The potential pitfall in telework:
Control and deskilling issues
for work done at home

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An exploratory study of ten teleworkers revealed that while teleworkers choose this work option to improve their quality of life as workers and family members, they may not actually exercise much control over work processes. Familial obligations, interruptions, potentially problematic work environments, work routines of others, and isolation from coworkers in the traditional office work environment all contribute to the teleworker's lack of control. In fact, the teleworker can become susceptible to workaholism and find the distinctions between home and work time blur as the worker tries to juggle both. This situation is particularly dangerous for women who often function as primary child givers. Further research is necessary to investigate whether these problems, combined with the distance of the worker from work information and the possibility that the worker cannot perform all work functions from home, may potentially lead to deskilling of work done at home.

Une étude préliminaire menée avec la collaboration de dix télétravailleurs et télétravailleuses indique que même si ce mode d'emploi fut choisi afin d’améliorer leurs qualités de vie au travail et à la maison, il reste à savoir s'ils et elles ont vraiment contrôle sur leurs étapes de travail. Ce manque de contrôle provient des responsabilités familiales, des interruptions, de l'instabilité du milieu de travail, des routines de travail des autres travailleurs et travailleuses et de l'isolement des gens au bureau. En essayant de partager son temps entre la famille et le travail, le télétravailleur ou la télétravailleuse peut devenir un bourreau de travail. Cette situation est particulièrement dangereuse pour les femmes qui souvent ont le rôle principal dans le soin des enfants. Des recherches additionnelles sont nécessaires afin de découvrir si ces problèmes, combinés avec la disponibilité réduite des informations et l'incapacité du télétravailleur ou de la télétravailleuse à accomplir toutes ses tâches à la maison, peuvent mener à une déqualification du travail fait à la maison.
Introduction
The growth of computer technology and the explosion of information in the past two decades have prompted organizations to reconsider and restructure the way in which they conduct business. Among the various means of restructuring work, such as flextime and outsourcing, home-based work represents the fastest growing alternate work method (Alvi and McIntyre, 1993). Telework enables an individual to work remotely, usually from home, instead of working in a traditional office setting. Telework is sometimes interpreted broadly to include workers in all industries who do piece work or who for some reason do part or all of their work at home. A teleworker, for the purposes of this article is defined more narrowly as one who works remotely at least one day each week and communicates with the office via telecommunications technologies (eg., telephone, computer modem) when working. Although some organizations have been increasingly experimenting with telework during the last decade, we know very little about the effect telework will have on the work done by information workers. The reorganization of labour means change in the transfer of information in an organization, both in the channel (informal/formal) used to send or receive information and in the form that information takes. As a result, the end product could change, as could the means of achieving the end product. Sending employees home to work could have a variety of outcomes, including reduced access to information necessary to complete work tasks, which might, in turn, lead to a fragmentation of tasks done at home. In addition, teleworkers may find their visibility reduced, affecting their opportunities for promotion. Although the highly publicized image of the teleworking male manager has shaped our idea of the nature of telework (Baldry, 1988, 169), women are likely to be the most acutely affected teleworkers, in part because of the growing number of women teleworking.

Huws, Korte and Robinson (1990) note that women may work at home to accommodate deficient child care and difficult public transportation options. Similar to the experience of women in the sweatshops of the 1930s, women performing computer-based homework are often paid less to work at home than they would be paid to do the same work at the central office (Kraut, 1989, 19-47).

Teleworking women, then, may be extremely vulnerable to exploitation. This paper reports the findings of an exploratory study into the work lives of teleworkers and suggests that further research into the relationships amongst control and deskilling issues, information, the tasks done by information workers, and the particular vulnerabilities for work done by women will improve our understanding of the impact of telework on work.
Background: telework in Canada

Many organizations have implemented teleworking projects to explore what they perceive to be the advantages of having employees work remotely. Little research, however, has examined the impact of telework on the workplace. Much of the writing on this subject is anecdotal in nature and provides advice on how to implement a teleworking program effectively and on how to deal with the pros and cons of telework in the office setting. Little research has been done to investigate the potential exploitation of workers that could occur by sending them home to work on tasks for long unregulated hours on a possible piece work basis.

In Canada, a small, but growing, part of the population is engaged in telework (Williams, 1991). According to the Canada Mortgage and Housing Corporation (CMHC) (1995), approximately one quarter of working Canadians do part or all of their paid work at home. Statistics Canada predicts that more than one and one half million Canadians will work at home by the year 2001 (Lipovenko, 1996, A12). In particular, telework is growing among white collar workers. Although there are still slightly more men than women working from home, the instances of working from home have risen more dramatically among women. The numbers among women rose by sixty-nine per cent between 1981 to 1991, as opposed to an increase of only twenty-nine per cent among men during the same time period (Lipovenko, A12). These figures suggest that telework is increasing in use as a work alternative, particularly among women, and that telework promises to grow in the future. We should expect, therefore, that telework will have consequences especially for the work done by women in the future.

Scholarly research has only begun to focus its attention on the implications of telework on the workforce and communities. The work of three Canadian groups of researchers is particularly relevant to the discussion of the impact of telework on work: the Duxbury, Thomas, and Higgins (n.d.) and Duxbury and Higgins (1994) studies of supplementers or employees who work extra hours at home in Ottawa, Ontario; Diane Hartling’s (1985) exploration of home-based work in the Kingston and Ottawa areas; and the Public Service Alliance of Canada’s (1993) research into the implications of telework for unions and union members. Each of these studies reveals that telework may not present an ideal alternative workplace.

The Duxbury studies argue that home-based work is often beneficial for workers. For example, Duxbury and Higgins (1994) found that telework alleviated stress for male and female workers at Statistics Canada. Male teleworkers experienced a slight decrease in stress, while women experienced a great reduction in stress. According to Duxbury and Higgins, working at home represents the key to this stress reduction, since the flexibility associated with telework increases an employee's ability to control and absorb change in work and family settings.
Women, in particular, were deemed better able to manage their time with their families. However, workers reported working longer hours at home than at the traditional office. Despite claims of increased productivity, study participants worked 2.4 more hours per day than did non-teleworkers (Goss Gilroy, 1995, 87). Duxbury, Thomas, and Higgins also found that women were responsible for twice as much child care as men, whether or not they also performed paid work tasks at home (Duxbury, Thomas, and Higgins, 40). In addition, these women felt guilty for spending time on work when they could have been spending time with their families (Duxbury, Thomas, and Higgins, 34). Since the Duxbury studies, Statistics Canada has recently suggested that the conclusions of the Duxbury studies may be flawed and that people, especially women, who have flexible work arrangements, such as telework, may actually have higher stress levels (Evenson, January 8, 1997, A1).

Similar to the Duxbury studies, Hartling’s survey of telecommuters raises the issue of control. Hartling (1985) found that the general public has an image of homeworkers, traditionally artists, craftspeople, farmers, writers and self-employed professionals, as being “independent person[s] fully in control of the entire labour process as well as the product produced” (Hartling, 2). Citing the 1970 Report of the Royal Commission on the Status of Women and the 1979 Ontario Joint Task Force on Immigrant Women, both of which agreed that homeworkers were exploited, Hartling observed that home-based work is not synonymous with complete control (Hartling, 3). Significantly in Hartling’s study, teleworkers with computers at home spent between five and ten extra hours per week working (Hartling, 117).

Finally, the work of the Public Service Alliance of Canada (PSAC) highlights the issue of control and the consequences of sending work home. Similar to research which has revealed a deskilling trend among the work done by upper-end workers in traditional work environments, in which technological change meant a continual relearning of technology and the addition of clerical tasks to professional work (Harris, 1994, 182-202), the PSAC study suggests that the problem of task division is still present in teleworking arrangements. PSAC reported that members who teleworked had fewer opportunities to exchange information and they had less access to information (PSAC, 1993, Go Home . . . And Stay There? 5). Clerical workers reported that traditional duties, such as typing and filing, were eliminated from their duties. Administrative officers, on the other hand, became responsible for some of these clerical duties and increased their work hours to accommodate this additional work (Go Home . . . And Stay There? 5). This type of experience is not uncommon in some blue-collar jobs. For instance, the workers of Pizza Pizza in Toronto now telework for a per call piece rate. The workers earn about six
dollars per hour (PSAC, 1993, *Case Study Report*, 53). The move to telework cost the workers their union protection and benefits and reduced their wages (PSAC, 1993, *Case Study Report*, 53). Reallocation of duties and reorganization of work into piece rate contracts, then, suggest that a deskill effect may result from telework. Deskill implies negative change over time in work autonomy, complexity and routine. If work is restructured to accommodate home-based work, it is possible that workers who lack access to the information and tools that they had at the traditional workplace could find their home-based tasks fragmented and routinized, indeed deskilled. The issue of control is paramount in this equation: workers who lack control over the work they do become vulnerable to the effects of deskill.

The findings of these studies and the paucity of research done on the effects of telework on work and people's work lives underscored the need for an investigation of telework. To understand the status of workers involved in the home-based work alternative and to probe the effect of telework, an exploratory study was undertaken. The aim of the study was to discover common themes in workers' reactions to telework, both among workers who currently telework and among workers who have discontinued this work option. The results of this study provide the basis for a doctoral thesis which explores in detail the potential deskill effects of telework on work done by information professionals.

**Method**

The object of the exploratory study was to increase understanding of the teleworker's world by examining a day in the life of a teleworker. In addition, the documentation of the work lives of teleworkers would reveal the common themes in workers' reactions to telework. To investigate teleworker's work, the study followed the research process Glaser and Strauss (1967) call grounded theory. Data gathered through in-depth interviews allowed patterns in teleworking experiences to emerge.

Semi-structured interviews were conducted with ten teleworking "knowledge" or "information" workers (eight women and two men) found through informal channels, using the snowball method, that is location by word of mouth. The critical incident method (Flanagan, 1954) was used in interviews to gather important facts concerning behaviour in a defined situation, namely teleworking. By walking through a teleworker's work day, one can establish changing patterns in work processes as a result of telework.
Results

The eight women and two men who were teleworking participants worked in a variety of public and private sector positions, including consulting, management, training, software engineering, accounting, sales support, and program coordinating. Four people classified their positions as management positions. All but two of the participants used a computer to work at home. Participants varied in their experience with telework; their total time spent as a teleworker ranged from several months to five years. Seven of these people were married and three were single. The seven married participants had children; however, all but one of the parents reported that their partner or a babysitter cared for their children while the teleworker worked. Children ranged in age from two months to seventeen years.

Reflecting the reasons usually cited in the popular literature about telework, teleworkers in this study generally chose to telework to improve on the quality of their work and home lives. Only one person was required to work at home and did so because her office moved. Another person was hired by an organization in which everyone originally teleworked, and he was required to return to the central office when the organization discontinued its use of telework. Most teleworkers opted to work at home to eliminate slippery winter commutes, to gain flexible hours, and to have more time to spend with family. However, the trade-off seemed to be a blurring of the line between home and work.

The issue of control reappeared continuously in teleworkers’ descriptions of their work days. Teleworkers often stated that they liked the flexibility that telework offered them. When they described what they controlled, however, only two people mentioned that they made decisions about how to do their work. Another two people stated that they controlled the location of their work, while others reported returning to the office to perform particular tasks, such as printing, photocopying, and answering customer queries with information available only at the central office. Flexibility for teleworkers seemed to apply only to control over scheduling of tasks. Even then, flexibility meant the freedom to schedule work around other demands on workers’ time. For example, two women with small children scheduled work specifically around their children’s needs. As one teleworker observed:

The time I start in the morning is dependent upon what time [my daughter] gets up and what kind of mood she's in that morning. If she's in a cranky mood, I spend more time with her, getting her off to the babysitter's. If she's in a good, happy mood, then off she goes a bit earlier. And I start earlier.
This type of scheduling difficulty is consistent with other studies of at-home workers (e.g., Dawson and Turner, 1989).

Teleworkers also worked around certain task restrictions. For instance, although a teleworker might work at any time, tasks which involved telephoning people had to be scheduled around business hours and telephoning teleworking coworkers around reasonable phoning hours. Teleworkers, however, often pointed out these restrictions as a matter of course and not necessarily as a problem for them.

In fact, often crediting their ability to control their work schedules, the majority of teleworkers reported increased productivity. This finding was consistent with reported productivity increases in other studies and by individuals. Van Sell and Jacobs note that reported productivity gains usually range from ten to one hundred per cent., with the average gain falling around thirty per cent (Van Sell and Jacobs, 1994, 89). DuBrin (1991) found that teleworkers are more likely to be productive than their office counterparts on structured, repetitive tasks. However, the declared increase in overall productivity may not be solely attributable to telework. Rather, since teleworkers often worked long work days — ranging between the usual eight hours and a lengthy fourteen hours — one might reasonably expect these teleworkers to have increased their output if they worked longer hours than they did when they worked at the traditional office.

Connected to the issue of long hours is the issue of working during traditional home times, such as evenings and weekends. A majority of teleworkers stated that they worked during the day and in the evening. Teleworkers reported working during evening hours to meet deadlines. Only two of the teleworkers said that they worked during the evenings before they teleworked.

This tendency to work long hours and to work at non-traditional work times, indeed to become a workaholic, is linked to the omnipresent nature of work at home. While work brought home from the office is finite, work done as telework is ongoing, and flexible work times mean that it can be done anytime at home. One teleworker explained that she leaves family times on Sunday evenings to do work:

All of a sudden on Sunday night, you know, everybody will be watching TV and you'll say, "Oh, I'm just going to go in the office for a few minutes." And before you know it, it's an hour gone by or an hour and a half.

Another teleworker described the irresistible draw of her work when she was at home:

It would be 9:00 PM and you'd think, "Gee, I think I'll just sit down and I'll just write another page." Or "I'll just work on this
a wee bit more." And because the work was always there, there was no longer a clear cut line from the end of the work day to the start of your personal life.

This woman found that flexible work hours could lead to what felt like continuous work without respite. For another teleworker, lieu days taken for overtime still meant business calls at home, because people were accustomed to calling her at home:

And I'd get all these calls. Because the vision of the lines between where you work and where you are in leisure or where you are off bounds get blurred completely.

Some teleworkers stated that they even worked in the middle of the night. For instance, one teleworker described turning to her work when she could not sleep:

...it's [work] got my mind buzzing and I haven't slept well that night or something like that. But it's nothing for me to get up at 4:00 in the morning and get on the computer and start pounding out information . . .

One wonders if this teleworker might have instead chosen a glass of warm milk or another solution for insomnia, had her work not been there waiting for her return. Getting up at night to work is extraordinary, not only because teleworkers did this, but also because they accepted nocturnal work hours as part of their jobs.

Teleworkers also believed that telework allowed them to control the number of interruptions that they received during work time, the idea being that at home one is freed from office interruptions such as interactions with coworkers. Most teleworkers confirmed that they had fewer interruptions at home. However, home interruptions often replaced regular office interruptions. Teleworkers labeled babysitters, domestic chores, family pets, warm summer weather, the television, the telephone, and other home projects as distractions from their work. One woman who had an important deadline actually moved herself and her work to a single friend's home where she could complete her work undisturbed by her family or other interruptions. As one woman explained, interruptions still existed at home, but these focused on domestic responsibilities:

There were different sorts of interruptions. At home you have the family interruptions. You have, "I want a drink," "I want
"this," "Play with me now," and "When are you going to be done?"

Although many proponents of telework claim that family interruptions prove only problematic for parents of young children, a woman in this project observed that family members of any age could be disruptive:

There are some days when it is just not conducive to working at home with two teenagers, eg., over the summer vacation where I've got a fifteen year old daughter who's bored because all her friends aren't around or they've got — they want their music on or they've got three friends over or, you know, they're out in the back yard playing with the dog, or, you know, the dog's barking away. It's just not conducive to sitting in that little office.

Indeed this woman explained that her husband sometimes interrupted her, because he would come home and expect her to be finished work as well. As he handed her a beer to mark the beginning of leisure and family time, she would have to explain that she was still at work.

These interruptions were present at all times for teleworkers. However, the two men who participated in the study did not note a juggling of home and work as the women did. This finding is consistent with Duxbury, Thomas and Higgins' (n.d.) finding that women who do paid work at home also do more domestic work than their homeworking partners.

Information access plays a critical role in the teleworker's control over task completion. Providing information for clients and as collegial help is dependent on the location of information needed in one's job. No one reported that all work information was kept at home, although some people observed that they could not house their work files at home. Four people said that they kept some of their work information at home. One person said that all required information was accessible by modem; four others showed less optimism and stated that only some of the information they used in their work was accessible by modem. One teleworker tried keeping files in the two office locations at which she worked, as well as at her home office, and then reorganized herself, so that she now has a portable file set that she takes everywhere with her in her car. Not having complete access to all tools and information at home has the potential to affect work negatively, including limiting the types of tasks which can be done at home, limiting time spent at home as opposed to at the central office, and providing divisions of work which may increase fragmentation of work.
Finally, teleworkers’ control over their work environments at home must remain questionable. Individuals often paid for their home office computer equipment, with employers providing some items. In only one case did the employer supply all of the teleworker’s equipment. Teleworkers also paid for office furniture, insurance, and utilities. Employers paid for telephone calls. Paying for equipment and maintenance of the work environment places the burden of office overhead on the teleworker. The organization saves money by shifting expenses to the teleworker. Since the teleworking employee cannot claim expenses that a self-employed person can for income tax purposes, the teleworking employee cannot recover costs.

Work spaces of teleworkers ranged from the extreme of an ergonomically correct, orderly work area to a less than ideal, rather Dickensian type of work space with poor air quality. Some teleworkers had no official home offices; rather they worked elsewhere in the house, including at a kitchen table, at a desk in a hallway and in a living room. Even teleworkers who had enjoyed a private work space were not immune from the noises of family activities in nearby areas of the home. The worst case scenario observed was that of a teleworker who worked in a small corner of a musty, unfinished basement. The air quality was poor: the gas heater and the furnace were located next to the desk and the teleworker complained that the gas fumes bothered her; the teleworker stated that she had to wrap herself in a blanket because she found the basement chilly. She could not work elsewhere in her home because her small son would interrupt her. And yet, this teleworker stated that she really liked to telework.

Discussion
Given the drawbacks already mentioned, one might ask why these teleworkers continued to work at home. Teleworkers often really did like the idea of working at home, however imperfect this choice may have appeared to be at times. Only a few declared a distaste for telework, based on their own experiences. Feelings about the impact of telework on their lives generally varied among interviewees. Issues such as reduced stress, gained flexibility and control, reduced clothing expenses, and eliminated commutes and parking expenses were all on the minds of teleworkers. Teleworkers were divided on the issue of sufficient connectivity with the central office. The combination of long work hours scheduled around domestic duties and other interruptions and task restrictions does not paint an overly positive portrait of telework. Teleworkers seem to focus on the perks that are minor in relation to the overall impact telework may have on an individual’s job and quality of work life. However, are reduced clothing expenses, parking fees, and commute times worth the negative consequences of performing an entire job from home,
namely expenses of equipment and insurance and a work environment which can be inferior to a traditional office space.

The real benefactor in the teleworking arrangement, at least in the short term, appears to be the organization. The organization can reduce real estate costs, property taxes, utility costs, organizational overhead, equipment costs, and furniture costs. In addition, the organization gains a work force which works longer hours and consequently produces more output, without a proportional increase in employees' financial remuneration.

A particular risk in this arrangement exists for women who telework, especially given this work arrangement's growing popularity among women. Although some people attribute telework to child care, the women in this study valued babysitters and the help of their spouses with child care. Single women interviewed also commented that they could not envision caring for children and working at home. Unfortunately for women with children, home interruptions were still frequently caused by domestic duties, such as caring for children. Even breaks were filled with chores, such as doing family laundry. The danger here is that women, especially women who cannot afford to pay for child care, will wear two hats at home: that of mother and that of employee. Add to these responsibilities potentially poor quality work environments, lack of visibility for job promotions, long hours and the blurring of home and work boundaries, and a potential future of the home as a new type of sweatshop cannot be ignored.

The challenge of current and future research is to understand the degree and the impact of lost control on the work of teleworkers. Indeed, an exploration of work done by teleworkers as compared to that done by at-office workers is necessary to measure the impact telework is having on task fragmentation and routinization, especially for work done by women. Women who choose to be at home with their families may risk losing touch with informal watercooler chats and the exchange of timely business information. Teleworkers may find that they cannot complete all of their work roles at home. As work becomes restructured to fit a home-based work model, teleworkers may find themselves gradually set apart from the organization, working on a contractual or piece rate basis, without workplace benefits (e.g., dental care). Hopefully, the author will provide answers to these questions of deskilling through telework to you at the next CAIS conference.
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