

TECHNOLOGICAL CHANGE, LEARNING, AND CAPITALIST GLOBALIZATION: OUTSOURCING STEP-BY-STEP IN THE CANADIAN PUBLIC SECTOR

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Abstract

Drawing on original interviews (n=70) and survey research (n=336) on technological change in Canadian public sector welfare work, this article explores the role of work design and change, with an emphasis on the political economic dimensions of centralized and localized knowledge systems, cooperation, and worker resistance. While it is necessary first to establish how it is that work and technological design are interwoven with learning responses, the article concludes with a discussion of implications concerning public sector work transformation and, ultimately, the capacity for the state to outsource public services.

Résumé

Dessinant sur l'entrevue originale (n=70) et la recherche d'aperçu (n=336) sur le changement technologique du travail canadien d'assistance sociale de secteur public, cet article explore le rôle de la stylistique et le changement avec une emphase sur les dimensions économiques politiques des systèmes de la connaissance, de la coopération et de la résistance centralisés et localisés d'ouvrier. Tandis qu'il est nécessaire de d'abord établissez comment c'est que le travail et la conception technologique sont entrelacés avec des réponses d'étude, l'article conclut avec une discussion des implications au sujet de la transformation de travail de secteur public et, finalement, de la capacité pour que l'état externalise des services publics.

Introduction

In the province of Ontario (Canada), the Ministry of Community and Social Services is responsible for providing welfare and disability social assistance to over 670,000 of the province's most vulnerable citizens. The most recent information (2006) indicates that the Ministry provided over \$1.5 billion in assistance at a cost of \$177 million. The social assistance service employs more than 7,000 benefits delivery workers across 290 central and local provincial offices. In the late 1990s, the government initiated a complete overhaul of both the technology and labour process of this benefits delivery work. These

changes went live in January 2002, offering a valuable opportunity to explore large-scale technological and labour process change in the public sector. At that time, the Canadian Union of Public Employees (CUPE), which represents the bulk of workers affected, partnered with researchers at the University of Toronto to develop and carry out a large-scale study of worker reactions, worker learning, and alternative directions for change; the project was called *Working IT*.

The study used in-depth, semi-structured interviews with front-line benefits delivery workers across three different local service delivery sites (small, medium, and large), interviews with information technology (IT) help desk personnel and union officials (n=70), as well as a survey that sampled benefit workers from across the province (n=336). It explored and documented the experience of and response to change as a highly contested political economic struggle involving technology, power, and knowledge (see Hennessy & Sawchuk, 2003; Sawchuk, 2003a, 2003b).

In this article I begin with a focus on the Web-based intranet technology called *Service Delivery Model Technology* (SDMT) that was introduced as part of the overall labour process redesign in Ontario welfare work, and its role in generating the conditions for outsourcing in the public sector. I present findings that address the relationship between leading-edge technologies, both the conflict and cooperation among workers and multiple levels of management in the public sector, and the potential role of an expansive participatory design (PD) of work/technology, understood as socio-technical configurations. Following this, I report original qualitative and quantitative findings that show the political economic significance of localized versus centralized knowledge forms. I argue that an awareness of the political economic dimensions of reconfiguration and design work is necessary. The article culminates in a discussion of the implications of these changes for outsourcing of public services.

Conceptual Framework: Socio-technical Configurations, Work Change, and Learning Responses

In this article I take up Marxist and social constructivist approaches to understanding technological change and work in a critical dialogue with the PD literature. Together, these perspectives allow us to recognize that the term *technology* does not refer narrowly to machines, but rather, as Fleck (1993) has put it, "socio-technical configurations". These configurations, in Fleck's terms, are defined as complex, interactive combinations of standardized and locally customized elements highly specific to an organization through which social institutions, machines, and individuals interact. This formulation encourages us to see the application of new technologies as a process of ongoing redesign as new versions of software are rolled out, and also as new patterns of practice, formal and informal rules, and conventions emerge that change and customize the overall socio-technical configuration. At the same time, I argue that such changes must not be seen as politically or economically neutral, but rather, as Feenberg (1991) suggests, as "a scene of struggle" (p. 13).

While most PD research has maintained that the failure of specific change efforts lies in technical-rational concerns such as organizational form/inertia and general user recalcitrance, or in problems of execution in terms of stronger support for user engagement

and more adequate models of consultation, a smaller, distinct stream within PD research has explicitly forefronted the political economic dimensions (e.g., Boland & Pondy, 1983; Forty, 1986; Franz & Robey, 1984; Gärtner & Wagner, 1996; Greenbaum & Kyng, 1991; Markus, 1983). As Howcroft and Wilson (2003) put it:

Aside from a few notable exceptions, there is a dearth of literature that directly addresses the problem of recurring failures of information systems, despite engagement with user participation [and the] dissonance between espoused rationality and the lived experience of technology which is more typically characterised by power, politics, and conflict. (p. 2)

These critical researchers have identified the role of power relations in initial design work. They argue, for example, that PD may be transformed into a trap for users who participate under conditions where they share responsibility for outcomes that are not ultimately under their control.

Thus, the point of departure for this research is the impulse to move beyond appearances, to understand technology as part of an elaborated historical, socio-technical configuring process that is pragmatic, at times cooperative, but also inherently political and economic (Sawchuk, 2006). This orientation illustrates the significance of the power struggles that inform the design process as a whole in terms of both the learning effects associated with initial start-up and ongoing use and reconfiguration through workers' practices.

Findings of the *Working IT* Project: Initial Design and the Learning of Creative Forms of Coping and Resistance

The changes to the Ontario welfare system have been highly publicized and controversial. A series of glitches were identified by both the provincial auditor¹ and the national press throughout the change process. A key starting point for this analysis is the design and implementation process, where it can be seen that the proprietary interests of the private sector consulting firm and the ideological commitments of the right-wing provincial government ultimately left little room for effective involvement of workers and their representative unions. The result, as noted elsewhere (Hennessy & Sawchuk, 2003; Sawchuk, 2003a, 2003b), was a classic top-down, front-end-loaded design process that featured rudimentary classic work analysis and minimal gestures toward worker participation: a strong example of pseudo involvement of compliant users (cf. Newman & Noble, 1990).

From a social constructivist perspective, in a sense, all design requires participation. Thus, the relevant questions become: what kind of participatory structure are we talking about, who is participating, under what conditions, and, importantly, what are the terms of reference of the design process? From the perspective of the sample of benefits workers we interviewed, the process appeared as follows:

I felt that they [the private sector consultants] were very unapproachable, very defensive about their program . . . [SDMT] got implemented far too fast without enough front-line worker input. They say that front-line

¹ See http://www.auditor.on.ca/en/reports_2002_en.htm

workers had input, but they didn't because if they did, it wouldn't be the way it is . . . The logic behind how SDMT was created and how it's functioning is so far removed from us on a day-to-day level, it has increased our time in trying to get someone a cheque tenfold. Because the logic is not logic. It's not an intuitive system from the back-end. If you're just sitting in front of the program as a user, you kind of go through the different tabs and buttons and you're answering your questions and it's fairly intuitive. But, the minute that something negative happens, you're done. You're going to have to go and get an LBE [Local Business Expert] because the system is very unforgiving . . . It has never worked the way it was meant to work, since day one. (SC02DB0303)²

A key issue highlighted in this interview and many others is the notion of the new inflexibility of the technological/work system. The inflexibility of the system expresses a marked misapprehension of clients' lives. Irregularities are the norm within clients' lives, and require not standardization but worker flexibility and the use of judgment, skill, and knowledge. Another point raised in these comments highlights the lived political economic character of the process as a whole; that "logic is not logic" suggests alternative, and in fact competing, social standpoints. In other words, what makes logical sense from the perspective of the designers and employer makes little sense to workers, and vice versa. These standpoints define, among other things, the distinction between those who must work with the system to meet both their own needs and the needs of poor and disabled citizens for whom they're responsible, versus the needs of those who manage the system and must orient to matters of accountability, cost savings, and so on. This difference hinges upon matters that are obviously both political and economic, although, just as clearly, it is expressed in terms of a technical failure in initial design consultation.

In terms of day-to-day work life under the new system, I argue that we need to think about the basic assumptions that labour process theory has illuminated. Particularly relevant are questions of the need for managerial/system control, and the way this need ultimately was expressed in system rigidity. In this context, it is virtually impossible to separate the ongoing reconfiguration or redesign work from the work processes themselves, where benefits workers are literally caught between the irregularities of clients' lives and a technical system that requires regularized responses. Among the results is a complete shift in the focus of work:

SDMT is the neediest client we have. It demands info. Every ounce of your time. If I have a client, I forget that they're there. As it so absorbs you, and making a mistake completely puts you behind the eight ball—it is not user-friendly. It's constantly suspending cheques, creating overpayments, not only from worker error but just the system snagging here and there, this needs to be looked at, that needs to be looked at, it sends you things all the time, it makes you look at so many things. We weren't getting that with the [previous system]. Whenever any change happens [in clients' lives], it spits out letters to the client, who then calls us asking why did I get this letter . . . Most definitely [workload] has

² Interviewee code used here and throughout.

increased. Absolutely. Management does not see it as more. They barely acknowledge that the system makes mistakes, but they definitely do not acknowledge the increased workload. (HCAAT0303)

The inflexibility of SDMT in the face of the irregularities of clients' lives frequently "snagged" the system to produce errors and an enormous amount of extra work.

Interestingly, based on worker interviews, the response of local supervisors, many of whom were former benefits workers, appeared to vary. Predictably, some felt caught in the middle. Nevertheless, in the classic industrial Taylorist scientific management formula of dividing tasks and dividing workers to increase system control, workers have noted initial feelings of isolation and abandonment in their struggles to learn and use the technology. What is clear is that a work process, once rooted in autonomy, skill, judgment, and ongoing professional adult learning, was transformed. Where once case managers were responsible for individuals and met with them on an ongoing basis, including visits to their neighbourhoods and homes, now the work tasks that made up this coherent whole became divided to create a type of electronic assembly line, with clusters of workers dealing only with individual aspects of a client case. Among the results discussed here is the rise of new levels and techniques of direct supervisory management of workers:

We are absolutely micro-managed to the point—they taught you what you had to do in a day, and your supervisor would check in with you to make sure you were where you were supposed to be every hour of the day. Absolutely every detail . . . I don't know exactly how but I have never been more micro-managed in my life; it is very strict. It's the least glamorous job in terms of going through your break; like if you're two minutes late, I remember once I had a job evaluation and she said, "I can't give you five out of five on attendance because there was one day when you were two minutes late." And she was wrong. I wasn't two minutes late; I was walking in and I stopped to talk to another worker about a case. (HAAAT0403)

Hennessy and Sawchuk (2003) offered an initial documentation and analysis of the dynamics of this Taylorist division of labour, demonstrating significant deskilling effects. What wasn't highlighted, however, was that resisting this force from the beginning was the impulse toward the re-collectivization of labour in the context of ongoing socio-technical reconfiguration and back-end design. This re-collectivization impulse, commonly assessed in sociology of work as resistance, is enhanced not only by the newness of the system naturally drawing workers together to learn informally from each other in the cracks and crevices of time they can create in their workday (sometimes being penalized by management for doing so), but also by the novelty of the system for managers, which tends to force management into a traditional supervisory role.

A component of the initial design that is equally central to understanding the capacity for knowledge control and eventual outsourcing was the troubleshooting system to respond to various problems that would emerge. This was designed as a centralized, multi-tiered help desk system, which included former benefits workers seconded originally in the front-end design process, whose task was to sort complaints and register those that were

system errors as “tickets”. Important to note here is that decisions on which responses were attended to, which were placed in low priority, and which were ignored were ultimately controlled at the highest tier by the original consultant firm who designed the system. That firm continued to win maintenance contracts with the government, and its involvement was ultimately a source of immediate and extended proprietary value. That is, the help desk was the means to centralize and privatize further system development information. Workers interviewed confirmed that the help desk system was not responsive to their needs; indeed, interviews with those in the help desk centre showed it was vastly under-resourced. This lack of responsiveness resulted in additional challenges for front-line workers:

With the SDMT you phone the help desk and they log the ticket. That’s all they do. They don’t answer questions. They can’t tell you, “I’ve seen that before and this is what they did, you know, do you want to try that?” So it’s only from what we’ve done [locally] that we know . . . And you phone for a data fix and it’s still another six weeks. Even when you know what needs to be done, it could be six weeks before the ticket’s resolved . . . because there’s thousands of tickets. (BDBTH0303)

Although it is in the interest of the private sector consultant firm to fix and update their product, what becomes clear is that the need for centralized, proprietary control in conjunction with the continued exclusion of worker perspectives have acted as a selection factor that has influenced system patches and new software versions. This has resulted in further challenges and, in fact, additional workaround responses across local offices. The continued failure of the help desk system lent further support for the re-collectivization of labour within the reconfiguration process. Thus, the labour process provided the basis for the re-collectivization of labour through new forms of embedded conflict and intensified micro-management.

The pivotal element of effective coping and resistance was the collectivization of knowledge:

Worker: Co-workers are what you survive on everyday. They’re the ones who are going through the experiences that you’re going through and are going to say, “Well, you know what, I made a fix for that last week”, and that’s who’s helping me get through my daily job, I think. I would say that this is an ongoing thing because you use this program everyday. I would say that it’s more important than the formal sessions were. I mean, it’s something that continues while you’re doing the work. You learn that skill, you tell someone about it, and then you implement it right away because you’re more likely to hold onto it. (SC03DB0303)

Interviewer: You know what I’m hearing is that people have lists, type written lists of overrides.

Worker: How to cheat.

Interviewer: Yeah.

Worker: But you don't keep them because if anybody ever found them you'd be in shit. (SC16DB0204)

Both coping and resistance are intertwined in this reconfiguration work and are rooted in these emergent informal learning communities, which are in turn codified locally by various informal means such as oral exchanges, staff meetings, and e-mails. Workers interviewed recalled the countless memos circulated widely and rapidly on virtually a weekly basis across most local offices.

From a certain perspective, one can see that two different knowledge systems have been developing on parallel tracks. One is centralized vis-à-vis the help desk system to be incorporated into system patches and updated software versions, but done so in ways that are not visible to workers and subject to proprietary control. The other is represented by local knowledge and fixes that, in effect, remodelled the technological functioning at the local office level. What exactly constituted a priority "ticket-able" problem at the central level was, thus, organized primarily by the needs and interests of profitable business for the private consultant company. On the other hand, what constituted a relevant problem locally on the front line were the direct needs of workers and their clients. That these parallel tracks frequently represented conflicting political economic interests is found in workers' comments that they had to work around the a priori initial design logic of the system in order to serve clients against a backdrop of daily work intensification and heightened technical surveillance, as well as the eventual downsizing and contracting out that was to follow shortly.

Discussion and Implications for Outsourcing of Public Services

A variety of adult education researchers in Canada have noted that the rhetoric of work, learning, the new economy, and technological change rarely matches the reality of workers' lives. Cruikshank (2007) has noted that work intensification and job stress have "increased dramatically over the last decade" (p. 32), and has identified both downsizing and technological change as key factors. Her interviews with Canadian union representatives and academics indicate that technology often deskills jobs, reduces autonomy, and increases surveillance of workers, while jobs have become more "atomized so that now people are doing a very narrow range of activities" (p. 33). Likewise, Fenwick (2001) outlines that the "information technology revolution has transformed modes of doing business, the nature of services and products, the meaning of time in work, and the processes of learning" (p. 4). Spencer (2001) is skeptical about technology and the apparently new world of work rhetoric; remarkably traditional struggles over power and control still define the work and learning process. Moreover, Canadian sociologist Graham Lowe (2002) points out that in recent years there have been "huge investments" in information technology, yet employee surveys indicate that workers' sense of organizational trust has suffered over the period of 1991 to 2001 (p. 98). Each of these general themes is expressed in this analysis of welfare work in Ontario.

This study has sought to explore such themes in greater detail. In this regard, McIvor, McHugh, and Cadden's (2004) set of case studies of intranet-based ICT

reorganization across British public sector offices is instructive here. The studies addressed the potential and apparent need to heighten knowledge sharing, though the authors went on to say that, in fact, "the majority of information and knowledge resided in the domain of individual business units remaining un-codified, unshared and unavailable to other parts of these organizations" (p. 70). A similar dynamic is seen in our study; however, in this paper the analysis more clearly illuminates the dynamics of how this localization of knowledge takes place, including its pragmatic, locally cooperative, and broader, conflictual political economic origins.

From the perspectives of workers in our study, the help desk and the official centrally organized information circuits were clearly major problems. Their experiences indicated technical-rational gaps in design and participation in a system that, as I have argued, was ultimately rooted in political economic motivations of the government to gain greater control (either passively or actively) over the work process. Nor should the role played by the private sector consultants be ignored. A somewhat similar tendency—a tendency that consistently seems to plague private-public partnerships—was recognized by McIvor et al. (2004, p. 72) when they commented on how government suppliers demonstrated an unwillingness to share information in defence of their own private business interests. As Beirne, Ramsay, and Panteli (1998) point out, to this contradictory situation we might add that, from the perspective of the private consultant designer, sharing and open participation are commonly viewed as factors that destabilize and undermine product development. In any case, the result was that socio-technical reconfiguration knowledge continued to be developed locally as much as centrally, along lines of what McIvor et al.'s research would anticipate, although in contrast to their study, to be sure, this knowledge was clearly codified. In more direct contrast to McIvor et al.'s claim that a lack of creativity, collaboration, and innovation hampered the change process (p. 73), our study revealed vast amounts of each, albeit efforts were funnelled into working (and learning) around the system rather than within it.

The basic identification of these types of workaround practices is not particularly new, and our research can be positively compared to the recent arguments made by Button, Mason, and Sharrock (2003), which challenge simplistic applications of both the disempowerment and the resistance theories of technological change. Button et al. focus on the tendency for workers and management to respond pragmatically and cooperatively to work around a technological system in order to achieve basic functional goals of the organization, despite deep-seated political economic contradictions. In the study reported here, the union—if not most workers—signalled its awareness that hiving off aspects of work for privatization would be on the agenda into the future.

A dynamic understanding of the work change, reconfiguration, and learning processes sets the stage for a better understanding of the downsizing of the public sector through outsourcing. Of course, supporters of private-public partnership (P3) outsourcing in Canada, such as the C.D. Howe Institute, argue that data on the effects of outsourcing are limited, though this doesn't stop them from suggesting its virtues. According to Goldfarb (2004), Canada benefits from outsourcing despite "short-term labour market dislocations" (p. 2). This author goes on to indicate that many services are inherently protected in the sense that they must be delivered at local points of consumption, and specifically highlights

the role of technology in transforming this relationship between local consumption and the production of services that may take place at a distance. The core argument of this type revolves around the classic economic notion of comparative advantage: that work can be conducted more efficiently in some places than in others. Moreover, the efficiency of private sector welfare benefits delivery is far from clear; what is clear are the advantages for private sector contractors and governments wishing to end-run union contracts. Jensen and Stonecash (2005), for example, offer a comprehensive review of the basic economic arguments for and against public sector outsourcing internationally. They specifically note both the expansion of government outsourcing across a host of countries and the lack of clear evidence for cost savings or the sources of savings that governments nevertheless attempt to show. However, as the work of the Estimation and Mapping of Employment Relocation in a Global Economy in the New Communications Environment (EMERGENCE) international research network (2000–2003)³ consistently demonstrated, the potential of ICT to support outsourcing within both the private and public sectors is evident, and with such changes comes conflict through the creation of a new industrial geography.

While neither the former nor the current provincial governments in Ontario have publicly acknowledged outsourcing as a goal of the change project, based on overwhelming evidence it seems reasonable to conclude that this was at least among the considerations. The private sector contractor's own corporate materials state specifically that outsourcing is one of its core services in dealing with governments.⁴ Moreover, given the raft of materials from influential conservative Canadian policy think-tanks, as well as critical and mainstream academic sources that (for different reasons) agree that outsourcing constitutes a major issue for consideration, it seems absurd to argue that the matter of outsourcing was unforeseen.

Thus, predictably, in April 2005 the Ontario government embarked on a pilot project involving the outsourcing of employment services⁵ in six municipal sites, contracting with a Canadian private corporation, WCG International HR Solutions, and its program entitled JobsNow. In fact, WCG had already launched similar programs elsewhere in Canada and the U.S.⁶ At the time of writing, the pilot project had been recently completed (June 2007) after which a government-selected third party was to conduct an evaluation.

CUPE's response has been multi-pronged. The union has conducted extensive public polling on attitudes toward P3s, showing strong support for public services and disapproval of private sector contracting. In 2004, CUPE launched its own Privatization Database (<http://cupe.ca/privdb.php>), which collects the full range of North American examples of privatized services for public dissemination. Provincially, with the help of

³ See <http://www.emergence.nu/>

⁴ In a June 13, 2003, press release from the private sector contractor in this case, Accenture, Bill Morris, managing partner of the company's utility industry group in Canada comments: "Utilities are under pressure to reduce costs and improve customer service levels. Many are now turning to outsourcing as a new and innovative way for them to improve efficiencies in customer care services. This agreement further supports Accenture's strategy to provide utilities with outsourced capabilities to achieve these goals."

⁵ Employment services refers to the development and placement opportunities along with supports for benefits recipients to obtain and keep employment.

⁶ To make matters even more complicated, even during the pilot phase WCG planned to contract out a proportion of the employment services work themselves.

our research, provincial educational sessions for members were delivered in 2005. The union has also raised concerns around the erosion of stability in funding for welfare offices brought on by contracting out, as well as specific criticisms of the pilot site selection process and what has been called the "creaming" technique of the JobsNow programs. A number of local CUPE welfare worker unions specifically mobilized to have their offices excluded from the pilot program.

The outsourcing efforts that have been carried out to date further ratify the claim made in this article that technological change processes must be seen as deeply political and economic. However, with minor exceptions, what remains all too often missing from discussions of globalization and outsourcing literature are the interactive dimensions of work and technological design and individual/collective developmental (or learning) responses as outlined in this article.

As a response to these gaps and the analysis provided above, we can begin to answer the question of how, from a worker's perspective, labour process, technological design, and individual/collective learning are implicated in a particular instance of outsourcing. This article illustrates new applications of Taylorism and the struggle of workers to develop new forms of knowledge and retain some control over the work process as they are faced with the pressures of global outsourcing evident in the creation of the new labour process with the help of the SDMT implementation. The reconstitution of the labour process is central to hiving off certain newly formed components—in this case, employment services components—but workers do not passively endure such change processes. It is clear that the centralization of information and the compartmentalization of the previously holistic case manager skill profile discussed earlier were crucial to accomplishing this end; however, latent opportunities for resistance to managerial control and outsourcing can be identified from a learning perspective.

Conclusion

Attempts at technological change at work represent enormous endeavours that always feature significant glitches and the need for interactive response. Indeed, the contradictory technical and political economic dimensions of competing local and centralized knowledge systems have not been adequately highlighted in the literature to date, whether in analyses of public or private, manufacturing or service sectors.

From a concern for PD and the use of the concept of socio-technical (re) configuration work, this article has necessarily considered struggles inherent in the work process and has more broadly arrived at the issue of global capitalist imperatives and outsourcing. It should go without saying (but it won't!) that the old-fashioned notion of good faith consultation is central here, something rarely amenable to aggressive right-wing employers or the private sector consultants whose economic interest is to centralize and privatize the very forms of knowledge that system development depends upon the most.

One could say, in the case of Ontario benefit delivery workers, that the window of opportunity for such changes has closed, but, particularly given the potential flexibility of Web-based intranet technologies such as SDMT, I think even at this late date this conclusion may still be premature. Clearly, the next battle in this larger war has commenced with the

conclusion of the outsourcing pilot project. At this point, it is not clear whether we find ourselves at the beginning of the end or the end of the beginning, as it were. However, we do know that the technology still requires the knowledge of workers—perhaps the first and last line of defence as we head toward the future.

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