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Coping with Change in the Ontario Public Sector: The Importance of Participatory Design[1]

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Abstract
This paper explores recent changes in the Ontario public sector with an emphasis on the participatory structures and the work/tech change design and implementation processes.

Introduction

In 1995 the Ontario provincial government began work toward re-designing the welfare and disability benefits delivery system. Among the changes put forth were the downloading of responsibilities to municipal governments, and an overhaul of the technology and work processes. These changes 'went live' in January 2002. In response, several unions representing workers at the municipal and provincial government levels partnered with researchers at the Ontario Institute for Studies in Education (Toronto, Canada) to develop a large-scale study of worker responses, learning and alternative directions for workplace change, and the *Working IT* project was born (funded by the Initiatives on the New Economy program – SSHRC).

Drawing on in-depth interviews (n=80) with front-line public sector service workers (a.k.a. case managers) across three different service delivery sites (small, medium and large) as well interviews with centralized information technology (IT) service personnel in the provincial capital, our study explored recent changes in the learning and labour process (inclusive of job design and technological change) as a contested social practice. Our opening analysis (see Hennessy and Sawchuk, 2003) argued that forms of de-skilling and re-skilling have emerged against a backdrop of advanced, web-based technologies and the unique context of public sector service work. In that article we also documented the range of organized, informal, tacit as well as individual and collective learning practices. In fact, informal worker learning networks, similar to those documented in Orr (1996), Livingstone and Sawchuk (2003) and Sawchuk, (2003) emerged in the analysis as a powerful countervailing force in the workplace stimulating new skill acquisition as well as the potential for new cultures of solidarity amongst co-workers.

In contrast to this earlier report, for this paper, I focus on the IT system, called the Service Delivery Model Technology (SDMT), as well as a selected set of research literatures that help in our analysis of it and the potential for worker mediation of its ongoing development. Thus, this paper reports findings from the study that begin to explore the relationship between leading-edge technologies, the struggle between workers/management over de-skilling and re-skilling, and the role of participatory design of computer artifacts. Hence, I draw on labour process theory and constructivist inspired theories human-computer interaction/development. In addition, I understand these issues under a rubric of Cultural Historical Activity Theory (CHAT): that is, as dimensions of an adult learning process. An important purpose of this paper is to marshal and define relevant concepts for the analysis

[1] This project is indebted to the contribution of time, energy and thoughtfulness of the leadership and members of CUPE locals 5167, 2710 and 1287.

(here and in the future), so before my discussion of SDMT and work change, I shall briefly summarize critical perspectives on technology, the labour process and participatory design.

Technology, Labour Process and Participatory Design Concepts

Does the term technology refer to a machine? Or, is technology actually a social process? Critical, economic historians like William Lazonick (1993) seem to suggest the latter; and, likewise, a growing array of scholars of human-computer interaction has begun to recognize the same thing. A good example of the latter is the influential work of James Fleck. His discussion of technology (Fleck, 1993) as a socio-technical 'configuration' rather than a device, places practice, rather than machines, at the center of analysis. Configurations, in Fleck's terms, are defined as complex mixes of standardized and locally customized elements highly specific to an organization. Even more generally speaking, the literature suggests that those who've consider the nature of technology most deeply have tended to defined the term in broad, social ways as well, e.g. technology is 'the way we do things around here' (Ursula Franklin); the 'organization of resources' (Lewis Mumford); or, 'society made durable' (Bruno Latour); and so on. Following this type of research, in the *Working IT* project we've attempted to de-reify IT, to make it social on the bases that this is not only the best way of understanding technology from a workers' perspective but that it is the most analytically sound means of proceeding as well.

However, the question remains what kind of social phenomenon are we talking about? Historians of technology have demonstrated that steam, electricity and IT (so-called 'General Purpose Technologies') all embody, indeed are more or less defined by, the push and pull of economic and political power (see Devine, 1983; Hughes, 1983; Noble, 1984). This suggests that technologies are defined as 'a scene of struggle' (Feenberg, 1991). Historically, as now, the intersection of work, learning and technological change has been defined by economic conflict: from the Egyptian work armies and slave revolts, to Luddite rebellions in the early 19th century, to the countless industrial conflicts of the last 150 years whose causes were rooted in issues of technological change; or, through the changes of specific modern occupations (some transforming with a bang, others with a whimper) in research too numerous to begin to list here. The core point of departure for us then is the impulse to move beyond appearances, to understand technology as neither an isolated device, tool nor machine, but rather as an elaborate historical, social and conflictual process of interactive and contingent change where the struggles for worker dignity and participation have been central.

This type of understanding of work and technology sets the stage for an analysis of skills and knowledge at work. In adult education, industrial relations, organizational theory and sociology of work literatures skill/knowledge development in the workplace has regularly been associated with the introduction of new technologies, often in conjunction with the different historical phases of the labour process (e.g. 'craft production', 'Taylorism', 'Fordism', 'neo-Fordism', 'flexible specialization', etc.). The so-called 'de-skilling/en-skilling' debates offer an important entry point into the perspectives and empirical studies on these matters. In general terms, de-skilling thesis advocates (e.g. Braverman, 1974; Zimbalist, 1979; Wardell, Steiger and Meiksins, 1999) note that the goal of the labour process under capitalism is for capital to appropriate surplus value and generate profit. A similar impulse is seen in the public sector where the state is under pressure to reduce cost and privatize services. In either case, to do this, conventional opinion claims that managerial control is central for maximization of efficiency based on a division of planning and execution functions, complemented by the breaking up of complex tasks into smaller ones often, though not exclusively, with the aid (or under the guise) of new technologies. The classic assembly line, piece-rate work, the types of work processes we see all over at fast-food outlets, *as well as* the changes we're now seeing amongst Ontario case managers, all

revolve around Taylorist (or, better put, neo-Taylorist) principles.[2] Countering the 'de-skilling' thesis, so-called 'en-skilling' thesis advocates generally seize upon the existence of 'niches' in the economy (typically in terms of small firms, new sectors, or specific occupational groups) where the divisions of planning/execution are muted or, in some case, being re-combined. These authors make the case that these niches are the way of the future and that the 'bad jobs' will be automated away. Kelley's (1990) review of literature on the work-based skills and new technology which focuses on the practice at the level of the firm, however, is an example of analysis that seeks to tread the middle ground between these two camps. She concludes that translating a firm's adoption of IT into increased skill and learning is dependent on a host of organizational as well as broader industrial relations policy. And, importantly, Kelly goes on to show that the 'least complex' firms are most effective at 'en-skilling' primarily because they provide opportunity for open participation of workers in as many facets of production as possible *including decision-making functions*. This research, and a host of others like it, attempt to indicate that work may be de-skilled, en-skilled or re-skilled based on economic context and the modes of participation in the labour process that emerge from this context.

These literatures offer support for an understanding of both technology and work-based skill development as an interactive social processes as well: emphatically, it is not simply a case of workers processing information on an individualized and de-contextualized basis. These literatures indicate that assessments of IT design and implementation should both register the conflictual nature of skill development as well as the central place of participatory relations (i.e. learning processes). The field of constructivist IT system analysis (e.g. Suchman, 2002) and participatory design (e.g. Bjerknes, Ehn and Kyng, 1987; Beirne and Ramsay, 1992; Gärtner and Wagner, 1996; Asaro, 1996) build on these same principles and extend these findings to the methods of IT system development. They posit that technologies must be understood in action; that the practice of users is central to the meaning and developmental trajectory of technologies; and, finally, that the most effective form of design not only recognizes these facts but incorporates them into a structure that is as participatory as possible (that is, a structure that is negotiated and/or democratically determined). Moreover, participation must include involvement and/or organized representation at what Gärtner and Wagner (1996) refer to as the *'agenda-setting' level* with suitable organizational structures to support such involvement.

The *Working IT* Project and the Role of Design

By January 2002, SDMT and the associated labour process changes were implemented in more than 200 community sites across Ontario to create a centrally-controlled province wide system. Along with the government's stated interest in reducing costs, the main claim of interest to our project (indeed one of the central stated goals of the change) was that this new system would free staff to "spend more time serving recipients" (Ontario Government BTP Documentation, 2002).

Case managers interviewed in the *Working IT* project outlined a host of technical glitches within the SDMT system in response to which they have had to (individually and collectively) develop a series of 'work-arounds'. Indeed, other analyses in this research has begun to suggest the emergence of a 'culture work-arounds' (Boutilier, forthcoming) in many workplaces. While the level of this type of 'work-around' activity might seem excessive, it may not be entirely unusual if we understand the implementation process as an interactive,

[2] Principles defined originally by Frederick Taylor as: 1) decision-making centralized in management's hands; 2) use of scientific method to determine job design (i.e.Time-Motion Study); 3) generate detailed job descriptions; 4) careful selection of worker; 5) focused training in time-motion generated job description; and 6) close monitoring of performance.

developmental one in which, in effect, "new technologies are being created" (Lazonick, 1993). Indeed, I'd argue that it may represent the only means by which workers' skill and perspectives are currently able to be incorporated into system development. Nevertheless, the most common, general problem reported by workers was the inflexibility of the SDMT system in its coping with the uncertainties, complexities and material urgencies of client's lives. At a deeper level, one which we explored in Hennessy and Sawchuk (2003), however, this inflexibility is central to the clear and present 'de-skilling' dynamics that have emerged. Previous to the implementation of the new work/technical system, case management work could be described as a semi-professional occupation. The labour process revolved around the process of development and servicing of a list of client files. Workers frequently, though not exclusively, had post-secondary education, but more important than this, in their course of their work it was necessary for them to exercise considerable judgment, discretion and initiative in delivering their service and developing themselves in terms of (formal and tacit) skills and knowledge. Following the implementation of the new SDMT-based system, case management work had been re-organized in the form of an electronic assembly-line in which individual client files pass through the hands of many different, newly specialized job categories on a daily basis, each worker dealing with a separate part or dimension of the file (that is, the person's life).

A key system design issue that workers interviewed for this study spoke of involved their inability to get adequate responses to their routine reports of system error. For example, simply tracking the source of an overpayment to a welfare client often led to hours of problem-solving among co-workers, supervisors, SDMT specialists, and the centralized Help Desk. In many cases, the source of an erroneous overpayment could not be traced in a timely manner, and answers to technical problems would sit months without resolution. Frustrated benefits workers we spoke to traced these errors and glitches directly to the lack of meaningful consultation with them in the initial design phase, and believed the technology would've better served their and their client's purposes if it had been designed with a better understanding of the work processes themselves.

In focusing our attention on the way SDMT and labour process was analyzed, designed and implemented, we see that the process was controlled exclusively by a private/public sector partnership of an aggressive, right-wing provincial government and a private consulting firm Accenture (formerly Andersen Consulting), the latter of whom specializes in bringing 'market principles' to the public sector (see www.accenture.com). This combination left little room for the effective, ongoing involvement of workers and their unions given that both worker and client needs revolve around differently focused interests. In this sense, the design and implementation of SDMT and the new work processes were based on a classic top-down research design utilizing time-motion studies, focus-group sessions, and seconded case managers to develop and then roll out the changes; as per the familiar critique by Action Researchers, little meaningful involvement at the *agenda setting level* of 'subjects' or their unique interests were utilized to inform the analysis and subsequent IT system development. Moreover, it is clear that some of the most basic principles of system design cited above, well understood for some time now in the human-computer interaction field, were ignored: the ongoing design/re-design *and* central involvement of users were ignored.

If learning is understood as an interactive socio-cultural system, as in the CHAT approach, then the design and implementation processes themselves can be seen as a vast learning process. Indeed, Engeström (2000) understands organizational change in just this way. What this brings to the fore, as in our discussions of IT and work above, is the necessity of participatory relations for effective implementation. In the case of Ontario welfare and disability benefits delivery, this might have included negotiation between government and worker representatives over the guidelines for the work/IT change process

beforehand to produce a Technology Agreement (see Evans 1983; Small and Yasmin, 2000) representing an expansion of worker participation within the change process. Going further, there might have been an ongoing, participatory decision-making structure put in place to capitalize on the way that, what is known as 'practice-based design' could've (and still may) play a role. This mirrors the type of effective partnerships, so-called 'high-road partnerships, that Herman (2001) has recently analyzed in the USA as well as the basic principles of 'co-determination' enshrined for almost 30 years in countries Northern Europe (see Sawchuk, 2004). What continues to hold out hope for Ontario case managers (and Ontario citizens hoping for a more effective benefit services system) is the fact that SDMT is web-based. Because of this, ongoing re-design, and with it the potential for the inclusion of ongoing participatory structures, remains a viable possibility given effective union response.

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