, and professional activities. These constitute a "basket" of services used by librarians in the exercise of their labour power, and thus are integral to a labour process analysis.

1. Complexity

As indicated in the majority of the interviews, professional library work is complex and varied. Contrary to expectation, concern with complexity of the unique nature of their knowledge base was implied rather than articulated. Job complexity necessitates a wide range of expertise that includes theory and practice in information studies, disciplinary knowledge, and command of electronic resources. This basic component is complemented by knowledge of at least two languages, communication skills, teamwork abilities, administration, and marketing. It requires a breadth of perspective, critical approach to information quality, and quick judgment. A management librarian summarizes the suite of skills and expectations this way:

"There is a movement toward generalists across functions. However unrealistic, a specialization in subjects and languages is needed. We also

want management skills, communications and interpersonal skills, teamwork capabilities. Now everything overlaps. Black and white is very minimal, and there is a whole lot of grey.”

In the view of many students and faculty, it is regarded as a *terra incognita* which librarians inhabit and where they “do what they do”. Nobody cares what goes into the job, as long as the services are delivered. However, its generalist, cross-disciplinary nature also makes library work less highly regarded in academic and professional spheres where breadth tends not to be as highly regarded as depth or specialization.

2. Knowledge base

When knowledge expectations become too complex, useful applications of the work or solutions are compromised.⁴¹ Professional library workers are particularly susceptible to the expansion of their knowledge base, since their business is to manage knowledge. And, as mentioned in the discussion on complexity, generalists are not highly regarded in the professional arena.⁴² It is conceivable that professional skills in the conceptual understanding of information may be diminished by their involvement with the mechanics of new information and communication technologies. Such involvement may mean simply working with machines rather than ideas. It may entail learning routines and shortcuts such as finding and downloading statistics from an electronic repository on the other side of the world, a multimedia file with sound and moving images, or a map that can be edited and reworked. It may require interpretive work or teaching, and

⁴¹ McKibben compared technological information unfavourably to the complexity of natural phenomena; Homer-Dixon deemed technological fixes inadequate for the actual solution of social ills. (McKibben: 1992; Homer-Dixon: 2000)

⁴² Note that this is a very North American view.

mediating between machine logic and human information needs. It may also mean subordinating your views about the organization of information to the expertise of programmers outside the discipline. On the other hand, academic librarians increasingly play a consequential role in system design and thus are gaining power.

Interpreting respondents' comments, a significant change to professional information work in the post-industrial workplace is the upward or downward adjustment of intellectual expertise to include technological facility, in response to the "pull" of information technology inside and outside the institution. Advancing a critical interpretation of this, intellectual expertise is being devalued in favour of understanding and teaching technology. This has an impact on the service librarians provide to users, though it is also driven by the users. Says a thoughtful librarian working in a technological job:

"I think this whole mouse-push, this illiterate pointing at the stuff you want in the Windows interface, I don't think that is very conducive to having an articulate mind. I think it gives you an instrumental mind, and you know what you want and you know how to get it. If the buttons are there, you know which buttons to push. But you can't really ask for things. You can't articulate ideas as well, it seems to me. I don't really know. I don't really talk to many 14-year olds."

One labour process consequence of the valorization of electronic systems is an acceleration of the replacement of professionals or professional functions by technical or support staff, a process has been ongoing in varying degrees since professional credentialling, as discussed by Abbott. A possible extension of this process is replacement of professional expertise by machines or expert systems, as feared by Perrolle. There is some resistance within the institution against the technological imperative. In areas such as electronic system design, librarians are asserting their needs

and offering their input to managers who install internal systems and to vendors who market them. These major purchasing decisions are crucial in a competitive economy where the stakes are sales of expensive systems. This problematizes the question of librarians' capability: are they competent enough – or confident enough - to engage with the “technological imperative” while maintaining professional status?

3. Service ethic

Underlying librarians' concerns about rapidity of change, time management, and upgrading skill sets is a strong commitment to service. This is visible in their concerns about information access for patrons: whether librarians are keeping current with trends in information dissemination; the information is appropriate quality; the user guides and machine interfaces are helpful; and patrons are satisfied. The profession is highly characterized not simply by service provision, but by *responsiveness* to the needs of students, faculty, administrators, other libraries, and even the general public. Reflects a male librarian:

“The profession has more feminine qualities: doing things for other people, selfless, gatherer rather than hunter.”

Unlike fee-based professionals such as doctors and lawyers who, at least traditionally, assert their professional judgment without serious challenge, librarians largely respond to client requirements, as first noted by Goode. Habitually, their work involves mediation between client and information, rather than declaration of disciplinary knowledge. Much library work is interpretative and communicative: organizing intellectual materials for access or bridging knowledge gaps for students. Unlike specialty-based professions, information work is less clearly characterized by a disciplinary core. It is rather

characterized by a blend of disciplinary knowledge with service, thus its designation as a semi-profession in the sociology of the professions, as are social work, nursing, and teaching

In an evolving workplace, professional service can be skilled upward, laterally, or downward. Higher level challenges include major system and service design initiatives to accommodate the greater range of information access possibilities and client needs. This involves extending the concept of service in the direction of proactivity. Lower level possibilities include more “running to catch up” activities, and increasing responsiveness. Dimensions of expertise in professional information service, such as independence of decision-making, are also relevant to the control aspect the labour process.

4. Esteem

Most of the recognition of librarians has come from within the profession, which has been preoccupied with self-definition since its formal inception about 100 years ago. Traditionally the route to professional esteem has been the ascension to administrative work in the library, as there are few opportunities for specialization. This is true of most of the employee professions. (Prandy:1965) Continued working-level status “in the trenches”⁴³ can be perceived as downgrading in the professional world where esteem is measured by specialization or extensive knowledge. As for external perceptions, informed library clients cannot generally determine the difference between professional

⁴³ This was the unfortunate phrase of a chief librarian several years ago.

and paraprofessional staff, and are unaware of what professionals really do or the extent of their training and continuing education. This weakens the public recognition of their skills, especially in relation to university faculty, with whom they are, in the words of an interviewee, “similar but not the same”. With increasing threats to professional survival by staff attrition, and by the increasing use of paraprofessionals or end-user electronically-mediated information resources, information studies professionals now talk about re-inventing themselves in varying degrees through alternative venues. This has been achieved through a complete shift to information systems specialization, Internet or web page development, or consulting. It has also been done through productive input to the profession by university teaching, campus committee membership, and again consulting. This view on collegiality with faculty is not unique:

“Faculty regard us as strange creature, handmaidens. Hard to have collegial relationships based on subject knowledge. We’re not in the same ballpark. Working on more committees gives them a new way to see you.”

When the expansion of personal achievement is upward, it brings esteem – esteem that is difficult to get within the library institution. This is a good example of the interview comment that “the library institution” was entrenched and inhibited change.

The issue of esteem in the professional world is more than self-absorption on the part of librarians. It introduces issues that point to labour process questions: basis of esteem and historical context. Of primary importance is the source of professional recognition, which, sadly, is most credible when it comes from outside the institution. Since the state plays a minimal role in supporting library professionalism ⁴⁴, internal criteria have

⁴⁴ No certification or compulsory association memberships are necessary.

limited impact ⁴⁵, and public perception of librarians is not aggrandizing ⁴⁶, librarians have little comparative esteem in the world of experts, and must seek recognition outside the library. In addition to the re-invention options mentioned above, they can do this by marketing their information work and expertise in the commercial arena, where esteem comes in the form of profit rather than respect. That is, they must move outside the classical view of the profession as an institution of social responsibility. If all the intellectual labour remains within the institution, the consequences may include dilution or degradation, as is covered in the section below.

5. Rewards

Unlike the other categories, salary and benefits are not highlighted as problem areas by the interviewees, even after probes about value of the work. This suggests that either librarians recognize no complaints in this area, or salary is a taboo subject in an interview setting. The first alternative, relative satisfaction with financial remuneration, is plausible. As they belong to either faculty unions or affiliated staff associations, academic librarians are relatively well compensated. ⁴⁷ As credentialled workers, they have traditionally been entitled to a certain salary and benefits package. However, they now work in a climate of economic stringency accompanied by new forms of job rationalization. Following a pattern begun in the 1970s, they are targets for cost-cutting by library administrators, who regard attrition of librarians as a financial saving, in spite

⁴⁵ All you *really* have to do is your job.

⁴⁶ The popular perception is Marion the Librarian from *The Music Man* rather than Katharine Hepburn from *Desk Set*.

⁴⁷ Given the long tenure of most librarians, they are better paid than support staff and at least equitably with faculty of lower rank or tenure. Comparative salaries and changes are covered in Chapter 5.

of any ancillary long-term educational or cultural costs. The second possibility for respondent reticence to discuss salary is more complex. They may feel they *should* be satisfied. It may be “unprofessional” to complain about salary. Professional status, however limited, as suggested above, may be enough. Or they may not recognize the value of their work until it is extracted to the commercial sector and priced. It may be due to the gendered nature of the profession, and the acceptance of lower salaries and esteem. Librarians may be not as militant as equivalent groups of female-intensive professionals such as teachers or nurses. Their unions or staff associations, when conjoined with faculty, may be more focussed on faculty needs and not be responsive to librarian interests.

Silences around the salary question therefore invite a surprising number of areas for examination. First, there is the obvious threat of attrition and de-skilling, and the degree to which the work is reallocated downward to non-credentialled staff and upward to management to save salary money. Second, an extension of the above, is the replacement of in-house expertise with outsourced systems such as cataloguing services and with public domain tools that can be directly accessed by end-users, arguably without the need for mediation, such as the Internet. Third, most librarians might be the kind of workers that prefer not to complain. This reticence might be associated with gender, or with the lack of critical comprehension of power relations at the workplace. Fourth, if salary were indeed representative of labour contributions, good compensation may be a palliative for other control issues in the library. Fifth, salary change over time, in relation to other library expenditures, is an indication of perceived value of librarians’ work, or their

power in asserting its value. Thus the issue of financial rewards for librarians might not be about remuneration, but about job security, displacement (in spite of union protection), and control of the work.

6. Professional activities

In relation to the salary and benefits factors mentioned above, academic librarians share with faculty sabbatical or research leave entitlements and often an allocation for professional expenditures. They upgrade and disseminate their expertise by attending conferences, presenting papers, publishing in professional library journals, and teaching.⁴⁸ As with the status factors discussed above, the professional activities of librarians are “similar but not the same” as those of faculty. While publishing and conference paper output is desirable for academic librarians, it is not essential for the job. Published articles are often on applied issues, such as “How I did my web page” or “How I ran my instructional program” rather than on theory or major research.⁴⁹ Some are in library journals that are non-refereed, which further reduces the prestige of librarians’ work in the scholarly community. The exceptions are serious research journals, often issued by information science institutions. Library publication is more comparable to publication in other applied professions such as nursing or social work.

In most institutions, the busy days of academic librarians and responsive nature of their work leave little time for scholarly contribution to the profession. Time for professional

⁴⁸ They have their own associations, journals, listservs, and conference.

⁴⁹ Note here that there is often a differentiation between the publications output of academics who teach librarians in post-graduate degree programs and working librarians.

activities, apart from work-related training in technology or management, is not structurally integrated into their workload. There is little consistency among libraries concerning recognition of professional activities outside the job situation by library management and other colleagues. It is generally of limited utility for promotion or remuneration, as job performance is still the dominant criterion. This is common to other semi-professions such as journalism. A contradiction between principle and practice is evident in this situation. Opportunity for professional growth and academic status with faculty are theoretically possible due to common aspects in their collective agreements, but the institution leaves few openings for librarians to achieve that status and regards them as workers “in the trenches”.

The Importance of Skill Factors in the Library Labour Process

The dimensions of professional library expertise, as input by librarians in interviews and observations, are knowledge base, complexity, service ethic, esteem, rewards structures, and activities to extend their professionalism in the world. In the dissertation, the integral relationship of skill to authority is identified. The above discussion suggests that the dominant theme across these skill-oriented dimensions of the labour process is the confrontation with social change. The extent to which they retain core aspects of skill or adapt to change is one of the main objectives of the dissertation. That is, historical continuity of labour process in the profession is interrogated in terms of skill conceptualization and change.

In the above discussion, details on what constitutes the knowledge component of professional work have been detailed. These range from the ideal-typical view to the changing post-industrial reality, and come from the lived experiences of the librarians themselves. Complementary information sources for these and other professional skills are necessary for a comprehensive analysis. There is congruence about the relevance of certain sources of documentary and statistical information. The “projected” view of the expertise of the library worker is available from professional education data. Graduate school calendars, plus supporting information such as program reviews, are rich sources on the professional knowledge base, complexity, the service ethic, esteem, and professional socialization. On a level closer to the work itself, the negotiated labour arrangements between librarians and university administrators are available in collective agreements and handbooks. They specify rewards, benefits, workload (to a degree), and expected professional activities. This contractual information is supplemented by the comparative statistics and studies of the Librarians’ Group of the Canadian Association of University Teachers. Job descriptions indicate requirements for knowledge and complexity, and emphasize the service ethic. The structural picture is found from institutional data on staffing and salaries, which gives information over time about recognition of the knowledge base, its complexity, rewards, and loss of positions.

Information about the value of the work is available from the state, in the form of legislation and policy, but is minimal because library work is not as politically strategic as that of doctors or teachers. Information on the extension of expertise outside the institution, in consulting or the corporate world, is selectively available from job ads or

the web, but it is not comprehensive. Useful information about esteem, assertiveness, and public image are hard to find. The categorization of skills is quite objective, and based on positional data, which is informative. But library work involves more than a collection of skills, though skills were by and large the focal points of the interviews. In the words of one respondent, librarians must get “outside of the shoe box of the library!” In my labour process analysis, skills factor into the other major dimension of the professional labour process, authority or control, in the next section.

Control

Control, or authority, is more directly integrated into the workings of the labour process than skill. Whereas skill is categorical, control is relational. The authority dimension has been more elusive in the interview comments. However, in the reworking of the interview categories, distinct issues of control and power begin to emerge. Following is a breakdown of areas that demonstrate the professional worker’s degrees of control in the library labour process, in terms of comments in the interviews. They include control over the areas of work, acquisitions, innovations, staff, quality, time, and conditions, plus enabling factors of demographic composition in the workplace. The information is more interesting when put in perspective of what has remained consistent over time, and what is in the process of change.

1. Control over the work

As mentioned in the above discussion of librarians' skills, information professionals are often in a mode of response and service to others. The majority are not inclined to put themselves forward publicly with unquestioned expertise or input on social issues related to their knowledge. According to one interviewee:

“It could be [1] gender, [2] waits rather than tells, or [3] absence of ego and unwillingness to pass judgment.... Librarians have a useful role, but not always appreciated.”

It is a central aspect of a librarian's job to respond to student and faculty information needs. With students becoming increasingly computer literate, librarians are pressured to provide electronic information service, preferably service which is accessible remotely, even in instances where print resources or interpersonal service may be the best modes of service. With faculty, they often respond to doing “library tours”⁵⁰ or ordering books, and may not have the credibility or confidence to assert their expertise or promote themselves as collaborators. Where choice of library acquisitions such as books and periodicals are concerned, system vendors and middle-men constrain the freedom of choice of materials with information packages and pricing schemes. And in the past, designers of electronic systems have failed to obtain input from professional information specialists, and have installed products with poor search interfaces. Frustrated with using and teaching poorly-designed databases, a librarian vents:

⁵⁰ In most cases, the “library tour” is a misnomer for seminars that present complex research skills or fundamental concepts in a skilful way.

“Lack of consultation with the producers... I guess there wasn’t the valuation of what we could have contributed to the project. So in the drive to save money, all kinds of decisions have been made without the consumers... They are being driven by their own agendas, and they don’t view us as players or partners in the creation, too.”

Again, librarians have had to *respond*, by compensating with intensive staff and client training on these products. This may be the case for other semi-professionals. Vendors are becoming more competitive, and are marketing comprehensive and sophisticated products. Often, major purchasing decisions have budgetary and policy implications for administrators, so librarian as customer also engages with his or her administrator to make a case for spending money. Since the areas of authority in acquisitions, largely about spending money, and innovative systems are important to an analysis of power in the workplace, they are detailed below.

2. Control over acquisitions

The control of the library budget is a management right. Within the overall constraints of the university budget, the University Librarian has autonomy in relation to senior university administrators, normally having the status of a dean, and is not normally directed how to spend his/her money. There are many constraints, however, on how money is spent by delegated library staff. Increasing economic constraints, that is, a lower budget, mandate that decisions about book, electronic, and system purchases must be well-informed and justified. This requires selection expertise, a highly specialized professional skill. The free exercise of this knowledge cannot always be taken for granted, as trenchantly summarized by a subject specialist librarian:

“In earlier days, there was a lack of well-rounded collections due to too much reliance on faculty collection building. Nowadays, there is a homogenized collection due to outside corporate pressures. In either case, it is not strongly controlled from within.”

If scarce resource money is misspent by librarians, management censure or faculty consternation is likely to result. Other constraints on librarians' freedom to spend money on acquisitions include vendor monopolies, institutional agreements with corporations, limited availability from publishers, and negotiated consortium decisions.

3. Control over innovations

While new information and communication technologies have had an impact on every profession, they began to do so in professional library work in the 1970s, and have now completely diffused through all levels of the profession. They are not only a communications tool or medium, but also the substance of information and information seeking. Therefore, unlike university faculty, librarians cannot elect to ignore new information forms without compromising their competence in some degree. Teaching or training in one form of information technology or another is integral to their work, as is making purchasing decisions that have financial and other consequences. In contrast, a dentist can elect to bill his/her clients electronically or manually, but a librarian is captive to the established system. Nor can librarians control the speed of innovation, or the available time they have to become competent or catch up. From a systems librarian:

“There is strong client demand, especially for greater speed... Sometimes a system is introduced so a library can be competitive with other institutions.

Issues relating to control over innovations are quite dominant in the interview responses, and include non-technological innovations such as organization or management style.

4. Control over staff

While part of the collegial university establishment, the average Canadian university library system remains hierarchical. A frequent complaint among experienced librarians is the patriarchal attitude of senior management toward them. Notes a librarian who was active in many spheres of the university:

“Our management style is paternal, hierarchical, not collegial, which is surprising in an academic setting. But the academy is also hierarchical.”

This perception inevitably influences the attitudes of faculty about the expertise and status of library professionals. With the flattening of the middle ranges of the establishment, librarians seldom administer the work of paraprofessionals and others below them. This situation is exacerbated because decisions in today's libraries affect many integrated aspects of library work so cannot be made in a vacuum. Independent work and autonomy are consequently modes of the past. It is often difficult to distinguish between teamwork and oversight.

5. Quality control

Librarians are trained and dedicated to maintain quality control in the creation, organization, and retrieval of information. However, in the marketing sector from which

electronic materials are obtained, their expertise has not always been sought, as was mentioned in the section on control of the work. Assertiveness in the marketplace has not historically been highlighted in librarians' education, which has been oriented to organization of information and to its cultural relevance. Some information systems vendors wisely have librarians on their marketing staff, for entrepreneurial purposes. One systems librarian is distrustful, however, about the professional value of certain vendors, who have no intellectual responsibility for information products, but package and market them:

“Middlemen – internet, databases, whatever – but middlemen!
Intermediaries will have to be damn good and very reasonable.
Middlemen play a good role if no one else can provide it better or
cheaper.”

In the area of systems, librarians also endeavour to regularize telecommunications and documentation standards. In their information services role, in particular with the range of information available on the Internet, librarians are continually occupied with ensuring that relevant scholarly information is retrieved by users.

6. Control over time

As mentioned in connection with control over work and control over innovations, librarians' time is not their own. This is connected with expanded workload and reduced staff. Increasing loss of control of time has been connected to the historical trend away from time-intensive craft production and specialized work, toward industrialized

production and post-industrial efficiency. One librarian captures the contradictory nature of technological solutions:

“Internet instruction takes staff time...It’s an irony that, with so few staff resources, the administration should direct the solution at technology.”

The time taken is contact time with patrons, and with learning the technologies. If the changing perception of workers’ time is perceived as an indicator of the labour status of workers, then loss of control of time equates with loss of control of conditions of work.

7. Control over conditions of work

Academic librarians are protected by unions or staff associations, such that salary, benefits, leave, sabbaticals or equivalent, and unfair labour practices are not normally problematic. However, issues such as workload and status are hard to protect under present arrangements. Union contracts are also not guaranteed to prevent corporate influences upon professional labour power.

8. Demographic composition

Demography affects labour supply, the labour force, and relations of production, so is more appropriately included with control than with skill. The interview sample and people referred to suggest that the average professional academic librarian at the Millennium is a female in her forties or fifties with a liberal arts degree from the 1960s or 1970s and at least 20 years of professional experience. Demographic evidence from an

unpublished 1998 survey of downsizing in Canadian academic libraries supports this, and trends are analyzed in the Chapter 5. The predominant preoccupation in the demographics category, as frequently expressed by veteran librarians in the interviews, is concerning demographic change in the next ten to twenty years. A critical mass of classically-trained librarians with a breadth of knowledge and historical understanding of the institutional practices will retire at once. This will leave, it is feared, an intellectual vacuum in the library, which will have implications for quality control in service.

The departure of a knowledgeable and confident core of librarians gives senior management a chance to re-engineer. In the short term, the much-needed innovations may streamline library operations to accommodate better information technology networks and new ways of providing information service. In the long run, loss of the sense of history that has been part of this group of librarians may ultimately compromise information literacy. Critical responses to the technological imperative will disappear with “the aging boomers”, and perhaps contribute to less resistance to corporate controls on library service and to a decline in cultural literacy. Concern about age is contentious, as it involves preconceptions about the competencies and motivational state of both seasoned librarians and recent graduates. One recent graduate exemplifies this position:

“This library is clogged with boomers. They could please start retiring and whatever and get out of the way. Boomers have been squeezing us for a long time and it’s going to continue.”

Labour force characteristics are important when considering the labour process, and are indicators of the proactivity, militancy, social action, or lack thereof, of its workers.

A significant aspect of the demographic category is gender. It has been already noted that gender is not formally identified by the interviewees as a factor that inhibits or enables change in academic libraries. Since the dissertation problem is being refined through input from the subjects, who are eschewing the gender factor, the dissertation does not problematize it. It will, however, note complementary information about gender where available from other data sources at other levels of analysis.

The importance of control factors in the academic library labour process

The above breakdown re-conceptualizes the interview comments of academic librarians in sociological terms, and reveals many aspects of the authority dimension in their labouring environment. These fall into three groups:

1. Operational; related to control of immediate job: work, acquisitions, staff (c.f. Derber's weak proletarianization theses)
2. Professional; related to control of overall situation: quality, innovations, time, conditions of work (c.f. Derber's strong proletarianization thesis)
3. Personal; related to socio-demographic factors that interact with control factors: age, gender, date of entry into profession, and length of tenure

A complete analysis of the control dimension of the professional labour process integrates these three aspects, and this conceptual understanding helps with the selection of a methodology. This is achieved by examining situations that directly relate to labour

as well as interpreting in a labour context information from sources that are less obvious, such professional education or the labour market. Concrete situations include the qualitative accounts from interviews, observations, and texts, plus statistics and objective output measures. Information on most control aspects is available in the dense description in the interviews and observations, which is mined more deeply in the internal labour process findings in Chapter 5. Objective labour process conditions are also evident from institutional statistics on various demographic aspects of librarians, their career trajectories, and the relative strengths of their institution, such as staff, money, and collection size. Interesting connections, such as the ratio of staff budget to allocations for information technologies, are made where the data allow. Historical, comparative, and other relevant relationships are further problematized and discussed.

Some information about the labour process needs to be inferred or interpreted. Measures include the use of the qualitative and quantitative information mentioned above within a specific context or theoretical framework. Derived information about labour comes from text-based sources such as union contracts, library schools, job descriptions, and the web, or from sources reflecting ownership and control in communication industries. For example, the degree of control a librarian has over aspects of his/her work may be highlighted when workplace behaviours or treatments, projected from professional education or job descriptions, are compared with what is actually going on or being claimed. In another comparative approach, all recent graduates are claimed to be computer literate and thus able to eclipse the long-time incumbents, yet those visible work similarly to the “veterans”. This may imply false claims, strengthen the idea of the

continuity of a professional “core”, or demonstrate that the subordination of professionals in the labour process has not improved in spite of “enhanced” qualifications of professionals or the liberating potential of information technology. In an instance that involves inference, the nature of corporate vendor interactions with academic libraries, through sales, contracts, and consortia, are important because, when analyzed, they point to monopolies that impact on librarians’ freedom to make choices at work. In this case, data on sales and ownership are operationalized carefully to view against the backdrop of labour concerns. The specifics are detailed in the following chapter on methodology. The control aspects of the labour process are ably demonstrated by evidence based on the interviews and extended to available statistics and documentary information.

Conclusions and Directions

The grounded evidence includes numerous comments about work and its characteristics, and infrequent reference to a critical labour process view. Overall, it implies that, in spite of a complex complement of expertise, academic librarians have little autonomy in their work in relation to the criteria of professionalism. Part of this is due to their working in a hierarchy with management and support staff, and having a comparatively modest profile of their expertise within the university, especially in relation to faculty. More importantly, the evidence suggests that the nature of control or loss of it are shifting due to a “changing landscape” that includes technological, spatial, economic, and global forces, all of them structural forces. In response such constraining forces, interviewees interested in greater control of their work or professional growth have taken the routes,

respectively, of limited collective action through unions or activity in university committees, academic publishing, or consulting.

The larger concern about skill and control issues is recognized at an economic level. Corporate influence and control on librarians' work, for example through their domination of publishing, resource availability, and indirectly on university spending, have reduced the importance of professional input. Political and economic conservatism in spending for culture and education has trickled down to staff budgetary reduction in the short term. And interviews are showing that managers prefer to spend money on materials rather than expensive salaries, and the dissertation seeks to validate this information. Therefore the qualitative data on academic library work, disclosed by librarians and analyzed in labour process terms, points to the need to investigate economic and political forces that influence their operation. This is done through examination of data about academic librarians and libraries.

Chapter 4: Methodology for Professional Labour Process in the Academic Library

The methodology selected for the dissertation research provides comprehensive analysis of the labour process of Canadian academic librarians by addressing three progressive levels of information, the lived experiences of librarians, the structural relationships within academic libraries, and their economic and political environment. At the experience level detailed in the previous chapter, interview remarks suggest the interaction of structural factors. Structural relationships within the library operate in a larger social environment that is increasingly influenced by transnational forces that control commodified information, media, and labour. For example, frequent interview statements about feeling stressed because of so many new technologies to learn may suggest that the library is spending more money on electronics than professional staff development. Library choices in turn may be influenced by electronics over people or expediency over professional service, within the external environment dominated by the profit motive and commodification

The strength of the methodology in this study is the contribution of grounded theory to political economic enquiry on labour process. Grounded theory provides a flexible mechanism for problem identification from a historically specific group of knowledge workers. Political economy provides an interdisciplinary structural investigation of this complex labour process for a critical historical approach. The methodology of political economy conventionally uses quantitative and qualitative information on the sociological,

economic, political aspects of a problem, such as the professional library labour process, from institutional, corporate, government, and labour sources.⁵¹ It also is receptive to the detailed qualitative information on labour process that a grounded theory process can provide. While grounded theory may be limited in its ability to prove the connection between local realities and universal truths, and is subject to researcher interpretation, it provides a unique contribution to a more comprehensive study and the triangulation of information. Political economists use the most appropriate information gathering techniques for the problem, for the mutual constitution of the sociological, economic, political, and cultural forces that shape a specific labour situation within a particular cultural institution. Hence this method of combining grounded theory with structural analysis is appropriate for my study of Canadian academic librarians.

There are other reasons that political economy and grounded theory are compatible. Both view *theory and methodology as integral*; therefore their methodological approaches are similarly tied to theory. They are both *process oriented*, grounded theory in the process of unearthing a problem, and political economy in the identification of relationships in the larger social and historical context. Further, both are *critical*. Grounded theory is critical because its qualitative data emerges from the experience of social problems, in this case those of academic librarians. Political economy is critical because a defining characteristic is its focus on the moral aspect and on social praxis. In the dissertation, the

⁵¹ Notable Canadian examples include Marchak's study of the fishing and lumber industries, Clement's of the fishing trade, and Winseck's of Canadian telecommunications. (Marchak: 1983; Clement and Myles: 1994; Winseck: 1998)

labour-related issues of professional librarians emerge through the grounded theory process and form the basis of the political economic analysis.

Introduction and Background

The methodology supports the research question about the labour process of academic librarians in the “information society”. This involves problematizing and understanding the contradiction between written claims of researchers in sociology, political economy, and librarianship, and the voices of professional library workers themselves. As outlined in Chapter 2, the objective evidence in the sociological literature suggests that librarians have a robust profession that will survive, with all its professional powers, if librarians adapt to the use of new information and communication technologies and to the market economy. As also noted, this is supported by most of the literature of library and information science, by the curricula of schools of information studies, and by job advertisements. Evidence on professional credentialling, from the schools, and the labour market, from the ads, is introduced later in the dissertation. The reality is not as idealistic. As detailed in the previous chapter, qualitative evidence from Canadian professional librarians indicates a more measured view. These academic librarians are particularly concerned about the transition to an electronic workplace and irrevocable changes to their work, both of which suggest serious changes in skill and control.

I employ two basic qualitative methodologies to develop this picture. Observation of working librarians in a sample medium-sized Canadian institution between 1998 and 1999 suggests librarians’ concern with various aspects of new information and

communications technologies, staff shortage, and the rapidly changing intellectual universe that represents their knowledge base. Interviews from a representative sample of 20 Canadian librarians between 1998 and 2000 confirm the three general concerns from the observations, and adds another three, economic strictures, privacy and surveillance issues, and the constancy of change. Thus, the commonly held view summarized in the Introduction, the view that provides the popular “position”, is contested by grounded experience. Using the case of professional librarians in Canadian universities, I investigate whether the academic librarians have somehow missed the “euphoria”⁵², or whether the proponents are relying on evidence that is too general, too aggregated, unsubstantiated, or extrapolated from that of another profession such as computer science.

I use two theoretical departure points for my research, based on critical positions about librarians in professionalism and the labour process. In the professionalism context, Goode doubted that librarianship could ever gain true professional status because of its semi-autonomous, institutionally-based, service-oriented nature. In the context of labour, Herbert Schiller was concerned about the deskilling of intellectual skills to technical ones, and also about the encroaching corporate influences on cultural institutions driven by the profit motive. These insights signal the need to look at what is actually going on at the point of production, and to understand the labour process for the specific set of circumstances of the academic library. From there, the larger view is examined in its

⁵² Baudrillard's *Ecstasy of Communication* makes claims for the transformative effects on the individual through experiences with electronic communication. (Baudrillard: 1988)

economic, political, and cultural contexts. General differences with professionals in other cultural institutions are noted.

For this kind of investigation, the dissertation is based on two general categories of data, the qualitative and the structural. The qualitative evidence tells us about the librarians and their subjective experiences about technologies, then inferences are made about labour in the institutions in which they work. The structural evidence tells us about the formal conditions of their work, such as salary, and the economic and political influences on library institutions, such as monopolies in the publishing industry. Triangulated, these two general classes of material provide information on the labour process of this professional group of knowledge workers, especially areas of control and valuation of the work. The range of evidence, and particularly the connection between the professional and the institution, is consistent with an acceptable political economic approach to the labour process as outlined in recent literature on the topic. (Wardell: 1999)

To obtain this labour process information, I use two complementary methodologies, grounded theory and analysis of formal material from statistics and finite documentary sources such as university calendars. Grounded theory is constructive⁵³, and useful for refining the problem statement, in view of the conflicting claims mentioned in the introductory chapter about the professional library workplace. Statistics and documentary information are more concrete, although also subject to interpretation. The

⁵³ My use of the term “constructive” means that information builds upon and improves other information, and does not signify the theoretical position that is often in apposition to essentialism.

dissertation makes a departure from the more conventional political economic methodologies for consolidating information by first deriving the specific problem issues from the qualitative evidence. I selected this methodology because, as noted in the Introduction, the written evidence on knowledge workers from a sociological perspective is undifferentiated, highly aggregate in nature, or not relevant to the Canadian social structure, and indicates little about the characteristics of the labour of academic librarians within the new middle class.

The labour process analysis in the dissertation begins with an area of contestation at the workplace, the vision of the future of the profession. It is polarized. Some view it as multi-skilled, robust, and evolving, while others perceive its future as de-professionalized and degraded. The grounded evidence shows how the future of the library becomes interconnected with the nature of the work. The dissertation capitalizes on my easy access to a population of working librarians that provides rich and detailed information about what is happening at the point of production. I was also able to obtain from administrative sources sufficient institutional data about conditions of work, salary, benefits, leave, privileges, status indicators, plus salary expenditures in relation to moneys spent on books and computers, and increases and decreases in professionals and other staff over time.⁵⁴ Labour market information is available from information studies programs, position ads, and placement studies. As demonstrated below, the institutional data provide not only changing conditions over time, but also, to a limited extent,

⁵⁴ When these public data are presented in Chapter 5, their limitations for a rigorous quantitative sociological analysis are noted.

changing relationships over time. Since the data derived through each of the above methodologies are not comprehensive on their own, the triangulation of the methodologies provides a comprehensive picture of the professional labour situation. This integration of qualitative and administrative data thus provides contextually-based information that details, in labour process concepts, key aspects such as the value of work and control relationships, as informed by the theoretical framework Chapter 2 and the individual case in Chapter 3.

Rationale for a Political Economic Methodological Approach

The tradition of political economy provides a methodological approach along with its theoretical perspective. Its historical, economic, political, sociological, cultural, and moral approaches provide a comprehensive framework for the articulation of the social foundations of the professional labour process in the contemporary library. Its multidimensional perspective enables the researcher to vary emphases on particular social forces. Flexible emphasis is consistent with the labour process approach. As Wardell writes, "From a labor process perspective, identical tasks ... can be constituted and experienced differently," and outwardly similar work processes have different control patterns and different labour processes. (Wardell: 1999: 12) In library work, these differences may include the economic push of funding or organizational rationalization, the technological pull of expertise requirements or consumer demand, and their mutual constitution. (Mosco: 1996; Clement: 1997; Winseck: 1998) Political economy can integrate social factors that are important for contemporary sociological analysis, such as gender, race, and ethnicity, which produce and reproduce inequalities in capitalist

society. It also attends to the influence of social movements, policy studies, and cultural or ideological influences.

Its problem analysis is normally seen in perspective of its historical continuities and discontinuities. Most importantly, political economy is critical, and addresses the relations of power and inequality in a setting, such as the workplace, in terms of the political, economic, social, and other forces that affect it – including those that are not obvious in an initial analysis. Through the methodology of political economy, the information that is derived is subject to multidimensional and continuing analysis until its relationships of control are apparent. This comprehensive approach is appropriate for the socially dynamic, pervasive, and transformative character of information technologies and information work. It can therefore provide an appropriate framework for analysis of the multi-layered interrelationships of work, technology, and information in a library setting. It also does justice to the inequities and power struggles that ensue in the professional workplace, and the migration of control from labour within a cultural institution to corporate forces outside it.

Along with strong theoretical relevance for problem interrogation, the political economic approach has finite constituencies within which the problem may be operationalized and within which data may be obtained. It integrates subjective or qualitative approaches with the quantitative or structural, without the theoretical dictate for either total subjectivity or textuality. The ethnographic approach to political economy has not been widely used to date because of the difficulty of linking large social phenomena with

individual experience, as Pendakur found when studying communication technology in an Indian village. (Pendakur: 1993) But it is consistent within the methodological framework and an efficient way to provide some of the data within this “case study” of an information profession within the cultural industries in a specific modern industrial society, Canada.

The political economic approach has, however, been successfully used in labour process research, for both the problematization of issues and explanation of phenomena. As Littler shows, labour process research can involve deskilling, re-skilling, internal institutional relationships, control relationships, and others. It has made use of case study, interviews, labour force data, and union data for relational information on the dynamics of labour and control of workers. Buroway’s study on workers’ consent, to note a definitive piece of labour research, was derived from information gained from working on the machine shop floor. (Buroway: 1979) His recent work affirms the connection between ethnography, the labour process, and globally-based social problems. (Buroway: 2000) Classic research on professional work tends to focus on status, from salary or job title; expertise, from education; autonomy, from professional practice; formation of the profession, from member groups; and the role of the state, from regulation. Increasingly, it recognizes the market value of its workers, beginning with the obvious indicators of salary and job availability. (McDonald: 1995) Coming from a different theoretical foundation, research on professionalism has also made use of methodologies similar to those of the labour process, in its use of case study, interviews, observation, work data, and information from associations and the state for categorical

information about professional status and boundaries. Typical of this approach is Johnson's historical study (Johnson: 1972) and Halliday's on the legal profession. (Halliday: 1987) Thus the methodologies of labour process and professionalism are compatible within the same study.

Interestingly, grounded and qualitative methodologies resurrect the tradition of research in work and labour characteristic of the Chicago School, which did many formative studies using interactionist constructions to derive labour process theory.⁵⁵ Today's Chicago School academics are exemplified not only by Buroway, but also by Abbott, who combines quantitative and historical approaches in his sequential analysis in understanding physicians (Abbott: 1982), and Whalley, who uses boundary and labour market theories to understand engineers. (Whalley: 1984) Both the School's ethnographic tradition and its orientation to professional labour provide a viable methodological background.

As noted in Chapter 2, the intersection of the theoretical positions of professionalism and the labour process takes place in the analysis of knowledge work done in a professional institution. Freidson and Larson both highlighted the power of the market and monopolization of the market for expertise in their research. Freidson's thesis on professional power worked from a strong theoretical framework, and substantiated it with

⁵⁵ The Chicago School constituted faculty, graduates, and those who taught there, for brief and extended periods of time. There were at least two waves of "Chicago School", before and after the war. There was also a strong positivistic orientation of the school in the 1950s, 1960s, and 1970s, characterized by the research of Blau, Hauser, and Stauffer. The Chicago School actually represented a combination of scholarship in symbolic interactionism, urbanism, social activism, and positivism. The conception is thus more what people, particularly departmental members, conceptualize it to be than a uniform tradition.

relevant historical work. (Freidson: 1975) Larson's landmark study relied on historical context within a Marxist framework, and used the techniques of historical materialism. (Larson: 1977) Derber looked at professionals as workers, and advanced ideological and technical proletarianization theses to explain their situation, using used empirical sources and secondary research literature. (Derber: 1982) Brint examined the interactive relationship between experts and American culture. His form of political economy addressed the political and cultural influence on professionals through education and government regime, with census and General Social Survey data plus information from interviews. He noted the corresponding impact of professionals on American culture and beliefs, by noting documentary evidence on what people read and consume. His analysis was more of the social impact of experts than of their labour process, though he did address market power. (Brint: 1994) These four theorists integrated labour process analysis with professionalization by looking at the latter in relation to the value of their work and their professional powers either at the workplace or in society. The unifying methodology is the political economic approach: integrated, historically specific, critical, and comprehensive.

Methodologies for labour process analysis for related professions such as academics and communications workers exist, and may be used for research on academic librarianship. Rhoades examined how academics in the United States are becoming more institutionalized, or "managed", as aspects formerly taken as rights, such as tenure or salary, are being compromised by the market imperative and reduction of government protection. (Rhoades: 1998) Research on labour in communications or cultural industries

has often used a case study approach. (Kraft: 1979; Zimbalist: 1979; Pollard: 1994, 1995, and 1996; McKercher: 2000; Rottenberg: 2001) For example, McKercher studied the unions of Canadian news media to show how they undertook labour convergence in response to convergence in the media, technology, and corporate ownership. The data of these researchers have been a combination of administrative information, complemented by documentary evidence such as collective agreements, policies, or professional codes, and qualitative evidence such as observation, interview, and open-ended questionnaire.

In Canada, there is a labour process research tradition reflected in a corpus of research on late capitalist society, in particular on the increasing participation of women in the workforce and the increase in service work. John Myles has investigated both the declining and the expanding middle in relation to economic and social changes. He used data primarily from Statistics Canada, and applied quantitative techniques. (Myles: 1988) Clement and Myles theorized the relations of ruling in post-industrial society as a function of the growth of service work and the increasing participation of women in the workforce using a cross-national sample of six industrialized countries. Their data were from national labour force surveys and social welfare programs, in combination with telephone survey data on labour experiences from large samples of respondents. Thus their cross-national survey was larger in scope, covered work in general rather than professional work, and aggregated professional and administrative categories of workers. The work of David Livingstone provided methodological insights for this study. He has undertaken gender-based work in the critical political economy of work and labour, focussing on gender, and used survey along with quantitative data to demonstrate the

collective change in Hamilton, Ontario due to the decline of the steel industry. He has also researched teachers' work and educational labour. Many Canadian researchers have addressed new forms of knowledge-based work and the good jobs/bad jobs situation. (For example, Duffy, Glenday and Pupo: 1997; K. Hughes: 2000) As with the project of Myles and Clement, they did not differentiate among the embodiments of professional labour. Research methodologies on the political economy of labour in Canada have often used Statistics Canada data, particularly the Censuses and General Social Surveys, specialized surveys, and the case study.

To summarize, both quantitative and qualitative methods have been used to research professions where the problem statement has been clear from the outset: power or loss of control. In the case of librarians, there is ostensibly little power or control to be lost because they historically have had little power or control. The shift of power from the inside to outside the institution has to be recognized before it can be analyzed. Further, library work appears to have intrinsic value for society in general, at the outset, so the problem has to be more comprehensively articulated by the workers themselves. Most important, relational information about control and power is seldom adequately obtained by categorical information such as salary, job title, or promotions. Therefore qualitative information, or a combination of structural and qualitative information, has to be used.

My ethnographic study of professional labour derives from Glaser and Strauss some theoretical precepts and possibilities for applications. (Glaser and Strauss: 1968) Methodological guidance is also provided by Hertz and Imber, particularly their

treatment of the professional knowledge base, subjective researcher involvement, and accessibility. Characteristic of Hertz and Imber's contributions is a combination of methodologies to obtain the necessary information, for example, participant observation to get data not easily available or too greatly aggregated in institutional statistics. (Hertz and Imber:1995) Models for applications, such as research with the sick, are amplified by Strauss and Corbin. (Strauss and Corbin: 1997) Denzin and Lincoln expand the research value of interviews and observations, and suggest implications for social constructivism or subjectivity. (Denzin and Lincoln: 2000) Dissertations in sociology and communications have been written which employ a political economic framework to professional work. For example, Van Hoy researches the pre-packaging of routine law work within political economic precepts. (Van Hoy: 1993) As observed in the Introduction, however, no political economic approach has been done specifically for librarians, and academic ones in particular, except for research with structural data.

Within a political economic framework, the research approach achieves three important functions in the dissertation:

1. **Problem definition [Grounded theory phase]:** key problems in library professional work are defined through the *interpretive data* (observation, interview, etc.) from the academic library workplace, and conceptualized, or re-categorized, as labour process;
2. **Analysis [Labour process phase]:** the dense qualitative labour process data are consolidated with *structural* information about the library workplace, and *substantive evidence* of professional work relationships obtained;

3. **Integration [Political economy synthesis]:** the above labour process situation is interpreted in the *totality* of the political, economic, moral, cultural, and technological forces in which it developed. For example, the loss of decision-making power about library collections development relates to library downsizing policies, to the monopolistic ownership of journals and electronic databases, and to copyright policies that favour publishers and creators over researchers.

The dissertation synthesizes approaches and issues as informed by the lived experiences and perceptions of the research subjects. The composite approach is also strongly guided by labour process research in the Canadian political economic tradition and that on professional labour and work, as shown in the above discussion. It is important to recognize that labour process, political economy, and grounded theory share the characteristic of integrating theory and research. Theoretically they have in common that they are constitutive of multiple social factors. Following from theory, their methodologies are usually a combination of those warranted by the specific situation, and cannot easily be isolated or discussed in linear fashion. Thus the methodology of the dissertation meets the analytical needs of labour process and political economy, and is detailed in the following three phases.

Problem Definition: Grounded Theory Phase

This involves two parts. The Initial Problem Definition is a summary and categorization of librarians' experiences and views, from observations and interviews, according to their own frame of reference. This was unfolded in Chapter 3, and formed the basis of the

problem definition for the dissertation. The second and more significant part, the Labour Process Interpretation, is the transformation of these data to labour process concepts. This is done in Chapter 5, which presents findings within the library. The dissertation builds on this second part in its expansion to a political economic analysis and consideration of the social totality.

Initial Problem Definition

Initial problem definition about changes in the professional experience is derived from data about working academic librarians in Canada. This information is qualitative in nature, and obtained through participant observation and interview within a grounded theory framework. The process is therefore lengthy, as it is based on an interactive process designed to articulate a sociological interpretation of the lived experiences of librarians. I record what they do, what they say, and what they write, and make sense of it. The grounded theory applicable to this inquiry is the version formalized by Glaser and Strauss, and updated by Strauss and Corbin and by Hertz and Imber. It is a particularly robust model because it provides both a theoretical and a methodological framework which enables the researcher to derive the problem from the perspective of the workers themselves, and additionally to collect relational data about their labour process. The data are obtained from two sources: workplace observation and semi-structured in-depth interviews.

1. Observations

The preliminary technique is unobtrusive workplace observation between 1998 and 1999. This exploratory technique provides a grounded picture, without participant involvement, of what was actually happening in a single workplace, the medium-sized academic library in central Canada in which I work. My analysis of the observational data also provides questions that are validated and more fully examined in later data collection. The themes I obtain from my observational data are preliminary problem categories, which are expanded through a series of 20 in-depth semi-structured interviews representative of Canadian academic libraries. Here the librarians speak for themselves.

2. Interview methodology and sampling

As informed by grounded theory methodology of Glaser and Strauss, the qualitative data collection centres on in-depth semi-structured interviews to identify important thematic areas in the professional arena from the perspective of the librarians as actors. As mentioned above, the interview data develop preliminary observation data, and validate them, for wider relevance for other academic libraries in Canada. The open-ended initial question is “What factors do you think foster change in today’s academic libraries, and what factors tend to inhibit it?” The principal intention is to identify, from the perspective of the workers themselves, labour process issues in an “information society” characterized by social and technological changes that include the introduction of new information and communication technologies, organizational restructuring, and staff reorientation. While eliciting information about work done, the “knowledge explosion”, and new telecommunications technologies, the interviews also bring out factors reflecting

librarians' power and control. These include decision-making autonomy, individual professional history, personal or "tombstone" data, and the librarians' relationship with support staff, faculty, and library administrators. The interview plan is in Appendix II. In almost every case, interviewees are useful informants, in their articulation of issues, willingness to provide input, concern with professional status, and level of experience and information.

3. Treatment of responses

Responses are categorized, with a view to category saturation and direction for additional data gathering. Interviews begin at a single university site, a middle-sized university in terms of student enrolment, with a centralized library system. As categories saturate, the interview arena is expanded to include a decentralized system, a bilingual system, a small university, a large university system, and a French system in Quebec. I include Quebec because of its linguistic and cultural differences, with the hope of relating these to labour experiences. Where categories do not saturate, I note these areas are problematic issues for future examination.

In this phase of data analysis, I first group the responses into categories derived from the probing questions and other areas introduced in the open-ended format. I then analyze the information to elicit labour process and other sociologically-relevant information inherent in the data. When saturated, re-categorized, and theorized at a basic level ⁵⁶, the interview data form the bulk of the qualitative information at the early stage of the

⁵⁶ My intention was not to develop theory but to develop problem issues, so fine-tuned theorizing was not necessary.

analysis. The utility of this dense collection of basic-level grounded data is in the formulation of labour process questions. Labour process is about job descriptions, work relationships, structure in the organization, and the internal and external job market. (Littler: 1982) The aspects of labour process concepts that are about the workers' consciousness, such as alienation, can be derived from what is observed and heard from the research subjects themselves. This is an additional reason that the subjective methodology is good for research on the consciousness of subjects.

Labour process interpretation

This is a key step in the methodology of this dissertation. By transforming naturalistic enquiry into labour process, it forms the basic link between grounded theory and political economy. I re-categorize the dense data derived from library workers as labour categories, such as expertise with a knowledge base and control of that knowledge base or of the work done with it. I then problematize it within a labour process perspective. The transformation of the data uncovers problems and challenges facing professional information workers today, particularly the value of work and the power relationships inherent in the labour process. The labour process data categories derived ethnographically in this phase are building blocks for the second phase of the analysis, which triangulates these qualitative data on labour with administrative data on library staff and expenditure, and with data on education for information studies and the professional labour market. Information that is grounded in labour in libraries is important for the dissertation, which works toward inclusion of the structural influences that act upon it.

Summary of Grounded Problem Development

This phase of the analysis is important because it transforms subjective data from academic librarians into data on their labour. Also, it begins to signal the ways in which the operation of the library structure is integrated with the people who work there. For example, librarians' sense of overwork, a first order observation, is possibly related to statistics on library staff and ratios of budget to professional staff. In the labour process interpretive part, librarians' sense of diminution of control over the quality and variety of information they dispense, a second order observation, may relate to who controls information dissemination, serial prices, or availability of choices in a world where vendor packages constrain options. Information from this phase of the analysis is thus central to the third and final phase, which is the political economic analysis. The dissertation ultimately situates information about the power of librarians and value of their work within the totality of the social and economic structures that influence them, such as the labour market, the gendering of labour, the production of information, and information policy.

Analysis: Labour Process Phase

This phase has several aspects that constitute the labour process within in the academic library:

1. in-depth characteristics about labouring conditions from librarians' narratives in the interviews: questions and contradictions related to discrimination by gender or age

analysis; reactions to the preoccupation with information technologies; and attitudes toward the profession;

2. relative importance of librarians to non-professional and management staff: counts and ratios of librarians and other staff, and changes over time;
3. remuneration and rewards: salary, benefits, advancement opportunities; who makes decisions regarding skill;
4. demographic information about library workers, such as gender and age; and
5. relative importance of staff to other library expenses, such as books, subscription, technology

In-depth labour data about librarians

The analysis of the labour process within the library begins with essential objective information about librarians' work: salary, establishment size, relative importance of professional staff, and relationship of staff to other expenditures such as new information and communication technologies. It complements and validates findings from the grounded phase, and leads to the political economic analysis in the third phase of the methodology.

The structural information about libraries and counts about librarians comes primarily from official bodies such as Canadian Association of Research Libraries (CARL), a

collective of 27 universities with doctoral or significant research programs.⁵⁷ Information about job security, job change, and intellectual issues comes from university collective agreements. Union data complements institutional data and interview comments, and often provides interesting contradictions, in areas such as adequacy of salary, or absence of clauses about technological change.

The richness of the problem definition data from the Grounded Theory Phase also contributes to this phase of the study for three reasons. First, because some of the problem-setting data provide details not available from published sources or statistics, they *also* serve as substantive data about the work situation. Here first indications emerge about aspects that are particular to librarians of intellectual work in the knowledge sector. Second, arising from these detailed data are questions and contradictions in the interviews, such as the perceived predominance of male over female management staff. These breaches help identify problems and suggest additional sources. Third, in-depth description contextualizes the administrative data used conventionally, and indeed below, such as salary, promotions, job security, and staff demographics. It enriches information that might otherwise have been “abstract empiricism”. Given these advantages, I summarize the in-depth labour information and use it as descriptive data. It is important to be aware of two more characteristics about the use of qualitative information as substantive information. First, the data cannot

⁵⁷ Material from Canadian provincial and regional university library associations include all small universities and colleges, but provide no additional detail on categories, so they are not used. Statistics Canada Census and General Social Survey Cycle 9 (Work and Leisure) data do not differentiate university librarians from others in their occupational categories, and similarly are not useful to the research.

represent counts because they are not from a random sample but a grounded sample.

Second, on a more beneficial note, they can be interpreted in a relational context, and provide perceptions, for example, about control relationships between professional and support staff in the workplace. This is useful to a labour process analysis, because relationships are essential components.

The labour process information that is internal to the institution also involves the examination of key sources outside the institution, such as the labour market and the corporate control of library resources.

Librarians in the organization

These include counts of librarians, ratios of professional staff to entire staff, changes over time in library staff size in relation to university staff, and ratios of students to each librarian. This shows the present picture and change over time as reported annually to the Canadian Association of Research Libraries (CARL) from 1992/93 to the present, and in some categories from 1986. It contributes to a picture of relationships between professionals and other staff. It provides a pattern against which change may be measured, and a basis for examining the relationships in the institution between staff and materials.

Remuneration and rewards for librarians

These include salary, benefits, advancement opportunities, and professional allowances, such as sabbatical, leave, and professional expense allocations. Figures on salary and

benefits are collated with selected documentary information from unions in their collective agreements or handbooks. These texts also provide information about conditions of work, value of work, and satisfaction, and sometimes confirm or contest representations in the interviews. Synthesized information from the contracts of faculty and librarians also give indications about authority and control, if only nominal, and are also used, along with the statistics, to validate, complement, or contradict the grounded data. Union agreements or handbooks cannot directly signify what is going on at the point of production, particularly over time.

Demographic information about library workers

These include age, gender, education, and years of experience. Demographics point to relationships between males and females, and between young and old, with implications for issues of power. Gender and age are important variables, and show, for example, whether the gender balance has radically altered in Canadian academic libraries, or whether the age range might change as the bulge of long-tenured comfortably-paid women retires in the next decade.⁵⁸ My research demonstrates the relative stability of the professional university library workforce, in spite of the climate of change that is being touted. This prompts the investigation to move to other areas of change in power and control, namely those outside the institution, in the third phase of the research strategy.

⁵⁸ The most focussed information about the numbers, gender, age, and education of Canadian academic librarians was collected in the 1998 Survey on Downsizing in Academic Libraries. This survey was funded by the Social Sciences and Humanities Research Council of Canada and conducted by Ethel Auster and Shauna Taylor from the Faculty of Information Studies at the University of Toronto. Summary counts were presented at a 1999 conference presentation, as their data were then still being analyzed. In a 1999 conversation with me, Auster anticipated three years until her downsizing analysis was complete, and stated no intention of making her data publicly available before then.

Relative importance of expenditures on staff to other library expenses

These refer to general data about collection size and entire library budget allocation; to books and subscriptions; to information technologies, such as computers, systems expenses ⁵⁹, and to expenses in other years, including rate of change each year. This provides an historical account of institutional growth and allocations over time, and shows trending. One of the objectives in the dissertation is to correlate spending on professional staff with that on electronic systems and materials, for its importance for arguments concerning labour process change. However, it is almost impossible to isolate what libraries spent on new information and communication technologies, because administrators work in such expenses where they fit. Expenditure for technology does not necessarily conflict with professional staff interests. Further, university library budgets are not publicly available.

Summary of labour process analysis

The examination of the aggregate administrative data reveals the growth, stability, and diminution of librarians in the workforce, as a proportion of the whole workforce. The use of part-time staff is also important, as is the proportion of part-time staff in the librarian group is contrasted with that of the support staff. The other crucial variable is gender, specifically the changes in the proportions of women staff, female managers, or

⁵⁹ Expenses for electronic materials are difficult to isolate in library budgets; they are sometimes in the book or serials budgets, sometimes bundled with telecommunications or operations; sometimes part of university computing budgets.

male systems librarians over the two decades in question.⁶⁰ If gender proportions have changed little, there are theoretical implications for the fate of the semi-professions and female-intensive professions. Links between interview comments on qualitative changes in the work and actual organizational changes can be made. Data in Phase Three show the areas in which new jobs are being filled.

From this detailed labour process analysis, more finite information emerges about contradictions within librarians' work in the knowledge sector. Particular to librarians are these kinds of questions considered in the analysis:

1. Salary and benefits

For librarians of long tenure, salary figures as reported in the statistics are shown to be respectable and compare favourably with those of academics. They are similar to those of teachers, social workers, and registered nurses, though their conditions of work differ, but lower than computer analysts.⁶¹ Documentary information from collective agreements adds another perspective on these issues. Librarians do not isolate salary in the interviews, let alone complain about it. Nor do librarians complain about the lesser status, in comparison with faculty, of their sabbatical or study leave privileges, or any

⁶⁰ Not all positions in library systems work are professional librarians. Some are programmers, analysts, or technicians. Auster and Taylor's survey showed that systems librarians do not identify themselves as library staff, and tend to stay apart. This evokes Abbott's findings about overlapping roles and professionalism shifts.

⁶¹ According to the 1996 Census of Canada, there is a range of about \$11,000 among the average salaries of full-time librarians, teachers, nurses, social workers, and computer analysts, though librarians are not distinguished by type. Analysts average the highest salaries at \$50,000, social workers the lowest at \$39,000, and librarians the middle at \$41,000. Academic librarians are above the general library average.

threats to losing these, as measured by differential terms and conditions for each group.⁶² Neither do the newer librarians complain about salary, and their starting salaries *are* low. Both neophyte and veteran are more concerned about job or advancement possibilities.

2. Demographic shift

Many librarians speak about the vacuum that would be created by retirement of seasoned librarians in the next ten or twenty years. I record any visible trends, such as loss of positions, increase in contract jobs, jobs filled at a lower level, or emphasis on different areas. The gender balance has always been weighted toward women in libraries and library schools, and I look for information that might indicate any shifts in the balance.

3. Interconnections

I look for relationships between factors such as salary, position level, years of experience, modifications of the job, and attitudes toward changes in the library. Changes in work, position level, and possibly attitude might clarify aspects of power and control in the labour process.

Transition toward a political economy synthesis

This section analyzes labour process data by centering on the problem issues of the value of work and the control of work, that were identified in Chapter 2. It mines the interviews and observations as sources of detailed information on labour in the academic

⁶² Note the use of the term “privilege”, in contrast with the concept of “right” to take sabbatical, as enjoyed by faculty.

library. It adds structural data from the institutions that employ librarians or represent them. Directed by the substantive issues in the qualitative data of librarians' experience of work, it looks at factors that reinforce this experience, such as staff size, remuneration, conditions of work, and rations of fiscal allocations to larger scale priorities in the library and the university. This is a mutually constitutive picture rather than one of cause and effect.

The methodology then identifies areas of agreement and of contestation. Areas of agreement between the librarians' experiences and the institutional data include financial stringency and staff reduction. Areas of disagreement include opinions on the deskilling of professional work, degree of individual autonomy, and the interaction of gender. The areas of contestation, in particular, provide issues that are examined in the larger perspective, as the dissertation moves to the broader level of political economic analysis and forces outside the institution. It also discovers threads common to the agreement and disagreement, which informs the explanatory parts of the analysis. In fact, the analysis determines whether the same factors can explain the congruencies and incongruencies.

Integration: Political Economic Synthesis

The previous phase establishes patterns of control and value of work in the labour process of professional academic librarians. It looks for changes and continuities over time in these areas, to discover whether the proletarianization thesis holds, whether the profession is growing in stature, or neither. This integration section addresses questions

that cannot be answered by limiting analysis to labour related issues *within* the contemporary information workplace. That is, it answers the critical questions in a comprehensive social framework. For example, labour process analysis within the institution finds that the balance of professionals and paraprofessionals is approximately the same, or that the ratio of males and female is relatively unchanged since the 1980s; therefore why do librarians in the interviews feel so concerned or not in control? For these explanations, the analysis moves outside the institution to introduce other forces which impact on the value of work or librarians' control of the work. This is the part that incorporates the political economic phase of the analysis.

The earlier chapters introduced economic factors intrinsic to the institution, such as in remuneration for labour, or monetary acknowledgement of the value of professional library work. This is now set into a wider context. The value of work is measured not only by factors internal to the organization such as salary and job tenure. It is also determined by the labour market for professional information workers, and by client responses to the work they do. The labour market, in turn, is connected with education and credentials, as well as with the state of the economy and university hiring policy. The clients' valuation of the work is difficult to establish, apart from formal user studies, which are scarce and may be flawed. Proxy measures are library service statistics related to reference, instructional, and electronic information services, but they lack sufficient detail about librarians to be informative about their labour process. User studies and library information statistics are therefore not used in the dissertation. An alternative measure is how well the students are educated or how well the faculty are served.

Educational effectiveness is difficult to establish, as it must be carefully operationalized and measured over time, and faculty satisfaction can be subjective. Another measure of the value of professional library work involves the impact of librarians in the community, and especially the academic community. These kinds of contributions are cultural, and also difficult to measure. Further, they are outside the labour-oriented scope of the dissertation. From a library policy perspective, however, one must be *aware of* the impact of library services in the larger social context. This has relevance for the social action possibilities that locate the work of professional librarians outside as well as inside the institution, and justify a political economic approach. The broader social implications of librarians' work are covered in the conclusion in Chapter 7.

Control over work is determined by more than rank, authority, and membership on committees. Since the means of production is electronic, both purchased materials (books, periodicals, and databases) and information resources are in varying degrees created outside the library by third party commercial or non-academic agents. Not only is their creation outside control of librarians, but also their organization and management is anarchic due to the proliferation of resources that accompanies electronic transmission over the Internet. Thus external sources of control over the creation, dissemination, and marketing of these resources must be determined, by looking at systems of publishing, control, and vending.

To summarize, the *skills and value* of library work are determined in the dissertation by information from the library education programs, and the labour market. The *control* of

production outside the library is determined primarily by monopolies of information providers, concentrated in publishers and vendors. Other bodies of control, such as academic library consortia, are identified, and the extent of their impact is assessed.

The Labour market

1. Library/information education data

Information about education for librarianship and information studies provides both substantive information on skill, and change in emphasis of knowledge areas over time. As with the objective information about labour, it is used to confirm, supplement, or interrogate librarians' comments in the interviews. In this case, it provides rich information about the strength of their credentials, the value of a professional education, and the changing nature of their knowledge base. Educational programs for librarians also reflect their early professional socialization and workplace expectations. For this dissertation, the professional education programs and especially their changes reflect three things related about the market. First, they reflect what has been learned from market research done on the profession to track the success of their programs and attract new candidates.⁶³ Second, an analysis of library school philosophies and courses reveals trends as represented by pedagogical emphasis or balance, in this case the educational trend toward market principles and away from intellectual ones. Third, an aggregation of course concentrations, with change over the period that represents the post-industrial library, shows what has really changed and what has essentially remained constant in

⁶³ For example, l'École de bibliothéconomie et des sciences de l'information (EBSI) at l'Université de Montréal has done a detailed market analysis in the course of revising their program and introducing a doctoral program. Information from actual and prospective employers, and from working graduates, was considered.

professional education and socialization. In other words, this section shows whether the library schools are educating different kinds of professionals than before, and whether today's graduates are losing or gaining an edge in the labour market for information professionals.

Library school calendars are rich sources of current and retrospective data, which are both numerical and textual. The quantitative data include the numbers and concentrations of courses that constitute the professional knowledge base, with the premise that expertise has been shown to be a key component of professional power. The textual information provides the language used to characterize and promote the programs. First, I establish a pattern over time by distributing the course information by five-year periods, between 1971/72 (the years I studied) and 2000/2001, to reflect significant changes and trends in the information world. Not only does this represent my own practical experience in the profession. It also is associated with turning points, if not disjunctions, in the world of information services. The period reflects major changes related to information technology and systems study in library school curriculums:

- (1) introduction to early electronic techniques such as punched cards, batch systems, large mainframes, and terminals without monitors;
- (2) electronic transition to better computers and terminals;
- (3) the microcomputer and laptop revolution in the mid-eighties;
- (4) economic change around two recessions, which is also contemporaneous with the "post"-everything world;
- (5) organizational flattening and staff retrenchment which accompanies economic devolution;
- (6) educational change such as the relaxation of formal standards, use of whole-language approach, and the prominence of student

rights; (7) increased equity and levelling of opportunities represented by an increase in people challenged by language, mobility, and earlier formal educational opportunities, (8) growth of program rationalization and consolidation with the expectation that library education programs merge with others or struggle for autonomy, and (9) the rise of the importance of information as a strategic resource making education for its management more highly sought.

Second, I identify subject concentrations. A primary categorization of courses in library education programs, by thematic grouping, shows up different orientations in the schools, and highlights changes over time, such as the shift to “information studies” from “librarianship”. I rework them into categories related to skills that represent the value of information work.⁶⁴ This links to the skill component that Poulantzas and other deem essential to the labour process mix or that Wright finds essential to the explanation of class. The labour-oriented representations show how consistent professional library education has been in both ensuring that expertise or work skills mirror social change, and creating or maintaining a niche where information professionals can have some authority. The data show which basic educational principals still operate, and that not every recent graduate is a technocrat. In terms of the visible skills and socialization they actually bring, the analysis responds to popular claims about the usefulness and value of hiring librarians. The implementation or actualization of change, as represented by core course concentrations or a greater focus on marketing and branding, is identified.

2. Job advertisements

Position ads show the job requirements as represented through text, plus trending toward certain kinds of vacancies in academic libraries. Job descriptions show the importance of areas of expertise, and degrees of autonomy expected. A realistic depiction of the labour market at the Millennium is obtained from two year's worth of ads (2000 and 2001) in the principal advertising venue for academic librarians, the electronic news group listing from the Canadian Association for Research Libraries.⁶⁵ Given the difficulty of making a comprehensive collection (internal advertisements are not included) and the credibility gap between text and practice, these data are used for illustrative and verification purposes. They also highlight areas of contradiction between expected and actual views of the labour market and the workplace. The labour aspects of professional education and the job market are collated in terms of what they reveal about the value of the work. Contradictions are identified, and explanations in the larger context are suggested.

Ownership and control of expertise or labour: commodified labour

Ownership and control is at the heart of a political economic analysis, and the commodification of labour power, or the transformation of use value to exchange value in the marketplace, is central to this analysis. This section of the dissertation analysis brings together the working experiences of the librarians and the institutional data about their work, from the labour process phase of the analysis. In the area of subjective experience,

⁶⁴ This process of transforming educational information to labour process concepts is similar to my representing the qualitative data on problem definition as labour process issues.

⁶⁵ CARL Listserv is exclusively for academic librarians, and thus preferred over newsletters for the Canadian Association for University Teachers, University Affairs, the federal and regional library associations, and web listings at Canadian library schools. This electronic communications medium is more comprehensive than earlier print versions, and thus is not comparable with earlier advertising venues.

the concerns of the interviewees about sustaining quality in their work or controlling their output are probed. In the area of workplace conditions, indicators about decreased funding for staff or increased funding for technology are analyzed. They are considered in the light of the hardware and software that are accessible in the library, and the available choices of print and electronic books and subscriptions. If a single conglomerate owns or controls creators, publishers, or vendors that were previously independent, or if a library has to buy a package to get access to a component of it, then there is a diminution of professional control. If a library has to do lots of politicking with a consortium or potential donors to gain access to an information resource, the work takes a different orientation from the role of collection, organization, preservation, and dissemination that has been traditionally touted in library education programs. The initiatives of researchers and publishers are also considered in the context of their relationship with the skills and labour of librarians.

Ownership and control data also highlight the transnational nature of the problem, as noted in Chapter 2. The generation and communication of information transcends national boundaries. One positive outcome from the perspective of library service is fast, decentralized access for staff and patrons. Transnational communication systems are also closely connected with corporate ownership and control and outside state regulation. A resulting negative outcome is the commodification of information work, and the nature of the labour process connected with this commodified work is central to the dissertation. Obviously, programming and other technical functions can easily be de-concentrated to third world areas such as Malaysia and India, or re-concentrated globally. (Sussman and

Lent: 1998) This discussion focusses on the creative levels of work, in the professional sense: the development of organization and retrieval systems, bibliographic control, the establishment of standards, quality control, and the provision of equitable information access. When aspects of professional work are appropriated by professional or technical workers in the commercial sector, such as vendors, the institutional control of that function is lost. Further the nature of the individual worker's activity changes. This is covered in the section on publisher and vendor monopolization in Chapter 6. The analysis also looks for links between the commodification of labour as represented in professional education and commodification activities in the market itself.

Methodology Conclusions

The dissertation methodology provides a multi-level analysis of the labour experiences of professional librarians at Canadian universities that includes the historical experience of a specific case, the structural relationships in the libraries where they labour, and the economic, political, and cultural setting in which libraries as cultural institutions are situated. With this methodology and information analysis, the labour process within the library, the professional labour market, and the ownership and control of information production are linked to the "engagement" stage of political economic study, social action and further research. There are many instances where the methodology draws out information that leads to larger issues. The degree to which librarians have become referees rather than reference librarians, in policing non-academic, distasteful, or illegal uses of the Internet, is related to government inability to adequately monitor pornography

or to levy punishment. The degree to which librarian expertise is bypassed in favour of unauthenticated web information from unknown or unqualified sources suggests that, while student information-seeking behaviour is impossible to regulate in the conventional sense, instructional policy initiatives of the academic staff (faculty, librarians, and learning development counsellors) might be explored. The extent to which librarians are forced to buy things in packages rather than select according to their professional judgment suggests that library advocacy group or preventive policy might be investigated, and any lessons from anti-trust initiatives against Microsoft be noted. The extent to which librarians control information flow, and intellectual property laws favour the creator or disseminator over the user suggest increasing engagement with publishers and government policy makers. This situation is deeper than goodwill publisher/librarians cooperation, because the economic motive and the facilitating abilities of new information and communication technologies operate strongly, and to a certain extent are supported by federal policies.

In all cases, the methodology incorporates and develops the interactions of professional workers with information technologies. Being comprehensive in nature, this political economic approach generates an abundance of data.⁶⁶ Thematically, the information generated by the methodology falls into two categories, social relationships within the library, and those between the library and the social forces outside the institution. The findings in these areas are therefore summarized and analyzed as “internal relationships” and “external relationships” in the next two chapters.

⁶⁶ Some data may be useful only to demonstrate there is “no effect”.

Chapter 5: Findings: Professional Labour Process Within the Academic Library

This chapter presents my findings about the labour process within the library, and follows the methodology established in the previous chapter. It begins with a summary of the objective labour conditions in the institution itself, from public data that contribute to this overview. Because of the limitations of the institutional data for a relational analysis, the picture it provides is not fully realized. It is, therefore, detailed with the rich material derived through qualitative techniques from the working experiences of librarians. Focussing on the skill and authority components of professional labour identified in Chapter 3, the findings expand on the value of the labour of librarians and the degree of control they report they possess. The chapter concludes with a recapitulation of the labour problems evoked by their insights. While important in their own right, the labour process findings from within the institution need to be complemented in the next chapter by data from outside the institution. The findings in this chapter indicate that professional labour in the academic library is integrated with external economic, social, political, and technological forces. Thus, with labour as the entry point, the dissertation progresses through this pivotal chapter toward a more comprehensive understanding of class relations in the professional workplace.

The findings on the academic labour process in this chapter are divided into three areas:

1. information from public institutions about the academic labour process in relation to the structural systems in which librarians work, and the limitations of this information;
2. a synthesis of professional labour issues as articulated in the interviews; and
3. complementary labour information to fill the gaps

The statistics provide the backdrop for the labour-specific data from the librarians. The labour process data come from the workers in the field and from documentary information and surveys about librarians and their labouring conditions.

The Labour Environment for Academic Librarians: Some Measures

The labour status of academic librarians is set within the university context, which in turn is governed by provincial priorities. It is common wisdom in the academy that the higher up the administrative ladder, the more economic and political these imperatives. The following section provides the necessary background to the labour status of librarians by highlighting the robustness of universities and their libraries in terms of key economic indicators. The labour aspects of professional skill and power are best understood in this context. The limitations of the data are noted, and the need for more comprehensive information are detailed.

University Background

As with other organizations and cultural institutions, academic libraries have undergone a decline in spending power that is part of a larger social picture. This is due to Canada's tentative economic situation, as synthesized in the annual April issue of Statistics Canada's *Canadian Economic Observer*. (Statistics Canada: annual April issue) An understanding of the labouring environment of professional librarians is most easily achieved in the context of the university as a whole, as well as the specific situation of the group itself. This part of the discussion helps differentiate between what is characteristic of labour in the university as a whole, and what is characteristic of its constituency of professional knowledge workers.

University expenditures

The background discussion begins with a study commissioned for the Canadian Association of Research Libraries to report on university library trends suggested by the annual CARL data for a five-year period, 1991/92 to 1996/97. The author, Emory, begins with general fiscal trends in the university during that period, which includes the economic recession of 1993. (Emory: 1999) Over that period, the national average reflects an actual increase in university expenditures of 4.4%, which is a misleading figure. The putative increase masks an approximate 9% increase in inflation over the same period. It also obscures a decrease of 2% from the previous year's average national university expenditures, and over 1% from the year before that. In fact, the only increase in the national average was just before the 1993 recession, between 1991/92 and 1992/93. The 4.4% "increase" also obscures considerable variations across the regions of Canada.

The national details, provincial breakdowns, my enhancements to the data, and a brief discussion are in Table 1 in Appendix III. In actual figures, a decrease of 2% in an average university budget of about one billion dollars signifies a reduction of about 20 million dollars for that institution. This is exacerbated when increases in labour, services, and materials are factored in, and hence reduce that spending power. Thus, with lower university funding from provincial and other sources, serious decreases are passed down to their libraries.

Student enrolment

An important factor contributing to university income, through both fees and grants per student, is student enrolment. Enrolments have decreased by 1.1% on average in Canada for the same five-year period, as reported by Emory and elaborated by myself in Table 2, Appendix III. The only geographical areas showing enrolment increases were British Columbia and the Prairies.

The above budget and enrolment figures highlight that the pool of resources per university is decreasing, and any apportionment of funds is done from a fragile reserve. The following section details how the decline in university financial stability affects its libraries, is carried over to its staff, and hence, has an impact on the professional workers with which the dissertation is concerned.

The university library

The centrality of the library to the university has a strong tradition in Canada. It is idealized in literature by Canada's humorist and McGill political economist Stephen Leacock, who wrote, "If I were founding a university – and I say it with all the seriousness of which I am capable – I would found first a smoking room; then when I had a little more money in hand I would found a dormitory; then after that, or more probably with it, a decent reading room and a library. After that, if I still had money over that I couldn't use, I would hire a professor and get some text books." (Leacock: 1922: 113-114) On a pragmatic level, its importance is measured by the portion of the university budget that is dedicated to the library system. Its resilience can be assessed by relative changes in that fiscal allocation. The Canadian Association of Research Libraries has compiled annual library expenditure and establishment statistics from 1992/93, the most recent being 1998/99. The CARL data will be used for categories in the remainder of this section, and will be embellished by calculating averages, medians, and percent changes where they are not provided. The inconsistencies in reporting have been regularized, where feasible.

According to the CARL statistics, the library portion of university expenditures has ostensibly changed relatively little, averaging from 6 to 7% over the five-year period, as seen in Table 3, Appendix III. For Canada as a whole, the variations during that period range in scope from a miniscule .02% allocation increase in 1995/96 to a scarcely bigger .12% decrease in 1998/99. In our prototypical university with a billion-dollar budget, an increase of .02% means about \$200,000 more in the budget, the equivalent of

approximately four annual salaries.⁶⁷ A decrease of .12% means about \$1,200,000 less in the budget, the equivalent of an entire annual serials budget! In other words, these fractions of a percent which may appear insignificant actually have a real impact on academic library operation. In the provinces and regions, the differences are slightly greater, both among the geographical areas and from year to year, as detailed in Table III-3. It is interesting to note, from the detail in the table, that Quebec libraries have consistently received, on average, the smallest proportion of the university "pie" and British Columbia libraries, the greatest. These discrepancies are important when labour is factored into the equation, because, in spite of their polarized financial positions, both those provinces show themselves to be generous to their professional workers through salary and support.

The human factor in academic libraries

In the budget of university libraries, staff salaries and benefits normally represent over half the apportionment. Historically, in any industry, labour costs have been consistent targets for reduction, so that owners or managers can continue to make a profit in the face of increasing materials costs and uncertain market prices. Academic libraries since 1990 have been no exception. Although they do not operate in a production environment, they need to recover costs. Over the last decade there has been a cut of about ten percentage points of collective salaries for professional, support, and managerial staff as a percentage of total library expenditures. In the national average, the percentage of library staff

⁶⁷ The \$50,000 salary figure could be for a professional or non-professional worker.

salaries dropped from 63% to 53% of the university library budget, as seen in Table 4, Appendix III.

The cuts in the salary portion of academic library budgets have been consistent across the provinces and regions of Canada. The steepest cuts in total salaries as a percentage of library expenditures were in the mid-1990s (1994/95 through 1996/97), with reductions of approximately 2% a year. Over the last five-years (1995/96 through 1999/2000), where the use of technology was greatest, there has been, on average, a five percent cut in salaries, or labour costs, as a portion of the library budget in Canadian university libraries. In a library within the above-mentioned “prototypical” Canadian university with a billion-dollar budget, this means a typical reduction of about \$50,000 in the salary allocation before inflation. If, as hypothesized above, four salaries are already lost to a reduction of overall library allocations, an additional salary is lost to reduction in salary apportionment across the entire labour pool of the library. With this general staff picture in mind, the analysis is directed toward the focal point of the discussion, how professionals have fared.

Administrative data provides three basic, if crude, quantitative measures of the labour situation of professional librarians. The first is changes in salary, in consideration of inflation and in relation to the salary of comparable professionals. The second is the stability of the number of staff professionals, relative to the total number of library staff, over time. The third is the number of students per librarian, which has impacts for workload, plus the quality and value of the work.

Professional labour costs

In the refined problem definition in Chapter 3, salary emerged as one of the proxies for the skill aspects of the job, as it is assumed to measure the expertise, complexity, and esteem inherent in the job. It was also advanced as an indicator of power, though not as significant as measures of authority. Salary represents the prominence of professional librarians in two ways. First, the maintenance or increase in salary and benefits over time, in relation to other library staff, is an indicator of the value the employer places on the professional workers. It is understood that salary increases are also compounded by the strength of its union bargaining power. Second, the objective figures are important, particularly in comparison with other professionals with postgraduate degrees. CARL provides annual statistics about the professional proportion of library salaries, and also salary figures.

Professional proportion of total salary expenditures

The proportion of total salaries that academic libraries pay their professional staff has gone up over the past five years. In the first half of the 1990s, professional salaries represented about one third of library salary expenditures, then jumped to about 40% and sustained that proportion till the end of the decade, when it dropped slightly. This was one statistical aspect where the figures for the provinces were relatively comparable and there was little discrepancy. Refer to Table 5 in Appendix III for detail on professional salary proportions and a brief expansion about the numbers.

The approximate numbers do suggest some information about survival of professional work. They show that professionals represent for the library a considerable segment of its salary budget, a segment which is not decreasing at the same rate as other reductions in the library budgets, such as materials.⁶⁸ This proportion does not provide any information about the finite staff component, which is addressed in the next section on the importance of professional work. On the basis of steady salary proportions, an early inference may be made that a few staff may be retiring, but most staff appear to be staying put because there has been little job mobility, and their salaries have been increasing apace with the longevity of their tenure. The reduction in professional salary proportion over the last year of the decade shows that perhaps new hires with lower salaries are beginning to replace retirees. It may also signal that technological change is having a wider impact. For example, the diffusion of electronic processes throughout all library functions may reduce the need for professional staff, largely through its use in the routinization of functions in cataloguing or reference service.

The figures suggest also that, in addition to being disinclined to move on, professional librarians are protected by unions or staff associations, to the extent that they cannot be fired or involuntarily obliged to take early retirement. It must be emphasized that the figures are relative. While all libraries have undertaken a reduction in expenditures on staff, as have the library and university expenditures as a whole, the proportion of spending on the salaries of librarians has not diminished! This is a strong indicator about

⁶⁸ By comparison, the average Canadian university serials budget dropped over 50% between 1990 and 2000.

the survival of professional labour in the academic library, and is important to the dissertation. Whether it says more about the value of the work, deskilling, or the power of librarians is addressed later in the chapter.

Professional salaries

Professional salaries are increasing annually at both national and regional levels, as represented by their medians in Table 6, Appendix III. According to the national average, professional salaries increased from \$58,300 to \$62,500 between 1996/97 and 2000/2001. These increases, as bargained by the collective agreements of the unions or staff associations to which librarians belong, are modest, and scarcely keep up with inflation. The bare figures say little about the provincial differences in Table III-6, which could be related to union bargaining or the general economic climate of the province or institution. They mask changes in the staff composition and salary levels within the libraries. That is, there could be fewer librarians with substantive increases, or more librarians with lower salaries. To sum up, the salary medians tell something about the value of the librarian staff complement as a whole, namely that their salaries are just keeping up with inflation and not decreasing. The salary statistics indicate little about the status or power of sub-classes within this group.⁶⁹

⁶⁹ This can be done to a limited extent with statistics, with more in-depth information from a tailored survey and multiple regression analysis, supplemented by qualitative data. The CARL data provide neither enough detail nor consistency over the years.

The importance of professional work

While salary data are general indicators of the importance of professional work, they are tied to many other factors, such as inflation and individual employment longevity, which obscure the picture and make cross-institutional comparisons difficult. The number and proportion of professional librarians are more distinct indicators. The numbers show the actual changes in professional staff strength. The proportions show the stability of the librarian component over the years, and constancy of that proportion in relation to the rest of the staff. If there were decreases in the proportion of professional to non-professional staff, the phenomenon of deskilling might be inferred, as might the facilitating role of information technology in the routinization of tasks. Deskilling, however, is more complex. It cannot be quantitatively summed up, or reduced to relative numbers of staff. Relational information about the nature of the work and processes is needed, for example, on decisions made for professional workers. The number of students per librarian provides a measure of how well served the students are. It also is an indicator of changing workload due to fewer staff or more students.

Counts of professional librarians

Compounding reductions in fiscal allocation to universities, to libraries, and to staff, professional staff in all regions diminished in numbers over the last decade of the century. As measured by national and provincial averages compiled by the Canadian Association of Research Libraries, the average library in Canada in 1999/2000 had about 42 professional librarians, ranging from 29 in Atlantic Provinces libraries to 48 in British

Columbia. The overall decreases in professional staff numbers range between 5 and 15 percentage points across the provinces and regions, or from two to nine professionals per institution.⁷⁰ These are detailed, with a brief comment, in Table 7 in Appendix III.

When the reductions in allocations to universities, then to libraries, and then for staff are considered, librarians have not taken as great a cut to their numbers as have other staff constituencies.

Percentage of professional staff

Numbers, however, are not as important as resilience in proportion to the rest of the staff.

This is measured by the ratio of librarians to other staff in Table 8, Appendix III.

Proportionally, librarians have continued to constitute from about 20% to 22% of the full-time equivalent (FTE) staff, in the national average. While the actual numbers have decreased, as seen above, the proportions have remained fairly constant. A concern implied in the interviews and from trends in the literature on workplace changes that professional work might be deskilled, and gradually passed on to less costly or more technologically oriented staff. According to the CARL statistics, full-time equivalent support staff have comprised on average from 50% to 75% of the entire staff over between 1990 and 2000. In most of the libraries, however, support staff ratios have either

⁷⁰ I do not use that national average in this case. CARL national averages are not consistent with the provincial averages. Also, staff totals are difficult to compare, because institutional sizes vary greatly. In 2000/2001, the largest academic library was the University of Toronto with 170 professionals, and the smallest research library was the University of Regina with 18. In provinces such as British Columbia and regions such as the Prairies, with one very large institution, provincial averages are skewed. The statistics provide a general guide, and give an idea of trending.

diminished or remained the same, in contrast with the continuing stability of the professional staff component. It is important to note that support staff duties vary across libraries. Some have university degrees, learn on the job, and enjoy work in reference services and cataloguing that is equivalent to that of professionals. Some even advance to do the work of library administrators, particularly in budget and personnel. Others perform clerical, technical, or support work, and some of these may also have degrees! Many non-professional staff have worked in academic libraries for many years, and have experienced up-skilling in their jobs. It is clear that, while librarians enjoy more job security relative to support staff, they feel the impacts of not sharing their workload. Perhaps, like Canadian dentists, they fear that if they pass on their “dirty work” they will have little left to do! (McFarlane: 1965) The diminishing support staff ratios also show the greater volatility of their positions, in relation to librarians, both in terms of job security and continuity in the job.

The proportional stability of the professional staff indicates their work *may not* be reassigned to staff with fewer credentials. It does not, however, preclude professional deskilling or proletarianization. It does not show any interrelationships with salary data. Nor does it indicate the qualitative or quantitative changes that are important to individual staff members, such as position level, the nature of the work, or organizational relationships. These descriptive data are integral to a labour process analysis, and acquired for the dissertation through qualitative techniques.

Students per librarian

Across libraries in Canada, there is a wide range of number of students per librarian, from about 350 in the Maritimes to 500 in Ontario. This is partly due to institutional variations, and may also be due to differences in the ratios between professional and non-professional staff. With ratios, it is hard to determine whether the number of students has increased or staff decreased. In a library averaging 40 librarians, the loss of a staff member through normal attrition can account for a change in the ratios. These ratios do give a general indication about the university's valuation of librarians versus students, but say very little about the service functions valuable to students, because the librarians in these ratios are not differentiated by function.

Summary of labour trends in university libraries

Until the end of the 1990s, the socio-economic environment of university libraries has been one of gradual economic decline for Canadian universities and their libraries, but relative stability for the professional labour therein. University expenditures have minimally increased over this period, and even decreased between 1996/96 and 1996/97. The library portions have increased only a fraction of a percent, but not little enough to make up for rising materials costs such as serials subscriptions or increasing operating costs such as salaries. Total salaries as a portion of library expenditures have undergone consistent annual cuts, amounting to a reduction of 10 percentage points of overall expenses over the 1990s. This can be partially explained by a reduction in staff due to attrition, as total library staff numbers have reduced by 11% between 1991/92 and 1996/97. (Emory: 1999)

The value of professional labour is reflected not only through actual remuneration, but also through stability relative to the rest of the library staff. Here the figures are encouraging. Median professional salaries have increased minimally per year, often below inflation, and have begun to increase more recently. According to staff counts, the rate of attrition of professionals between 1991/92 and 1996/97 is lower than that of the non-professional staff. (Emory: 1999) Professionals have actually sustained a proportion of 20% of the staff complement, in spite of an annual reduction in numbers. This is counter-intuitive, because the effects of technology diffusion and job displacement would suggest that the complement of professionals goes down while that of non-professional and casual staff goes up. Clearly, more factors need to be considered.

The shift to electronic information services

At the Millennium, most academic libraries in Canada have integrated information technology throughout the institution.⁷¹ Electronic information services to the public have been the last function to change, because the interactive, face-to-face nature of reference services has always been a key element. The mode shifted in the 1990s to in-house searching *by patrons as well as librarians* of the same electronic database information, which was now on CD-ROMs. This marked an important change, because it relocated some of the electronic information seeking from the librarians to the users, and also because it relocated the information source from a remote computer connected by telecommunications to a disk that could be mounted on a local computer. From that

⁷¹ The early stages of university library automation involved technical functions such as cataloguing and circulation in the 1970s, followed in the late 1970s/early 1980s by more technical applications such as acquisitions and administrative records. The 1980s introduced electronic bibliographic searching for patrons by librarians connected online to mainframe computers in database headquarters such as California.

point, user access to electronic information grew incrementally due to technological capabilities. CD-ROM databases became networked within universities and outside them. From networked CD-ROMs, it was a seamless leap for the user to access the same information on the worldwide web, which is now the preferred mode by the vendors. In addition to databases, other full-text materials are electronically available in increasing numbers. They include reference books such as dictionaries, directories, and handbooks, technical manuals, periodicals, books, government publications, statistical data, and cartographic materials. Most are priced, except for government information on legal deposit and data in the public domain through the Data Liberation Initiative or from consortia. Though electronic reference and instructional initiatives, libraries are now providing customized resources and training for classes and individuals.

These electronic products have an impact on libraries that cannot be summarized by price or logistics.⁷² Ultimately, they have an impact for the labour process in the library.

While they require an electronic infrastructure that includes technical aspects such as machines, speed, and disk space, they also need programming and service from technical staff within the library, on campus, or from the vendor. It is difficult to assess how much money is used by electronic library services, or, more to the point of this dissertation, the extent to which money spent on electronics *replaces* that spent on staff or books.

Moneys spent on a new database may be part of the serials or the electronic materials budget, which are often separate categories of the collections budget. They may be part

⁷² Strong arguments in favour of electronic resource materials are that they take less space and are remotely accessible.

of the library electronics budget or the campus electronic infrastructure budget, which involves hardware and software allocations. Database allocations may also be part of the interlibrary resource-sharing budget, which includes consortial arrangements and document delivery. Administrators often get the money from whatever reserve they can.

In academic libraries, materials and staff are part of two different budget categories. Expenditures for electronic materials, be they collections, hardware, or software, are part of the materials budget, while expenditures for staff and benefits are part of the operations budget. Since staff costs are high, often fixed, and difficult to reduce, library administrators need to work around them when budgeting for electronic information service and indeed all aspects of electronic library service. The degree to which this is done is integral to the dissertation. Clarification of what general areas of funding, and therefore support, go to which priorities is attempted below. It is difficult to represent because of the vague boundaries between the above-mentioned budgeting categories, and because of the limited and inconsistent nature of the statistics collected. In fact, the annual CARL statistics state in the introduction:

“Users of this survey are advised against making staffing or salary inferences from the data presented here. A highly standardized method of data collection has been used, which may imply organizational patterns that are not valid. Reported information is not audited. The survey of salaries does not include other forms of compensation. Salary information is not published when fewer than four individuals are involved.”

It was not until 1996/97 that the Canadian Association of Research Libraries began to systematically collect data on expenditures on hardware, software, and materials. The first two categories, hardware and software, include electronic equipment, necessary software, and related expenses, and are summarized in Table 5-1. The third category, materials, includes a breakdown of dollars spent on electronic serials, books, and other products, and is delineated in Table 5-2. By totalling these three categories, we can approximate, *very roughly*, a general figure of library budget that is designated for electronic expenditures. It is strongly emphasized that these data are submitted annually by CARL member libraries for information purposes only. While individual institutions follow CARL guidelines when reporting this information, they are governed by their individual applications when they categorize these data. Accurate comparisons across universities are accordingly difficult. The figures simply give a general impression of the range and nature of academic library expenditures on information technology, and set them in relative comparison with those on salaries.

Table 5-1
Median Expenditures on Electronic Materials in Canadian Academic Libraries

		1996/97	1997/98	1998/99	1999/2000
Canada *	Hardware & Software	\$324,100	\$347,300	\$364,200	\$304,100
	Electronic Information	\$355,141	\$308,400	\$486,600	Not Done
BC	Hardware & Software	357,300	627,600	758,700	554,800
	Electronic Information	325,600	353,100	417,100	Not Done
Prairies	Hardware & Software	435,700	502,900	321,000	306,400
	Electronic Information	150,900	297,600	442,400	Not Done
Ontario	Hardware & Software	280,200	307,500	327,500	298,600
	Electronic Information	282,900	293,000	484,100	Not Done
Quebec	Hardware & Software	430,200	215,300	229,600	180,000
	Electronic Information	339,700	371,400	565,500	Not Done
Atlantic Prov.	Hardware & Software	117,300	83,100	184,000	180,800
	Electronic Information	176,900	226,700	323,800	Not Done

Source: Canadian Association of Research Libraries

- Average of provincial and regional median expenditures

There is a further consideration about the use of these potentially informative data. In 1999/2000, CARL's "electronic materials" category was redesigned, to improve the reporting and provide more specific information. While the information is indeed more informative, it makes it more difficult to compare with data from the three previous years. Because of adjustments and incomparability during this recent period, it is most illustrative to give a snapshot of the latest reported year, 1999/2000, for all categories in Table 5-2, and to highlight major changes in information technology expenditures across the four-year time period, only where clear and consistent.

In 1999/2000, median provincial and regional university library expenditures for computer hardware and software ranged from under \$200,000 in Quebec and the Atlantic Provinces to about \$550,000 in British Columbia. The most obvious inference for that year is that the generosity or paucity of electronic expenses in these universities relate to the relative wealth of their parent provinces and regions, that is, normally British Columbia is "rich" and the Maritimes "poor". That may be the case in a national comparison in the snapshot year of 1999/2000, but it is not the pattern for the four-years reported. An analysis across the last few years, in Table 5-2, shows different information. It suggests that hardware and software expenditures may be done in "waves", and are not necessarily continuous from year to year. If a library invests in a new computer system with hundreds of terminals and a complete system infrastructure, its costs would principally be reflected in a single budget year, and perhaps two. Overall, the averaging of the provincial and regional medians, a rough approximation at best, does

show that on a national level the expenditures for library electronic hardware and software have not been increasing.

Complementary information in Table 5-2 presents national, provincial, and regional expenses for electronic information, in the form of electronic books, serials, and databases for the collection.

Table 5-2
Expenditures for Electronic Materials in Canadian Academic Libraries, 1999/2000

	Electronic Journals	% of All Journals	Electronic Books	% All Books	Misc. Electronic	Total Electronic	% All Materials
Canada	\$ 681,458	16%	\$62,632	4%	\$107,449	\$851,539	14%
BC	1,030,112	19	*111,893		406,171		
Prairie Prov.	648,967	16	132,006		*39,224		
Ontario	842,104	17	*52,429		*61,933		
Quebec	586,345	16	*3,320		*51,570		
Atlantic Prov.	714,395	11	*1,918		63,116		

Source: Canadian Association of Research Libraries

* Missing some universities; therefore percentage expenses are not calculated.

In 1999/2000, the CARL statistics show that, on average, Canadian academic libraries spent about \$850,000 for electronic materials in the form of electronic journals, books, and miscellaneous items. That this amount represents *at least* 14% of the entire amount spent on developing the collection during the year, and probably more, since not all libraries reported consistently. Compared with a national average of \$8 million on staffing, this amount appears insignificant. Yet compared with \$2.25 million for professional librarians, the amount designated for electronics equates to at least 40% of it. This shows hypothetically that, if a library lost just two or three professional staff members at about \$70,000 per annum, the electronic materials budget could increase a

meaningful proportion. Again, three caveats must be noted. First, as the disclaimer goes, “staffing inferences cannot be made from the CARL data, because it is collected in a highly standardized form” for informational purposes for its member libraries. Second, it is difficult to isolate, categorize, or total the amounts spent on electronic materials in university libraries, due to the overlapping uses and budget categories of some of this material. Third, salary and electronics are not comparable. All a comparison can provide is a picture of the general distribution of staff and moneys in academic libraries, but no inferences about relationships or causality can be made.

Toward the end of the Millennium and future prospects

In most of the socio-economic trends and labour indicators related to Canadian universities discussed above, there appears to be a shift in the pattern at the end of the Millennium. The key disjunctions in the data in Tables 1-10 in Appendix III are summarized in Table 5-3.

Table 5-3
Points of Disjunction in Trends Affecting Labour in Canadian Universities
[1996-2001]

Indicator	Year of Change	Shift	Details
University Expenditures	1996/97	Up 4% per year	Had gone down in 95/96
Student Enrolment (FTE)	1998/99	Up [1.3]%	Slowed down or dropped in mid-90s
Library % of Expenditures	1998/99	Down .12%	Had been minutely increasing (<1%)
Salary % of Expenditures			Consistent decrease
Professional Salary Portion	1996/97	5% increase	Small increases to 98/9; then - 1%
Professional % of Staff			Consistent @21%
Average No. of Librarians	1999/2000	Up [4]%	Had been decreasing, to 10% in 10yr
Rate of Salary Increases	2000/01	Up 3%	Slow increases 1995/6 to 1999/00
Student/Librarian Ratio			Fairly consistent increase

Source: J. Carson, from Tables 1 to 10 in Appendix III.

By the end of the 1990s, both university budgets and student enrolments were again increasing after slowing down or dropping mid-decade. Unlike these general trends in the university environment, the library budget allocation began to decrease toward the end of this decade after minute increases during it. That is, libraries were absorbing the impact, or, at least, not being sheltered. While the entire salary portion of library expenditures decreased by 10% throughout this decade, the portion paid to professional staff actually went up in the second half. The proportion of professional librarians among staff remained consistent, instead of decreasing as might be expected. The average number of professionals, which had been decreasing by 10% over the decade, began to increase by about 4% at the turn of the Millennium, suggesting the gradual infusion of new staff after retirements and buyouts of the veteran staff. Professional salaries also

showed a higher rate of increase at the Millennium, though they had been increasing below the rate of inflation from the middle of the decade. This snapshot tells us that, toward the end of the 1990s, professional librarians appear to have more security than other library staff. If factors such as remaining a stable proportion of the library staff were adequate reflections of the importance of their labour, librarians have actually fared *better* than non-professional staff in post-industrial academic libraries!

For the labour process, some basic facts about the situation of professional librarians are clear:

1. Salaries are still the greatest expense for academic libraries, although the proportion dropped 10% over the latest decade in addition to the university-wide budgetary reductions described above. In contrast with categories in the materials budget, the salary component of the operations budget is still relatively sizeable. One would expect, therefore, to see significant reductions in one of the highest paid staff groups, the professional librarians, with the rationale that their work can be de-professionalized or proletarianized.
2. The proportion of librarians remains stable, though the actual numbers decrease with attrition, and salaries going up slightly. This may be due in part to the intervention of librarians' unions, which ensure that, when the library is in a weak economic position, there are minimal costs to salary and almost no terminations of professional positions. The information suggests that librarians have a degree of stability and recognition. These numbers cannot, however, prove that deskilling of the work is not occurring.

3. The amount for electronic materials is increasing, but not as much as would be expected, in comparison with amounts spent on salary. There are also shifts within this broadly-based category of electronic expenditures, particularly from software to networking expenses. The costs to the library of these shifts and the impact on staff are not visible in the statistics. One of the objectives in the dissertation was to weigh the emphasis on professional staff against that on electronic systems and materials, because this is important for arguments concerning labour process change. It has been almost impossible, however, to isolate what libraries spend on new information and communication technologies. Often, administrators work in such expenses where they fit, and university library budgets are not publicly available. Most important for labour, expenditure for technology does not necessarily conflict with professional staff interests, when things such as software and equipment are needed to improve their work.

4. Apart from the limitations of the data available from CARL and CAUBO,⁷³ such as inconsistencies in collection categories and lack of comparability across time, statistical data of this nature can provide little more than trending information for the institution. For a political economic analysis of the labour process of a specific group within the library, we need more information about the labour dynamics within the institution, such as the quality of work, changes in the diffusion and use of electronic materials, and the nature of professional powers. This must be relational information, rather than statistics that cannot adequately be analyzed in any event. We also need

⁷³ The Canadian Association of University Business Officers (CAUBO) was one of Emory's sources in his 1999 report to CARL.

information about the forces outside the institution that interact with professional academic library labour, such as the labour market, the production of information, and pedagogical changes in the academy that contribute to cultural capital.

Before analyzing the problem in greater depth, four aspects of the administrative information must be recognized. First, we need to understand the extent to which the above criteria, which are available as institutional data, reflect the aspects of labour process with which the dissertation is concerned. That is, what do statistics tell us about salaries, or the robustness of the professional staff component tell us about labour? Second, we need to understand the limitations of the reliability of the data conscientiously collected by the Canadian Association of Research Libraries from its member libraries. The categories of CARL data are sometimes not consistently presented or comparable across the years, nor are they easily standardized because of inconsistent degrees of detail. For example, the deceptively simple figure of the number of professionals on the library staff could encompass strictly librarians with masters credentials, or include also other professionals such as computer scientists, library administrators with professional library qualifications, or staff with negotiable equivalent qualifications from countries outside North America. A more serious problem is that these institutional data are categorical, and therefore one-dimensional and insufficient for an analysis of process. Relational data are needed for analyzing labour process and class within a political economy framework. Third, we need to understand more completely what is meant by the labour process in the context of intellectual work, and how relevant information can be derived for the case of academic library labour. Fourth, following

from that, we need more finely tuned data, which can only be done through additional research with qualitative information.

I provide case-specific information in the following section. I summarize the qualitative information from the observations and interviews, initially used for the refined problem development in Chapter 3, and I further develop the labour process phenomena *specific to the situation* that were identified by the workers. I compare and synthesize the official and grounded information. I conclude that, even with this triangulation of findings from within the institution, a competent political economic analysis of the professional labour process of this group is complete only when factors outside the institution provide additional perspectives.

Evolution of the Research Problem

The dissertation begins with a general problem statement in Chapter 1 about the changing nature of librarians' work in post-industrial society, and the development of its theoretical contexts in professionalism and the labour process in Chapter 2. Because of its two theoretical traditions, and the contradictions between its intellectual and technological contexts, the problem is further developed and refined in Chapter 3 in its historically-specific setting. The problem is revealed by Canadian academic librarians through two qualitative research mechanisms: my observation in a single university library workplace between 1998 and 1999, and the vocalizations of the librarians themselves in in-depth interviews between 1998 and 2000. These two data collection strategies contribute to the research agenda in complementary ways, by providing an observer perspective followed

by observation categories. The interviews enrich my data with changes in emphasis on some categories and the redefinition of others. While based on an open-ended question and expanded by a set of probing questions centred on the labour process, they allow the participants to articulate for themselves. I continue to use these qualitative mechanisms as necessary during the quantitative and structural phases of the data-gathering process.

Idea generation: Preliminary observations

Using grounded theory methodology for problem development, I use my preliminary observation data for early insights and as the basis for interview data. For over two years, I recorded visual impressions, conversations, and some documentation in the middle-sized library where I have been working for 20 years. My observations from this specific institution suggest that workers in contemporary academic libraries are chiefly concerned with *status*, *technologies*, and the *expanding information universe*. While observations serve the functions of starting point and catalyst, they suggest important areas with theoretical substance, which are followed up. Concerns with professional status introduce fundamental sociological questions in professionalization and class. The interaction of computer and telecommunications technologies points to a labour process framework and a political economic analysis. The expansion of knowledge-based resources is a focal point for many questions, including the above-mentioned technologies, the spatialization of resources and users, the commodification of information and labour, and educational policy.

Contemporary academic library concerns: Interview results

My in-depth, semi-structured interviews provide the substantive contribution to the dissertation problem by extending my preliminary observation data, which were detailed in Chapter 3. My open-ended initial interview question was “What factors do you think foster change in today’s academic libraries, and what factors tend to inhibit it?”⁷⁴ The grounded sample consisted of 20 academic librarians, including six males, from Canada’s three largest provinces, Ontario, Quebec, and British Columbia. The 100% response rate and detailed disclosure greatly facilitated the development of the problem, and resulted in the acquisition of dense data on labour, which is the focal point for the discussion in the remainder of this section. The answers to the opening interview question and the issues it evokes are synthesized in Table 5-4, then elaborated. In addition to generating a specific research problem, as detailed in Chapter 3, the grounded data also provide a backdrop for the contemporary academic library, and complement the institutionally-based snapshot at the beginning of this chapter. The in-depth qualitative input specific to labour is presented in Table 5-5, then discussed.

The narrative responses derived from the probing questions and other areas introduced in the open-ended format fall into eleven categories. These are ranked by importance. Most of the expressed issues were consistent, but the interviews did not saturate in categories where the interviewees were identified by personal characteristics, such as age or gender, rather than library work site. These were the small but significant category of recent

⁷⁴ The interview guideline is in Appendix II.

library school graduates, at about 5% of the sample, and the larger group of male librarians at 30%.

Table 5-4
Factors Enabling and Inhibiting Change and Continuity in Academic Libraries
[n=20]

Factor	Total	Fem	Male
New information and communication technologies; The Internet . revolutionary; pervasive . Internet " <i>supplice</i> " [ordeal; uncertainty; torture]; fear of technology	15	10	5
Learning curve for IT; limitations on time and teachers . need to "ramp up mid-career" . must be self-taught/motivated	12	10	2
Workload; Staff shortage; Inability to hire (esp. technology-related jobs)	11	9	2
Larger social factors; Outside forces; Societal change . neo-conservative economy . constancy and rapidity of change . "different landscape" . "boomers" are entrenched	11	6	5
Economic/budgetary factors . problematic: except for technological equipment & personnel, acc. to some	10	8	2
Age or technological orientation of librarians; Recency of training . "my colleagues who are no longer young lack energy, dynamism, and ability to find new solutions"	8	5	3
Library management style . entrenched and old-fashioned . so many decisions and overlaps; "no right choice for managers"	8	6	2
Library clients . literacy level: information rich and information poor . expectations, such as for high speed and immediacy	7	5	2
Gender [probed with male interviewees] . gender <i>may be</i> related to comfort with technology; drive . more male/female egalitarianism, fewer gender differences in francophone institutions; there are French/English differences here . " <i>ici c'est les femmes!</i> "; "women are as combative as men", versus "a group of women is easier to work with than one of men"	4	1	3
Networking and cooperation . joint ventures & consortia share electronic subscription costs . documentation or telecommunications standards are often forces that inhibit positive change	5	5	
Library structural factors . "the institution" . the outmoded building	4	3	1
Other actors in the university (faculty; union contracts)	3	2	1

As the interviews progressed, it became less important whether the factors fostered or inhibited change, and more important how they illuminated the labour process. For the dominant issues they represent, these are regrouped into three areas derived in Chapter 3: (1) economic/structural factors within the library; (2) information technologies; and (3) major social forces.

1. Economic and structural factors that constrain the operation of the academic library include:

- . workload; staff shortage; inability to hire, particularly technological expertise
- . economic/budgetary factors, for purchases such as books or equipment
- . library management style, generally regarded as entrenched
- . library clients, who may either resist or stimulate change
- . networking and cooperation, which require agreements, standards, and adaptation
- . library structural factors
- . other actors in the university, such as faculty and union contracts

The conditions within or adjacent to the library itself are thus seen as the main inhibitors of change, or enablers, as the case may be. Many are not unique to libraries, and are characteristic of the modern workplace.

2. Information technologies that change the means of information production and dissemination include:

- . new information and communication technologies, particularly the web
- . learning curve for information technology use and dissemination; limitations on staff time and availability of in-house teachers

Information technologies are referred to, indirectly, as a “force”, although respondents did not suggest this was technological determinism. Rather, the implied meaning was that information technologies are closely related to library policies, because of this they are diffused throughout the institution and need institutional support for staff development and materials upgrades. The “force” implied by the respondents may be associated with institutional policy.

3. Social factors that impact on library service delivery on the whole include:

- . larger social forces; outside forces; societal change
- . age or technological orientation of librarians; recency of training
- . gender, when probed with male interviewees

The social factors represent sociological questions, which deal with the new economy and with ascriptive factors such as age and gender, which classically interact with political economic factors. All three categories – economic/structural, technological, and social - interrelate in a political economic interpretation.

Summary of grounded information

From the perspective of the workers themselves, the findings identify labour process issues in an “information society” characterized by social and technological changes that include the introduction of telecommunications, organizational restructuring, and staff reorientation. The interviews also bring out factors reflecting librarians’ power and control such as decision-making autonomy, relevant ascriptive data, and the librarians’ relationship with support staff, faculty, and library administrators. There is a suggested tension between a continuing commitment to service contested by lack of institutional commitment and the “slowing down” effects of learning about information technologies.

From interview data to labour process: Issues according to librarians

This section develops labour implications of the eleven factors enabling or inhibiting change in libraries from Table 5-4, and the labour process categories that were transformed from the interview data in Chapter 3, following the methodology detailed in Chapter 4. Inherent in this information are issues related to the work librarians do and their social relations at the workplace. A focussed reading of the conversations about change in academic libraries, in terms of what librarians do ⁷⁵, revealed two major concerns: the value placed on the work and the authority that librarians hold in the workplace. At this stage of the analysis, the value of the work is represented by the expertise and attributes the librarians bring to the workplace. The power that they hold is

⁷⁵ What librarians do is detailed in Appendix I.

gauged by areas they control in the library workplace. Analysis of skill and authority, then, are appropriate to understanding the professional academic labour process in post-industrial society, and is consistent with the theoretical grounding in Chapter 2.

The interview comments place the value of the library work in three general areas: (1) the nature and complexity of its knowledge base; (2) the service ethic and professional commitment of its practitioners; and, (3) the rewards and esteem accorded by employers and clients. The control aspects of the work also fall into three general areas: (1) operational or job-related areas, such as a professional worker's control over work, staff, and acquisitions of books, periodicals, electronic resources, or equipment; (2) professional spheres, such as control over quality, innovations, time, and conditions of work; and (3) personal or socio-demographic characteristics, such as age, gender, and tenure. From this synthesis, it is clear that the nature of professional skill and authority is layered. Thus, the first examination of the interview comments provide references predominantly to the institution and the impacts on it, rather than to the labour efforts of those working within it or constituting it. Further examination of the interview data introduce concerns that centre on labour, and on the value of work and power relations in particular.

When the interviews are re-read and mined in this phase for labour process and other sociologically-relevant information inherent in the data, the following concepts emerge. They are itemized in Table 5-5.

Table 5-5
What Librarians Contribute at the Workplace [n=20]

Professional Expertise or Labour	Total	Fem	Male
Differing emphases on nature of critical professional skills or expertise <ul style="list-style-type: none"> service ethic, perceived (by a male) as a "feminine quality" management, coordination, integration; multi-skilled maintenance of control of own work; earning of trust and confidence intellectual freedom versus "refereeing" Internet use danger of misdirection of skills in clerical or technical work 	16	9	7
Should be players outside the library; not always viewed as so <ul style="list-style-type: none"> electronic products development, with vendors campus involvement, e.g. committees, "schmoozing"; often personal initiative required; should be structurally possible campus administrative decisions, especially about library funding 	15	10	5
Awareness of conceptual issues & literacy; quality control of information <ul style="list-style-type: none"> "librarianship not libraries" danger of "button-pushing mentality"; sacrifice of broader knowledge at expense of computer literacy; technology is not intellectual inclusion of knowledge of computers and html programming 	14	9	5
Teaching, pedagogy, instructional development <ul style="list-style-type: none"> under-valuation and lack of appreciation by faculty integration of library techniques into courses, collaboration with professors primacy of bibliographic instruction, especially in IT, as a library function 	8	5	3
Need to stretch, adapt, change; transcend "librarian mentality" <ul style="list-style-type: none"> changing modes of information seeking, such as access from home inhibiting nature of stereotypical characteristics: "one right answer", lack of energy for innovation breadth of capabilities should include information technology departure from print reference collection as "core" resource for libraries 	8	5	3

These remarks about labour, in conversations about post-industrial library problems, fall into the two categories already identified about labour: expertise and control.

Skill and expertise issues

These include (1) differing emphases on the constitution of critical professional skills or expertise; (2) awareness of conceptual issues, literacy, and quality control of information; and (3) teaching, pedagogy, and instructional development. These amplify the basic functions of librarianship as outlined in Appendix I. Views on what constitutes

professional work clearly vary among librarians. Some of this has to do with the mentality of the respondents, and some with position level and responsibility. I perceive that librarians fall into two general descriptive categories derived from Merton's designation of locals and cosmopolitans: the "classic stereotype" who are very competent but not proactive, and the "cosmopolitan or progressive" group who "think outside the box". Those who fit the "classic stereotype" view prompt service, precision, and comprehensiveness as central, while cosmopolitan librarians view development, critical approach, and inventiveness as defining professional responsibilities. These conceptual differences may contribute to the lack of a unified voice, hence inhibiting gaining a greater position of power for the group. In the words of one librarian, "Librarians have done it to themselves!" The information literacy and quality control dimension is frequently highlighted. Regardless of their conventional or radical nature, all librarians share a critical view of information quality. They are having to exercise it more because of new technologies, and developments in information provision that are outside their control or input. Thus the broadening of the information universe due to new technologies and the multiple information providers on the Internet is part of the problem and contributes to the analysis.

The contributions of academic librarians to the instructional process, for example, are numerous. A typical example includes feedback from librarians about students' difficulties in interpreting assignment questions, as well as availability of resources to answer the questions adequately. However, many librarians express disappointment on the degree to which they actually do and could provide such feedback through

contribution to the assignment development process. Thus the value of librarians' work is under-appreciated, which is exacerbated if the librarian is not outgoing or the faculty member is protective of his or her teaching "turf". The learning situation is exacerbated if the available resources have been reduced or electronically disorganized to such an extent that the students can not make sense of information gathering and research.

Power and control issues

These include insights that (1) librarians should be players on campus in educational development and administration, but are not always viewed as such; (2) librarians need to stretch, adapt, change; transcend the "librarian mentality"; and (3) differing emphases on what constitutes core professional skills or expertise. From their input to the interviews, the librarians are less definitive about their position of power than the expertise they offer. They are articulate about key skills such as information quality control, their ability to contextualize knowledge, and their engagement with patrons. They are clear about the need to improve their partnerships in campus functions such as educational development, and offer suggestions such as formal committee participation and individual initiative to enhance this interaction. However, few opine *why* this interaction is limited, except that "we are similar but not the same" as faculty. The problem seems to hinge around a larger issue: the unclear perceptions by clients about the abilities of librarians, who tend to view them as support personnel rather than professionals with unique abilities. This brings the discussion into the area of power based on authority, which is a key component of professional power.

In the institution, control issues have always been associated with the workings of bureaucracy and the patriarchy. On top of these organizational and social factors are new constraints that are signalled by qualitative changes to other aspects of professional library work, such as the increasing complexity and volume of information production. These are associated with the expanding involvement with external sources of expertise as well as information resources. In some aspects, external involvement provides collective resources from the electronically-mediated sources of experts, and collective power from joint library ventures. In other aspects, external involvement requires more negotiation, constraints, and absence of power.

Contradictions

In this analysis of the descriptive labour data, concrete facts emerge about aspects of intellectual work in the knowledge sector that are particular to librarians. Some of these aspects involve contradictions. For example, librarians seldom spoke about job security or salary, which suggests they have no complaint. Yet mobility is limited and salary increases have been minimal. If salary and benefits are indeed adequate, librarians might be silent about other things. Many librarians spoke about the vacuum that would be created by the retirement of seasoned librarians in the next ten or twenty years. The institutional data presented at the beginning of this chapter provide general indications about trends, but little concrete evidence about loss of positions, contract jobs, and filling jobs at lower levels or in different areas – all of which are current realities of the post-industrial workplace. Other interviewees referred to the expanding knowledge universe, and were polarized about their role in it. Many spoke of catching up with the incremental

speed of development, feeling inadequate, or trying to maintain credibility. These are indications of loss of control of the knowledge base. Others spoke about exciting possibilities, such as re-professionalization. Deskilling and proletarianization were seldom articulated as such, but need to be considered in the discussion.

Conclusions and directions

Academic librarians have traditionally had little personal autonomy in their work. This is partially due to their being located in a hierarchy with management and support staff, and a fairly modest profile of their expertise within the university. These suggest areas that could further be deskilled. Many librarians commented in the fact that they could not compare themselves with faculty on the basis of qualifications or publications. Others, and often the same ones, asserted that they had skills to offer that were not recognized. Interviewees with interest in more control of their work or personal esteem have taken the route of individual initiative over collective action, that is, activity on university committees, in unions, or in academic publishing. Such extracurricular involvement is true of about half the interview sample.

It is interesting to note that librarians tend to comment more about work and its characteristics, and generally are silent about the critical labour process view. They are silent because consciousness of the labour process situation has always been

imperceptible due to the reasons evidenced by Roma Harris and even Goode, and why gender is never identified as an issue.

The findings about labour within the Canadian academic library show that skill and control issues have economic connections. The corporate influence on librarians' work, for example, through the domination of the publishing industry and control of resource availability (and indirectly on university spending), have reduced the importance of their professional input. Political and economic conservatism and retraction in spending for culture and education have trickled down to staff budgetary reduction in the short term. The interviews have shown that managers need to spend money on materials rather than expensive salaries. The dissertation seeks to validate this information. Therefore the analysis of the qualitative data on academic library work, as disclosed by librarians and analyzed in labour process terms, points to the need to investigate economic and political forces that influence their operation. This starts in the remainder of this chapter with additional information about academic librarians and libraries.

Librarians in the Institution: Complementary Information

To this point, a background picture of social trends surrounding the university library has been provided, along with detailed qualitative information related primarily to the value placed on skills, and to some degree on authority. Skill was objectively measured by salary indicators, but it could also be depicted by position designation, job description,

and educational credentials. Control has been harder to measure directly, which is why the narrative data in the above sections have been so important. The ratio of professional to non-professional positions provided some idea of the value of the professional work to the institution, bearing in mind that librarians tend to have more job security than support staff. Indicators of control enjoyed by the library as a whole, in the context of the entire university, were mainly financial, for example expenditure on staff as a proportion of library expenditures. While general, they help to depict the power of librarians.

As mentioned above, caution is exercised not to make too many inferences from miniscule variations in these statistics, because of category inconsistencies and reporting errors. Also many important data, such as the demographic factors of age and gender, which contribute significantly to relations of ruling in the workplace, have not been considered thus far, because they are not reported in the CARL annual statistics and special studies. Categorical factors such as years of employment and number of promotions, which were in the CARL statistics, were not used because these specific problem areas had not been isolated in the interviews. The most important gaps that need to be filled, given the availability of useable information, relate to gender, age, education, longevity in the position, status indicators, and opportunities for growth and mobility.

Demographic background factors

Information about the numbers, gender, age, education, years since graduation, and the years employed of Canadian academic librarians is available from the 1998 Survey on

Downsizing in Academic Libraries. The survey was conducted in CARL member libraries by Ethel Auster and Shauna Taylor from the Faculty of Information Studies at the University of Toronto ⁷⁶, and funded by the Social Sciences and Humanities Research Council of Canada. According to this survey, the average respondent is female, between 45 and 54 years old, earning between \$60,000 and \$69,000, and working over 20 years at the same institution though not necessarily the same position. The sample was 71% female and 29% male. Specifically ⁷⁷,

Table 5-6
Selected Demographics: 1998 Survey on Downsizing in Academic Libraries [n=778]

Age *		Professional Experience	
45-54	49%	>=20 years	49%
55-64	21%	1-5 years	6%
35-44	22%	<1 year	2%
Years of Service		Education [not mutually exclusive]	
>20 years	38%	MLS/MLIS/MIS	610
16-20 years	15%	Masters	231
11-15 years	14%	Diploma/Certificate	43
6-10 years	20%	PhD	27

Source: Ethel Auster and Shauna Taylor, Canadian Library Association Conference, Toronto, June 1999.

* Age ranges under 35 and over 65 were not presented.

⁷⁶ At this point, only summary counts were made publicly available at a Canadian Library Association Conference presentation in Toronto in 1999, as the researchers' data were still being analyzed and had not been published.

While based on a sample with 68% response rate, the 1998 survey data are consistent with my interview findings about a mature, female-intensive population of librarians with a high level of disciplinary expertise (about 1/3 have a subject masters degree or higher) and a long-term commitment to their university. Two aspects of these data stand out for the labour process arguments in the dissertation, the change in staff over time and the disproportionate gender balance. In terms of staff change, within ten years at least 25% of the professional academic librarians across Canada will have retired on the basis of age. There are no data in the SSHRCC survey for inflow of librarians. All that has been reported is that about 8% of the librarians have five years experience or less. Years of professional experience is an imperfect but not unreasonable proxy for new staff. If this pattern holds, the inflow of librarians will be far smaller than the retirements. This suggests a range of possibilities: the future retraction of staff, a wave of new hirings, or the re-engineering of professional work by management, depending on the economic or labour climate. As an indicator of this, the hiring trends over the past two years are gauged in the labour market section in Chapter 6, by tracking position advertisements for university librarians and examining them qualitatively for job content, salary, and requirements. Note that, while all demographics are important, and while age and gender have been strong determinants in the statistics of the stability of the staff, expertise has most consistently been identified in the interviews as a measure of various aspects of professional powers.

⁷⁷ Transcribed from the researchers' presentation at the CLA Conference in Toronto in June 1999.

Position configurations

Within the SSHRCC sample of 778 librarians from CARL libraries, the largest category is reference librarian, and the smallest are systems librarians and administrators. The most interesting and surprising finding is the small size, at 15 respondents, of the systems category, considering the increasing emphasis in the interviews and observations on information technologies in all spheres of library work. In a preliminary report of her findings at the Canadian Library Association Conference in June 1999, Auster noted that systems personnel did not always identify themselves as professional librarians or with the collection and services of the library. One reason for their lack of self-identification or visibility is that systems personnel in academic libraries are not always professional librarians, and may range from computer scientists and analysts to technicians and clerical workers. She also observed that the shift of librarians to systems work has evolved over time, and that library systems offices are increasingly hiring staff with technical expertise. In view of the outline of library work in Appendix I, it must also be stressed that all library functions now involve the use of information technologies; therefore the shift to work with electronic resources, and its impact on work, are hard to isolate except qualitatively in the interviews.⁷⁸ The dissertation focusses next on the larger political economic picture, and structural factors such as labour market and external controls on internal work. This is done in the following chapter.

⁷⁸ Further research with the SSHRCC data, which includes 800 pages of narrative data as well as the statistics, might include either qualitative or regression analysis to determine: (1) ratio of males and females in management or senior positions, to see if patriarchal relations exist; (2) relationships between education, professional experience and seniority, to theorize the importance of professional expertise, versus other skills such as technological or management; and (3) relationships between changes in work such as downsizing, position level, and possibly attitude, to examine positions of power and control in the labour process.

More about salary

In relation to the value of work, finite salary data have two uses: (1) to show comparative change over time, and (2) to add another dimension to questions posed in the interviews about contradictions in the work. Above we see that the mean salary range of a librarian in a Canadian university is between \$60,000 and \$69,000, which is consistent with the CARL figures summarized in Table III-6. Only 2% earn over \$90,000, 3% from \$80,000 to \$89,000, and 11% between \$70,000 to \$79,000. According to the CARL statistics, salary figures are highest at Carleton, York, and the University of British Columbia because their librarians are part of faculty unions and share similar benefits. Carleton has the highest percentage of librarians earning on average over \$80,000. Of key interest in a female-intensive semi-profession is the relationship between salary and gender.

Gendered salary comparisons can be made when the 1998 SSHRCC data reach the public domain.

Because salary increases with years of service, it is essentially age-based because of the long tenure of most academic librarians. Now that we know these figures and facts about salary, the reasons for the silences in the interviews are unfolding. Salary may not have been mentioned in the interviews primarily because it is relatively adequate for long-term librarians, and the supplementary benefits, such as dental and vision plans, are relatively generous. Compared with the average librarian's salary of \$41,000 reported in the 1996 Census of Canada, it is superior! Second, the labour force tends to be satisfied with what they have, or silent about what they do not have. Third, salary, other rewards,

and relatively pleasant working conditions may pacify librarians, so that they do not voice concerns about the interference of commercial agencies or any loss of power. Salary is the most obvious indicator of the value of the work, the value of the credentials, and the strength of the bargaining unit. It may be related to economic strength of the province or region. It is also an indicator of the market value of the work, which is higher for consultants and private industry. The forces in the professional labour market are detailed in Chapter 6.

Professional benefits and status

The extent to which professional work is valued may be measured in the amount that the employer pays for it in professional benefits as well as salary. The questions in this section that are important to labour process are: how such benefits reflect the worth of librarians to the institution, and whether any changes in these reflect change to the value of academic library work or the power held by the librarians. Academic librarians are normally members of unions or staff associations, which, in most cases, are associated with, or part of, those of faculty, and governed by the general provisions of their contracts.⁷⁹ In many universities, professional librarians enjoy sabbatical or study leave, research allowances, and other opportunities for professional growth and output. Conditions of work peculiar to librarians are included in separate clauses on professional qualifications, promotion, tenure, merit, job security, and rights and responsibilities.

⁷⁹ University collective agreements and handbooks are held online by the Canadian Association of University Teachers at www.caut.ca.

Affiliation with faculty greater enhances their status as well as their benefits, as has been regrettably noted in the interviews by academic librarians who are members of alternative unions, such as CUPE locals.

Union contracts are useful for defining things as they formally should be in the scheme of expertise and control, and have certain limitations as data sources. Their language is necessarily general and the clauses as inclusive as possible, as it is with job descriptions. This is especially problematic in the area of determining authority. Contract clauses relating to autonomy and authority often do not pinpoint the degree of power and control the librarian actually has. They are subject to interpretation by library management, which often results in limitation of autonomy, and formal grievance procedures are often the only recourse. A further impediment to the use of contract clauses to define the limits of authority is that what is pertinent to faculty may not be necessarily applicable to or analogous for librarians. For example, faculty concerns with the use of technology as a substitute for their labour and expertise, or with the protection of their time are also of keen interest to librarians, but come from a different set of professional expectations. Librarians *serve*; faculty teach and do research! Moreover, the issue might not be covered in the contract at all. In his study of academic unions in United States universities and four-year colleges, Rhoades noted that academics tend to opt for past practice rather than congeal issues in contract language. (Rhoades: 1998)

Notwithstanding their limitations, collective agreements do provide certain information about authority and control. These relate to monetary issues, professional privileges, opportunities for mobility, and areas of authority or status. As such, they are useful

because most of the data sources have provided information about the skill dimension of the professional labour process.

Monetary factors

These indicate the institutional and market value of the work, and include salary, supplementary benefits, merit awards, and allowances to attend conferences or conduct research. Salary ranges were already discussed above. As with faculty, professional librarians are normally provided in contracts with annual professional development allowances averaging from \$800 to \$1,000 per year for conference attendance, research undertakings, continuing education, according to the collective agreements collected by the Canadian Association of University Teachers. The allocation of librarians is lower, reflecting less expectation for them to be professionally active. The comparative situation is the case for merit awards. Merit awards are instrumental in showing the value of the work to managers and colleagues, and add to the individual worker's prestige.

Professional rights and privileges

These include various forms of leave for sabbatical, professional development, or study, and indicate expectations of professionalism, and a certain degree of status and collegiality with faculty. They are a formal statement to managers and colleagues about the value of professional work, and add to the worker's prestige. They are variously viewed as rights or privileges, depending on the stubbornness of management, the bargaining strength of the union, or the visibility of the librarians themselves. Apart

from forms of professional development leave entitlements, librarians are expected to be involved professionally within the library, across campus, and the professional community. This is substantiated in the text of the positions ads analyzed in the external market section of Chapter 6, Findings External to the Library. Involvement includes teaching, research, contract work, campus committee work, off-campus professional work, and is the basis for promotion and merit awards. Professional involvement indicates status in most instances, and also contributes to the market value of the librarian.

Opportunities for Mobility

Promotion opportunities and procedures are detailed in collective agreements.

Impediments are difficult to identify, but the most visible impediments implied in the interviews are lack of opportunity due to retrenchment, or lack of specialized expertise in information technologies. Frustrations from lack of mobility are exacerbated by loss of control over time and over work, due to scarce human resources, and result in feelings of alienation. (Rinehart: 1996)

Input to policy and innovation

This grouping of possibilities afforded by the contract input to library decision-making and contribution to campus life through teaching and committee membership. For librarians, this may provide a certain degree of status rather than power. According to the

interviews, however, it was still a means for differentiating among librarians, comparing institutions, and noting individual professional progress over time. It is hard to elicit input to decision-making, but the librarian participation in campus life demonstrates the value of professional expertise, unfortunately, more to other librarians or their managers, rather than faculty or campus administrators.

With information on rewards, privileges, mobility, and input to governance, union data provide only general indicators of power and control for librarians in university settings. While modeled after the principles of powers and prestige accorded to faculty, the union privileges for librarians are not directly comparable. Nothing is specific and much is open to interpretation. In this regard, librarians have more in common with those of non-tenured academics such as sessional lecturers or lower-level academics such as teaching faculty, for example in the absence of a research agenda.

The Labour Process within the Academic Library: Implications of the Findings

Two general data categories were examined for grounded and structural information about professional library labour. The institutional data provided a general picture of the university labour climate and the situation of professional librarians within it. The grounded data were derived from my interviews of Canadian academic librarians as guided by my preliminary observations. Through the process, I obtained in-depth information about information work at the professional level in a cultural institution. My

overall conclusion is that, apart from drastic changes in the means of production due to new information and communication technologies and the incremental rise in knowledge resources, commodities, and services, most labour conditions have been essentially the same, or reasonably constant, taking economic forces into account. This is due in part to the high and stable representation of “boomers” in the library workforce, and dependable union protection of these workers.

The interviews also show, however, discomfiting information about these workers: an uneasy situation of librarians that are not only working harder than ever, but also apprehensive about their skills base and their future effectiveness. There are other factors constituting this scenario, and the theoretical framework of the dissertation suggests the unified approach of political economy to understand them. To make the transition toward a full analysis, I highlight the areas of agreement between the findings from the grounded and quantitative sources on internal factors related to the professional library labour process. These are followed by areas of contestation or problematization.

Areas of agreement between librarians’ experiences and official information

There are four areas of agreement. The first is economic financial stringency. There is no question that academic libraries are indeed being allocated less money for staff, books, and periodicals, and that this impedes the efforts of their staff to provide service. Second, there has been a definite reduction in all levels of staff. Librarians are definitely asked to

do “more with less”, but have greater job security than the support staff or paraprofessionals. Third, overwork and extended work are happening increasingly, despite the early promises that information technology would save time and working days would shorten. (Cordell: 1985) Duxbury’s research on the worsening pressures on work due to technology, downsizing, and family pressures more accurately reflects the present picture (Duxbury: 2002), though interviewees never mentioned work-family stress. Burnout and information overload are common, however, as seen in my observations and inferred in the interviews, and, ironically, often associated with degree to which the librarian is confident about their knowledge of new information and communication technologies, or with the library’s provision of electronic services to its patrons. In many cases, they are associated with demographic factors such as age or recency of credentialling. The contention that librarians have more work than they can effectively handle is supported by statistics showing smaller staff establishments and larger university enrolments. Note here that the labour situations evoked by these three factors are not unique to librarians in the university world.

The fourth area of agreement, an increasing commercial presence and influence on internal services such as cataloguing, are more specific to libraries. This relates to the economic convergence between the publishing and database industries, results in the corporate ownership and control of public information resources, and renders the input of librarians and libraries less directly felt.

Contradictions between librarians' voices and official information

There are three areas, which are all related to the labour process itself. First there is no agreement on what constitutes individual autonomy for librarians. Some interviewees saw a promising future for librarians as information managers. Others saw the erosion of control. Yet others commented that librarians have never had any power. There was even disagreement on what was professional work! As seen above, autonomy is difficult to verify in the structural data. Second, is the issue of gender balance and mobility. Both men and women interviewees were silent about gender. The statistics showed that males still constituted a minority of between 20% and 30%.⁸⁰ There is no concrete evidence from the interviews, statistics, or library schools⁸¹ about males being more comfortable with or better skilled in using information technologies or computers. Males may have been more comfortable with technology when it was first introduced (Turkle: 1984), but technology is now so widely diffused, and user interfaces have greatly improved. (Turkle: 1995)

The third area of contention is the debate between deskilling, proletarianization, and re-professionalization, where there is severe disagreement, especially about causes. The solution inheres in *how skilling is defined*, which I mined from the interviews and develop in the section on professional credentialling in Chapter 6. More important, sources of control are shifting to external agencies, which some librarians are loath to

⁸⁰ Further analysis of the SSHRCC data would clarify the relationship between administrative level and gender.

⁸¹ I asked a library school director about this in April 2001.

admit.⁸² Such shifts might include the increasing monopolistic control by corporate publishers of library resources such as scholarly journals and periodical indexes, as they migrate from print-based to electronic resources. Because these commercial products are often under corporate monopoly, there is impact on library control of internal decisions and thus the autonomy and freedom of its experts, the librarians. Electronic library resources are also increasingly shared and networked among other universities, which signals that libraries can no longer operate as entities within the university enclave. This shift of power reflects a decline of professional labour powers, and suggests that the movement may be driven by social trends outside the library. The dynamics of this shift are more evident when the analysis is expanded to include other social forces.

⁸² Library educators are emphatic when they address this topic, and affirm that information studies graduates have a strong and promising future. Auster from the University of Toronto spoke of future projections of staff and budgetary increases; Deschâtelets from the Université de Montréal took the proactive approach of modifying his education program to meet market demands. Leckie from the University of Western Ontario spoke of positive job placements. Satisfactory professional placements and fulfillment of market demands do not, however, remove the threat of external control.

Chapter 6: External Impacts on Labour Process in the Academic Library

In the previous chapter, the professional labour process appears to have changed relatively little over the last three decades⁸³ in some of the labour aspects developed in Chapter 3. There are continuities in factors such as job security or salary, which reflect the value of the work, and in aspects such as career mobility, which reflects the power of librarians. In recent years, there has been a noticeable downsizing in the institution, which the 1998 SSHRCC survey elaborates. This structural change is complemented by dominant subjective feelings on the part of the interviewed librarians of being too busy and unable to maintain their expertise, which requires increasing literacy with the multiplicity of technologically-based information resources. The chapter concluded with the suggestion that part of the disquieting changes in their work was being imposed from forces outside the institution to an even greater extent than advanced by the interviewees.

This chapter investigates two general forces that influence internal labour, and coalesce in the labour process analysis:

1. the external labour market for knowledge-based workers, as shown through professional education and job vacancies; and
2. the imperatives of the market economy on cultural work, as characterized by the increasing monopolization of knowledge resources by corporate publishers and

vendors, and the retaliatory development of library consortia for purchasing and sharing electronic information resources.

The analysis begins with a detailed examination of the two complementary aspects of the labour market, the provision of expertise and the market demand for the work.

Professional Credentialling for Academic Librarianship

According to my interviews with working librarians in Canada, their professional exclusivity has been challenged. Mature librarians feel they cannot keep up due to institutionally imposed pressures related to staff shortage and an increasing knowledge base. Recently-credentialled librarians feel that the mature librarians are anxious and “past it”, and are hoarding positions that could better be held by competent and motivated librarians.⁸⁴ The notions of multiple skills, extending the complement of skills outlined in the Introduction, and the “super-librarian” are introduced. The implication is that the labour market for information professionals is changing along with the modification of the knowledge base. There are ramifications for professional education and credentialling. First, the new body of expertise may not really be different, or differences in skills may be due to changes in media and means of production, that is, information technology, rather than changes to core areas of knowledge. This ambiguity is objectively answered by examining the program directions and courses in graduate schools of information studies over the last three decades. Second, concrete evidence

⁸³ Adjusting for economic factors such as cost of living

⁸⁴ This is by no means unique to librarianship!

about the external labour market for information professionals exists in the form of vacancies in academic library positions, and the kinds of staff and qualifications required. Third, the nature of the relationship is important. Does the supply of librarians meet the market demand? Is there a market for those who graduate, or, are schools proactive in creating a market? In their interaction with labour market forces, librarians may be losing control of the professional development of their work and education, or they may be responding quickly enough.

This section addresses historical changes and continuities in professional education and training over the period that constitutes the “information society”. It interrogates the validity of professional expertise in an age of computers, the stability of the labour market for information work, and robustness of professional socialization. It demonstrates a relative degree of continuity in the profession, with major changes related to information technologies and a movement away from in-house expertise toward expertise in the marketplace.

Relevance of credentialling to the labour market

Education for professional librarianship provides three kinds of information that are relevant for a labour process analysis: (1) a knowledge base for the work; (2) indicators

of the labour market; and (3) a foundation for professional socialization.⁸⁵ Primarily, educational programs give information about the knowledge base with which librarians are equipped. This educational knowledge base is represented by a post-graduate degree, the masters in information studies or MIS.⁸⁶ It is a composite, standardized measure of expertise that librarians contribute to society, as the profession has no formal certification procedure. Educational programs across Canada reflect not only the objective competencies deemed necessary for professional practice, but also comparative information. These include differences among schools, and degree of change in components of the knowledge base over time.

Second, library expertise is a component of the professional labour market for information work. Library schools provide a supply of educated workers for the professional information labour market at the rate of about 200 a year from the seven Canadian schools.⁸⁷ Educational programs also respond to market needs by altering their curricula to follow changes in the information economy. Response to market needs is especially evident in the area of specialization within information studies, where professional labour is oriented to entrepreneurial goals such as the marketing of services or packaging of knowledge as a commodity, such as the sale of a catalogue database.

⁸⁵ In this third area, professional socialization provides a basis for librarians persevering with what they do, despite frequent lack of tangible support through staff, equipment, time, and money, or intangible recognition through status, autonomy, and committee appointments.

⁸⁶ There is variation in the title of the degree, as Master of Library Science (MLS), Master of Library and Information Science (MLIS), Master of Information Studies (MIS), and the earlier and outmoded Bachelor of Library Science (BLS). The degree is related to and overlaps with areas such as computer science, and cognate areas such as archives management.

⁸⁷ For example, at the Faculty of Information and Media Studies at the University of Western Ontario, 27 students graduated in 1999 and 26 in 2000.

Adaptation of professional services to entrepreneurial venues outside the institutional structure is seen both in the provision of information consulting or engaging in other contractual relationships, for example consulting with an academic library about strategic planning or new system development. The introduction of certain specializations, such as corporate knowledge management systems, as a function of librarianship is an expansion of professional boundaries, an extension of the pure cultural or intellectual goals of librarians; and a means whereby professions change boundaries to remain vital.

Third, education for information studies is generally the first and often the foremost influence on professional socialization. It prepares information workers for jobs they will do, conditions they should expect, and relationships with other staff. For example, historically the service ethic has been strongly emphasized. The course content attests whether this has endured over time for the core functions of librarianship, such as organization of information, collection development, and reference service, in spite of changes to electronic media and increasing market orientation. In this context, market refers to both the increasing economic influences on library labour policy decisions and the marketing of professional services once free to parent institutions.

To summarize, education for professional librarianship provides important labour process information. Predominant among these are a knowledge base for the work, indicators of the labour market, and a foundation for professional socialization or a basis for persevering despite frequent lack of tangible support or symbolic status, as seen in the

previous chapter. Not only does the MLS/MLIS/MIS degree represent the basic corpus of knowledge for professional information studies workers. It also provides an important contribution to the labour market by ensuring a “supply” of expert workers. More problematically, it evokes an interrogation of this labour supply factor by questioning the impact of library graduates on demand for information workers. The third outcome of specialized information studies education, the “process” of professional socialization, appears to have ensured relative continuity within the profession through technological and economic changes during the three decades that comprise the age of electronic media. In the context of library work, the “information age” proceeds from the centralized library mainframes and batch systems of 1971 to the high bandwidth multimedia global information systems of 2001.

This section also re-introduces problem areas raised in Chapters 2, 3, and 5 about deskilling, re-professionalization, loss of control of the knowledge base, and reduction of professional powers. The principal source of data is documentary evidence from library school calendars, supplemented by selected library school statements and reports about their programs. It draws on data from the interviews for both identifying some of these problems, and for substantiating the evidence. The following data from library school calendars are examined to bear this out. When considering the details of the courses, important questions are: (1) the extent to which library schools actually influence the market of information workers and to which they respond to it; (2) the degree to which other qualified workers can do the same work; and (3) the extent to which changes in areas such as web design have forced librarians to adapt rather than set standards.

In order to establish a pattern of change over time, I selected a sample highlighting key changes, a distribution of five-year increments between 1971/72, the year I studied for my master's degree, and 2000/2001 (the Millennium). This period reflects major revisions in information technology and systems study in library school curriculums, and can be associated with turning points if not modal disjunctions in the world of information. The first date is also close to the general availability of graduate level library education programs at all seven Canadian library schools, specifically Western and Dalhousie at that date.⁸⁸ It is also when automation courses started to be introduced. In the larger social perspective, it is just prior to the first post-World War II economic recession and beginning of the decline of the welfare state, per O'Connor, Harvey, and Teeple. (O'Connor: 1973; Harvey: 1989; Teeple: 2000)

The 1985/86 turning point is when the personal computer started being widely integrated into work, and when good comparative data on Canadian librarians becomes available through the Canadian Association of Research Libraries. The 1990/91 marker is when electronic mail started to be used in research and academic institutions. The 1995/96 pointer is when the Internet was generally accessible, after the text browser and precursor to the worldwide web was invented at European Organization for Nuclear Research (CERN) in 1992. When considering technological changes as a component of many of these markers, five years is a reasonable interval, as the "electronic year" equates many

⁸⁸ From the early 1970s, schools changed their names, became affiliated with another school/department, or rethought their priorities or area of specialization.

traditional years. My dates are thus markers of important social transitions, as well as five-year points in the history of the schools.

My first order categorization of courses shows up various orientations and subject concentrations in the schools, and highlights change over time. As with the qualitative data on problem definition, which I transformed to labour process issues, I re-categorize the library school course agglomerations into areas related to labour categories, specifically library expertise and to the value of information work. The information on the professional knowledge base is apparent through program directions and emphases on courses. It shows the constancy of library education in both ensuring socially relevant expertise and work skills, and creating or maintaining a niche where information professionals may maintain some power. Changes in competencies ultimately reflect changes in location in the workplace, such as more responsibility, more routinization along with automation, more polarization of staff, or more convergence of information related professions such as librarianship and media studies. I collate information on professional competency with that on workplace autonomy and control, to determine whether courses are meeting needs or being proactive in any way. In the objectives related to the above-mentioned data on library school education, I emphasize “post-industrial labour” contradictions as exemplified by tensions between the marketing and the cultural perspectives. These become more visible when change over time is assessed.

Research strategy

I examine educational information from all seven of the Canadian library schools: the Universities of Toronto and Western Ontario in Ontario, McGill and the Université de Montréal in Quebec, Dalhousie in the Maritimes, the University of Alberta in the Prairie Provinces, and the University of British Columbia in British Columbia. All are accredited every seven years by the American Library Association. Because the small number of LIS schools in Canada, there is no differentiation of elite from other institutions. Western, Toronto, and Montréal have self-sufficient doctoral programs, which add to their status, and McGill offers an interdisciplinary doctoral program. At the masters level, Dalhousie and Albert offer joint degrees, if desired, with administration or law. For economic and academic survival, most of the schools have had to unite with other schools, or be absorbed by another faculty, for example, the merging of information studies, journalism, and communications at Western, and the affiliation of library studies, computer science, and the McLuhan program in communications at Toronto. The full complement of the seven institutions provide me with an opportunity to determine differences due to geography or language.

I analyze a total of 48 calendars over seven sample time periods between the early seventies and the Millennium.⁸⁹ I scrutinize courses in six major functional or thematic areas relevant to university library work according to the information in their summaries in the calendar. This provides structural information about the profession, its traditions, and its present stability. It also presents a pattern of continuity and change in the

⁸⁹ The 1971/72 calendar for Université de Montréal was not available.

knowledge base over the three decades of the information society. My intent is to answer questions about the vitality of librarians at the present, that is, whether the “mature” librarians were outmoded, or whether the contemporary programs really did produce a “new breed” that changed the labour market. The analysis provides information about labour-related expectations, primarily for the graduates but also, indirectly, for prospective employers. Finally, the information can be situated in political and economic perspective, as library/information education programs operate and survive in contexts such as economic situation, university policy, and provincial education policy.

It is understood that a few lines in “calendar language” cannot represent the intellectual foundations of a course. I rely on several levels of quality control built into the presentation in the calendars and brochures. First, all graduate information studies programs have to be accredited every seven years according to North American standards established by the American Library Association. Therefore course breakdowns and content have to meet professional academic criteria set by the assessors, and courses are comparable across the country. Second, the information studies directors are accountable to graduate deans, so they are obliged to submit accurate representations of their program and courses. Third, synoptic language captures the highlights and rationale of courses by focussing on the key aspects. Fourth, the designation of courses is a reflection of intellectual or educational interests, so is a barometer of *general* trends and changes. Fifth, while there is no guarantee that a required course inculcates permanent learning, there should be a degree of sensitization to a minimum number of issues, and some of these might be reinforced in other courses or in professional practice. Finally, almost

every program offers an elective course covering university libraries. Not everyone takes it, and few know at the course stage that they will end up at a university library. The breakdown of courses relevant to university library work and the social questions they suggest is:

Cultural and Professional Foundations

This area includes principles, professionalization, historical traditions, literacy, history of the book, communications, and comparative librarianship, and current issues. Over the years, there may be changes in fundamental principles, and in the context in which they are presented. These may impact on the critical or proactive orientation of librarians in the institution. Results are summarized in Table 6-1.

Organization of Information

This concentration includes classification, cataloguing, indexing, and is considered to be at the “heart” of librarianship. Changes over time include less emphasis on mechanics, given the current trend to outsourcing of cataloguing services, and the degree to which recent graduates are equipped to assess changes in the organization of information that might be imposed from outside sources. See Table 6-2 for course synopsis.

Reference and Information Services

This function includes knowledge of reference books, user needs, information seeking behaviour, and bibliographic instruction. In the post-industrial library, note whether this is becoming more routinized with the standardization of electronic information sources, and how decentralized electronic information service is changing professional interventions. Information-oriented courses are summarized in Table 6-3.

Library Systems and Automation

This specialization includes systems analysis, programming, information retrieval, database design, and management of information technology. There may not be as great an increase in these courses as popularly thought. It may not be accurate to assume that any graduate can “hit the ground running” in an electronic environment, and have sufficient authority in the area, among colleagues in management or the computer centre. With any professional program, there is always a training period. Courses are summarized in Table 6-4.

Library Administration and Management

This specialization includes management theory, administration of functions, personnel, marketing, public relations, and entrepreneurship. Of interest is whether librarians are

sensitive to the increasing commodification of information and labour, and if the growing emphasis on entrepreneurship has a critical component. See Table 6-5 for a summary.

Collections Development and Management

This function includes acquisitions principles and practice, publishing, the book trade, and preservation of materials. The courses should provide solid grounding for today's challenges of de-selection, resource sharing, and cooperative ventures. They are indicated in Table 6-6.

I give attention to changes in these concentrations over time, particularly consistencies in the traditional core areas and the development of new areas. Professional courses in other non-relevant areas such as archives, children's services, public libraries, and special kinds of libraries are not included in this analysis.

Findings and Discussion

There are few surprises, but I discover some problem areas related to the expected "dominance" of technology and the response to market forces within the library. The changes over time in the six program concentrations are summarized below:

Table 6-1**Cultural and Professional Foundations Courses in 7 Canadian Schools [mean]**

	1971/72	1975/76	1980/81	1985/86	1990/91	1995/96	2000/01
Required	1.8	1	<1	<1	<1	1.1	1.4
All	5	6.7	9.4	6	5.6	4.9	5.1

Source: Canadian university library and information studies calendars, analyzed by J. Carson

The core and total number of courses inculcating professional and cultural foundations is constant at about 1 and 5 respectively.⁹⁰ Historical, political, professional, and social processes have been constant throughout the years, although political issues do change with the times, for example, from public lending right to intellectual property. There is also an increasing focus on privacy and access issues that are exacerbated by the convergence of computers and telecommunications.

⁹⁰ Typical required courses include McGill's *Introduction to the Information Environment* in 1980/81, which includes "theoretical framework for professional practices"; "sense of professional identity"; "knowledge of historical, social, and economic aspects of information services and of its critical developments and problems", and UBC's *Foundations of Information-based Organizations* in 2000/01, which offers "theories and principles"; "intellectual property"; "intellectual freedom access questions with electronic and physical documents"; "information policy"; "role of the profession and the institution in information access".

Table 6-2**Organization of Information Courses in 7 Canadian Schools [mean]**

	1971/72	1975/76	1980/81	1985/86	1990/91	1995/96	2000/01
Required	1.8	1.9	1.4	1.6	1.6	1.7	1.1
All	5	5.3	5.6	6	5.4	5.1	4.6

Source: Canadian university library and information studies calendars, analyzed by J. Carson

Cataloguing represents to information studies what methodology does to sociology, dry to many, but useful as a disciplinary basis.⁹¹ Cataloguing and classification courses show very small fluctuations till a modest drop in 2000 by about half a required course and by one course in total. The main shifts throughout the years have been to eliminate the word “cataloguing” in favour of “organization of information” or “bibliographic control”, to include all formats of material, and to teach electronic systems. As current web-based catalogue systems are so easy to use and versatile, many librarians do not reinforce their cataloguing knowledge at the workplace. They lose it, rely on the expertise of others, and have to accept third party documentation products from vendors and the public domain on the Internet.

Table 6-3

Reference and Information Services Courses in 7 Canadian Schools [mean]

	1971/72	1975/76	1980/81	1985/86	1990/91	1995/96	2000/01
Required	1.7	1.6	1.6	1.3	1.9	1.7	1.7
All	6.5	5.9	7.3	6.9	7	6.1	5.6

Source: Canadian university library and information studies calendars, analyzed by J. Carson

Over three decades, core reference service courses have remained the same, and total reference offerings tended to diminish by a course on average, after peaking in the 1980s.⁹² Many of these focus on disciplinary areas such as science and technology or the social sciences, and increasingly electronic resources were taught. From the descriptions and the consistencies therein, the core philosophy of reference services appears to be the same throughout the years. In university libraries, the increasing use of distance communication for information questions and access does not appear to be reflected, nor do the advantages and disadvantages of each. This and many other issues are being learned on the job, such as the increasing diversity of users and issues that arise when the Internet becomes available to the public. They are often incorporated, however, into “issues” courses.

⁹¹ Typical required courses include Montréal's *Traitement et analyse documentaire I et II* in 1985/86 and Alberta's *Organization of Knowledge and Information* in 2000/01.

⁹² Typical courses include Dalhousie's *User Services*, which has been offered from 1971/72 to the present and has consistently emphasized user needs, social roles, communications, and in recent years bibliographic instruction.

Table 6-4

Library Systems and Automation Courses in 7 Canadian Schools [mean]

	1971/72	1975/76	1980/81	1985/86	1990/91	1995/96	2000/01
Required	<1	1	1	1.1	1.4	1.7	2.1
All	3.1	5.6	5.9	6.4	6.4	7.9	7.7

Source: Canadian university library and information studies calendars, analyzed by J. Carson

As expected, courses in library automation and systems show steady increases, and more than doubled in three decades. There are variations among the schools, as some caught up with early innovators such as Western.⁹³ Coverage in the electives extends into the domains of management, indexing, linguistics, and the online information industry. The core courses, however, cover the standard fundamentals such as systems analysis and database management. Thus, while comfortable with technology, not all graduates are necessarily broadly based, and must learn on the job along with librarians of long tenure. This *dispels the myth* that recent graduates are the only competent ones with technology. Nor can expertise in automation and technology answer labour problems related to technological anxiety, rate of diffusion, or shortage of staff.

⁹³ Required courses range from McGill's *Introduction to Data Processing* in 1971/72 to Toronto's *Introduction to Information Technology* in 2000/01 featuring "conceptual knowledge of information technology and its usage" and "computers, software, systems, and telecommunications systems".

Table 6-5**Library Administration and Management Courses in 7 Canadian Schools [mean]**

	1971/72	1975/76	1980/81	1985/86	1990/91	1995/96	2000/01
Required	1.2	<1	<1	<1	1	1	1
All	3	2.6	3.1	3.7	4	3.4	5.1

Source: Canadian university library and information studies calendars, analyzed by J. Carson

In the areas of management, there is no apparent change in the number of core courses, although, in the details, institutions with high numbers (Western, University of Toronto) go down, and those with no required courses in the field go up.⁹⁴ There is a significant increase in all schools 2000/01, due to the focus on entrepreneurship. Montréal shows a major increase in courses oriented to the market applications of professional information services after it undertook a program revitalization in 1999 that considered labour market requirements as well as student placement after graduation. Recent courses in all programs emphasize marketing of services, which is a form of commodification of labour, but most applications tend to be in corporate libraries and consulting firms rather than at universities.

⁹⁴ An early core course is Alberta's *Administration and Management* in 1971/72 and recent examples include Montréal's *Marketing des services d'information* and *Entrepreneurship et information* in 2000/01.

Table 6-6**Collections Development & Maintenance Courses in 7 Canadian Schools [mean]**

	1971/72	1975/76	1980/81	1985/86	1990/91	1995/96	2000/01
Required	1.3	1.1	<1	<1	<1	<1	<1
All	2.3	2.3	2	2	2.4	2.3	1.3

Source: Canadian university library and information studies calendars, analyzed by J. Carson

The number of core courses in collections has decreased from about one to one half after the mid-1980s. The total courses have been relatively constant at just over 2, except at the Millennium where they drop by about a half, which is a significant shift.⁹⁵ Apart from Dalhousie, collections development is no longer a core course in current programs. In view of economic, technological, and pedagogical challenges facing contemporary academic libraries, this is a serious oversight. These are times when staff must de-select materials through weeding and serials cancellations, select more carefully (which takes greater skill than buying liberally), and judiciously commit large sums of money on electronic purchases. They are also obliged to accept administrative requirements to consolidate purchasing and to undertake cooperative arrangements for economic survival, which may or may not be to the advantage of the researchers and students in the universities.

⁹⁵ Typical required courses include UBC's *Publishing and the Book Trade* in 1971/72, Western's *Collection Development* in 1995/96, and Dalhousie's *Collections Management* in 2000/01.

Critical aspects of professional education for information studies

I examined professional education as an important aspect of the external labour market, because, on the basis of professionalism theory in Chapter 2, credentialling is a key defining characteristic of professional workers. Three social themes emerge, with implications for professional labour in the academic library. They centre on continuity, myth, and critical approach.

In terms of *constancy*, the substantive information about courses tabulated and discussed above shows that the core of the profession has remained relatively stable, with reasonable increases in expertise related to automation and small decreases in cases that related to organization of information and collections development. The only possible disjunction is the featuring of entrepreneurship in elective courses over the past five years in some of the seven institutions. This core expertise is being challenged by outside pressures, such as the need for compromise through interlibrary cooperation. In the area of *myth-making*, the electronically-oriented *wunder*-librarian is not the only kind of recent graduate, if credentials are a finite measure. This image is probably being used to diminish the profile of long-term librarians, who have been labelled as competent, but responsive rather than initiatory. An overemphasis on passive image and deficient electronic skills tends to diminish the valuable work and expertise done by a highly skilled component of the cultural work force. This leads to the third and most illuminating theme that emerges from the discussion of the generation of expertise, the *critical approach*.

Academic librarians do not have the reputation or experience as social activists, although in their formal education and socialization, all should have been exposed to current issues. Many are indeed involved in their unions or staff associations, as was shown in the interviews and subsequent substantiation in the discussion on unions in Chapter 5. Some have even been presidents of their campus faculty unions. Some faculty union presidents during the 1980s and 1990s have been Sandra Zuk at the University of Winnipeg, Susan Jackson at Carleton University, and Suzanne St. Jacques and Marilyn Rennick at the University of Ottawa. Others have made representation to federal and provincial governments about issues related to electronic information access and privacy, though they have not necessarily come from academic libraries.

To pursue the unanswered questions about expertise, technology, and social change in the academic library, consistent with a political economic analysis, I re-examine the textual data in the calendars of all seven institutions over the seven time periods for content related to cultural policy or critical topics. Within the six course groupings detailed in Tables 6-1 to 6-6, seven themes oriented to cultural issues or social critique emerge. They centre on (1) professionalization, (2) current issues in the field, such as resource sharing, (3) policy, political, and ethical topics, such as Internet governance, (4) economics of information and marketing, (5) communication and culture, (6) user needs and behaviour, and (7) unions. These social interests peaked between the 1990s and the present, and focus in 2000/01, the latest year surveyed, on economic issues, political/ethical issues, and library problems. There is not always evidence that a socially activist approach was taken in the program, or that students have even taken these

courses. Nevertheless, the assumption can be made that most librarians are minimally equipped with the foundation for appreciating their professional traditions or critically understanding the work they are doing.

One problem stands out in the contribution of the credentialling process to professionalization. The greatest proportional increase in emphasis is the recent attention to the market aspects of information service delivery, which emerge even in courses that were not really about marketing, such as the structural aspects of management. This contradicts my expectations and the feedback from the interviews that the delivery of electronic products was the central concern, although electronic information service and marketing are interrelated. This *acknowledgement of market forces* signifies that the commodification of information is a reality, however inconsistent with the principle of information access in the public sphere of the academy, which is *another* course or theme. More profoundly for labour, the acknowledgement of market forces implicitly accepts the separation of conception from execution at the point of production that characterizes the commodification of labour. This acceptance is implicit, because it is generally not clear at the education stage, but becomes clear at the point of production, which is the source of my grounded data from the observations and interviews. The commodification of professional work signifies the beginning of the demise of the profession, because the commodification of strategic expertise separates it from the classic view of the profession. In the library, the expertise is then appropriated by a profit-oriented enterprise or a less-intellectual profession. Thus professional library work is an excellent example of the contradictions of “post-industrial labour” as exemplified

by tensions between the marketing and the cultural perspective. And the relations around marketing, such as the social relations of capitalism and the logic of market capital, fit within the political economy framework

Amid the strong claims by library educators, in particular, that a re-professionalizing process has been going on, there are counter claims from interviewees that information studies curricula, and to a degree professional aptitudes, have actually been relatively consistent over the last three decades. The re-professionalization argument attributes these radical changes in work to the diffusion of new information and communication technologies and to the expansion of the information universe. The proletarianization argument suggests that the professional workers are progressively less responsible for decisions about procedures and goals in their work. I suggest that labour market demand is a strong force, because it exploits the technology craze and appropriates marketing strategies. This results in emphasis on certain courses, and also results in the hiring of non-librarians if market supply is not met. Data from librarians and libraries about their work and the labour process, when critically analyzed, show that de-concentration, globalization, and market forces also play a fundamental role. This is examined in the section on corporate influences later in this chapter. It also contests conventional arguments about the importance of professional education and socialization. The findings on library credentialling need to be complemented with additional data about the external controls of the labour market.

The Market Demand for Academic Librarianship: Position Ads

This section looks at the social meaning of position ads that represent the external labour market for academic librarians. The analysis shows that the ads reflect primarily the value of the work, and only certain aspects of professional powers. The relationship of the ads with the credentialling process for professional information studies is discussed, with implications for labour.

Background

As shown in the previous section, over the past three decades, which constitute the operation of the “post-industrial” library, professional education for information studies has remained relatively constant in terms of core concentrations. Within the core functions, orientations such as the recognition of entrepreneurship in the work of cultural institutions, have also increasingly been emphasized, and result in necessary skills such as the evaluation of software or databases marketed by vendors. Such thematic orientations are more than devices for attracting students or refreshing programs. They are consistent with contemporary social trends such as the digitization of information ⁹⁶, the diminution of public funding for information services ⁹⁷, and the increasing privatization of information resources. ⁹⁸ Thus, the predominant changes in the

⁹⁶ Many publications are now provided only in digital form or in digital along with print.

⁹⁷ In the telecommunications arena, the CANARIE internet-based system serving Canadian research, industrial, and educational interests, which began as a government-sponsored initiative, is now controlled by the private sector.

⁹⁸ Many commercial cataloguing systems have their origin in cooperative university library cataloguing ventures, which become privatized as they move toward marketing their products more widely.

acquisition of expertise reflect the digitization of information, the systematization of library work (echoing Braverman's deskilling, Ellul's *technique*, and Edwards' rationalization), and deconcentration. This historically specific case provides useful material for a comprehensive analysis.

Two questions emerge from the educational or "supply" phase of the analysis of the external labour market, which invite further examination. First, education and credentialling are not done in a vacuum. There is a relationship between the development of library expertise through formal education and the demands of the market, of which universities are a part. There are certainly some simple "supply and demand" aspects of the relationship between credentials and market. The presence of qualified but unemployed graduates mentioned in the interviews, and the disaffection or underemployment of other graduates seen in the observations and heard in the interviews, suggest that professional information workers are in excess. On the demand side, academic libraries might have needs for a certain combination of skills, for example in management or systems development, that is hard to find in the available pool of librarians. For a fuller understanding of the nature of the academic labour, the marketplace needs to be better understood. The relevance of skill to the professional labour market involves more than the mere creation of a supply of specialized labour. There is also a strong conceptual and philosophical basis for professionalism that is incorporated into its formal education. There is the question of how the profession tries to monopolize the market. It is clear that the relationship between education and labour has many dimensions.

Second, if claims by the directors of library schools are correct, most of their graduates are indeed successful in finding employment.⁹⁹ Yet the ethnographic interviews and institutional statistics suggested that there have been relatively few hirings of recent graduates. Where are they going? An important labour market consideration is the proportion of librarians who find employment in Canada in academic libraries.¹⁰⁰ To resolve this contradiction and expand the analysis, I delineate the needs of academic libraries. Sufficient information about the academic library labour market exists, in positions that have been formally advertised. This is the subject of the following section.

Rationale

Complementing the production and supply of labour in the information profession is the demand for this labour in the labour market. In the academic setting, this is generally in the form of tenure track employment in a university library system, though it may also involve contract or term positions either to replace a staff member on leave or to do a task such as set up a system.¹⁰¹ Ads for positions in academic libraries provide comparative and relatively standardized information about the external labour market. Not only do they provide concrete information about professional labour opportunities, which is an important component of labour process analysis. They also depict the indicators of skill

⁹⁹ Few educators, however, could specify what proportion was either in academic libraries or the graduates' first choice.

¹⁰⁰ Interview data indicate that qualified librarians find easy employment in the United States, in areas such as the New York Public Library or universities in Boston. However most graduates are not excited to leave Canada, and, if they do so, will return after a minimum of experience.

¹⁰¹ Among university faculty, there is more rampant exploitation of the highly-qualified, low-paid, non-tenured contract labour of sessional instructors, many of whom are graduate students. This practice is has been filtering into the library, where the working life of contractors involves awaiting renewal of their contracts and hoping that something more permanent will open up if they do good work.

and authority in positions that represent aims at future directions in the institutions. In this section, information on the demand for librarians is enumerated, contrasted with the information of supply produced, and transformed to aspects of skill and authority in the ads, to determine the kinds of labour that are being sought as “new blood” in the institutions.

Position ads show the job requirements as indicated through formal requests for new staff and represented through a somewhat stylized form of text. They also show trending toward certain kinds of vacancies in academic libraries. The work represented by these ads encapsulates the two dominant aspects of the professional labour process in this dissertation: the importance of particular areas of expertise, and degrees of autonomy expected. It also highlights areas of congruence and contradiction between expected and actual views of the labour market and the workplace. An important caveat must be emphasized when discussing any relationship between education and employment. Education for professional work is, by its very nature, conceptual as well as practical. Therefore not all acquired expertise can be summed up, let alone reflected, in position ads or job descriptions.

From a different perspective, the labour market is finite in terms of number of vacancies, as approximated by number of ads. Even with this finite measure, there are murky areas. First, ads provide no information about the internal labour market, where hiring is done within the institution without external advertising.¹⁰² In a typical case, a position for the

¹⁰² There are provisions about internal versus external position advertisement in some union contracts.

head of the reference department may be internally advertised and filled by someone within the library system, such as a reference librarian in that department or a department head from another department making a lateral move. The only external communication about the labour market is the subsequent advertisement of the position vacated by the successful internal candidate. Should the institution decide not to fill the now-empty position, or any vacant position for that matter, there would be no public evidence of staffing initiatives in the external labour market.

Second, not all vacancies for labour and not all position descriptions are easily satisfied by formally credentialled candidates. This may be due to internal requirements, such as the need for a systems head to additionally perform administrative functions or to have additional computer expertise to that normally had by information studies graduate or library workers. It may be due to “finagling”, where an ad is written such that it suits only a particular candidate, or discourages certain kinds of applicants. Some libraries may never truly intend to fill the position, but advertise it pro forma before deciding, “however reluctantly”, to remove the position from the establishment and have other staff absorb the responsibilities.

Research strategy

Notwithstanding these considerations, a representation of the external labour market is feasible because there is a volume of position ads that evidences some movement and rejuvenation in academic libraries. From the CARL and preliminary SSHRCC statistics discussed in the context of the internal labour market in the previous chapter, it is clear

that librarians are leaving and that new librarians represent under 10% of the current staff. A realistic measure is obtained from two year's worth of ads (2000 and 2001) in the principal advertising venue for academic librarians, the electronic news group listing from the Canadian Association for Research Libraries, the carl-l listserv.¹⁰³ This listing is distributed to all chief librarians who forward it to their staff. In 2000, there were 44 vacancies, and 68 in 2001.¹⁰⁴ The presentation and analysis of these data shows not only the behaviour of the labour market, but also the relationship of the market to professional credentialling. Emergent trends include the reduction of technical services jobs due to outsourcing, and the move toward hiring systems and management jobs. An informative aspect of the data is the language used to represent the work and appeal to certain kinds of candidates.

The analysis has four phases: (1) the objective picture in terms of numbers and distributions by specialization; (2) aspects of skill reflected in the jobs; (3) aspects of authority in these positions; and (4) discussion and relationship to credentialling. The first phase represents the external job market, and links those to changes in jobs and to concentrations in academic libraries. It also links it with professional education and areas of concentration. The second phase represents the labour process component of skills, and how that is changing with new information and communication technologies. The third represents the authority aspects of jobs, and is more problematic because relations of authority are hard to encapsulate in descriptive data. Further, while the institutional

¹⁰³ Administered by the Canadian Association of Research Libraries, its participants are the chiefs of the Canadian Association of Research Libraries.

representations of the jobs try to stress their authority aspects, authority is actually eroding due to economic and other power-based forces external to the academic library. The fourth phase makes thematic social connections.

Findings and discussion

I first group the position ads into functions that are representative of what academic librarians do in the workplace in Table 6-7. I then discuss them in terms of professional labour needs in the university library.

Table 6-7
Professional Position Ads for Academic Libraries: Two Year Profile

Year	Total	University Librarian	Associate Lib'n	Head	Systems Lib'n	Public Services	Collections	Technical Services	Other
2000	44	2	4	8	4	16	4	2	4
2001	68	2	4	10	14	31	[1]	3	4
Total	112	4	8	18	18	47	4	5	8

Source: carl-l listserv, compiled by J. Carson

The ads show interesting trends, which are normally consistent with emphases in education but not with present staff breakdowns.¹⁰⁵ The greatest proportion of vacancies for both years, at an average of 45%, is for public service librarians, who assist patrons,

¹⁰⁴ My decision to use calendar year rather than the July to June academic year is arbitrary, but the best choice. Unlike faculty, departments, libraries are not bound to hire in July or January, and there is no consistency among the ads that guides a more logical breakdown.

¹⁰⁵ Statistics on breakdown by type of academic library position are no longer compiled by CARL. The only source is preliminary data from the 1998 SSHRCC survey of CARL libraries.

instruct classes, provide liaison with faculty, select materials, and thus are a major interface between the library and the faculty and student clients. This compares with a higher figure in the 1998 SSHRCC survey ¹⁰⁶, and confirms that the function remains strong. The next highest representation is systems heads and working librarians, averaging between 15% and 20% over the two years. This shows a proportional increase, as the SSHRCC results show a much smaller figure. ¹⁰⁷ This figure is also suspect because systems specialists are not always professional librarians, but highly skilled technical staff or computer specialists. About 15% of the labour market vacancies are jobs as department heads ¹⁰⁸, and 10% for senior administrators, either chief or assistant librarians. ¹⁰⁹ Only 5% of the librarians in demand are sought to perform collections functions, and five out of 112 librarians to do technical services functions related to cataloguing or acquisitions. ¹¹⁰ Neither are the labour market data reflective of course offerings, which show public and technical library functions to be fairly equitable. Other individual vacancies include four archivists and three directors of regional consortia of academic libraries such as the BC Electronic Library Network. About 10% of all the ads were for contract, term, or replacement positions.

¹⁰⁶ The SSHRCC figure reports 142 reference librarians out of 192 respondents with "distinct job titles" out of 778 respondents (at a response rate of 70%), so the figure is highly suspect, but the best current information available at this point.

¹⁰⁷ SSHRCC results show 15 out of 192 "distinct job titles" for systems librarians.

¹⁰⁸ "Heads" and "directors" may be unionized staff, who are reference staff with some supervisory responsibilities, or management exclusions or union-exempt staff, who do a lot of decision making and little day-to-day work with the public.

¹⁰⁹ This compares with 5% for the SSHRCC sample.

¹¹⁰ This is a downward shift from the SSHRCC data, which showed that there was double the number of public to technical service librarians.

In terms of disjunctions, library systems staff represent the hirings to study. This area of emphasis reflects not only the increasing digitization of library operations and need for labour with electronic expertise. It also shows that libraries are searching outside for this expertise, as these positions are not being filled internally. It further shows that even externally advertised positions may be problematic in the acquisition of expert labour in this area of librarianship. In the case of one library, a position head of systems position, when re-advertised, modified the requirement for an "MLIS with significant computer experience or training" to "a computer science degree *and preferably an MLIS.*" For professionals, this scarcely perceptible shift is an important one. It shows that the boundaries between librarians and cognate professions are blurring, as recognized in the research of Abbott and Di Prete, and that librarians are losing their market monopoly, as in the research of Larson and Freidson. Pragmatically, it suggests that the decisive electronic expertise is not easily found in the market, or that institutions are asking the impossible due to their own changing needs for both managers, technical experts, and those cognizant of professional principles. This echoes one of the interview comments, coincidentally from a systems head, that we now need in libraries a "super librarian" who is both specialist, manager, communicator, and other abilities.

The emphasis on public services hiring reflects the current direction in university library service. This encompasses the new areas of database searching, web-based instruction, and new catalogue formats. It also involves the burgeoning, however demoralizing, area of de-selecting, that is, cancelling, periodical subscriptions. It includes the very careful and collaborative decision-making that is necessary for buying anything. Thus this

function is now fraught with greater change and uncertainty than in the past. For the increasingly important document delivery function, there are no ads for interlibrary loans librarians, except for a head of access services of which interlibrary loans is a part. Yet this area has absorbed so much work because all libraries capitalize on outside resources. Thus public services librarians are at the crux of current trends in the provision of information, mediating between the library, innovations, and the clients.

What about administrators? This 10% representation is not out of proportion on its own. However, if combined with department heads, to get a complement of middle management, it amounts to about 25% over 2 years, or 30 out of 112 positions. This high proportion shows that libraries are actively looking outside for new staff with the appropriate qualifications and expertise to handle change. Thus, the external labour market is looking for mediators and decision makers. This suggests the phenomenon of skill bifurcation and a “declining middle”, where work is moving either upward to middle management or downward to support staff. (Menzies: 1996)

From the finite aspects of the labour market, the discussion proceeds to a more analytic level in terms of what the ads say about the labour process. I look for aspects of skill and authority reflected in the ads, which is the “optimal” picture presented by the hiring institutions. I analyze how these skill and authority indicators mesh with professional labour process as actualized at the point of production. I conclude that expertise remains the dominant aspect of the professional labour process.

Skill Factors

In Chapters 3 and 5, information studies was defined to include a comprehensive cognitive base, degree of complexity, service ethic, level of esteem, and rewards mechanisms for these components. The analysis of the ads provides few surprises, and affirms my earlier finding that skill is regarded as the most dominant aspect of labour process.

Knowledge Base

In the context of the labour market, the professional information studies knowledge base is represented by educational credentials plus work experience. Credentials may be objectively measured by educational level, whereas professional and other experience is specific to the job and subjectively assessed. The ads are consistent in stipulating the need for formal credentials as represented by a post-graduate degree in library and information studies from an accredited institution.¹¹¹ With only a tiny minority of exceptions, in three out of 112 ads reviewed, all require a Masters of Library and Information Studies or equivalent. The exceptions are the earlier mentioned systems librarian, and two university archivists, who require a graduate degree or archives training instead of an MLIS plus experience or a Master of Archives Science.¹¹² Masters degrees in a subject area are often desirable for associate librarians and sometimes for department heads. Occasionally, postgraduate disciplinary degrees are mandated by specific institutions, as in all ads for library professionals at the University of Guelph.

¹¹¹ In Canadian libraries at the Millennium, there are about 10 years' worth of people who would conceivably have only a Bachelor of Library Science or less, which is below today's standard.

¹¹² The Master of Archives Science (MAS) degree is a specialized stream in information studies programs at UBC and others. All institutions have at least one or two archives or records management courses.

For librarians associated with education faculties or academic teaching and learning units, a professional teaching degree is required or highly desirable. Likewise, chief law librarians are asked to have a law degree, and other law librarians at least course in law librarianship. There is an emergent pattern for professional library positions with highly specialized disciplinary orientations, particularly in schools of law or education, to be further specialized by subject qualifications beyond their information studies credentials.

The increasing specialization of formal qualifications in library labour market is an intensification of what has been happening through the last few decades. Historically, employers have increased their credential requirements to an MLS from a BLS, or a disciplinary degree in a particular subject area in addition to librarianship skills in the area, and specific over general experience. If credentials were the only criteria for designating professional closure, evidence from the external job market shows that labor in libraries is being up-skilled!

In the complementary area of professional experience, requirements range from no mandatory experience for an entry-level position to about ten years of experience for a chief librarian. To encourage new librarians, one library asked for “demonstrated or potential competency in librarianship” (Memorial University: 2001), while another articulated that “This is an entry level position, and recent graduates are encouraged to apply”. (Carleton University: 2001) Most working level jobs, however, require from two to five years of work experience in the area, and major supervisory and management jobs from five to eight years. In one case, to avoid overqualified candidates and inflated

expectations, a library advised that, “Because of budgetary constraints, applications from external candidates are limited to those with no more than five years of experience.”

(UBC/Science: 2001) For many years, from the recession of 1992/93 to about 2000, there were few hirings and intense competition for scarce jobs. Libraries were inundated with applications, and could be selective. It is clear from the summary figures above, as well as from the interviews, that the labour market has opened up for recent graduates.

Skill requirements encapsulated in the position ads provide an additional kind of data about the professional library labor market, namely, changing areas of specialization, as consistent with Wardell. As the library evolves from the modern to the post-industrial age, these have been transposed to include technological and entrepreneurial skills. These provide rich evidence of trends that mark directions in which the post-industrial library is moving, and that signal a larger political economic context. These most dominant areas from this labour market information are the digitization of information, the commercialization of the university, and the convergence of library with other university services. It is shown below how these indicators of social trends tell us about the labour market, and ultimately the labour process.

Trends in the digitization of information are seen in ads for positions for librarians working with technology, whether they are labelled systems or electronic resources librarians, or need technological expertise as part of their labour. Systems positions regularly stipulate either a computer science degree or significant experience *in addition to* the MIS/MLIS. Trends in the increasingly commercialized university are seen in a joint position for chief librarian and research director (University College of Cape

Breton, 2001), and in the need for administrative librarians to have fund-raising experience. This is consistent with the current economic climate referred to in Chapter 5. With threats such as budget cuts or mergers with other campus departments, library administrators are required more than ever to account for services and expenditures. According to position ads, associate librarians in particular are asked for skills such as statistical analysis and program evaluation. Again, realistically, the blurring of boundaries and the merging of services are characteristic of the convergence of labour and extension of capabilities in contemporary professional work. Joint positions normally bring positive benefits for the incumbent. Librarians are asked for instructional skills, not only for the established reference function of bibliographic instruction, but also to collaborate with teaching and learning units. This should mean an appreciation of their skills, and recognition beyond the walls of the library. It is clear that where knowledge base is concerned, the qualifications requirement is indeed complex. Complexity is discussed below in its own category.

Complexity

Formal education in information studies and in disciplines that apply to the working environment is the most standardized measure of the knowledge base, and allows comparison among candidates. However, knowledge base is an incomplete indicator, and needs to be complemented by a more composite set of characteristics in the appeal to the labour market. This includes the requisite experience for the job and the personal qualifications of the candidates. In addition to the areas of functional expertise

mentioned above, almost every job on the market asks for written, oral, and interpersonal skills; team skills; electronic and web knowledge; and leadership, organizational, and planning abilities. They should be committed to academic librarianship and to the teaching and research needs of the university. They are asked to be imaginative, creative, and innovative, with “the flexibility to enjoy a changing environment of practice.” One position ad encapsulated this mix with, “This position will be attractive to a very adaptable individual with excellent communication and collaborative skills, who is highly motivated to embrace new technologies.” (Simon Fraser: 2000) Another referred to the “ability to evaluate and implement new approaches in a rapidly changing environment.” (McGill: 2001) Another was extremely direct, and referred to “the temperament to thrive in a creative environment with a demanding workload.” (University of Toronto: 2000) Guelph requires its working level librarians to be “adaptable in a variety of professional contexts and able to assume responsibility for a variety of management roles or special projects.” (Guelph: 2000) As seen in the interviews and reinforced by recent studies in labour and organizational behaviour, for example, the review articles by Vicki Smith, Burris, and Smith and Thompson, flexibility, multi-layering, and the constancy of change are characteristic of workers in all spheres of the post-industrial university environment.

From the qualifications required in the ads, reference librarians require a complement of information service, instruction, and materials selection, and cataloguers a barrage of rules, standards, and systems and associated electronic expertise. Department Heads need about five years of functional experience, of which some must be supervisory. Systems librarians normally need at least three to five years, owing to the complexity and

developmental responsibility. Assistant and associate librarians need skills that include evaluation, budget planning, unions, legal aspects, management, fund-raising, and performance evaluation. One ad for an assistant librarian even itemized the number of years of experience needed for each aspect of the job! (Simon Fraser: 2001)

The suite of traditional abilities is extended to those in cognate areas on university campuses. In the general area of communication of information, librarians need to have a strong understanding of scholarly communication and the research process, because bibliographic, editorial, and publishing systems are converging electronically. In another area of electronic convergence, librarians are expected to also possess knowledge of non-print resources such as geo-spatial and numerical data to textual information, as this is increasingly available on the internet or in CD-ROM format. In the area of pedagogy, many candidates in reference service positions are asked for knowledge of instructional principles, particularly in relation to information literacy, and for capabilities in the development of curricular materials. This is due to the integration of teaching research skills with teaching transferable or generic skills, such as defining a research topic. In the legal area, managers and electronic resources candidates are required to know copyright and licensing issues and practices, so they can undertake liaison and negotiation with vendors, and so they can comply with the law when providing access to and disseminating electronic information through library channels. In the administrative area, managers should have the ability to raise funds, especially with declining resources from the university shown in the previous chapter. They should be able to manage in a

unionized environment, where there are at least two unions, professional and non-professional staff, whose concerns centre on salary and job security.

Library systems and electronic services jobs provide a good example of increasing complexity. They are not just for programmers and analysts. The technical skills now include facility with web page design, the Internet, course instructional systems, and electronic publishing. Many have a strong component of training other staff. For example, one of my interviewees held a new position exclusively for training other staff in a very large library system. Others involve the administrative and human relations skills of liaison with the campus computer centre or project management. Electronic resources librarians in public service roles may be required to participate on internal, campus, or inter-university committees in relation to the dissemination of electronic resources.

In addition to conventional library jobs with increasing complexity are new work combinations. The professional academic library labour market in Canada at the turn of the Millennium includes a librarian for emerging services (Regina: 2001), an information literacy and cataloguing librarian (Windsor: 2001), and a combined law reference specialist and systems analyst. Thus the traditional jobs are layered with additional subject expertise, skills, and ancillary academic functions, and thus can be said to meet easily the complexity aspect of the skill component of library professionalism. Analytically, the important thing about these changes in complexity is what they say about the social environment. The implications for labour of new electronic

technologies, the digitization of information, retrenchment in the academy, and the blurring of boundaries between functional areas in the university are addressed in the synthesis in Chapter 7.

Service ethic

In the interviews, librarians are highly conscious of their professional responsibilities to their clients and their craft, and reflect strong social responsibility in the Durkheimian or the Parsonian sense. In the position ads, however, the only articulation of conventional service refers to a commitment to academic librarianship and to library service in general. There is more emphasis on commitment to electronic librarianship, and to flexibility and change, as mentioned in the above section on complexity, than on principles.

Esteem

In the language of the ads, esteem is inherent in the incumbent's relation to other constituencies on campus and to responsibilities of authority within the library. Some jobs involve committee membership, where professional input is valued, and others project assignments. Outside the library, some jobs require campus liaison with areas such as the computer centre and campus committees. In academic libraries, collegiality with faculty and collaborative work are most valued, but in reality true equality, or even equity, has been elusive for most librarians. This is echoed in the interviews where it is clear that, without a doctorate, peer reviewed publications, and other achievements, librarians are not on the same playing field, although one interviewee asserted that librarians were "similar but not the same". Their work within a hierarchy also detracts

from their professional stature, since they are required to be responsive to structural needs within the institution as well as those of their clientele, and have less liberty to take charge of their contribution to society.¹¹³ The most important areas of esteem in professions, in relation to the clientele and to the community at large, are not addressed in the skill aspects of the job. Aspects that make the labour singular and worthy of esteem among clients and colleagues are not addressed. As esteem is related not only to skill but also to authority, this is further explored in the section on the authority factors of professionalism in the external labour market.

Rewards

Rewards for library labour, in the job ads, are both honorific and monetary. Honorific rewards inhere in the assigned rank in the organization. Most libraries have personal ranking systems with four categories roughly corresponding to those of academic faculty.¹¹⁴ Some have only three ranks. Ranks are thus based on personal qualifications and experience in addition to the requirements of the job, and thus integrate the skill factors of knowledge base and complexity. In a four-rank system, a Librarian I, often called a General Librarian, is an entry-level position for candidates with no library experience. Incumbents are expected to move upward quickly. A Librarian II is an Assistant Librarian, Librarian III is an Associate Librarian, and Librarian IV a Senior Librarian. Within those ranks, a candidate might assume line or functional responsibility within the institution. There is thus reasonable elasticity in academic library ranking

¹¹³ This is increasingly happening in all professions, even the elite fee-based ones such as medicine, per Freidson and others. This is picked up in the discussion of class and power in the concluding chapter.

¹¹⁴ Ranking schemes for librarians are fully detailed in union contracts or handbooks, which are publicly available (<http://www.caut.ca>), whereas only limited information exists in the job ads.

schemes. With some flexibility in the ranking schemes, library management can factor in budgetary strictures and the desire to refresh library staff when assigning (or limiting) rewards.

If measured by the ranks desired, evidence in the ads shows that labour market demands vary. About 10% specified Librarian I. Although the bottom rank would be of interest only to recent graduates, some employers still required experience, presumably from cooperative placements or short term contracts. One institution couched the entry-level status of the job by asking that the candidate have “demonstrated or potential competency in librarianship”. (Memorial: 2001) Some ads specified Librarian I or II, and others I, II, or III, commensurate with experience and qualifications. They were leaving doors open for a range of candidates. Ads for associate librarians and other managers are often outside ranking systems, meaning that higher status is compromised by lack of union protection.

Salary is strongly associated with rank, and often commensurate with experience and qualifications. There is union regulation of salary floors and increases. Since salary is generally based on length of employment, starting salaries appear low contrasted with those of the long-term employees they replace. Salary correlates not only with rank, experience, and longevity, but also with the institution. The wealth and size of the institution do not seem to matter. For example, Memorial is a smaller institution, yet it offers a salary minimum above \$40,000 range for a Librarian I, while others offer just over \$30,000 for a similar job. Most libraries offer an administrative stipend from \$3,000

to \$5,000. Many of these financial constraints and latitudes are based on the salary provisions of collective agreements between professional librarians and faculty.

While rank and salary offerings nominally signify the skill component of jobs, they indicate more interesting phenomena at the larger social level. They reflect the recruitment strategies of the institutions and the qualitative and quantitative value they place on professional expertise. Rank may not strictly reflect vacancies in the libraries, but, more correctly, levels and costs at which the libraries are prepared to hire new candidates.¹¹⁵ And, as mentioned above, rank and salary are the products of negotiations between union and management, as addressed in the discussion on collective agreements. There is also a relationship with the provincial economic situations, as noted in the basic library data in Chapter 5.

Professional activity

Compared with service ethic or with rewards, professional activity is strongly emphasized in the ads in the professional labour market. Workers at all position levels are informed that they are expected to engage in professional activity and contribute to the profession. This takes the form of participation in professional and academic organizations, developing their professional knowledge on a continuing basis, or undertaking scholarship and research. In some cases, the expectations are loosely worded, with “involved with” or “participates in professional and academic

¹¹⁵ Without extensive qualitative research in each institution to compare job description content, organization charts, and gleanings from interviews about staffing changes, the practice of understaffing cannot easily be asserted.

organizations, and in research and scholarship as appropriate” (Victoria: 2001). In other cases, the expectations are stronger, to “contribute actively to law librarianship, information science, and legal scholarship” (Queens: 2001) or “undertake scholarship, research, and professional activity” (Regina: 2001). The ads for positions above the entry level at Memorial offer release time for professional activity. This is in keeping with pertinent provisions in the collective agreements at academic libraries. The reality, as reported by many interviewees, is that they have no time. Nor are they urgently motivated, because advancement to higher ranks in university libraries is based only partially on professional activity and mostly on performance at the point of production.

Only the promotion to senior librarian, or Librarian IV, really scrutinizes the professional achievement of the candidate. A librarian can spend much time and energy organizing sessions, going to conferences, or even giving conference papers, without going through the more demanding expectations of academics to publish a peer reviewed book or article. Professional activity, therefore, is a formal expectation in ads in the labour market as well as in collective agreements. However, for most librarians, it is seldom fully actualized, or it is done so in a fashion that is not as consequential than that of the academics. This is partly due to the bureaucratic nature of the profession, which requires loyalty to the organization and to its mandate above commitment to the profession per se. The question may be raised whether academic librarians should compare themselves to academics at all, but, in terms of governance, they are affected by similar provisions in the same or related collective agreements.

Summary of skill characteristics of the external labour market

As formal modes of outreach to academic librarians, the ads show many skill aspects in demand in the professional labour market. Skills in particular demand include disciplinary expertise and experience related to the work, and personal qualities related to the prospective incumbent. All include knowledge of information technologies and the digitization of resources, and concur in the need for variety, adaptability, and change. There is unchallenged acceptance of this as a reality in today's academy. These skill aspects of the labour requirements relate to the libraries themselves as part of the university, the information world, and the practitioners. For the most part, they neglect specifics about the university clientele. They invoke "progress". In terms of classic professional ethics, they appeal to professionalism with statements of expectations of activity, involvement, and creativity. Whether this is a device to make themselves sound progressive, or to attract "the best and the brightest" or a certain kind of librarian needs to be followed up. Actual rewards such as salary are not specified in many cases, because they are candidate-dependent and because they are not necessarily generous. The lures include the attributes of the library, the university, or even the city.¹¹⁶ The challenges of working with an increasingly entrepreneurial environment are not highlighted, nor are critical perspectives on working with technological convergence.

The above categories indicate how the skill aspects of the library labour process are represented in the professional market. They say little about the clout that librarians or libraries should have in the information resources system or network of publishers,

¹¹⁶ For example, St. John's is a very safe city and Saskatoon has the longest hours of sunshine in Canada!

database producers, software developers, library consortia, and vendors. Interaction and influence with the commercial agencies with which librarians deal is an important aspect of the power and control component of the labour process. Following up this question provides an entry point for the second part of this external labour market analysis, an examination of the power and control aspects of information studies jobs in the labour market.

Control Factors

These include the three general areas of control identified in Chapter 3, control over one's job, control over professional areas in the library, and authority based on demographic and personal characteristics.

Operational Control

Within the authority dimension of the labour process in the academic library, operational control refers to control over work, library acquisitions, and staff. Control over work is over the duties and areas of expertise mentioned in the above discussion on skill, and is nominally represented by line authority. Depending on the position, candidates report directly to a department or division head, branch director, associate librarian, university librarian, or academic vice-president of the university. They are normally expected to work with a reasonable degree of independence, but always within a hierarchical

institution.¹¹⁷ Exceptions to direct authority as advertised in professional library jobs are few. They include split jobs at the working level, where candidates report to separate department heads. Outside the formal demands of the job, librarians at any level may be functional members of library or university councils or committees, and may provide input to policy and planning regardless of status. Realistically, however, committee membership does not bring true “power”, though it removes librarians from line authority and allows the expression of professional skills outside the immediate environment.

At a higher level, some systems librarians may report to an associate or university librarian, but have areas of functional responsibility within the library and areas of liaison with campus computer centres. Because the digitization of resources and convergence of information systems have an impact on the entire library operation, systems librarians, unlike their other professional colleagues, tend to be accountable “upwards” to senior management, and “outwards” to agencies outside the library, rather than to other library staff or the demands the public.¹¹⁸ A third area involves newly defined positions that span the library and another campus department, such as one for instructional development (Scarborough: 2000) and a two-year contract for fundraising. The modification of the direct authority convention appears to be a good thing for personal professional power, as it removes some of the “diminishing” aspects of semi-

¹¹⁷ This contrasts with university faculty, who have more formal independence in their teaching and research, and are “protected” by contract provisions of intellectual freedom. There is, however, subtle control of these freedoms by peers and through the pressures of intellectual trends.

¹¹⁸ Examples of faculty input include suggestions technical enhancements or access to popular editing software, both of which are viable but costly and require modifications to technical systems.

professionalism, as was noted in the Introduction. The current departures from conventional library practices, however, have accompanying disadvantages. They appear to be the privilege of higher staff levels, and exclude the initiatives of librarians who are newer, critical, or more intimately acquainted with needs of the clientele because they work directly with them. They involve allegiance to forces outside the library rather than to professional principles, and may result in a reduction of accountability to the rest of the library in decisions about library service.

Control over acquisitions was not specified in the labour market ads, except for the inclusion of the collections function in positions, primarily those of subject specialists or liaison librarians. There were only three jobs exclusively for collections development, which confirms the findings in the professional education data that collections development is being diminished as a library function. Individual control over acquisitions may range from the selection of an individual book title, to negotiation with library colleagues for purchase of an expensive electronic database, to individual contribution to a collective library recommendation for purchase of an expensive electronic title by a university consortium. For electronic resources or systems librarians, authority is also involved in dealing with vendors. The importance of such work in an age of constricted funding and increasing interlibrary collaboration is not highlighted to the degree of other labour aspects such as electronic expertise, which is often a technical skill, or membership on committees, which has dubious status or power. Control over acquisitions is an area where a greater critical approach may be stressed. Incumbents do discover this at the point of production, as evidenced in the interviews, but the

importance of collections management is not visible in representations to the labour market.

Control over staff involves supervisory responsibilities, but there tend to be fewer and fewer subordinates to manage, due to both flattening of the organization, loss of support staff, or up-skilling them. As part of the authority aspect of the job, ads for department heads and up state the number of staff to be managed. Again, the data for systems librarians are idiosyncratic, as they may manage from one to eight full time equivalent staff (in the ads surveyed) depending on the structure of the department and its integration into library operation, though not necessarily on the size of the library. Ads often state the number of professionals and non-professionals to be managed in the department, which ranges from ratios of 1:6 to 1:3. The national average in the years surveyed in the CARL statistics is 1:5. The emphasis of staff level to be managed is a statement of the authority inherent in the position, although this could work both ways. In most cases, the greater the number of professionals, the higher level of expectations and challenge among staff. Yet the greater number of paraprofessionals, the more likelihood of in-house training needs, resentment toward professionals, and union issues involving allocation of work. Both involve authority over staff, which is exercised in different ways.

Thus the areas of operational authority in labour market ads are related to the situation of positions within the library structure. They include personal autonomy and responsibility for staff. They show that, despite emphases on change and flexibility seen in the

discussion on skills, librarians are still entrenched in hierarchical structures. Their authority is measured by number and level of staff, and by vaguely specified functional connections outside the department.

Professional Authority

This control dimension of the labour process relates to the level of professional status or power that librarians hold in the institution of the library and its environment of the university. In the labour market ads, as in the interviews, this is expressed as control of quality, innovation, and conditions of work. Librarians' responsibility for control over quality, which is part of their classic social responsibility, is implicit in the required qualifications, experience, and nature of the job as summarized. Quality control applies to the provision of information service, the organization of information, the quest for information literacy, and the acquisition of materials alike. Because the market is for committed professionals, a modicum of professionalism is assumed to come with the candidates. A critical approach is part of quality control, but critical in this context really means shrewd. This is addressed to responsibilities such as the selection of vendors and resources, the determination of information needs, and the assurance of information literacy, rather than to critical analysis in a social context of the library itself or the forces that control it.

Control over innovation relates, as with quality control, to the interaction of librarians with outside agencies such as vendors, dealers, or other information providers for new services. These include document delivery, which is the electronic ordering and delivery

of articles from journals not held by libraries, and comprehensive library systems, which provide cataloguing, circulation, a public catalogue, databases, and more with a single, somewhat customizable, purchase. Most of these services, including two mentioned here, are commercially available, which involves not only judgment but also leverage and negotiation from librarians who select them and work toward customization.¹¹⁹

Academic campuses also mandate innovation in areas such as electronic financial and records management, and library managers must ensure quality control for library applications as well as maintain compatibility with their administrative colleagues.

Control over innovations is part of implementing change within a flexible environment of practice, and change and adaptability were seen in the skill section above to be desirable characteristics of many jobs across the spectrum. Occasionally, innovation is seen to be important enough to be in the job title, such the aforementioned Emerging Services Librarian or Information Literacy Librarian. Overall, the job ads suggest that responsiveness to innovation is desirable. However, it is left to the librarian to discover the limitation of choices in that area.

The control of conditions of work includes control over time. As with the above general professional areas of control, it is implicit in the jobs. The ads state that there are many demands on the work of librarians, which suggests that librarians have little control of

¹¹⁹ Using commercial library vendors is similar to trusting drug companies. On the one hand, they are governed by the profit motive and exercise control on regulators and professional bodies, but on the other hand they have better resources than the non-profit sector and the “infrastructure” to engage in the development of a quality product.

their time and are subject to outside pressures.¹²⁰ This echoes sentiments that were strongly expressed in the interviews about multiple pressures on their time. There appears to be little change in control from the responsive nature of librarians of the past, in spite of their increased expertise and information literacy. Information technology only increases the volume of their work, as seen in the interviews, partially because it increases in the diversity of information needs of their clients.

Personal Authority

This is related to the socio-demographic factors that interact with other control factors in the labour process, in a political economic analysis. The most prominent factor to investigate in a female-intensive profession is gender. About 80% of Canadian academic librarians are female, and this imbalance has continued over the three decades under investigation. Gender is one of four equity groups that is encouraged to apply in every ad, with the requisite statement under provincial equity legislation that women, visible minorities, persons with disabilities, and Canadian aboriginal peoples are desirable candidates. It is curious that, in the reverse situation where men are the minorities, men are not encouraged to apply! Sexual orientation is not mentioned except at Queen's where gay men and women are invited to apply, along with the four equity groups. Thus equity legislation does not promote the alleviation of the gender imbalance in academic libraries.

¹²⁰ There is also the concept of Foucault's internalized "discipline".

Age is the other demographic variable of importance in libraries. Age is not specified in the ads, being contrary to the 1982 Canadian Charter of Human Rights. Tenure and experience are proxies of age, and the above examples of required years of experience, or even restriction of years of experience, are an attempt to attract applicants and professional workers at an early stage in their career. Relatively few years of experience normally suggest a recent graduate, whose importance is not necessarily youth (though boundless energy is desirable) but recency of training and ineligibility for a high salary. Thus the ads ensure that librarianship continues to be a “woman’s profession”!

The demographics of professional librarians are beginning to change, as the baby boom generation approaches retirement and early retirement. The ads for 2001, in particular, reflect this shift with an increase in available positions despite the retrenchment seen in the 1998 SSHRCC study. This dissertation, thus, is written at the cusp of this change.

Summary of authority aspects of the external professional labour market

The material in the labour market ads shows that authority factors are less frequently referred to than skill factors. Further, they are less precisely stipulated, because it is difficult to stipulate specific criteria. The authority aspects of a job thus tend to be nominal, and on paper only. This lesser emphasis on authority factors is consistent with emphases in professional education, and indeed in the historical experience of the librarians in the interviews.

Integration of the labour market with professional education: Critical issues

Quantitatively, the ads contribute useful data about the external professional labour market for academic librarians. The numbers provide evidence that hiring is clearly on the rise in 2000 and 2001. This may foreshadow the end of an entrenched staffing situation, providing employment opportunities for some, and the beginning of staff “renewal” in libraries. In organizations, renewal has positive and negative connotations, as mentioned in an earlier chapter. Library management can use renewal to change direction in a climate of retrenchment or to one of increasing reliance on commercial information service providers.¹²¹ On a qualitative level, the textual documentation about the labour market is more nuanced. It shows the emphasis of skill over authority, which is consistent with the labour process information elicited in the interviews, and with institutional data about libraries.

As mentioned at the introduction to this section, labour market information should be consistent with professional educational data. That is, either the demands of the market should reflect the competencies of the experts, or professional credentialling should respond to the needs of the labour market, or both. Earlier in this chapter, the characteristics of professional education that sharpen our understanding of the labour and labour process of librarians were analyzed, and six functional areas were deemed important for experts in information studies. These are cultural and professional foundations, the organization of information, reference and information services, library systems and automation, library administration and management, and collections

¹²¹ This is followed up in the following section.

development. When matched with market needs, these six educational areas of information services expertise are relatively congruent with their representations to the external labour market. However, when assessed from a critical labour-oriented perspective, the educators of professional information workers emphasize more socially significant areas in post-industrial society than the agencies that hire them. Such critical areas as information policy have been highlighted in the analysis of educational data above.

In the area of the professionalization of information workers, the labour market language appeals to the strong sense of professional commitment of prospective applicants. Education and the job world are consistent here. Unlike the educators, the ads give no direct reference to political and ethical issues such as the filtering of pornographic materials on the Internet, or the larger question of the competing freedoms of access and privacy. In ads for the organization of information, emphasis is directed on expertise, with some reference to integrating new systems into the library. Educators place considerable emphasis on expertise and systems, including their evaluation, and address to a lesser extent techniques of dealing with vendors.

The labour market emphasizes two functional areas of librarianship in particular, reference services and electronic systems development, which are often interrelated. In reference services, the ads emphasize skills and qualifications associated with information services, particularly the increase in electronic resources and concomitant need for virtual libraries and remote services. In keeping with professional training, there

is a strong commitment to meeting “user needs”, although in the real world of libraries these initiatives may be framed by library imperatives as well as patron requirements. No mention in the ads is made of the increasing diversity among university clientele, which constitutes an increasing component of users. The shift in clientele and their use patterns is beginning to rival, in impact on professional service providers, the technological revolution. In the area of system development and electronic information services, the labour market ads emphasize – once again - the technologies, their increasingly sophisticated requirements, and competencies in their use. This affirms what was said about changes in library service in the interviews.

Ads for library administration and management do refer to problems associated with the economics of information and the convergence of information services with other related campus services. Some refer to the management of unionized staff as an area of competency, but the more frequent references to unions lie in the benefits accorded to prospective staff for salary, leave, and professional development. In the ads for managers, authority factors are closely bundled with skill factors such as analysis of services and program evaluation. Ads in the labour market stress pragmatically what needs to be done, whereas education stresses what should be done. The collections development component of the ads deal more with subject bibliographic expertise than with the challenge of diminishing resources, except for a headship positions which signals electronic publishing issues and joint ventures.

In conclusion, the critical issues that are addressed in the labour market, as represented by ads seeking labour, are change, flexibility, multiple demands, and resource sharing among universities. These are presented as progressive aspects of university library operation, which require complementary personal attributes and experience from prospective staff. The negative aspects of “the constancy of change” are not highlighted, such as pressures on libraries to buy arrays of electronic products and services from vendors that increasingly monopolize the whole chain of information provision and dissemination ¹²², and to responsiveness to user needs in an increasingly expanding information environment. The external labour market tends to emphasize the expertise and commitment of professional workers in information studies, by stressing knowledge base at the expense the maintenance of authority. Professional academic librarians increasingly need to assert power in areas of governance within the university and with the province, and in dealing with the corporate providers of information resources and systems. With little formal authority, they have to exploit what they have, which is a strong complement of expertise. This expertise has been delineated in the sections on professional education and on the labour market. The exercise in power is further worked out in the context of class in Chapter 7, as is the degree to which librarians retain a monopoly of their profession.

¹²² Elsevier, for example, controls important periodicals, databases, and software, and has taken over a major integrated library cataloguing-acquisitions-serials-circulation system.

Imperatives of the Market Economy: Publishers, Database Vendors, and Library Labour

The above analysis demonstrates that the professional credentialling process is relatively stable, with increasing emphasis on information technologies and entrepreneurship. It also demonstrates that the labour market is shifting toward greater inclusion of skills in technical librarianship and management. There is no evidence about causes of these changes. To obtain this information, the dissertation examines two important phenomena in cultural institutions: the increasing domination of the production and dissemination of knowledge by commercial agencies, and the response of the libraries to increased pricing and decreased choices by cooperative purchasing and resource sharing.

The interview data show that librarians were unequivocal in their concern about workload and the learning curve for new forms of information service. Their concern is not simply about the volume of work or the continual need to adapt to new things. Indeed, workload and flexibility – in the service of others – have always been part of a librarian's job. Implicit in their concerns is the recognition that the arena of control is decreasingly in the purview of the individual professional or even the domain of the library. It is increasingly in the sphere of library consortia, publisher conglomerates, university administrative groups, and ultimately part of the globalization of information resources. These control issues in the labour process are perceived by a few interviewees. Most were not formally articulated but generated in the analysis of the qualitative data that constructed or categorized the control aspects of professional work.

In this analysis, it has been demonstrated that labour in academic libraries involves controls at various levels, specifically, individual, collective, and institutional spheres. The control of workload is part of the individual experience of labour. The control of quality of service normally concerns the professional group as a whole, in terms of what is expected of them and what they can deliver. The control of acquisitions or collection development is ultimately in the purview of the library as an institution, due to the growing practice of interlibrary cooperation. Thus control situations are diffused throughout the library, and are often associated with imperatives that are ultimately external to the institution. In the academic library world, two external forces are most relevant, in terms of the evidence from the interviews and the contextual analysis of academic library labour process. They are the agencies that provide information to the libraries, normally publishers and vendors, and the consortia of libraries that collaborate to counteract external commercial and economic pressures.

There is an increasing number of situations that demonstrate how corporate monopolies have gradually commodified professional information work.¹²³ Commodification represents the transformation of use value into exchange value, which includes the production, distribution, and exchange of a service as well as a product. (Mosco: 1998) For professional labour in the academic library, this commercial appropriation and control can be seen in the production of library catalogue systems, the electronic archiving of serials backfiles, the provision of resource material, such as theses, that was

¹²³ This is an exemplary presentation. To do justice to the topic of the commodification and control of library functions would involve an entire dissertation, because of the detail and intricacies involved.

formerly free or reasonably priced, and library integration with the scholarly publication system.

In the first example, electronic library catalogue systems have expanded to include “integrated systems” with modules for acquisitions, serials check-in, and circulation – all work formerly done within the library. These functions have been out-sourced to specialized firms such as Endeavour and Millennium that design, provide, and service the product in consultation with library staff. Such systems therefore involve the purchase of software, service, and hardware (unless the university already has a campus-wide commitment for hardware). Often in their price they bundle software that might otherwise be free through a campus site license, such as bibliographic referencing software. A more serious pitfall of vertical integration is that it can be intensified through additional mergers and takeovers. For example, the purchase of the Endeavour system by the publishing giant, Elsevier, has implications for Endeavour customers to purchase or integrate other Elsevier products.

In the second example, libraries prefer to replace backfiles of periodicals with electronic equivalents to save space and be more universally accessible. These backfiles are often collectively purchased from expensive publishers by university libraries. This removes the responsibility for access from the librarian to the publisher or vendor, because the backfiles are actually accessed electronically rather than owned. Problems of control arise for the librarians (and their clients) when prices increase, supply firms are taken

over, or the vendors and libraries can no longer sustain a satisfactory business arrangement.

In the third example, libraries are often charged for materials they once provided free, due to initiatives in the publishing or database world. In Canada, the microfilming and retention of theses and dissertations were once done by the National Library of Canada. They are now contracted to the equivalent and larger American deposit agent, University Microfilms International, a for-profit organization with no commitment to keep these unpublished documents from marketers, such as Contentville. Thus the intellectual property of Canadian scholars has been in danger of being sold for profit, outside the control of librarians. Under pressure from the National Graduate Council in 2001, however, Canadian theses were removed from the marketplace.

The fourth area, support of the scholarly communication system, is inextricably tied the production, distribution, provision of learned journals. With the concentration of journal ownership and increase in electronic dissemination, librarians and publishers have been involved in a war of control. Since this is a major area that threatens the power of librarians, the remainder of this section details the problem.

Publishers generate books, periodicals, electronic resources, and materials in other media, which are normally priced and available in the marketplace. It is clear from the CARL statistics that escalating prices for print materials and increasing demands for electronic materials have strained library budgets. Between 1990 and 1999, the cost of journals rose

by a factor of 3.21, and journal purchasing power declined by 42%, after increases in journal budgets and the consumer price index were taken in to account. (CARL: 2001) Studies by the Canadian Library Association, the Association of Research Libraries in the United States, and the Council for Research Libraries in the United Kingdom have documented that between 1986 and 2000 periodical prices have increased between 200% and 300%. In addition, the devaluation of the Canadian dollar has drastically diminished the buying power of libraries. The prohibitive pricing of essential resources such as periodical subscription reduces the library's credibility in its central role in the support of university teaching and research. It also sets up competitive struggles among discipline-oriented collection development librarians and academic departments for a larger piece of the collections pie, an example of which might be a library purchase decision between a journal in postmodern thought and one in quantitative criminology. Escalating periodicals costs are debilitating in and of themselves. From a political economic perspective on the academic library labour process, they are seriously aggravated by the control of their pricing structures by the information providers external to the institution. The most dominant of these are the publishers and database vendors, which are often vertically integrated and part of the same parent corporation. They monopolize not only pricing structures but also the availability and bundling of packages to libraries. A comprehensive summary of who owns and controls whom in the publishing and database industries does not appear to have been compiled, unlike those by Mosco or Winseck in the communications or internet industries. The scenario changes weekly because of aggressive commercial activity. Publishing and electronic company acquisitions and mergers are briefly noted in database and library news venues, often on company web

sites, and in government regulatory hearings about suspicious monopolistic activities. To convey information about their impact on professional information work, I have selected two representative international corporations that commodify information, and outlined their interaction with academic librarians in Canada. The first example is the book and periodicals publisher, Reed Elsevier, and its expanding control of the industry. The second is the database creator and vendor, the Institute for Scientific Information (ISI), and its powerful vertical integration.

Corporate publisher: Reed Elsevier

Rationale and Scope of its Operations

The Reed Elsevier corporation comprises Reed International P.L.C. and Elsevier NV, and provides publishing and information services in science/medicine, law, education, and business principally in North America and Europe. With approximately 36,000 employees at the end of 2001, it controlled the production and distribution of academic periodicals, electronic databases, legal materials, educational resources, news sources, business intelligence, and other things through ownership of large companies such as Lexis-Nexis, Harcourt Publishing, and Butterworth's. As with many corporations concerned with information technology, it stated its key objective "to be the indispensable source of information-driven services and solutions to its target customers, through the delivery of highly valued and demonstrably superior and flexible solutions, increasingly via the internet." (Reed Elsevier: 2001) There is not a word about books, periodicals or databases, let alone libraries or learning; rather, intimations of the company's power with, "As well as maintaining its leading position in the Science &

Medical market, Reed Elsevier is developing its interests in the Legal, Education and Business markets, through geographical expansion, organic growth and acquisitions.” In Canadian university libraries, its familiar products include the expensive periodicals published by Elsevier and Pergamon Presses, the Embase databases, the Science Direct electronic periodical collection, and the full-text news and business sources in Lexis-Nexis, and the many levels of legal resources from Butterworth’s Canada, Lexis-Nexis, and Shepard’s. In some cases, such as Lexis-Nexis, libraries are hard pressed to find more comprehensive sources for law, news, and business. In others, however, such as Butterworth’s and Shepard’s for law and the Elsevier Press titles for science and management, alternative sources might be considered.

History and Development ¹²⁴

The Elsevier Reed corporation has had a deep foothold in European and American intellectual and corporate life since the days of the manual printing press. The Elsevier publishing and Reed paper companies were founded in the late nineteenth century in Holland and England, respectively. Elsevier began with intellectual interests in its publication of literary classics and an encyclopedia, and Reed began with industrial ones in its manufacture of newsprint and its incorporation as a public company at the turn of the century. Elsevier’s entry to the United States was with scientific and medical publishing in the 1930s, when it joined with Nordesmann Publishing in New York. Reed’s North American entry was to Canada in the 1960s with pulp and paper

¹²⁴ I extrapolated the information from the Reed Elsevier web site <<http://www.reedelsevier.com>>

manufacturing, when it acquired the Anglo-Canadian pulp mill in Quebec. Both Elsevier and Reed also had other international interests.

Both also moved aggressively toward the monopolization of associated industries.

Elsevier made an early imprint in the area of medical information, as it developed the Excerpta Medica index in the 1940s and the EMBASE electronic database in the 1960s, then merged its medical with its other publishing endeavours in the 1970s to form Associated Scientific Publishers. It acquired the prestigious Pergamon Press in 1991. Meanwhile, through the 1960s, Reed continued to acquire related paper companies such as Crown Wallpaper, then complemented these with book, periodical, and newspaper publishing interests such as the Mirror Group Newspapers, Butterworth's (law), and Cahner's Publishing, and changed its name to Reed Group to reflect the wider range of products. It continued through the 1970s and 1980s to acquire publishing interests in law, business, and the media, including R. R. Bowker Company in the book trade, Online Computer Systems, Inc. in the electronic area, and Library Association Publishing Limited in the British library field.

Impact on the Information Industry/Information Dissemination

As their areas of specialization converged, Elsevier NV and Reed International P.L.C. merged in 1993 to form Reed Elsevier plc. From there they generated more legal, business, and media acquisitions, including the widely-used and broadly-based Lexis-Nexis in 1994, and moved toward educational specialization with the acquisition of Harcourt in 2001. Reed Elsevier thus was important to the industry because of its span of

control, geographically and corporately. It also was an important source of information for researchers and libraries, with comprehensive resources, such as first class science publications, full-text databases, reference books, and periodicals. It also gained control of one of the integrated library cataloguing systems, Endeavour, which not only broadens its scope but also ensconces it more firmly in the world of resources for research libraries. Reed Elsevier has thus capitalized on the needs of the information revolution through its specialization, wide area of control, and provision of expertise.

Impact on the Library Labour Process

Its prohibitive pricing structures and tendency to bundle its options have had a negative reception at many university libraries, which began either cancelling Elsevier titles or relying on centralized bibliographic resources through interlibrary loans and joint acquisitions policies. These actions have affected the labour process of librarians, who, as I learned in the analysis of the interviews, spend almost as much time assessing, judging, substituting, and compensating than in proactively providing information. This new style of collection development and information provision has its challenges, even for expert workers. These interventions cannot be accomplished on an individual level, and involve the entire department, other agencies in the library, even other libraries. The next level of involvement brings in other constituencies, such as publishers or government funding agencies, which is detailed in the discussion of library consortium activities described below.

Future Directions

For Reed Elsevier, the future appears to be a progression of its past. In relation to academic and research libraries, it has widened the span of its operations from its intellectual and commercial origins in publishing and paper manufacturing, through electronic databases and information services, to comprehensive information systems that include cataloguing, acquisitions, book circulation, and web-based intelligence as well as traditional periodicals, books, and databases. A library that buys its library cataloguing systems package also buys into its electronic products, and is implicated in its strictures and controls. In the example mentioned above, users of the Endeavour integrated system may find they have easier links to Elsevier journals or to products also produced by Elsevier. The workers that implement such a system internally must negotiate and work with company representatives, who often have professional credentials in information studies and expertise that cannot be challenged.¹²⁵ In summary, professional expertise is no longer in the purview of the library – in itself not a bad thing – but subject to external expertise from the market sector with an agenda that is neither intellectual nor cultural, but entrepreneurial.

Corporate database vendor: ISI Thomson Scientific

Rationale and Scope of its Operations

The Institute of Scientific Information (ISI) is one of the Thomson family of companies. It began its contribution to the organization of information with the indexing of scientific

¹²⁵ I do not mean to minimize the positive aspects of companies employing professional information specialists, which enables academic librarians as consumers to better assert their needs and collaborate on the final product. I do suggest that consumers have to stay sharp.

and technical literature, and expanded its coverage to the social sciences and humanities. It pioneered the concept of citation indexing, which provides quantitative information about both the influence of individual research and the relative impact on the research community of the journals themselves. This technique enables authors to measure the extent to which they are cited in later journal literature.¹²⁶ ISI also introduced the distribution of the contents pages of journals to provide current awareness for scholars and libraries. It was one of the first publishers to automate its material, and to cover the full range of disciplines through its three citation indexes. It expanded into the world of “whole library systems” and included value-added services such as the use of bibliographic citation and managing software such as ProCite and EndNote. Faculty and students use this bibliographic software to research and write papers.

History and Development¹²⁷

Unlike Reed Elsevier, the origins of ISI are associated with a single personality, Eugene Garfield.¹²⁸ Its first product, a current contents service for science and medicine, was marketed in 1958. This was followed by the production of abstracts for chemistry in 1960, and an interdisciplinary citation index for science the following year. Thus ISI shared with Reed Elsevier a grounding in scientific and medical publishing, but it strove to capitalize on innovation of products and development of electronic applications instead of acquisition of companies. From its inception, ISI quickly developed its services, with

¹²⁶ Citation indexes are also useful for scholars seeking promotion. The journal citation reports are useful for scholars assessing the impact of the journals in which they publish, and for libraries when deciding to obtain, retain, or cancel a periodical title.

¹²⁷ Extrapolated from the ISI web site <<http://www.isinet.com>>

¹²⁸ Within his own field he is a precursor to Bill Gates.

the automation of citation indexes and expansion of current contents to the social sciences in the middle of the 1960s. The 1970s brought citation indexing for the social sciences and then the humanities, and the geographic expansion of ISI offices to nine countries. The distribution of its indexes in diskette and then CD-ROM formats was effected in the late 1980s, with internet access to its combined databases in the Web of Science in 1997. Though expensive, the Web of Science was licensed to over half the American research libraries by 1998, and by almost three quarters in 1999! The Canadian figure has not been publicized, but it was reportedly held by only two Ontario libraries before a consortium arrangement made it more widely affordable.

In terms of monopoly of ownership, ISI did not direct its energy into acquiring companies, because it was broadening and deepening the impact of its specialized services for academics and researchers. It was not until the end of the century that ISI began to interface, through partnership arrangements, proprietary resources in the biosciences, patents, chemistry, and physics with its own products. Outside control was enacted when JPT Industries acquired a holding interest in ISI in 1988.

A significant alliance was effected in 1992 when ISI was acquired by Thomson Business Information, a subsidiary of the Thomson Corporation. The prestigious database corporation thus became identified with Thomson's multi-billion dollar "leading global e-information and solutions company in the business and professional marketplace," whose markets include legal and regulatory, financial services, scientific, health care, education, and corporate training sectors. (ISI: 2001) ISI has access to Thomson's clientele,

financial acumen, and powerful reputation. While its reputation was built on newspapers and publishing, its promotional material asserts that “Thomson is a durable e-brand bringing time-honored business practices and long-term strategic thinking to the electronic economy.” It is selling the idea of excellence and advantage through the brand of its electronic products. Reciprocally, Thomson can tap into ISI’s expertise in the storage, retrieval, and dissemination of academic and research information, and also its academic and research market base.

The Thomson dynasty became active in 1934 when Roy Thomson bought the Timmins Press in Canada.¹²⁹ It grew through the 1950s and 1960s as Thomson acquired Scottish and English newspapers and publishing companies, culminating in his control of the Times Newspapers of London, UK. He also incorporated Thomson Newspapers, Inc. in Canada, and bought a travel company. The 1970s brought oil field money, and diversification to specialized book publishing with the purchase of Wadsworth Publishing. The range of Thomson’s publishing assets grew and diversified during the 1980s and 1990s, in areas such as library reference books (Gale; Macmillan), law (Sweet and Maxwell; West), health (Micromedix; Medstat), and education (Peterson’s). These publishers are all well represented in academic libraries. By the turn of the Millennium, Thomson had controlling interest in over 120 companies (though it sold most of its newspapers in 2001), as it asserted, “We hold leading positions in the information sectors of the legal and regulatory, financial services, scientific, healthcare, education and corporate training markets on a global basis.” (Thomson Corporation: 2001) These

¹²⁹ Extrapolated from the Thomson Corporation web site <<http://thomson.com>>

information-based companies include Dialog, the database company that has provided key online bibliographic services to libraries for over two decades. Thus, the Thomson association has provided ISI with allied services and a commercial “power base”. The degree to which that alliance affects ISI’s services to libraries ultimately affects the nature of the work of the librarians involved with those dealings.

Impact on the Information Industry/Information Dissemination

ISI is still marked by its bibliographic products, although in the late 1990s it did broaden its offerings to incorporate value-added access to internet resources ¹³⁰ and competitive intelligence services.¹³¹ It also added access to a reputable database in physics, electrical engineering, and information technology (Inspec), a patents index (Derwent Innovations Index), and a collection of bibliographic management software (EndNote, ProCite, and Reference Manager). At the turn of the Millennium, its core offering was cross-content searching through comprehensive products such as Web of Knowledge. ISI promises “to continuously enhance the platform as new technologies provide state-of-the-art ways of enhancing the researcher’s experience,” and anticipated “the development of a true portal environment within the next 12-18 months.” On top of this suite of services is the comprehensive Thomson “background” detailed above.

¹³⁰ *ISI Current Contents eSearch* provides “hand-picked full text of only the best, most content-rich and authoritative web sites”.

¹³¹ *ISI Essential Science Indicators* is a “powerful new evaluation tool...makes it possible to measure scientific trends and rank the performance of academic institutions, countries, researchers, corporations and journals by specific fields”.

Impact on the Library Labour Process

In many ways, through its intelligence services, ISI was delivering more than reference tools. Early in its existence it branded itself as the companion to scholars and researchers, as well as a resource for librarians. Toward the Millennium, it offered the complete solution to their information needs by providing a site of one-stop shopping. Its prohibitive pricing has posed the same problems for librarians as did Reed Elsevier, and the comprehensive nature of its products made it difficult to pass up for an up-to-date research collection. It is important to note that the three “product experts” hired by ISI to interact with the clients of its online information have strong backgrounds in library studies and information systems, while those of Reed Elsevier are marketing and systems experts. Two of the three ISI “Master Class” members have master’s credentials in information studies, all three have science degrees, one has university library work experience, and two have hands-on experience in the editing or development of ISI products. They are information professionals with entrepreneurial mandates. They can talk the language of their clientele, anticipate their requirements, and even eloquently persuade them of their needs. More important to this dissertation, they are appropriating the work of the librarians into the commercial sector! They are capitalizing on, and contributing to, the momentum of outsourcing for major academic library functions such as catalogue production and reference services.

Future Directions

In the area of cultural institutions, critical theorists and researchers have identified that the monopoly of media agencies has an effect on content. Seminal works in this area have been done by Bagdikian and Sussman. (Bagdikian: 1997; Sussman: 1997) More recent works take a renewed approach, for example Mosco. Theorists such as Murdock identified the tensions between the economics and social capital of culture. Dan Schiller and Winseck project this into the electronic environment. The core problems here are monopolization of content and restriction of access. Curiously enough, the provision of access and decoding of content are central to the work of librarians in selecting and disseminating information. If they are going to take an active role, they must be concerned with what is happening to the industry. Studies on applications to libraries are fewer. Heather Menzies identified the problem of database company monopolization of the market and control of content as early as 1991. (Menzies: 1991) Gutstein is concerned about the public/private balance of interests in cultural institutions such as the library, and noted joint venture and partner arrangements in Canadian education. (Gutstein: 1999) Some of the issues they raise support the present study.

Librarians and those concerned with scholarly publishing, such as university press publishers, recognize the many issues emanating from the monopolistic control of publishers and database marketers. First, they include finite issues such as prohibitive pricing and diminished choices on the librarian side, and potential business failure on the publisher side. These have deleterious results such as the reduction in quality of certain university libraries, in particular the smaller ones. For example, between 1991/92 and

1996/97, the Universities of Alberta and Toronto increased their materials expenditures by 70%, while the University of Regina decreased by 25%, and the University of Calgary decreased by 16%. (Emory: 1999)

Second, they involve power. On the one hand, as mentioned earlier, people are having to compete for scarce periodical resources, which undermines the ability to work together within the institution to be stronger. On the other hand, as the interviews show but seldom state outright, the concerns of librarians have shifted toward a different set of concerns that involve negotiation and rationalization rather than core information retrieval and teaching. Academic librarians have been responsive rather than proactive, due to economic constraints, which are supported by monopolistic control, with tactics such as publisher packaging, and information technologies, with higher costs and system imperatives. While it may accurately be claimed that this semi-profession has always been more passive than active, its responsiveness is increasingly associated with external imperatives, and understandable through a political economic rationale.

Third, they introduce larger intellectual concerns related to intellectual property, access to information, and this dissemination of information. Intellectual property is a major issue, whose concerns are situated by Bettig in the American political economic context.

(Bettig: 1996) Publishers have the copyright of the scholarly materials they publish.

Academic users of this material, principally students and faculty, often have restricted access.

The dissemination of information involves both librarians and publishers. Their concerns are the same, idealistically asserts Scovill, and they could collaborate more productively if they took the trouble to understand each other's needs. (Scovill: 1995)

While both are interested in the dissemination of information, however, the motives range from intellectual to remunerative. The publishing process accomplishes four objectives, and involves three constituencies. First, it is the primary vehicle for the presentation and circulation of new knowledge. Second, it is a built-in method of quality control through peer review, although through this process, publishers are actually "extorting" intellectual labour from scholars and specialists. Third, through its distribution and marketing system, it is a means of information dissemination to cultural institutions and retail marketers.

And fourth, it is a scholarly resource for students and researchers. Librarians have begun to capitalize upon common interests with publishers by interacting collectively with them through group purchasing consortium building. This initiative is addressed in the following section.

While the publishers may dominate the academic marketplace with monopolization and prohibitive pricing, librarians, conscientious publishers, and researchers have introduced proactive solutions against the domination of publishers. Librarians can wield negotiating and buying power when united as a group. Smaller publishers can compete to a degree by offering their products at a lower cost or none at all. Researchers can publish on their own, or ally with librarians or publishers. The labour of librarians is affected by the initiatives of all of these agencies in the information sector. With library consortium purchasing, the librarian's responsibility shifts from *individual decision* on

the purchase of periodicals or databases, and increasingly books, to *consensus* within the library and among libraries. With publishers offering free or bargain journals, the librarian's input shifts from *individual control* over the purchase of a serial title to *offering an opinion* of the quality of a full-text electronic publication that is in the public domain and available to everyone in any event. With researchers mobilizing about the low-cost or free distribution of their output, they can lean on publishers, join forces with librarians, or publish on their own and distribute through a collective.

Academic library consortium: The Canadian National Site Licensing Project

Academic libraries have had a tradition of cooperative ventures in relation to functions such as collection building and bibliographic control. These became consequential in the 1970s, when automation increased channels of interlibrary communication, and in the 1980s, when budgets began to decrease opportunities for projects based in individual libraries. Examples include cooperative cataloguing systems in British Columbia (UBC, Simon Fraser, and University of Victoria) and central Ontario (Guelph, Waterloo, and Wilfrid Laurier), and collection rationalization in defined areas of specialization between Carleton University and the University of Ottawa. Originally among regional institutions, these expanded to national and international locations. An example is the University of Toronto Library Automation System, which became a major vendor of cataloguing systems. There are also regional and provincial associations of university libraries that are dedicated to administrative and topical interests, plus a national association, the Canadian Association of Research Libraries, that provides a forum for all Canadian academic research libraries. As publisher prices become even more

prohibitive, and as more bibliographic products become electronically available, consortia of a more proactive nature become necessary to temper “publisher greed” by leveraging them with the power of numbers. In the library arena, one of the most constructive group initiatives is the Canadian National Site Licensing Project (CNSLP).

Rationale, Origins, and Development

The CNSLP is a three-year pilot initiative involving 64 Canadian university libraries, which was formed in 2001. The consortium is mandated to license electronic versions of scholarly journals and research databases in science, engineering, and the environment, through the negotiation of block purchases of these journals from publishers. The CNSLP funding is received federally through a grant of \$20 million from the Canadian Federation for Initiatives, and matched by \$30 million from the universities themselves. The selection of titles was done at local institutions, consensus was achieved across the 64 libraries, and then the competitive licensing procurement process was undertaken with the vendors. Students, faculty, and staff of Canadian universities began to have on-site and remote electronic access to these pricey scientific, technical, and medical periodicals and indexes through their libraries in the spring of 2001. In many institutions, the print equivalents of these titles were cancelled to save money, or received consecutively at reduced rates. Complementarily, these institutions could access titles they never had before the consortium agreement.

Impact on the Library Community

There are both positive and negative aspects of this project. According to Deb DeBruijn, Executive Director of CNSLP, the positives of long-term success for the member libraries outweigh the short-term negatives, such as the need to concede local preferences for inclusion in the collective purchase or to cancel the print versions of electronic titles to compensate for the electronic purchase.¹³² The roles of both vendors and libraries are transformed, and these ultimately have implications for the professional labour process. In a break with past convention, the vendors of these electronic products are obliged to respond actively to the needs of the libraries. The libraries do have collective clout, due especially to the volume of their purchase. The vendors must demonstrate value to these libraries by responding to the demands of the institutions, offering range and depth of choice, and providing training, technical support, and other value-added services for what they deliver. The libraries can thus control the agenda and timing of the cooperative project. In DeBruijn's words, the process "turns the business model on its ear". (Personal conversation July 6, 2001) On the client side, the academic libraries provide important input to the CNSLP through their regional and provincial consortia.¹³³ DeBruijn notes that they have important contacts and relationships with university administrators, users, faculties, provincial ministries, and other groups within the hierarchies of their institutions. They thus build strengths institutionally and regionally, and share their needs and experiences. There is no national authority, only a steering committee represented by

¹³² It is incorrect to assume that all students have equal access to electronic resources. Some cannot afford computers or are not computer literate. Students can use computer terminals in libraries, but some libraries have a dearth of equipment, slow electronic connections, frequent equipment failures, and inadequate electronic help services. Universal electronic access is a myth.

¹³³ These include the Ontario Council of University Libraries (OCUL), le Conseil de Recteurs et Professeurs des Universités du Québec (CREPUQ), the Council of Pacific and Prairie University Libraries (COPPUL), and the Council of Atlantic University Libraries (CAUL).

CARL and the regional consortia. One of the difficulties in such an arrangement, admits DeBrujin, is the multiplicity of jurisdictional levels involved with research, policy and funding. This generates a great challenge for the participants to achieve consensus in collection development and provision.

Impact on the Library Labour Process

Taking the above dynamics into account, academic librarians, individually or as a class, work somewhat differently. As mentioned earlier, their intimate relationships with faculty, formerly an end in itself when dealing with collection development, is now a part of a larger network. For example, if a faculty member would like the library to subscribe to an expensive journal called *Journal of Contemporary Ethnography*, the request might be rejected because of the price or limited constituency for the journal. One of the alternatives for acquiring it is to recommend it for purchase by the consortium as part of a Sage package. So it is not the journal alone that drives the suggestion, but its inclusion in an electronic collections package promoted by the publisher, Sage. The package would have to appeal to the local library, and be ranked by consortium members. The vendor would have to deliver a basket of conditions to the consortium, in order that the deal is confirmed. Thus the individual librarian's judgment and decision are absorbed into a hierarchy of library needs and palates of vendor services. And recent history, in the form of the first CNSLP set of preferences for the 64 libraries, shows that the large, broadly based publishers are the ones most frequently selected. It must be noted that this is a pilot project involving scientific, technical and environmental titles. Periodicals and indexes in these disciplines are normally electronically available, expensive, and satisfy

the researchers' need for immediate information, and are ideal prototypes. The provincial collectives mentioned above are important to CNSLP because they solicit individual university library needs, implement local resource sharing policies, and establish licensing agreements and contracts.

Future Directions

Through consortia and collective negotiation with publishers in the face of monopolistic pricing, academic libraries have engaged in social action. They did this through consensus and in the absence of a national authority for joint collection building. This kind of institutional activity and decision-making has meant different kind of relations of power for librarians. While the overall activity and individual professional input has been important, it has meant less independent work for librarians, and more judgment, analysis, and negotiation. Tensions emanating from this were evident in the interviews, and the interviewees often did not acknowledge what was impacting on them.

Publishers' consortium: International Consortium for the Advancement of Academic Publication

Rationale, Origins, and Development

Many small publishers of scholarly journals do not want to be dwarfed or absorbed by the big publishers, and want to have some independence in decision-making and marketing. A pro-active measure to undercut the system has been taken by the International Consortium for the Advancement of Academic Publication (ICAAP). It describes itself as a "research and development organization devoted to the advancement of electronic

scholarly communication” by providing technological support and publishing assistance to journal editors, and promotional and access services to libraries and researchers.

(ICAAP: 2001) Its web site does not identify its coordinators or their credentials as formal publishers. The university origin of some of its web-based material suggests the direction of a researcher interested in the expedient and low-cost publication and dissemination of scholarly information.

Impact on the Publishing Industry

The ICAAP electronic communication system saves editing and publishing time, corporate bureaucracy, and distribution expenses. While any user can access the full texts of the journals therein ¹³⁴, users are asked to donate some money toward its maintenance. Such a form of publication and distribution has implications for the creation of scholarly information, because the functions in the scholarly process are convergent. Researchers and periodical producers may often be the same person, and the peer review process is streamlined. The ICAAP project is worth tracking as a bellwether for the progress of future collaborative, small-scale publishing initiatives.

Impact on the Library Labour Process

The impacts on academic librarians of collective low-cost publishing projects such as the ICAAP are related to collection development and quality control. Librarians are not needed to select or vet these electronic journals. Unlike titles purchased consortially or

¹³⁴ The sociology component has 39 titles including *Electronic Journal of Sociology*, *Western Criminology Review*, *Canadian Journal of Communications*, and *Journal of World Systems Research*, as well as innovative titles such as *Voice of the Turtle* and *j-spot*.

individually by libraries, these titles are accessible to everyone via the web, not just to members of participating academic communities. Librarians can take initiative by promoting these titles to students and faculty, in the public interest. They can also encourage their libraries to donate the recommended fee. They can contribute their expertise and experiences with scholars in the editorial and production processes. They can also intervene with publishers and motivate them to join the initiative. They can even create a journal related to their own professional interests, and have done with the electronic journal, *Portal; a journal of libraries and the academy*. In terms of facilitating access to their contents for students and other clients, they can simply direct clients to them as resources to complement those found in databases or miscellaneous web sites.

Future Directions

The emergence of free electronic periodical literature, plus web-based archives for books, appears to bypass the conventional engagement of librarians. As mentioned above in the context of the labour process, it requires new expertise and assertiveness for librarians. The expertise builds on traditional roles of information access and social responsibility, plus new ones of entrepreneurship and social action.

Scholars and researchers' consortium: Public Library of Science

Members of the scholarly community share with librarians, and with some publishers, common goals related to the dissemination of information in the public sphere. There are many projects involving researchers and academics that have capitalized on collective

mobilization with other members of the cultural sector. These are exemplified in the Public Library of Science, a collection of researchers worldwide who are combating the prohibitive pricing of publishers by developing their own publishing system.

Rationale, Origins, and Development

The Public Library of Science (PLOS) is a non-profit group of almost 30,000 scientists from about 175 countries dedicated to providing free access to scientific and medical literature around the world “for the benefit of scientific progress, education and the public good.” (PLOS: 2001) They employ a progressive strategy. First they encourage publishers to centrally archive the full texts of scientific articles they have already published in their journals, and to standardize the access, retrieval, and distribution of these research reports. Second, the scientists are leveraging these publishers by indicating their intent to publish in and support their journals. Third, in the attempt to accomplish true change in the publication of scientific research, they are proposing to do their own publishing and create their own non-profit journals.

Impact on the Research Community

It is interesting that these researchers are trying to influence the scholarly publishing systems *before* attempting to publish on their own. As scientific researchers, the supposed elite, they are exerting their collective might to modify the operation of cognate members of and partners in the cultural community. If the actions of Elsevier and ISI are any indication, the researchers will encounter a war of control. The strategies of these scientific publishing corporations, as reflected in their acquisitions, products, and

promotional discourses, are to take charge and anticipate needs, rather than respond to academics.

Impact on the Library Labour Process

This movement shares with librarians the altruistic goal of providing uninhibited access to scholarly information, and the strategy of collectively influencing publishers. The researchers are even taking over the role of publishers, which helps undercut publisher power. Additionally, to some degree, they are taking over the role of librarians by requiring publishers to provide access, retrieval, and distribution of scholarly publications. These functions have always been the province of academic library service! Are librarians being bypassed? With researchers generating their own journals, issues of pricing and distribution have yet to be determined, and these decisions may be made without the input of librarians. There is no promise that pricing will remain competitive, and less likely free. Since the Public Library of Science literature is on the web page of the Association of Research Libraries, one can assume ARL endorsement. Libraries can support initiatives such as the PLoS by subscribing to its journals rather than those of top publishers such as Reed Elsevier.

Future Directions

One area that librarians can exploit is that of publishing themselves. For example, they can digitize and publish things electronically. Collectively, there is a body of academic librarians that engages with researchers, the above mentioned umbrella group, the

Scholarly Research and Academic Resources Coalition (SPARC). With members from libraries across the world, from countries such as the United States, Canada, the United Kingdom, Australia, New Zealand, and Denmark, the alliance works toward “building a more competitive scholarly communication marketplace as a means of addressing serious problems caused by the soaring costs of information.” (SPARC: 2001) It supports groups such as the PloS.

Emergent issues

The relationship of librarians to publishers and within library consortia dealing with these publishers has increased our understanding of external impacts on their labour. It achieves this by demonstrating how the professional skills and authority are interrelated with major economic and political forces, such as pricing and monopoly. Their expertise is put to good use in dealing with the commercial sector, particularly electronic, commercial, and management orientations. Their authority is enhanced by this the complexity of their expertise, and also by their ability to capitalize on any political acuity.

Given the move in the hardware industries, such as Nortel and Bell Canada, to move into the more firm and lucrative software market, it is logical to investigate this process with vendors of library hardware. According to a head of library systems, this has not yet happened in academic libraries. Historically, libraries have purchased “turnkey” systems from a vendor who packages hardware, software, and service. Vendors still do this, but organizations now often have university-based purchase agreements with hardware vendors, such as Sun Microsystems, and obtain software, such as Dreamweaver for web

page creation, on their own at a competitive educational rate. This process is being countered by university library systems developing and marketing their own integrated systems and software in-house, as is being proposed at l'Université du Québec à Montréal. Thus the field is open to change in either direction, but libraries seldom have the millions necessary for in-house system and software creation. Incursions into the software market by commercial agencies are invasive actions to monitor.

Conclusion

At the Millennium, academic librarians in Canada appear to have weathered the hiring drought, as evidenced by increased staffing initiatives. This follows the general trends toward the end of the 1990s, of more money and external labour market activity. The future of the profession looks robust, and the text of the ads suggests that librarians are ensuring professional expertise, as gained through the credentialling process, and asserting their professional monopoly. From a more critical perspective, the evidence from the educators and the labour market ads also shows some shifts that suggest encroaching controls on professional labour and changes in how librarians approach their work. It is clear that cataloguing is out for good – no surprises – but other key functions may be being ignored, done by lower level staff, or absorbed into workloads. New workers come with conventional skills enhanced by automation and commercial applications. They may have lost some of the traditional functions, but should be informed in larger social issues such as intellectual property. This professional socialization is countered in the working world by the realities of greater and more complex workloads within the institution, as reinforced by external pressures such as

fewer independent choices. We saw how internal labour, professional credentialling, and the professional library labour market all contributed to the skill and authority aspects of the work. The dissertation ends with the final picture by collating all this information with the larger policy and social issues at the base of these continuities and changes. It is to the full integration that we turn in the final chapter.

Chapter 7: Insights and Conclusions

The experiences of professional librarians in an academic setting have provided an illustrative case of the relevance of specific labour processes to larger social concerns in contemporary history. Being a group of knowledge workers dedicated to knowledge itself – its collection, documentation, dissemination, and evaluation – they represent a labouring class whose life has doubly changed with the expanding information universe. First, as with workers in most professions and occupations, their work reflects the diffusion of information and telecommunications technologies, and associated changes in social relations in their workplace. This dissertation has demonstrated, through various dimensions of their labour processes such as the labour market and the production of their knowledge, how this has happened among librarians.

The second level of change is more fundamental and open to more critical examination. Because of their involvement with the dynamics of all aspects of information/knowledge production and consumption in post-industrial society, librarians are positioned at the crux of significant social changes related to labour, professionalism, and the interaction of gender. On the labour front, their work straddles both intellectual and economic spheres. The growing instability in the balance between the two evokes the fundamental tensions between the two labouring traditions they embody, or between social capital and economic capital. In relation to professionalism, librarianship has always been a profession with a tentative, “semi-professional” status. This is partly due to the

“invisibility” of its expertise within a hierarchical structure, and the responsive rather than proactive nature of their service work. With their growing competence in electronic technologies, one would expect librarians to become more prominent, which they are in some individual situations. Yet academic librarians have been bypassed by patrons for direct access to electronic resources, by managers for outsourcing, and by information systems developers for their in-house designers. This suggested new rationales for researching continuing problems related to lack of authority, or to the reproduction of social inequalities, and formed the core question of the dissertation.

The fate of this knowledge-based profession, in the face of technological convergence, can be viewed as a bellwether for what is likely to happen with other such professions, and is already happening with journalists and museum professionals. As a relatively vulnerable case among the professions at large, the experience of librarians augurs the intrusion of the corporate control of the cultural professions, and eventually more of the knowledge-based professions. One of the key contributions of the dissertation is the relevance of my findings to the study of other semi-professions or female-intensive professions.

The multidimensional political economic approach has brought a specific case into the larger social perspective by adding layers to the lived experiences of librarians. The dissertation began with an emergent problem in Chapter 1 from conflicting views about the vitality of the profession of librarianship and the work of its librarians. Working in a

profession at the cusp of learning, culture, and progress in the information age, academic librarians felt skeptical rather than optimistic. A common thread among these discrepant factors was the incremental range of electronic information products, and means of production, which were enlarging their knowledge base at an incremental rate, and intensifying¹³⁵ rather than simplifying their work. Not only was their expertise being continually challenged, but also the control of their work was slipping from their grasp. My political economic research approach advanced that this situation was constituted by the interrelationship of social forces, including those which operated entrepreneurially, monopolistically and globally. A theoretical exploration in Chapter 2 located these issues in the traditions of both professionalism and the labour process, and advanced positions that integrated the two traditions as labour in knowledge-based professions, or a power-oriented view of professionalism. As this general theoretical synthesis did not encompass the particular circumstances of academic librarians, the group itself through their interviews helped to refine the problem in terms of their relational experiences at the point of production, and I summarized the unfolding of the research problem in Chapter 3. I noted that, while areas of skill dominated specific academic library concerns related to internal economic strictures, new information technologies, and larger social changes, issues of professional authority were being compromised and not always articulated. I further specified that professional academic library powers in post-industrial society could not adequately be analyzed by relations within the institution alone.

¹³⁵ The concept of intensification of professional work is seen in studies on changes in the teaching profession, for example Wotherspoon. (Wotherspoon: 1999)

The methodological process was detailed in Chapter 4. I clarified how the refined problem was inspired by recent theoretical and research studies, derived from grounded theory, and compared with baseline empirical data about academic library work to determine the next methodological steps. As the grounded and public data lacked important information on the professional labour process, specifically, on the adequacy of professional expertise, the external labour market, and the forces enhancing the commodification of professional labour, the methodology incorporated techniques for gathering data from sources external to the academic libraries. Chapter 5 provided qualitative and institutional information on the academic labour process, emphasizing factors related to the value of the work and the power held by librarians. In terms of this information alone, the degree of change in the last ten years for librarians was not sufficiently conclusive for an argument of distinctive social disjunction or transformation. To complete the analysis, Chapter 6 provided information from external sources, such as data on professional education from 1971, the academic library labour market for 2000 and 2001, and agencies such as publishers and database vendors that were appropriating professional work or constricting librarians' choices. The findings from the triangulation of information from internal and external sources confirmed that there has been a change in the balance of professional powers of librarians, in terms of the skill and authority aspects of their labour process.

I conclude from my findings that there is an increasing emphasis on skill and expertise in professional labour, connected with information technology and complexity of information resources. At the same time, I note a diminution of authority among

librarians, aggravated by the encroachment of external agencies enabled by the globalization of information production and the commodification of the labour process. I complete the dissertation by following up the implications of the dissertation research for labour and professionalism. I focus on this through topical discussion points: (1) the tensions between professionalism and labour, (2) insights about professional labour, and (3) information policy concerns. I conclude with suggestions for further research and analysis.

Professionalism and the Labour Process

The case of academic librarians clarified that the theories of professionalism and the labour process have common and divergent aspects. An important point of intersection was the possession and use of expertise. Divergent aspects included the categorical versus a relational conceptualization, and the role of the state.

For professionals, expertise, skill, or knowledge base represented a mechanism for credentialling and source of esteem. In the labour process, it represented a form of capital by which members of a labouring group could exercise power, particularly if they lacked control over other workers. Details on professional expertise were the most numerous types of information gleaned on professional labour in academic libraries, whether from the interviews, the credentialling process, or the labour market. Yet despite the breadth and depth of their expertise in information studies, their knowledge base did

not contribute to a greater degree of stature or authority, as measured by indicators such as salary, privileges, or decision-making power. Nor could their expertise guarantee them a monopoly of the marketplace. The exceptions were systems librarians and librarians working in database companies or with vendors that deal with academic librarians, some of whom were former librarians in a university.

An important area of differentiation between professionalism and the labour process is the conventionally categorical nature of the former and the relational nature of the latter. The findings about skill and authority from the dissertation interviews, public data, and job ads were useful in distinguishing between these two theoretical traditions. From a classical professional theoretical standpoint, categories related to both the skill aspects (e.g. knowledge or esteem) and authority aspects (e.g. control over staff or money) of a librarian's work included position level, salary, degrees, years of employment, job descriptions, and similar linear or categorical measures. The institutional data showed that, relative to other staff in the library, librarians were reasonably secure, given that universities and libraries on the whole were undergoing retrenchment and the privatization of some of their services. My labour process perspective addressed the social activity around the relations of production at the workplace. The qualitative interview evidence was useful here, although limited to a small sample and subject to interpretation. A good example of perceived threats to loss of power were interview comments about getting a grasp on new technologies or striving to keep up with publisher and vendor initiatives. Loss of control was also measured through the proletarianization of the work, where salary and rank stayed the same, but the worker had more major or

minor decisions made for him or her, such as management decisions overriding individual ones about serials cancellations.

Both professionalism and the labour process are concerned with the role of the state, but its interactions with the state have had differential impacts within these traditions. With professionals, this normally involves the state regulation of licensing and practices, which traditionally has empowered the professional by ensuring quality and exclusivity of service, such that, for example, only a doctor can remove your appendix. On the negative side, state regulation may also threaten the autonomy of the professional group in favour of government or associated capitalistic interests, for example, the failure of government regulators to pull from the market a potentially lucrative drug deemed unsafe by medical researchers. In the academy, the freedom of one's research may be also compromised by corporate or other government interests.¹³⁶ In professional practice in late capitalist society, it is increasingly clear that state intervention in its activities means less autonomy and greater bureaucracy for its members, owing to the compromising of the state with commercial private sector interests. This has been happening in the health sciences professions. (Coburn: 1993; Prechel and Gupman: 1995) Within this general situation, in contrast, academic librarians have not been subject to certification, licensing, or regulation except for needing the credential of a master's degree at the point of hiring; thus interaction with the state has not been a dominant political concern for library professionalism. In the case of academic librarians, autonomy has always been curbed by

¹³⁶ This was seen in the Nancy Olivieri case at the University of Toronto where reprisals were taken by the university on Professor Olivieri for publicizing research that was unfavourable to the funding drug company.

the hierarchical organizational structures in which they work. It is now increasingly restrained by outside economic interests, as was shown in the interviews and the discussion on publishers and vendors. The state is also indirectly implicated in professional library work, in its policies for intellectual property and information access. Specific policy issues were not flagged in the interviews, but are addressed below in the social policy discussion for their impact on new directions in library work.

The opposite is the case from a labour process perspective. In various welfare state regimes, where the state supports a strong regulatory environment, its workers generally achieve more social benefits and job security. (Clement and Myles: 1994) Where the state remains at arms length and allows the regulation of the market, the greater the salaries but also the greater polarization of employed and unemployed. In educational and cultural institutions, including academic libraries, state policy is manifested indirectly through university policies, which trickle down to library administrative policies, and reflects a liberal or neo-conservative government regime. For example, the government may fund educational initiatives or privatize them, and universities may fund university equipment and software from its budget, or accept funding from high technology corporations and permit them also to influence its diffusion and use. It is important to note that the social conditions of professional workers have been mediated by their unions or staff associations. The findings in the dissertation showed that workers of long tenure have been reasonably well served in terms of salary, benefits, and security, although their upward mobility was limited. Newer workers endured low salaries and sometimes contingent employment. As the academic library job market appears to be

improving in 2001, the configuration may change again. These trends suggested a setting that increasingly favours capital over labour.

This progression toward less mediated capitalism was also evident in the relationship between librarians and publishers and vendors. The triangulation of data shows that the inadequacy of state funding of universities and their libraries has created a dependency on market forces and cost-benefit strategies, to the extent that worker autonomy was increasingly constrained by economic decisions made by the library as a whole. Thus, from a labour perspective, the reduction in state involvement, normally through subsidization or funding, has *indirectly* resulted in the loss of worker autonomy due to the increasing weight of the capitalist imperative. In late capitalist society, therefore, the reduction of state intervention and the resultant increase in commercialism on a global scale have similar impacts in the spheres of professionalism or labour, despite original differences in the role of the state in their traditions. This is consistent with the conclusion in Chapter 2 that the professionalism and labour process traditions intersect theoretically in the area of the market value of professional labour.

Insights about Professional Labour

Embedded in the research conclusions about professionalism and the labour process were insights about power, which centred upon its skill and authority components and the interaction of technology. Most central to the findings in the dissertation was the

relationship between the skill and authority factors of labour. The skill factors dominated, as expected for a knowledge profession. But more crucial to the findings, and to theorizing professional labour in general, was that the expectations about the importance of expertise were inflated. Findings from the case of Canadian academic librarians at the point of production, particularly from the interviews, showed that the powers attained through professional expertise were actually diminishing because of deskilling and proletarianization, and that this effect was being abetted by information and telecommunications technologies. The second observation about the labour process involved the relationship among its economic, social, political, and symbolic aspects. Much of the data about academic librarians and the vitality of their libraries were economically-based, and many of the forces that impacted on professional library work were shown to be economically driven. Yet in the realm of the professional, who is still being socialized to have social responsibility, factors such as status and intrinsic rewards still contributed to a sense of esteem in spite of the lack of true workplace authority, upward mobility, or large monetary increases. This added another dimension to the situation. Third, technology interacts with the factors of skill, authority, and economics, as well as transforms the knowledge base. In the case researched, information technologies have enabled the deskilling of professional work by taking energy from intellectual activities, the deconcentration of information services by providing a venue for commodified labour, and the proletarianization of librarians by enabling others to decide goals for librarians.

It is easiest to summarize the skill and technological aspects of the labour process of professional academic librarians in terms of continuities and disjunctions from those of industrial society, that is, whether they have been reproduced, worsened, or improved. The skill component of professional powers predominated in the various phases of my research. According to the interviews, observations, and labour market data, skill was perceived to include technological as well as disciplinary, management, communication, and language expertise, and thus was a function of breadth instead of depth of knowledge. Authority was given lip service, but the realities of the workload and the demands of keeping current with technology always seemed to get in the way. Before technology, the time trap was clerical work.¹³⁷ Another important source, educators for information studies, provided an equally comprehensive view of professional expertise, but grounded it, in their calendars and courses, more clearly in principle as well as practice. Professional authority, in the social responsibility sense, was implicit in the courses devoted to systems design, management, and social issues, though many a librarian has received a crude awakening about the limitations of their ability to make an immediate difference when they enter the workforce at the general librarian level. From third data perspective, information work commodified by developers and distributors, skill now had a market price that meant more than professional salaries or staff numbers. This signified more than the fact that managers were willing to pay for outside expertise at the expense of their own staff and that commodified labour was more cost effective for the institution. It also made staff subordinate to outside decisions.

¹³⁷ This hearkens to the pithy interview comment that we have exchanged one form of clerical work for another

Aspects of skill predominated in the findings, partly because the data were categorical and easier to get, and partly because expertise/skill/knowledge is at the core of the “power” librarians have. This problematized the nature of expertise within the “contradictory class location” of knowledge workers. Historically, librarians have always lacked authority due to their semi-professional status as employees, with its inhibiting hierarchies and bureaucratic structures. The transformation was to come with this “new class” who possess lots of expertise but no ownership or control, and skill or intellectual capital was supposed to compensate for lack of authority. Not only did they continue to lack authority, but also in some cases their jobs were getting worse, or “intensified”. Reasons included intrusions inside the institution related to learning technologies and coping with fewer resources, and external influences related to a constrained job market, competitive information services, and, again, technology. Workplace relations are being layered with the loss of control through commodification of librarians’ labour by outside commercial agencies. This contributes to the proletarianization process, where small and large decisions in the workplace are increasingly made by others. While the original definition of proletarianization referred to the exercise of authority by managers, new technologies and the commodification of expertise have resulted in the increasing subordination of workplace decisions to outside agencies, be they institutions or contractors.

Underlying most changes in professional library work was the digitization and telecommunications revolution, because information technology is embedded in the both product and the means of production. The dissertation clarified its bureaucratizing and

disempowering effects in the work life of librarians, though some of this relational evidence had to be inferred from various sources of qualitative information. In the larger sphere, its integration with national and international state and commercial entities ultimately affected the nature of the product, work with the product, and the cultural capital. *At the point of production, information technology is constituted as aspect of skill; yet in terms of interactions outside the institution, information technology is associated with power and control.* Thus, in the bureaucratizing aspect and in the external control aspect, information technology has helped reproduce power inequalities for librarians in the academy.

Professional Academic Librarianship and Social Policy Issues

This dissertation was about labour, however major issues related to social policy emerged at the workplace, which also have implications for cultural policy. Librarians did not make significant policy decisions at the work site, rather, they implemented them. Librarians were, however, often at the front lines and had first-hand experience of the impact of policy or lack of it. Policies relating to information filtering or access, for example, were normally made by senior officials in the library, the university, and the government. The ethnographic interviews provided some limited information about the frustrations involved here. While my dissertation was not a policy study, I noted that the changing information environment has brought larger social and political questions that affect the everyday work of librarians. Their inability to provide strong input to major decisions – because of the magnitude of decisions such as intellectual property, and

because of their interconnection with state and corporate interests – has had ramifications for librarians' sense of control. The possibility of academic librarians making additional input and taking stronger action is addressed in the section below on future research.

On the cultural level, the production of knowledge for dissemination and consumption at a place of higher learning was originally the cultural domain of scholars, researchers, the clergy, and librarians. My research showed that these professionals now share the cultural space with commercial agencies, community-based movements, and anarchistic groups, and this convergence is facilitated by the provision of public communication space by the Internet. Evidence from the interviews suggested that the social responsibility function of librarians have shifted, due to the invisible avenues of Internet telecommunication. As seen through changes in their work, librarians are moving from keepers of knowledge, who control what comes into the library through building constraints and selection policies, to watchdogs of information, who try to advise students on the quality control of electronic information that they are powerless to stop from coming in. There are value conflicts in this position, related at one polarity to equity of access in the public sphere, and at the opposite polarity to the quality control of information to support university teaching and research. Thus larger library and government policy issues interact with the daily work and labour process of academic librarians.

Future Research

Having analyzed the range of factors involved in the labour process of academic libraries in Canada, in the daily work experiences of its practitioners, the finite economic and social conditions within the institutions, and the global dynamics that impact upon the both the libraries and their workers, the dissertation also provides areas to expand or deepen. A logical possibility is to extend the research on cultural labour theoretically and methodologically to knowledge-based workers in other professions, particularly the semi-professions, or to other types of libraries. This would clarify labour aspects that are common to the semi-professions, to women, or to the diffusion of information technology through these kinds of professions. The second initiative is to intensify the research in one of the areas that stood out in the dissertation as having interesting dynamics for the information age, such the monopolization of commodified labour. A third option is to critically examine the broader social or intellectual implications embodied in the professional work of this group, such as intellectual property, and suggest modes of action for professional knowledge workers. Located within these three future research continuities are partially answered questions or continuing problematic issues from the dissertation research, such as the relationship between gender, professional work, and skilling.

The first possibility, the extension of my findings, or an aspect of them, to other labouring groups, is important for several reasons. The dissertation demonstrated a shift in emphasis among the factors that constitute the labour process, such that factors

external to the institution have increased in significance, relative to its internal social relations as conventionally theorized. The extent to which this is the case in the labour process of other information, knowledge, or cultural workers, such as computer analysts, electronic systems developers, publishers, journalists, or educators, is an important contribution to political economy. At the point of production, these professions share common aspects in the generation, documentation, and dissemination of their creative efforts, due to technological convergence. It is relevant to understand the degree to which these impact on their labour experiences in relation to technology and authority. In relation to this, one can explore why certain professionals are able to manage technology as a tool, while others are engulfed by it. Further, I would like to determine whether the inconclusive questions in my own research, such as gender, have the same problematic aspects in other knowledge professions. Tracking the convergence of the professional or intellectual processes of related cultural or knowledge-based professions through the focal point of labour provides an important contribution to the political economy of communication.

Another extension of my findings is to librarians in other countries or other institutions. Cross-national comparisons are useful for determining whether national differences or policies, such as the government subsidization of educational programs, have an effect on the professional labour process. For example, job security, salary, and opportunities for mobility in American academic libraries may be due to differences in the wealth or

unionization practices of their universities and colleges.¹³⁸ In comparison with Canada, the general university economic climate may relate to the partial privatization of the higher education system or the more polarized social stratification in the United States. A contrasting situation may be researched in a country from the European Community with a strong welfare state tradition, such as Sweden. Great Britain is interesting because it has welfare state orientation that is weaker than that of Sweden but stronger than that of the United States. Because of the breadth of the data and the greater numbers and variety of these workers in these countries, studies are best initiated with specific topics, such as deskilling, the labour market, or credentialling practices.

In this comparative vein, another theoretical/methodological extension of my research involves the study, by topic or aspect, of the labour process of other Canadian librarian groups, such as public librarians or special librarians. As with cross-national study, comparative library study determines the degree to which external factors affect the labour process, and thus follows up the dissertation argument about the growing interaction of external factors. While all Canadian librarians from the seven post-graduate institutions receive the same or similar training to academic librarians and are similarly socialized, their parent organizations and publics are quite different, and thus introduce different variables. It would therefore be interesting to determine the dominance of the workers' professionalism relative to their social relations at the workplace, with differing organizational relationships, degrees of funding, and policies in

¹³⁸ For example, the American post-secondary educational system is divided into 4-year colleges and universities with graduate programs.

these settings. For public librarians, their community is the municipal public at large; their administration includes a board of directors; funding is from the regional government; and their traditional role is to provide access to information in the public sphere. Geographic and political location are important to public librarians. For special librarians, as a contrast, their community may be a corporation, a government department, a hospital, or a non-government organization. Their administration may range from business personnel to specialists. Funding is from the corporation or the non-profit institution, and may be generous or stingy. Their role is congruent with the goal of the organization, be it to contribute to profit, research, or governance. Geographical location may not be as important, and political location may be more closely intertwined with the market. It may turn out that geography or type of library does not matter to the fundamental labour process concerns about skill and authority.

The second direction for future research involves deepening our understanding of an aspect of the research, such as the production of expertise or the power of the labour market. Given the dearth of comprehensive information on the convergence and monopolization in the publishing and database industries, and the fact that the situation continually changes, I would synthesize this information as thoroughly as possible and analyze trends in the commodification of professional labour. A comprehensive and concrete assemblage of information over time about a specific situation provides important historical continuities and disjunctions. This could then be related to increasing monopolization in adjacent industries, such as the Internet, and provide a larger pattern of convergence of information systems.

The third possibility for future initiatives involves a critical examination of social and intellectual issues accompanying labour process issues in the setting that I researched. Future trends in academic library work involve the use of digitized information resources, such as electronic reference service, publishing, and archiving. Issues around the social responsibility roles of librarians include the assurance of intellectual property, individual privacy, and access to information, that is, larger legal and philosophical issues. This locates individual library work outside the ambit of the individual and into the domain of general library and university policy, thus again acknowledging outside forces. From these extensions of the classic social responsibility issues for library professionals, I would note the possibilities for librarian involvement in policy making or change. I would note the inclusion of librarians in government initiatives concerning the possibilities for electronic telecommunications services, such as the federal Digitization Task Force (Industry Canada/National Library: 1997) and the Broadband Task Force (Industry Canada: 2001). Like the Information Highway Advisory Council report (Information Highway Advisory Council: 1995), librarian representation was minimal, which suggests again the dominance of market-oriented constituencies at the expense of the concern for universal democratic access to information. The above potential research areas centre on partially answered questions or nuanced problems. Difficult issues such as gender and the promises versus the downsides of technology were flagged early in the interviews, and I expect them to be part of my continuing research.

In conclusion, my dissertation research had its genesis in both labour and culture, and examined important professional labouring group of intellectual workers situated in a “contradictory class location” within a political economic framework. Academic

librarians in Canada have provided substance for significant critical analysis and options for emergent research.

Appendix I:

Librarianship, Labour, and Political Economy: An Evolving Relationship

Or, What Contemporary Librarians Do

In this appendix, I summarize librarians' education and credentialling, as measures of their expertise, outlining central skills and placing them within a historical framework. To establish the value of the work and the degree to which people want it and are willing to pay for it, I also consider the clientele and information marketplace. I highlight labour process implications for academic libraries, and suggest how they might represent social problems in a broader, cross-disciplinary context.

Expertise and Credentials

Though formal education, librarians are equipped to understand and manage all aspects of information: its production, documentation, dissemination, retrieval, and storage in print, electronic, and other forms. In Canada and the United States, information studies professionals have a postgraduate degree in library science, information science, or information studies (LIS), depending on the institution and the term used at the time the degree was conferred.¹³⁹ This is a two-year degree or equivalent.¹⁴⁰ Over the past three

¹³⁹ Library science tends to be an outmoded term, and has given way to library and information science (MLIS) or information studies. Typical program titles are Western's Faculty of Information and Media Studies, Toronto's Faculty of Information Studies, and Dalhousie's School of Library and Information Studies.

¹⁴⁰ Some institutions have trimester or cooperative programs that shorten or lengthen the period of residency. And some working librarians who were professionally educated before 1970 have the outmoded BLS degree, and are "grandmothered" into their job. However, many of these librarians have upgraded their BLS to the Masters degree. Some British and European librarians have a diploma that is granted without a bachelor's degree, and as with BLS holders some have been "grandmothered" in but have obtained a degree for greater leverage.

decades that constitute the evolution of the “information age”, the core of the profession has centred on the classification of information, from theoretical questions about the organization of knowledge to applied problems in organization. If one can understand fundamentally how information is organized or captured, one can retrieve it, assess it, and disseminate it on any scale. The graduate degree is the credential for a professional position in an academic, school, public, government, industry, or other special library. Increasingly librarians are also finding professional work as independent consultants, applying their information specialization in organizations outside formal library structures, of working in knowledge-related jobs not classified as librarians. Whatever the venue, certification is not required to practise in the profession, nor is membership in a national or provincial professional association.

Basic Functions of Librarianship in the University

Organization of information

This core area of expertise includes knowledge of principles of classification and cataloguing, and is the foundation of other functions such as the organization of materials, reference services, and the design of large and small library systems. It is the invisible glue that holds information service together. In contemporary information service, classification expertise is particularly applicable to electronic information systems, and affects local information access and decentralized information sharing. Good electronic database design will expedite information access and facilitate learning for university clientele. However, poor organization of information will frustrate users. For example, a university library catalogue designed by librarians generally provides

better access to bibliographic information than a database designed by a government agency for promotion purposes and political expediency. While professional expertise in the organization of information is high, most users are not aware of the expertise and design work involved in making information resources accessible. Nor should they be, but the invisibility of librarians' work may ultimately contribute to its devaluation.¹⁴¹

Library expertise in the organization of information is challenged by technologies of expediency such as mechanical web indexing and by haphazard lists on the web based on the personal preferences of the author or uneven information gathering. One critic has referred to the Internet as the world's biggest garage sale. It is recognized that there is also well-organized material on the web and elsewhere, which is usually generated by organizations that know something about information, and often by librarians working for them. More serious for a political economic critique, professional classification expertise is also challenged by the profit motive of producers who often single-mindedly want to profit from the sale of their product. They are not concerned with principles of information access or the issues of democratic access to information that will be covered in the following section on the provision of information service.

Provision of information service

This skill includes what is conventionally called reference service, which provides library clientele with the information they need. The term "information" should be clarified. It

¹⁴¹ Many skillful jobs are important but lack visibility, such as public relations and some vice-presidencies, because their expertise is often exercised behind the scenes.

is part of a continuum of cognition, beginning with compute bits and bytes, and progressing to data, information, knowledge, and wisdom, with human value and social applications being key determinants. Information service can be responsive or initiatory, face to face or mediated by telephone, fax, or computer. The work has a wide range of levels of expertise. Reference librarians may give simple directions, or help users follow instructions or use online menus. More importantly, they have the ability to interpret questions through “the reference interview”, and encourage clients to apply critical thinking in their information seeking. They give classroom and lab seminars in various aspects of information retrieval tailored to a course or a particular skill. They are trained to analyze or even anticipate user needs, on which there is a body of theoretical knowledge. Minimally, their work involves systematic or creative use of resource materials, including the bibliographic classification systems mentioned above. On a deeper level, it involves an understanding of how knowledge is generated, communicated, and organized in various disciplines with opposing paradigms.

Contemporary reference service in the academic library requires competency in accessing information from electronic sources on the web and similar venues, in text, data, or multimedia format. Because of the information glut due to electronic dissemination, librarian expertise is increasingly directed in guiding users, including themselves, in eliminating the information of poor quality and judging its relevance in a scholarly environment. In the academic community, they perform a quality control function despite the diffusion of information from entrepreneurs and “myth makers” outside the professional information community, whose intriguing web page presentations and “hot

topics” may not necessarily represent scholarly resources. Reference service has moved into the electronic age, and increasingly involves the exercise of quality control in assessing information resources.

Library administration

This set of competencies involves the management of a large staff and budget of a university library system. In the contemporary economic environment, it involves doing “more with less” and using cost-benefit models. Large-scale decisions include the purchase of major electronic systems or subscription packages alone or in cooperation with other libraries. Staff relations issues facing library administrators include reduction, attrition, organizational downsizing, reorganization, electronic training, employment equity, salary, and benefits. Library administrators have autonomy within the university library system in managing their staff and budget within the library, notwithstanding union pressures. However, they must interact with university administration concerning budget allocation and the distribution of electronic resources, and often need to lobby forcefully or lose out to other “squeaky wheels” on campus. Additional skills in management and negotiation are needed for university library consortium arrangements for joint collection development of electronic resources. Good academic library administrators spend most of their time outside the library, and delegate important human resources and development concerns to associates within it.

Staff resources have always competed with collection resources. At one extreme, the library may need to protect its books and journals, instead of hiring staff with

competencies for current information needs. At the opposite extreme, it may resort to maintaining only a core collection, because in order to meet the financial demands of its union-protected staff, particularly professionals, which is long in seniority, high in salary costs, and strong in job security. Most navigate between these two polarities. In addition to the major conflict of staff versus money, library administration in the post-industrial library also pits traditional library needs (print format, human interface) against those for electronic resources. This puts staff even lower on the scale of priorities, unless the staff have computer expertise or their job can be rationalized within the electronic system. They are increasingly subject to market forces, however, and to university politics that are caught up by these forces, such as stimuli to use products or systems such as Microsoft, IBM, Sun Microsystems, or Corel. Professional input is minimal here; the library “does what it has to do”!

Collection development and maintenance

Collection expertise is a composite of skills in selecting and deselecting books, periodicals, and material in other formats. Specialized knowledge of at least two or three disciplines is required, plus the ability to evaluate costly electronic products such as bibliographic databases and full-text periodicals. Most university libraries delegate routine selection of materials to dealers such as John Coutts Inc., as guided by a written collections profile and overseen by a librarian. Traditionally, in academic libraries the strength of the so-called book budget has followed the nature of the economy. Libraries saw growth in collection resources in the 1960s and 1970s, and began slowing that growth in the 1980s. Diminishing funds for acquisitions, plus lack of space as the

collection grows, increase the importance of discrimination in purchasing materials. The collection cuts characteristic of this period also strain library relationships with university clientele, particularly faculty, and reduce the profile and credibility of librarians.

A “bottom-line” concern in collections development, as with library administration, involves competition for scarce resources. The result is much politicking for control inside and outside the Library, to the end that the winners are generally major players (universities with clout), purchases of widest interest (*Sociological Abstracts* as opposed to *Anthropological Literature*), or packages that the vendors (“aggregators”) bundle. Thus library acquisitions work is an arena for political and economic forces to exercise dominance.

Systems design and maintenance

This now involves the whole library. Past systems, from the 1970s, were designed piecemeal, and not integrated internally or with those of other libraries. The next phase was that they were partially designed in-house, and partially bought through a consortium. Systems librarians today are talking about integrated systems for cataloguing, acquisitions, circulation, reference, and networking. Increasingly, they are bought from big commercial vendors specializing in information products, and customized. Many systems staff have technical qualifications such as programming or hardware maintenance rather than professional ones. There are many reasons. Library training in the past has not always been viewed as intensive enough in technical areas, but librarians are confident that they have the conceptual knowledge, but not always the requisite

technical tasks. Administrators strongly value the work of systems analysts and programmers over librarians, because they have been perceived as more specialized or innovative. There have been many poor library catalogues, for example, designed by computer technologists rather than information professionals. A sad fact is that the professionals in many disciplines have to live by things designed by technicians who have the instrumental expertise only. (Alic: 1990)

Academic librarians thus have a wide range of basic expertise from documentation and information services to communication and publication, management and systems development, subject specialization, and electronic resources. The credentialed librarian is a generalist, whose work is characterized by service, responsiveness to client need, and adaptability.

Skills and Capabilities: From Historical Perspective to the Present

The profession has formally evolved over the last 100 years. Early emphasis was on skills related to the organization, classification, and storage of materials. Public service and library instruction are fairly new functions for librarians. In the academy, these are particularly important because of the volume of students that need to be served in relation to the number of staff available to serve them. In addition, the university library provides a receptive environment for teaching and learning, and does not provide the tailored service to which users in corporate, research, or government institutions are accustomed. Present trends toward lifelong learning and the development of generic skills make instruction in information seeking and research skills increasingly important. Therefore

the teaching and learning environment of the university, coupled with the social trend toward individuated lifelong learning, is moving the library in the direction of teaching and the encouragement of self-help. The academic library, therefore, has become subject to the growing corporate influences on the university, which will be followed up in a later chapter.

Historically, university librarians have been characterized by their concern with both scholarship and service. As with all fellow librarians, they are part of the cultural framework, and preserve knowledge and history through collection of materials and provision of access to them. The dissertation demonstrates that these ideals are being compromised by the commercial motive, which gets its impetus through the need to deliver and preserve information electronically, and to rationalize service. And anything electronic has costs!

The greatest change in the profession has come with the introduction of the computer. Computers were first used in the same way as in offices and research institutions, as large mainframe systems with batch processing. They were used to simplify clerical processes that included manipulating information such as generation and filing of catalogue cards, or keeping records such as circulation transactions. But they were not flexible, and could not be used for many functions. That is, the information needed for a circulation transaction was not complete enough for a catalogue record.

The next generation of systems provided coded and searchable databases for library catalogues. These databases were often developed with universal standards in mind, so records could be somewhat compatible, and library catalogues or specialized databases could often be merged to a certain extent. Cooperative cataloguing was easier when universal documentation standards were used. Coordination of resources also prompted entrepreneurial universities to take the next step, to market a large database (for example the University of Toronto Library Automation System) from which other institutions could derive records. The next step was to delegate the marketing to catalogue utility vendors, which paved the way for agencies that no longer had roots in the university libraries or the expertise of their in-house developers.

Along with automated catalogues arrived the electronic bibliographic databases, and some numeric databases. These were based in large mainframe computers, often in California, and marketed to libraries on a pay-per use basis. This revolutionized information service by making searching faster, but passed on the cost to the user, who could do this free for him/herself as long as s/he had the time and the library subscribed to the print version of the index. This also necessitated the learning of new skills for the librarian, who could transpose their knowledge of indexing and systems to the electronic format.

Thus, automated catalogues and databases provided an important turning point in the history and development of the academic library. They were easily diffused throughout the institution, because they were built on the bibliographic expertise of the librarian, and

were founded on professional principles. They were still “of the library” and part of its traditional role. But the disjunctive aspect was that they also made it possible for costs to be passed on to the consumer, which was the library itself in the case of catalogue development, or to the user in the case of electronic bibliographic database searching. Thus the trend for the commodification of library information began. This in turn led to the commodification of the labour process associated with it. It represented the beginning of the librarian surrendering control of his information. Direct marketing to clients began, which put pressure on librarians to make these things easily accessible by users. This was consistent with the teaching role of academic librarians mentioned above. The librarians, however, began to lose control of the conception of the product, and thus began an altered professional role for themselves. (See Mosco: 1996 and 1998 on the commodification of the labour process.)

It is important to understand what librarians contribute professionally, in order to understand the nature of their labour process. Such understanding is particularly important to analyze the involvement labour process issues with forces outside the institution, and the relevance of this analysis for other knowledge-based professional workers.

Appendix II: Thematic Questionnaire on Professional Library Labour Process

Issues

[Name of interviewee, date, place] “Thank you for agreeing to participate in this interview for my doctoral research on social concerns in contemporary librarianship. I will use the interview material to identify key issues facing librarians in their work in contemporary society. You can choose not to answer any questions, or ask me to turn off the tape recorder. Be assured that all interview material is completely confidential and will be kept in my personal possession. Any quotations I use will be anonymous, and revealing contextual information masked. You may request access to my final report, the dissertation, when it has been accepted.” [Ask interviewee to sign consent form in duplicate, or give informed consent on the tape.]

“I will begin our conversation by asking you what factors bring about or inhibit change in the way academic libraries are operating today.”

Since this is an open-ended interview, any kinds of data might emerge. If the following points do not emerge in the interview, I will direct the conversation to these areas to help develop or answer my research question:

On the changing nature of information resources:

- . most significant developments in the generation and production of knowledge
- . their impacts on your work, on the academic library clientele

- . personal reactions to changes
- . future directions

On in work and labour processes:

- . most significant developments over time, and their impacts
- . agents responsible for these changes
- . relationship of professional to paraprofessional, technical, and managerial work
- . implications for your own work, and for the clientele
- . future directions in staffing and work

On impacts of new information and communication technologies in “knowledge work”:

- . what are these technologies?
- . nature of your education and training in these technologies
- . applications of new information and communication technologies in library/information work, for yourself, the institution
- . comparative advantages and disadvantages for you, the clientele
- . perceived implications for library information service; nature of user feedback
- . impacts on your own work
- . future directions

On the future of the profession:

- . implications for your work

- . implications for information services
- . interactions with other professions

On “extracurricular” professional activities for librarians:

- . union activities, professional associations, and related endeavours, for you and your colleagues
- . awareness of movements of resistance, acceptance, or involvement with social issues such as access to information

Personal data:

- . outline of job and brief job history; duration of career; other careers
- . where educated, and main thrusts of your education, e.g. technology versus cultural history
- . [note age, gender, visible race/ethnicity]
- . future plans

Interview on Professional Librarians in an Information Society**AUTHORIZATION OF CONSENT**

Thank you for agreeing to participate in this interview for my doctoral research on social concerns in contemporary academic librarianship. I will use the interview material to identify key issues facing librarians in their work in an "information society". You can choose not to answer any questions, or ask me to turn off the tape recorder at certain points in the interview. Be assured that all interview material is completely confidential and all tapes, transcriptions, and notes will be kept in my personal possession. Should I use any quotations, they will be anonymous, and I will mask any revealing contextual information. You may request access to a summary of aggregated interview material when complete, or to the final dissertation when accepted. Thank you for your assistance with my dissertation research.

Janet Carson

Department of Sociology, Carleton University

Name: _____

Date: _____

Place: _____

Interviewer: _____

Appendix III: Statistical Tables with Academic Library Statistics**Table III-1****Average University Annual Expenditures**
[x \$1,000,000]

Years	1991/92	1992/93	1993/94	1994/95	1995/96	1996/97
Canada [Total]	\$5,500	\$5,737	\$5,736	\$5,779	\$5,849	\$5,735
% change since 91/92		4.45%	4.43%	5.21%	6.49%	4.42%
% change per year		4.45%	-0.01%	0.74%	1.22%	-1.95%
British Columbia	589	619	630	650	679	686
Prairies	962	985	995	965	1,026	988
Ontario	2,183	2,258	2,214	2,224	2,257	2,241
Quebec	1,393	1,482	1,501	1,502	1,482	1,419
Atlantic Provinces	367	393	395	417	406	402

Source: Emory: 1999; additional calculations by J. Carson

Over the last year covered, all the Canadian regions, except British Columbia, show a drop in funding, and British Columbia's gain was just over 1%. The Prairie Provinces, Quebec, and the Atlantic Provinces show decreases over at least another year before that. Ontario has had the most stable performance over the five-year period. British Columbia appears to be progressively the best funded, followed by the Atlantic Provinces. One can speculate about the general provincial wealth and UBC's research funding for the financial solvency of the British Columbia, and about good endowments, especially at Dalhousie, for that of the Atlantic Provinces. Once inflation is factored into the financial picture, it is clear that Canadian universities have decreasingly less spending power, and this is passed down to spending on its components.

Table III-2**Average University Student Enrolment (Full Time Equivalent)**

Years	1991/92	1992/93	1993/94	1994/95	1995/96	1996/97
Canada [Total]	514,100	523,600	520,100	515,500	511,400	508,500
% change since 91/92		1.9%	1.25%	0.3%	-0.5%	-1.1%
% change per year		1.9%	0.7%	-0.9%	-0.8%	-1.1%
British Columbia	48,700	49,500	49,600	50,600	51,800	53,900
Prairies	88,000	90,300	90,200	91,100	91,700	92,600
Ontario	210,100	213,300	210,500	207,400	204,100	200,800
Quebec	133,600	135,800	135,300	131,800	129,000	126,700
Atlantic Provinces	33,800	34,800	34,500	34,700	34,700	34,500

Source: Emory: 1999; additional calculations by J. Carson

Table III-3**Total Library Expenditures as a Percentage of University Expenditures**

Years	1992/93	1993/94	1994/95	1995/96	1996/97	1997/98	1998/99
Canada	6.75%	6.84%	6.89%	6.91%	7.03%	7.00%	6.88%
British Columbia	7.54	7.74	7.65	7.61	7.84	7.66	8.00
Prairies	6.68	6.74	7.13	6.66	7.00	6.63	6.54
Ontario	7.17	7.30	7.29	7.48	7.55	7.43	7.20
Quebec	5.96	6.00	5.93	5.93	5.91	6.25	6.17
Atlantic Provinces	6.28	6.21	6.44	6.86	6.76	6.64	6.32

Source: Canadian Association of Research Libraries

Of particular importance to this dissertation, all regions of Canada except British Columbia showed decreases in library expenditures as a portion of university expenditures in the last year depicted, and these decreases are normally greater than the national average. The reductions range from just under one tenth of one percent for the Prairies and Quebec, one quarter of a percent for Ontario, and one third of a percent for the Atlantic Provinces. Over the whole time framework, the figures show that, in terms of generosity to their libraries, Quebec is the greatest “have not” province and British Columbia the greatest “have” province. These discrepancies are important when labour is factored into the equation, because, in spite of their polarized financial positions, both those provinces show themselves to be generous to their professional workers.

Table III-4**Academic Library Salaries as a Percentage of Expenditures**

Years	1990/1	1992/3	1993/4	1994/5	1995/6	1996/7	1997/8	1998/9	9/2000
Canada	63%	61%	61.3%	59.6%	58.3%	56%	55%	54.2%	53%
British Columbia		59	58.3	56.6	54.7	52	53	51.9	50.6
Prairies		61.5	61.2	58.7	57.4	57	55	53.5	53
Ontario		63	62.4	60.6	58.6	56	54.9	53.3	51.5
Quebec		62.9	62.2	61.7	61.4	59.7	59	58.9	58.5
Atlantic Provinces		58.5	59	56.2	56.7	54.4	53.8	53.6	53

Source: Canadian Association of Research Libraries

Table III-5**Professional Staff Salaries as a Percentage of Total Staff Expenditures ***

<u>Years</u>	1990/1	1991/2	1992/3	1993/4	1994/5	1995/6	1996/7	1997/8	1998/9	9/2000
Canada	33%	37.5%	N/Av.	32.6%	32.3%	32.5%	37.7%	38%	40.1%	39.2%
BC	34.4	35.8	~	33.7	33.4	33.6	38	38	38.7	38.4
Prairies	32.1	32.5	~	33	32	32.6	39.5	39.5	37.7	36.4
Ontario	31.5♥	48.5♥	~	30.4	30.4	30.2	36.4	36.4	38.7	40
Quebec	31.6♣	32.7♣	~	33.5	33.2	34	39.8	39.8	40	39.1
Atl. Prov.	35.6°	36.6°	~	32.6	35.8	35.3	38.6	38.6	45.5♦	45.8♦

* Excludes fringe benefits

♦ Excludes University of New Brunswick

♥ Excludes Queen's and Western

♣ Excludes Universite du Quebec

Source: Canadian Association of Research Libraries

Between 1996 and 1997 the proportion of about one third of the library budget jumped about five percent, and sustained that proportion over the last half of the Nineties, though it did go down about a percent over the last year. Unfortunately, the data available for this table exclude too many institutions t

Table III-6**Median Salaries for Professional Librarians**

<u>Years</u>	1991/2	1992/3	1993/4	1994/5	1995/6	1996/7	1997/8	1998/9	9/2000	2000/1
Canada	53,000	54,800	N/Av.	57,600	58,000	58,300	58,900	60,350	60,650	62,500
% since 91/2										17.9%
% change/yr.		3.4%	N/Av.	5.1%*	0.7%	0.5%	1%	2.5%	0.5%	3.1%
British Col.	53,900	56,000	"	58,800	58,800	59,400	59,700	59,750	59,350	59,700
Prairies	50,000	54,000	"	54,700	56,500	56,500	57,900	58,800	59,100	61,700
Ontario	58,200	59,000	"	60,500	60,300	60,300	61,600	63,300	64,400	64,700
Quebec	53,500	54,300	"	55,700	55,800	55,900	55,750	55,900	57,250	60,500
Atlantic Prov.	49,900	50,400	"	55,100	56,400	58,200	59,200	61,100	63,100	62,700

Source: Canadian Association of Research Libraries

* Percent change from 1992/93 to 1994/95 (2 years)

According to these medians, academic librarians in Ontario have consistently had the highest median salaries, and those in Quebec the relatively lowest from the mid-Nineties. Collectively, librarians in the Atlantic Provinces have had the most dramatic increases, followed by those in the Prairies, while those in British Columbia have had the most modest increases in median salary.

Table III-7**Average Number of Professional Librarians in Canadian University Libraries**

<u>Years</u>	1991/2	1992/3	1993/4	1994/5	1995/6	1996/7	1997/8	1998/9	9/2000
Canada	50.8	53.6	47.2	45.4	45	40.8	39.9	38.8	42.1
% since 91/2									-17.1%
% change/year		-5.5%	-11.9%	-3.8%	-0.9%	-9.3%	-2.2%	-2.8%	8.5%
British Columbia	52.4	60	52.7	52	51.8	54.3	48.7	47.7	48.4
Prairies	44.7	46.6	42.9	41.3	39.6	40	39.2	39.5	42.8
Ontario	50.7	53.2	47.6	45	44.9	32.4*	31.7	31.9*	45.6
Quebec	54.4	56.8	54.6	52.9	53	48.1	50.6**	45.7	45.2
Atlantic Provinces	33.4	34	32.5	31.9	31.2	29.3	29.3	29.3	28.7

Source: Canadian Association of Research Libraries

* Excludes University of Toronto

** Excludes Universite de Sherbrooke

The overall decrease in professional staff numbers is 17%, and regional averages range from 5% in the Prairies to 17% in Quebec. There are measurement idiosyncrasies here, because some institutions were not included in the totals. It is clear that the absolute numbers of librarians are down by 5 to 15 percent, or from two to nine professionals per institution.

Table III-8**Professional Staff as a Percentage of Total Library Staff**

<u>Years</u>	1991/2	1992/3	1993/4	1994/5	1995/6	1996/7	1997/8	1998/9	9/2000
Canada	21.8%		21.6%	21.2%	21.7%	21.5%	21%	20.6%	21.6%
British Columbia	22		22.1	21.9	22.8	23	21.7	21.3	21.6
Prairies	20.7		20.8	20.4	20.3	20.5	20	19.9	20.9
Ontario	20.5		20.3	19.9	20.5	19.5*	19.5	19.7	21.6
Quebec	23.9		23.9	23.6	24.3	24	23.6**	21.8	23.9
Atlantic Provinces	21.2		22.1	22.1	21.2	20.2	20.4	20.5	20.2

Source: Canadian Association of Research Libraries

Table III-9**Ratios of Students per Librarian**

<u>Years</u>	1992/93	1993/94	1994/95	1995/96	1996/97	1997/98	1998/99
Canada [Total]	400	409	422	422	453	448	454
British Columbia	311	314	325	334	331	373	387
Prairies	406	421	441	463	463	441	441
Ontario	432	442	461	454	541	517	514
Quebec	405	414	418	409	444	452	467
Atlantic Provinces	351	353	362	371	392	343	344

Source: Canadian Association of Research Libraries

Sources Consulted

Canadian Association of Research Libraries

Statistics: Expenditures, Staff, and Collection Size: 1986/87 – 1992/93

Statistics: Salaries: 1986/87 – 1992/93

CARL Statistics: 1993/94 – 1999/2000

Calendars: Canadian Schools of Librarianship and Information Studies:

1971/72, 1975/76, 1980/81, 1985/86, 1990/91, 1995/96, and 2000/2001

Dalhousie University, Halifax, Nova Scotia

School of Library Service: 1971/72 – 1985/86

School of Library and Information Studies: 1990/91 – 2000/2001

McGill University, Montreal, Quebec

Graduate School of Library Science: 1971/72 – 1985/86

Graduate School of Library and Information Studies: 1990/91 – 2000/2001

Université de Montréal. Montreal, Quebec

École de bibliothéconomie: 1995/96 – 1980/81

École de bibliothéconomie et des sciences de l'information: 1985/86 – 2000/2001

University of Toronto

School of Library Science: 1970/71

Faculty of Library Science: 1975/76 – 1980/81

Faculty of Library and Information Science: 1985/86 – 1990/91

Faculty of Information Studies: 1995/96 – 2000/2001

University of Western Ontario

School of Library and Information Science: 1971/72 – 1995/96

Faculty of Information and Media Studies: 2000/2001

University of Alberta

School of Library Science: 1970/71 – 1975/76

Faculty of Library Science: 1980/81 – 1985/86

Faculty of Library and Information Studies: 1990/91

School of Library and Information Studies: 1995/96 – 2000/2001

University of British Columbia

School of Librarianship: 1970/71 – 1980/81

School of Library, Archival and Information Studies: 1985/86 – 2000/2001

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