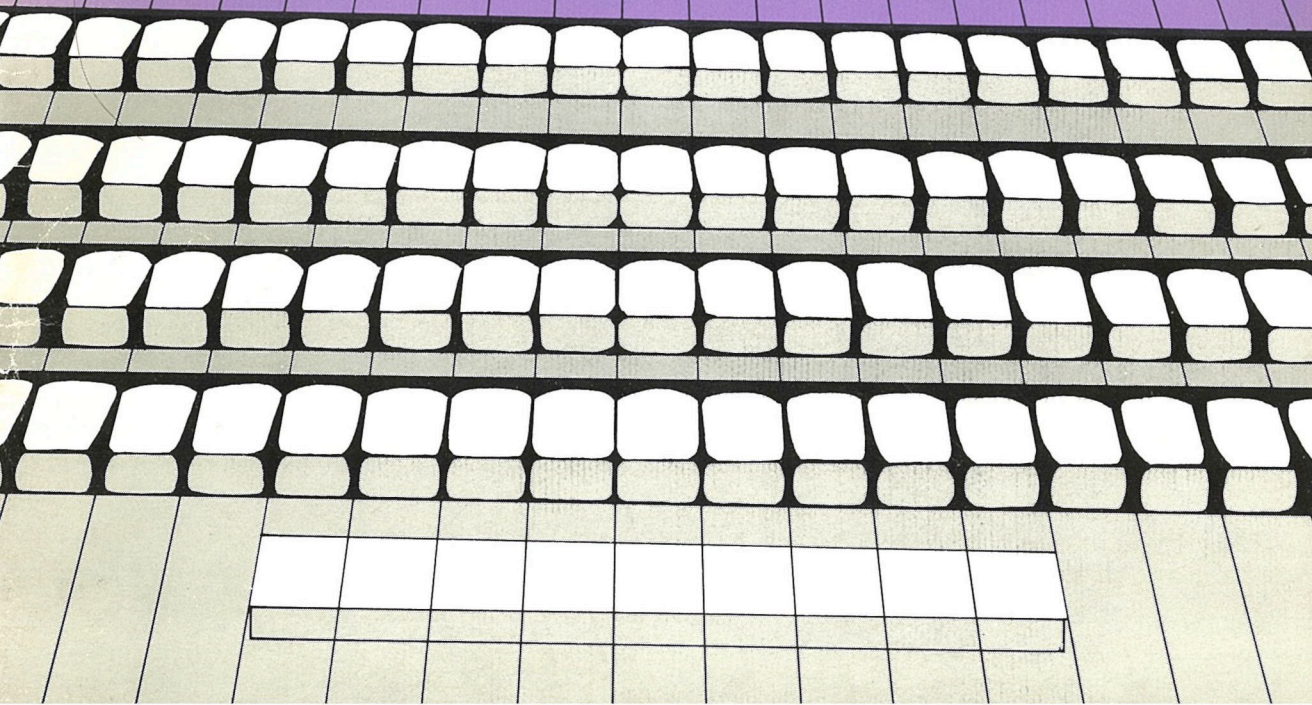
SHORT CIRCUIT

Women in the Automated Office



"People will adapt nicely to office systems if their arms are broken, and we're in the twisting stage now." William F. Laughlin, IBM Vice President

Wrong again, Bill.

About Us

The Participatory Research Group (PRG) is a small collective of educators, researchers and activists. Some of the areas we work in are: women's issues, native education, literacy, and third world solidarity. Most of us have at one time or another worked as clerical workers, and so are particularly committed to developing popular education tools, organizing workshops, and providing support to workers organizing to improve women's situation.

Thank You

Thank you to the many clerical and bank workers who talked to us about new technology and its effect on their work. We would also like to thank the Secretary of State, Women's Program for financial support, especially Jackie Claxton of the Ontario Region.

The following women worked on this pamphlet: *Amy Gottlieb, Rhonda Hammer, Jennifer Horsman, Marie Lorenzo, Liza McCoy, Ann Porter, Glynis Sherwood, Lynda Yanz.*

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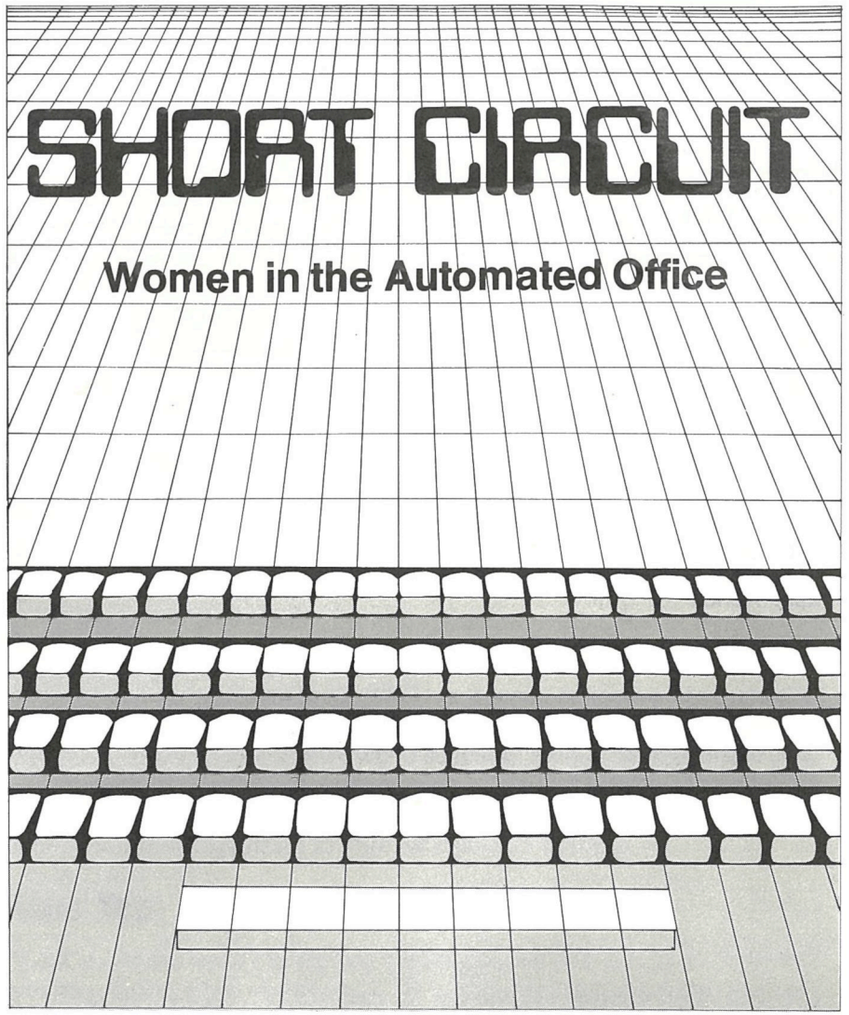
Table of Contents



Introduction

What will be the effect of the new technology? Will it revolutionize the office? Will it cost us our jobs? Will it do away with the worst aspects of office work? Will it reduce us to robots? Will it help us win the kinds of changes we want in our working lives?

This pamphlet has been written for women office workers who are concerned about these issues — about what life will be like in the "office of the future". In it we talk about why companies automate, different women's experiences of microtechnology, issues of health and safety, and how women are responding to these massive changes.

Our focus is primarily on non-unionized women working in a wide range of clerical and information-processing jobs. Unfortunately the vast majority of women workers most dramatically affected by the new technology are not unionized, and in fact, have very few legal rights or job protection.

With the introduction of microtechnology, women are having to make choices about training, about future jobs, about how to protect our rights to employment, equality and a healthy future. We are giving up our attitude of putting up with or getting along with the "inevitable." More and more of us are questioning whether automation is an inevitable process out of our control. We're taking a more active role in influencing what happens in our offices, to our jobs and to our health.

We hope the following pages will give you some of the information you need to answer questions, make choices, and take action — as an individual and with others.

Women's Work

Office work, in all its endless variations, used to be something women could count on. A woman with typing skills could usually find a job . . . somewhere — albeit at low pay and with little or no prospects for promotion. And for many of us, clerical work has had definite advantages over waitressing, the other major occupation standby for women workers.

Clerical work's dependability has been important for us, especially given the increasing number of women who want and need jobs. In fact, women's numbers in the labour force have doubled in the last 30 years. In many provinces we are now 50% of the labour force. This increase is mostly due to the growing number of married women working outside the home. These days, the average married woman with children is likely to spend 34 years in the labour force. Quite a change from the past. For single women, and married women without children, the number of years in the workforce is even longer.

Although there are many differences among women who work at paid jobs — age, education, ethnic background, to name a few — there are also important similarities in the kinds of work we do. Women also share a generally lower position as workers in relation to men.

Most women are employed in only three areas: clerical work, personal service/trade, and the "caring" professions of teaching and nursing. Our position is more vulnerable than that of men, precisely because we are concentrated in these three areas only — the "female employment ghetto."

Traditional clerical work requires a high level of skill. Some of these skills are technical: writing, typing, shorthand, bookkeeping. Other equally essential skills are organizational or interpersonal: problem-solving, handling people, keeping track of needs and deadlines, juggling different kinds of priorities.

But in too many offices, clerical work becomes sheer drudgery. As workers we usually have little control over how we organize our work and time. In addition to our regular workload, we are expected to provide a personal maid service. All this at salaries not much more than minimum wage.

How many times have you thought to yourself, "If I were in charge, there'd be some real changes around here?"

Changes . . .

Well, change has come in a big way to the offices and institutions where thousands of Canadian women work. And there is much more to come. Over the past decade a new technology has been transforming the office, changing office work and women's jobs along with it. Office work is changing so quickly that even young women just out of commercial programs may soon find their skills obsolete or inadequate in the face of new computer equipment and systems.

Most clerical workers would agree that there is lots of room for improvement in our jobs. We look forward to the ways the new office technology can reduce the drudgery of our jobs. But unfortunately it is already clear that for many women in banks, telephone companies, insurance companies, business and government offices, the new technology is eliminating many women's jobs and bringing about a change for the worse in those that remain.

IT'S TIME WE FOUND OUT WHAT IS GOING ON!

In Whose Interests?

Despite how mysterious the new technology may seem when it is introduced into offices across the country, it is no accident. Neither is it neutral or disconnected from the particular interests of those who have invented and introduced it, government and business. Seen as a terrific boost to their profits, the spread of microtechnology has been swift. But we as the new 'operators' of this machinery have been kept in the dark — never consulted on or included in decisions that drastically affect our working lives. Before we look at what role we can play in controlling how the new technology affects us, let's first see how and why it was invented.

Origins

The early computers, produced in the 1950s were the size of a large room, required a specially controlled environment, and were made of delicate and expensive vacuum tubes.

At that time, computers were becoming more and more important in military expansion and space exploration. Governments and private industry poured money into research that eventually resulted in the development of the microchip — a tiny and tough electronic chip made from silicon, a substance found in sand. Each chip, now smaller than the size of a fingernail, contains all the circuitry of the giant computers at a fraction of the cost. Because the chip uses low-cost materials and is assembled by cheap labour in the Third World, it has become profitable to incorporate into all kinds of consumer products and industrial processes.

The full range of possible uses of computer technology is vast and so new that even scientists do not know its full potential. So when we look at how microtechnology is being used, we are looking at *choices*. The function and use of microtechnology in manufacturing, consumer products, and offices reflects choices that governments and corporations have made.

Microchip Industry

The inevitable search for increased profits and competitiveness has fueled the introduction of microtechnology in industry. It has allowed companies to produce goods and services faster, more cheaply because of reduced labour costs, and with special features.

For example, a digital watch, which uses a microchip, costs less to produce than a traditional Swiss-movement watch. It has special features that traditional watches don't have: a built-in calculator or alarm. But basically it serves the same function as a traditional watch.

In factories, microtechnology is used to automate parts of the production process. The cars that come out at the end are the same, but they cost less to make because robots are cheaper than the cost of human labour.

The Main Ingredients

It is important to understand that the new technology involves three main ingredients:

- hardware
- software
- work process

Hardware refers to the tangible, physical part of the machine — the actual equipment: video display terminals (VDTs), printers, etc. If we were talking about a stereo system, we might call the receiver, the turntable and the speakers, the hardware.

Software refers to the brains or programs of the computer, which tell the components of the computer how to work together and how to process information. Without software, a computer can't do anything. It needs a recipe, or program of instructions to follow. For example, a word processing program might include text entry and editing capabilities, storage and printing instructions. It's important to keep in mind that software can mean flexibility: programs can be changed to meet the needs of the people using them.

Hardware and software together cannot do much without the people to use them. The term "work process" refers to everything that involves people at work: the division of work into separate tasks, the assignment of the work, methods of supervision and control, work schedules, etc.

Rules and procedures set up by management are an important part of the work process, but not the only one. Sometimes workers change the planned process as they attempt to meet their own needs, react against unreasonable expectations, or try to cope with boredom.

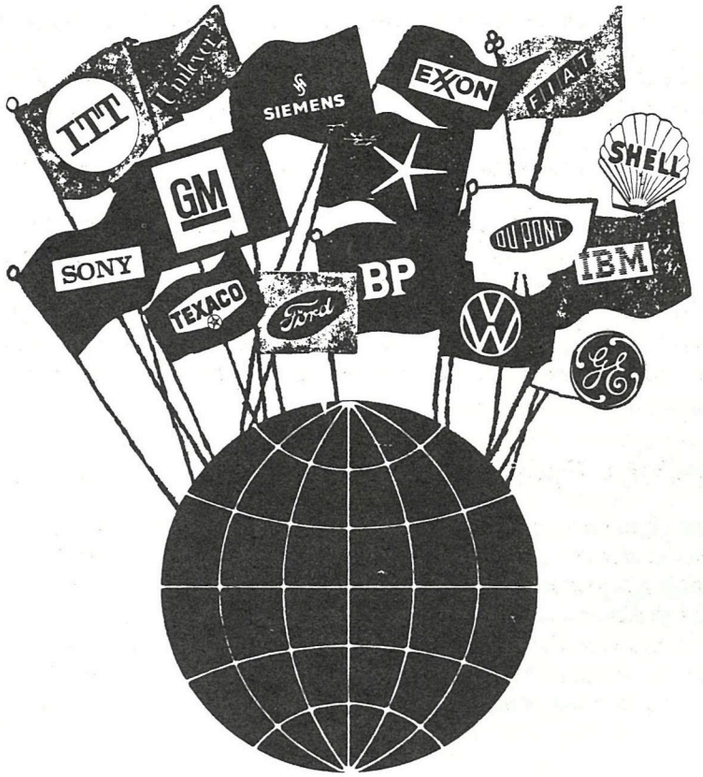
It is the action of workers, supervisors, and managers that together form the "work process". As workers, this is the area where we have the possibility of most influence. Our requests for change are most likely to occur in this area.

Microtech in the Office

As with industry, increased profits is the major reason new technology is being introduced into the clerical sector.

In the years following World War II, business and government expanded during the economic boom that lasted twenty-five years. As businesses and governments grew so did their need for workers to handle the increased paperwork and flow of information. Today, as a result, 40% of the Canadian workforce is employed in information handling occupations — jobs like typists, bank tellers, secretaries, airline reservation clerks, library assistants, hospital records clerks, telephone operators, data entry clerks, and government office information clerks. 90% of the people doing this work are women.

When the economy went into a downturn in the 1970s, businesses became very concerned about cutting costs and increasing productivity, in order to keep



Women in the Global Factory

their profits from falling. Attention turned to the clerical sector, which, for their purposes, was not sufficiently cost effective. Over the years efficiency experts had held a tight rein on factory jobs but office work multiplied with much less attention to strict notions of productivity, organization and discipline. By the late 1970s the clerical sector was still growing twice as fast as the workforce as a whole, but its productivity had risen on average only 4%.

This growth resulted in higher labour costs for both business and government. Some large businesses reported that their office costs were as much as 50% of their total costs. And there was growing concern that many areas of work were not standardized, but relied too heavily on the individual skill and judgement of office workers. For example, in dramatic contrast to factory production, office workers are frequently in a position to make their own decisions about how and when to do a certain task. Business journals en mass began to lament management's lack of control in the office, as they looked longingly to the shop floor.

A Peopleless, Paperless Office

Is it any wonder that when the microprocessor was developed in 1972 its application to the office quickly followed?

A new and highly profitable industry had arrived on the scene specifically to enable business to tackle the "office problem": the design and marketing of office equipment and systems. These systems of desk-top computers, word processors, telecommunications equipment, point of sale terminals, automatic tellers, etc., are part of what is called "the office of the future."

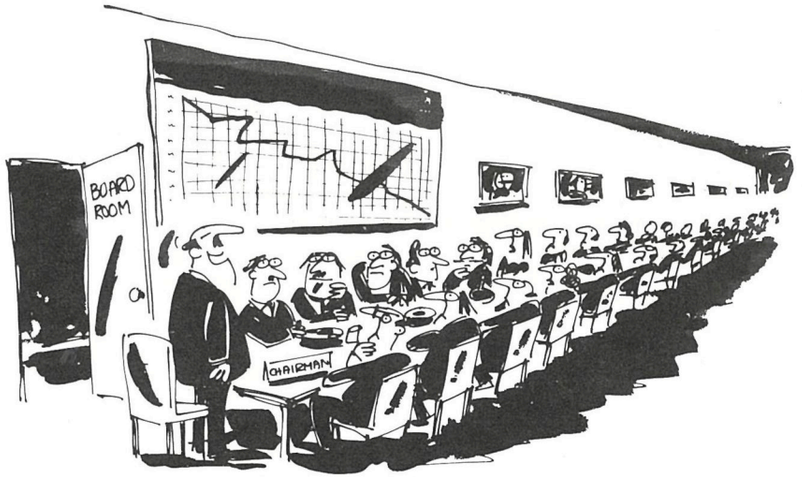
The new office technology is labour-saving. It enables fewer people to do the work previously done by many. Certain kinds of staff are eliminated altogether. Microtechnology also allows for a centralization of information and a standardization of process that takes control of office work out of the hands of the clerical workers and lower management and puts it more firmly in the hands of top management.

Problem solved. Not quite.

Why Worry About Microtechnology?

Size, outlook, function, location and policy all influence a company's or government office's decision to automate or invest in high tech equipment. The particular brand of equipment purchased and the promises of the salespeople will also affect the way technological change is implemented and what companies expect to accomplish. And the people involved in the change, both management and clerical staff, will have an impact on its use.

However, if you take computer systems that have been designed with a certain intention in mind, and add business' objectives of lowered costs, higher output and increased managerial control, the results turn into a general trend. It



Tony Ellis/Banking, Insurance and Finance Union (Britain)

Good news, Gentlemen . . . we've finally managed to make the workforce redundant!

is not surprising that workers in different jobs are describing similar experiences with new technology systems.

In the next sections we highlight the major trends and issues associated with the new technology:

- changes of the kind of jobs women are likely to have in the future;
- changes in the way our work is organized; and new health hazards on the job.

Microchip Potential

Microtechnology could be used to create things we really need, and to automate jobs that are particularly dangerous or boring. There are many areas of our lives where microtechnology could contribute to improvements. Already it is being used to produce new sophisticated hospital equipment. But usually industry only produces what it thinks can sell, and if the useful and beneficial products are not profitable, industry will probably not make them. If we were given a choice about how manufacturing resources and microchip potential were to be used, would we necessarily choose to produce Cruise Missile guidance systems? Blow-up-the-universe or catch-the-"Indian princess" video games?

Changes in our Ghettoes

Job Loss

> *There's a big push in our bank to have the tellers really promote automatic tellers in a big way. I think the bank is trying to make it more customer oriented — not in the sense of what we can do for you, but what you can do for yourself.*
>
> *Bankteller, Toronto*

The possibility of dramatic job loss is the most widely known effect of new technology. The report of the 1982 Canada Task Force on Microelectronics and Employment forecast the possible elimination of clerical positions, reductions in typing and secretarial jobs, a significant drop in the number of telephone operators, and a substantial cutback of bank tellers.

This trend has already begun. In 1969, Bell Canada employed 13,600 operators and by 1979 there were only 7,400. In 1976, the first computerized switchboard was introduced into Vancouver by BC Tel; it required 22% fewer operators. At the Carleton University Library in Ottawa, a computerized catalogue system introduced in 1978 eliminated 10 out of 14 jobs. In the 15 years since automation was introduced in the Sigmund Samuel Library at the University of Toronto, 20% of the staff have lost their jobs. The workers there predict another 25% staff decrease over the next few years.

These statistics refer to unionized workplaces. In situations where employees have no bargaining power, in many banks and insurance companies, for example, the situation is sometimes even more dramatic. At the Bank of Commerce 3,000 jobs have been lost in the two years ending October 1983, wages have been frozen since 1981, and the work day has been increased by half an hour a day. An insurance company, cited in a study at the Universtiy of Calgary, reduced its clerical, typing and secretarial staff by thirty per cent during the 1970s as computers were introduced.

At this time, much of the job loss resulting from automation still tends to be hidden, most notably in attrition. It is often possible for employers to say truthfully, "We haven't fired a single clerical worker since we brought the new machines in." They don't have to. Many companies are simply not replacing workers when they leave, and instead dividing the increased workload among the remaining staff.

A second tactic employers use is even less direct. In the past, when a company expanded their operation, they had to hire clerical workers to handle the additional paperwork. With the increase in productivity that automation allows, companies can grow without taking on a significant number of new staff.

The catch is that in both of these scenarios, the company manages to increase the workload of the existing staff at the expense of other workers' jobs.

Some companies use the threat of total job loss as a way to get their employees to accept technological change and layoffs. They present the situation as if it were a trade-off between the company going out of business or staying open by automating any way they please. However, there is quite a lot of ground in the middle. A company can raise productivity and profits and still protect the content and availability of the worker's jobs.

But change is occurring not only through job loss. New office technology will not do away with *all* clerical jobs. The *nature* of that work and the *way* it is available to us will also undergo significant change.

Part-time Work

> *Increasingly more casuals are being hired in offices now —they are replacing once permanent positions. The line isn't permanent anymore. Casuals are paid less and receive very few benefits. They live in a state of insecurity and limbo. Casuals are mostly clericals and mostly women and are being hired for computer shift work with no protection. When the lay-offs happen it will be the casuals who are hit first.*
>
> *Data processor, Toronto*

As automation spreads through the economy, more and more full-time jobs for women are being split into part-time as the demands of the work change. Already we can see this shift — in 1978, less than 5% of bank employees worked part-time; in 1983, the number was 25-30%.

Part-time work is both a blessing and a curse for women. Because women usually bear almost full responsibility for childcare, domestic chores and cooking, we often need or want part-time work. The lack of affordable childcare means that many women cannot take 9 to 5 jobs, so we are forced to look for part-time work in the evenings or when our children are at school.

And once we've found a job, we sure don't get much because part-time work is very poorly paid. The whole structure of part-time work hinges on the assumption that women are primarily supported by men's wages, and that our primary responsibility is to our families. Remember when we used to hear about how "women only work for pin money."

But many women do not have a man's wage to rely on. Recent statistics show that almost 50% of all women in the workforce are self-supporting and that six out of every 10 women will be self-supporting at some time in their lives — often with their children to support as well. And many families need two incomes just to get by.

Women need jobs at decent wages. In general, women earn only 63% of what men earn. Part-time work only increases that gap, particularly when you consider that part-timers rarely get the same benefits as full-time workers, if they get benefits at all. Part-timers also tend to be stuck outside the mainstream of employment: rarely considered for promotions, re-training, or raises.

It is important that women have the option of part time work. Of course real choice would mean flexible schedules, at decent pay with benefits. But automation is making it even easier for companies to restructure jobs and the workforce so as to limit our choices to part-time work or nothing. And you can bet that most employers won't be forthcoming with extra benefits for part-time workers. The current reality of part-time work suits them just fine.

Nicole Hollander

Shift Work

> *Shift work isn't good for you if you are young, old, a parent, socially or politically active, or live with someone; or if you like to share the responsibilities of childcare, eat with your friends, and have sex regularly with your partner. I found it very stressful and I didn't get to see my kids enough. Plus my health deteriorated. I began to ask myself is this really worth it — I mean, my wages aren't good enough to make up for all this.*
>
> *Bankworker, Toronto*

Shift work, which has long been common in factories, is now being introduced into office work. Because of the expense of microtechnology, companies don't want to see the equipment standing idle, especially since it's been purchased to increase productivity and profits. Large corporations like banks and insurance companies already keep their data centres running 24 hours a day, hiring women to do routine data entry work on shift schedules.

While shift work may suit employers, many of us would never choose it because of the isolation is causes. Shift work also often results in physical problems such as insomnia, indigestion, and stress.

Shift work and part-time work both make it very difficult to carry out a unionizing drive. Companies know this.

Changes in The Work We Do

New technology in the workplace can have both positive and negative effects on the actual work we do — quite often at the same time. Here we discuss some of the changes that people working with new technology have described.

We begin with the positive changes.

Accessibility of Information

A lot of clerical work involves locating information: finding files, checking a customer's bank balance, handling mailing lists, etc. There's a lot of wasted time and frustration involved in this. Typists face the monotonous task of retyping reports two or three times, or typing the same letter over and over. Many secretaries hate filing, particularly because of the stooping and reaching. It's time-consuming. You could spend a whole afternoon looking for a particular file, only to discover that someone had left it on his desk.

Computerized records can be a big boon to clerical workers. Constantly updated information is available when you need it, and right where you expect it to be (as long as the computer doesn't go down). Lots of secretaries may find electronic filing capabilities useful just as tellers may appreciate the counter terminals that can give them most of the information they need to process transactions.

Less Repetition

> *I always have a lot of typing to do. People are always changing things after I've typed them. It seemed like I could never get on top of my work. With the word processor, I don't have to do so much retyping. So when people come to me with revisions, now I can just smile and say "no problem."*

Many women welcome any kind of technology that will cut down on the time-consuming drudgery of clerical work and free their time for more enjoyable tasks.

Of course new technology is likely to have this positive effect only in jobs that are varied, with some responsibility or chance for creativity in the time saved. Otherwise, what is the benefit of saving time on boring tasks if you use the time saved to do more of the same.

New technology is helping some women to enjoy their jobs more and to feel that they are doing their jobs better — but for other women it has had the opposite effect.

Deskilling

> *We have to punch what we see on the cards even when we know that what we see is wrong. The computers —not the people, are supposed to fix the mistakes.*
>
> *Data processor, Toronto*

Automation involves a process of de-skilling: our knowledge and skills are transferred to a machine, and the workers become machine-tenders.

It doesn't always happen in such an extreme way. Usually, the new technology requires us to learn some new skills at the same time that we are giving up others.

New England Free Press

The only thing she sees is that red light; she just types until it goes out.

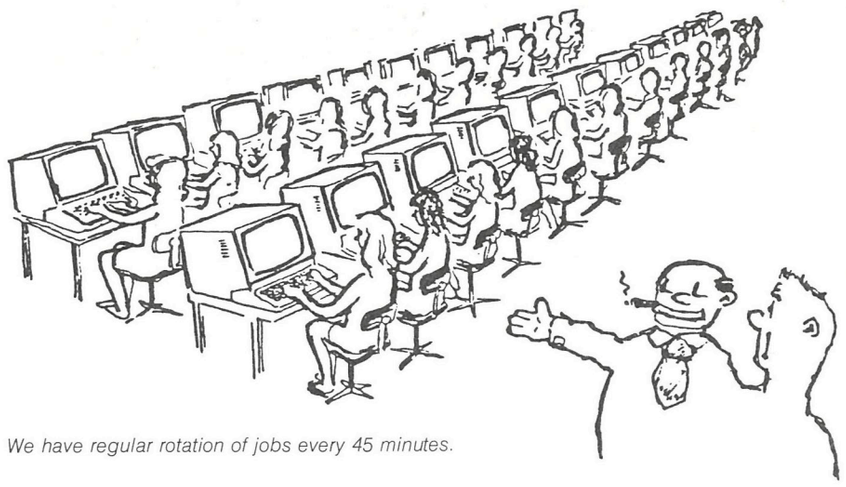
Consider the word processor. It takes a new set of skills to use, as well as traditional typing skills. Once you learn how to use it you can delete words or whole paragraphs and re-arrange the text. However, at the same time other skills are being eliminated. It is no longer necessary to know how to cut and paste, layout a page or set up a letter. Maybe these skills aren't that important and it's better to have the extra time than have the ability to use white-out neatly. But it is important that we be aware of what skills we are giving up and what the effect will be in the long run.

> *We should remember that among the skills that are lost or not being developed are not only technical and manual ability but also the skills of listening, of developing compromise and fostering cooperation and improvisation.*
>
> *Word processor, Hamilton*

All too often, deskilling robs us of our chances to exercise judgement and creativity in our jobs and this cuts down drastically on the satisfaction we get from our work.

For example, since banks began using computer terminals at the branches, the work of women doing "desk jobs" has been deskilled. Before, a woman who worked at the Loans Desk was responsible for gathering, analyzing, and checking all the information concerning loans at her branch. Now with the advent of centralized data centres, much of her job is done by the computer. As the tellers enter transactions into the terminals at the counter, that information enters the main computer as well. At the main data centre a computer print-out listing all the relevant information concerning loans for that branch is produced. This print-out is sent to the branch, and the woman at the Loans Desk only has to check it.

As tasks become simpler an increase in the volume of work is expected. For example, long distance telephone operators used to have to carry out a variety of tasks related to placing calls for customers. With the new electronic system, all the operators need to do is collect the billing instructions from the customer; the system connects the call. This means that operators are expected to handle a much greater number of calls, since they spend less time with each caller. As a result, their jobs have less variety and are more restricted and routine.



We have regular rotation of jobs every 45 minutes.

Leeds Trade Union Resource and Information Centre Bulletin

Fragmentation and Routinization

> *This job is extremely boring. You are doing the same thing for six out of seven hours, five days a week. Our department has the highest rate of absenteeism — because of the boredom, because of the stress.*
>
> *Key punch operator, Victoria*

Instead of performing a variety of tasks as many office workers did in the past, the office of the future consists of highly standardized and single-function job areas, where workers spend all their time doing the same thing. The work process then becomes more and more fragmented, with different people doing different parts of it, instead of one person seeing the whole process through from beginning to end. Workers don't have a chance to learn about the whole process anymore, thus cutting down on their chances for promotion.

For management this system is perfect. They believe that more work can be done faster if each worker only handles one part of the job. It's easier to control workers when they don't have an opportunity to exercise judgement and creativity. Their supervisors know exactly what they should be doing at all times. And when the knowledge required to do a certain task has been largely transferred to a computer memory, fulltime staff are no longer needed to provide continuity.

After 18 years of service, a secretary for Nova Scotia's Ministry of Education, was proud of her skills in balancing a complicated set of books. Suddenly, without prior notice or consultation, her skills became redundant. Automation has reduced her responsibilities to the task of stuffing envelopes:

> *There is no mention of retraining and it's not just me that is involved here. In our department alone, fifteen or twenty others are also being affected. Like me, my friend used to have a stimulating job. Now she highlights invoices all day long.*

Machine Paced Work

> *They want workers they can control like machines yet who will respond like humans when needed."*
>
> *Word processor, Toronto*

With automation, clerical work can be assembly line paced. In some word processing centres, another job automatically appears on the VDT screen when one job is done. When telephone operators have completed their service to one customer, another one is automatically on the line.

This machine pacing is highly stressful. The pressure is always there to perform at an optimal level. People are not machines. We cannot work constantly at the same pace. Being able to walk across the room is one way that workers get a break. But management often sees this as wasted time and tries to

institute ways to keep workers in their seats. This is the appeal of computerized work stations that are advertised as allowing secretaries to type, edit, print, find files, and send electronic mail without leaving their desks.

I started a year and a half ago and only three out of the 15 women I started with are still here. We are monitored constantly for speed and accuracy and our statistics are always posted. One woman on our shift was told to speed up —even if it meant a drop in her accuracy. Later she was told to improve her accuracy.

Word processor, Toronto

Not only does automation speed up our work it also monitors our speed and accuracy. Management can find out when staff takes breaks and for how long, compute our average number of keystrokes per hour, and even calculate how many errors were made. This information is used to evaluate employees and to set standards that are then applied to everyone in the office.

John Johnson

When Automation Comes Rolling Through the Door

The atmosphere at work is very tense, very depressed. No one knows what is going to happen. We're all scared.

Winnipeg office worker

Automation is going to change our jobs. Ignoring it isn't going to make it go away, and letting it just happen to us is our worst option. It's important that we become as actively involved in the process of automation as possible; not a simple, enthusiastic support of the changeover, but rather a critical involvement that has the best chance of protecting our job interests and ensuring the kind of working future we want.

Changeovers are times of experimentation. Neither managers nor workers know the best ways to use the new machines. Staff may be able to influence the final form of the official procedure. If your manager or supervisor asks your help in deciding how to divide the work, for example, you may have a direct line of input.

On the other hand, your advice may not be asked for at all. You may just be told that this is how things will be done from now on, period. But the people who plan the new work routine don't know how it will go in actual practice. The work process is more than just official procedure. Often the systems or alterations developed by clerical workers get integrated into the official system over time.

THERE IS NO ONE BEST WAY TO USE THE NEW TECHNOLOGY

Company Training

When a company automates they arrange for you to be trained on the equipment you will be using. Companies organize this training in different ways. Large companies often contract with an office automation consulting firm to come in, plan the automation, and develop a staff training program. Smaller companies tend to rely on the training services of the company they purchased the equipment from.

Training on the new equipment can be a great source of frustration. You may feel that you will never be comfortable with it. You may resent having to learn something that may have a negative effect on your job. Or you may be enthusiastic about learning new skills until unreasonable company expectations turn the whole thing into a major headache.

Limited Training Content

Because you are being trained to use certain hard-and software to perform your work, your training is often limited to just what you need to know to do that task.

You may not get information on the whole system, how it works, and how what you do fits in with everything else. For women who are enthusiastic about learning something new, this limited skills training can be highly frustrating. All too soon your job has become boring and routine. Promotional opportunities seem closed to you because you have received little training and are stuck in a dead-end job.

You have two main options. One is to get supplemental training on your own and either look for more interesting work or try to get your company to promote or transfer you. The other option is to get more extensive training at your workplace. This means letting your supervisor know that you want to be considered for job upgrading or retraining. Because companies often ignore secretaries and other female clerical workers when they are choosing people to train, you need to let them know that you are interested.

Incomplete or Inadequate Training

> *I think part of the reason I hated the word processor so much at first was that my training was so piecemeal. They hired a new typist with some experience on word processors, and she was supposed to teach all the typists. But she had all her own work to do at the same time. I felt so frustrated and angry!*
>
> *Word processor, Toronto*

Some companies try to cut down on training and missed-work costs by sending one worker to a training seminar, and then having that person train the others in the department. This puts great stress on the newly trained workers as well as those trying to learn new skills without expert advice and assistance. On top of that, companies often expect both the trainer and trainees to accomplish a full days work.

Newly trained employees should not be expected to train others, although advice and help among the staff is important. However, if your company insists on having the staff train each other, try to get some kind of formal training time set aside each day. And suggest that employees be trained in groups of two or more, never alone. This way you can support each other.

Unreasonable Expectations of Management

New office technology is sold by sales representatives whose job it is to convince an automating company to buy that particular brand of equipment. Naturally, the sales representatives are going to describe their product and services in glowing terms — claiming that it will raise productivity, and make the office instantly more efficient.

Managers often come away from this sell with unrealistic expectations about immediate leaps in productivity. This can be stressful for the staff who are struggling to learn new skills and become familiar with the new equipment. Studies have shown that it takes a typist a few months to become proficient enough at the word processor before she can produce double her normal output at an electric typewriter. This one calls for assertiveness. Don't allow yourself to be rattled by pressure, and be firm in telling your manager that you must be allowed time to learn.

Getting Trained on Your Own

> *I'm taking a course in word processing at the high school. I went to the personnel office at work and asked if they would pay for it and they said no, because they will teach me when the machines come in. But I wanted to take it anyway so I will be prepared. I'm worried about my job like everyone, but I'm not worried about how I will do on the machines. I'm going to take a more advanced course next.*

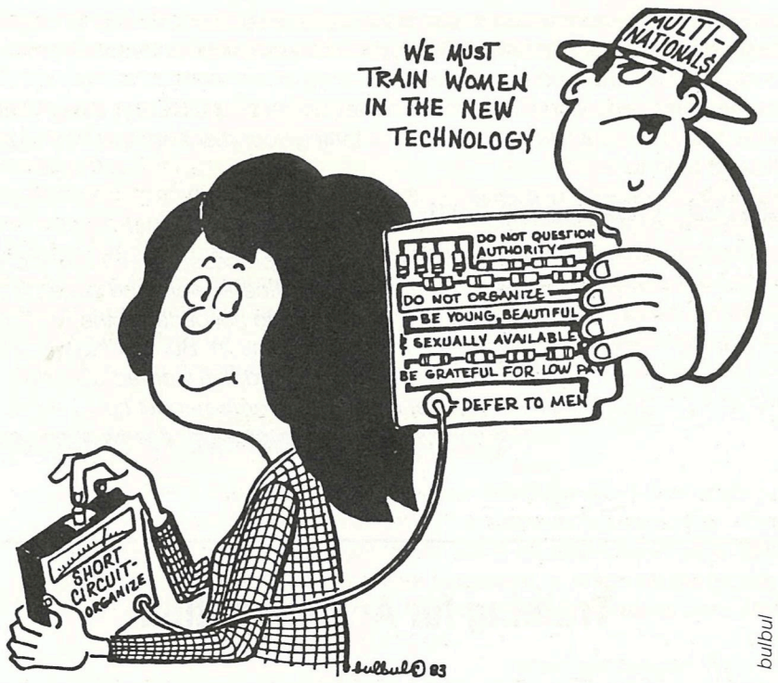
Training for Accomodation

There is one kind of company-sponsored training that *is* likely to take into consideration your feelings about the new technology, and to sound as if the company really cares about you. But beware.

Personnel management experts know that new technology as it has been implemented causes problems for staff — problems of boredom, eyestrain, stress, and frustration. This can result in what the experts call "resistance, rebellion, and error." The company sees this as a problem because it limits the effectiveness of the new technology, and cuts in on potential profits.

Their solution? Change people. Train them to adapt to and feel good about the demands of office automation. Rather than making needed changes in the system, these experts special training programs stress coping and are consciously designed to diffuse employee resistance.

If staff have been complaining about the automation process, and requesting changes, it is possible that your company may introduce "technostress" seminars as a way of meeting your complaints about stress. You probably can't refuse to go to these seminars, but you can be aware of what they are intended to do. Don't let management off the hook so easily. Training you to adopt is *not* the same thing as making changes in an an unhealthy system.



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There are many different reasons why you might choose to seek training on your own, and quite a few different options of what and where. These are important choices, with implications for the future. If we know that new technology is being used to change both job content and job availability, how do we prepare ourselves for the future? If we accept that our traditional secretarial or banking skills are no longer good for life, what skills should we try to obtain, and how?

Making Choices

The first thing to recognize is the uncertainty of the whole situation. The technology is changing constantly, as are the skills necessary to work with it. There are less jobs available for women in the traditional areas of employment we used to count on, and it is not clear at this time where new jobs will be opening up.

You don't want to be left behind, but you also don't want to put a lot of time and possibly money into learning something that won't help you in the future. This has been the experience of many women who took data programming courses. There is less demand for programmers now that companies can purchase a wide variety of read-made software. Women with one-year data programming courses must compete for jobs with people who have college degrees in computer science. And now experts are saying that word processing will be obsolete in a few years as the equipment and programming advances in capacity.

Currently, it seems that the best training choice you can make is one where you learn flexible and transferrable skills. An example of this is computer literacy training, which involves a basic understanding of computer principles. With computer literacy, you gain an appreciation of the capabilities of computer technology, particularly in relation to office communications. You learn basic *conceptual* skills that give you the flexibility to work with different kinds of software programs.

Finding Training In Computer Literacy

Community colleges and adult night school programs both offer courses in computer literacy as well as in specific skills such as word processing. Computer literacy courses are often called "Introduction to Computers" or "Understanding Computers". These courses are designed for people with no prior experience at all, and usually say so in the catalog. Adult night school courses usually cost between $20 and $40; community colleges cost more. Some companies will reimburse you for training that relates to your job.

Other Training Options

In addition to community college or night school courses, there are also longer courses you could take. There are various government training programs for people who are out of work. Unfortunately, these programs are not offered frequently enough, may require more years of high school or math than you have, and may make no childcare provisions for women with children.

Community agencies sometimes get grant money to develop training programs for women. Some of these programs are more innovative. If your town or region has a women's employment counselling service, you might check with them about what they recommend, since they are likely to have up-to-date information about training possibilities *and* job possibilities. Also, write to the Women's Division of the Department of Labour in your province for whatever brochures they have on training programs.

Health Hazards

As if speeded-up, de-skilled, monitored, low-paying jobs aren't enough! Micro-technology also poses a threat to our mental and physical health. In this section we've outlined what is known or suspected about the health hazards of video display terminals, VDTs. We also list steps that can be taken to reduce the hazards and safeguard your health. In the resource section at the back we list newsletters that publish regular updates as new information comes in.

Office work used to be thought of as a clean and safe job. It wasn't really — for years women have had reactions to the chemicals used in photocopying machines or carbon paper, and some clerical jobs like banking are actually quite dirty. But on the whole, few clerical workers worried about what their jobs were doing to their health.

Now the appearance of VDT's in offices across Canada has changed all that. Not only do we need to be concerned about whether we'll lose our jobs to a computer, we also have to worry about losing our health.

"Scientific" opinion on the dangers of Video Display Terminals varies. If you read the newspapers and watch television, you come away with conflicting pictures of the situation. Some reports cite hazards, while other announce new findings that show VDTs are harmless. None of this is much help when it's your health you're concerned about safeguarding.

VDTs can be a problem for their operators in three main ways: radiation effects, physical disorders, and occupational stress.

The Effects of Radiation

There are two types of radiation emitted from VDTs: ionizing and non-ionizing. Ionizing radiation is the same as x-rays. It is now accepted knowledge that large or frequent doses of x-rays can be harmful. Non-ionizing radiation given off by VDTs includes ultra-violet light, microwaves, infra-red waves, radio frequencies and static electric fields.

Radiation leakage from VDTs is usually low, according to federal guidelines on what is considered safe. However, since we don't know about the long term effects of VDT use, "safe" levels of radiation are fairly arbitrary. In some European countries the highest "safe" level is 100 times *below* what our government considers safe for us.

Sufficient exposure to both kinds of radiation can cause:

- cataracts
- cancer
- miscarriages
- birth defects

What is sufficient exposure? Scientific opinion is contradictory. Some researchers say the levels of radiation leakage are too low to be hazardous, while others say that although we may not know for certain that VDTs are harmful, we also don't know for certain that they are safe. Meanwhile, cases of miscarriage, cataracts and other disorders keep appearing among VDT operators. History has shown that it sometimes takes years of people getting sick and dying before scientists and governments finally recognize the danger of certain substances.

Other Physical Disorders

Working on VDTs can cause many other problems in addition to the hazards of radiation.

"Ergonomics" is a word frequently used in discussions about new technology. It refers to the study of the relationship between people and their workplaces, particularly the machines they work at or around.

VDTs and other new office machines require a specially controlled environment. Too often when VDTs are brought in, they are treated as if they were simply large typewriters, and no adjustment in furniture, desk arrangement, or lighting is made. Working on VDTs under improper conditions can result in a variety of physical problems.

Nicole Hollander

Some common physical problems are:

- eye strain or soreness, redness, irritation
- seeing double or fuzzy images
- seeing spots or flashes
- headaches
- neck and back pains
- dizziness and nausea
- lack of appetite
- skin rashes

Eyestrain and other vision problems can be caused by long hours at the VDT without adequate rest periods. They can also be caused or compounded by ergonomic problems or bad legibility. If the screen is difficult to read the operator must strain to see.

Glare from overhead lights or windows can cause both eye and back problems, because the operator must lean at an awkward angle to avoid glare.

The static electricity given off by VDTs can cause skin rashes or aggravate other skin conditions.

Improper office furniture, chairs, desk tops, and keyboards that are not adjustable, can cause chronic neck and back pain.

If the VDT is malfunctioning, has a very small screen, or letters that are difficult to read, the operator can develop eye and muscle problems after long hours straining to read the screen.

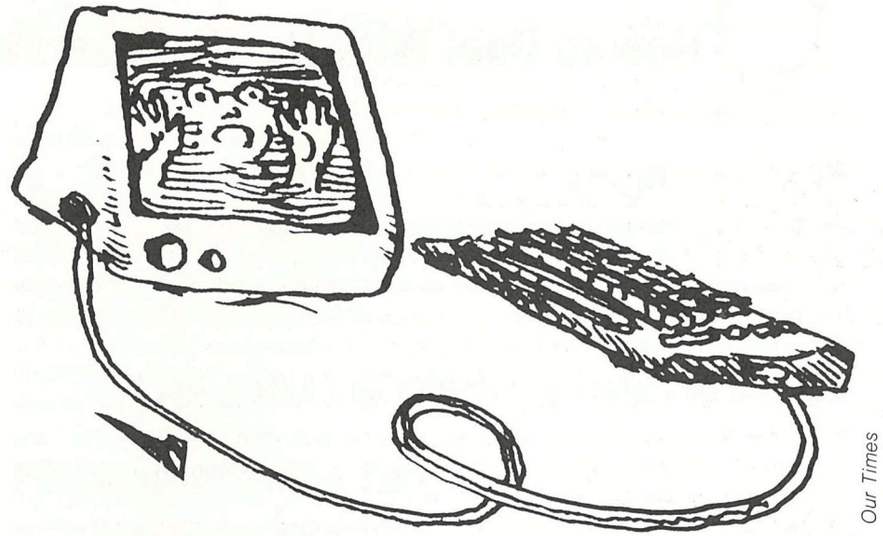
Stress

Studies show that clerical workers have the second highest incidence of stress-related diseases among occupational groups. And recent studies show that VDT operators have even more health and stress problems than clerical workers who don't use terminals. This adds up to a very high degree of stress among VDT operators and other people working with the new office technology. Why?

To begin with, contrary to what one might expect, it isn't people with the high-powered positions who experience the most occupational stress — it's the people who have little or no control over their work. This includes many women workers, particularly those who work in automated offices. We are often expected to be fast and error-free beyond what is reasonable. Our work is closely monitored, as is the amount of time we take for our too-infrequent breaks.

Some stressful situations women face are:

- monotonous, repetitive work
- a tense atmosphere, for example where staff are worried about layoffs or changes over which they have no control
- strict supervision and rules
- electronic monitoring
- speed-ups and speed pressure



Our Times

Our Health is Chipped Away

- Four pregnant VDT operators in Toronto gave birth to children with congenital defects. In the same office, three women who did not work on VDTs gave birth to children with no defects.
- Among the group of airport ticket agents working on VDTs, seven out of thirteen pregnancies in two years ended in miscarriage.
- Cataracts have been discovered in VDT operators who are too young to develop aging cataracts. The location of these cataracts in the workers' eyes indicated that they had been caused by radiation.
- Clerical workers in an educational institute in Toronto have chronic skin rashes from exposure to new computer systems. Hamilton office workers have reported similar problems with chronic skin rashes.
- After several years on word processors, some women have developed permanent retina damage, which not only affects their day-to-day life, but also limits their employment options.

How to Deal With Health Hazards

Know Your Rights

At the moment, there is no specific legislation regulating the use of VDTs, although such bills have been introduced with no success. However, provincial health and safety legislation can be used to apply to workplaces where new technology is in use.

Ontario Occupational Health and Safety Act*

You have the right to refuse to work if you have reason to believe that "any equipment, machine, device, or thing" is likely to endanger you or another worker. This means that if you work at a VDT terminal, and are developing eye problems, or skin rashes, or are pregnant, for example, you can refuse to work at the VDT. If you and your employer cannot reach agreement on a solution — repairing the machine, transferring you to a different job, providing better furniture or lighting, an inspector from the Ministry of Labour must be called to check out the complaint and mediate a solution. The inspector has the final power to decide whether the machine or workplace is harmful.

VDT operators have taken advantage of this right to refuse hazardous work, with varying degrees of success. The following pointers may help you decide whether and how to use the Act in your favour.

It is against the law for your employer to penalize you, dismiss you, or threaten to dismiss you for taking any of these actions. If he/she does, you can go to the Labour Board and charge him/her with violating Section 24 of the Occupational Health and Safety Act.

NOTE:
*Information in this section refers to the Ontario Occupational Health and Safety Act. To get a copy of the legislation that affects you in other provinces, call the Ministry of Labour office nearest you. Most occupational health and safety legislation is similar.

Protecting Ourselves From Radiation Hazards

The best protection is not to work with VDTs at all, but that isn't usually an option.

Most workers do not have control over their work environment, their time at work, or even the length and frequencey of breaks. Employers usually won't look out for your safety unless there's a law or a union to tell them they must, so you will need to be assertive in getting your company to provide the following:

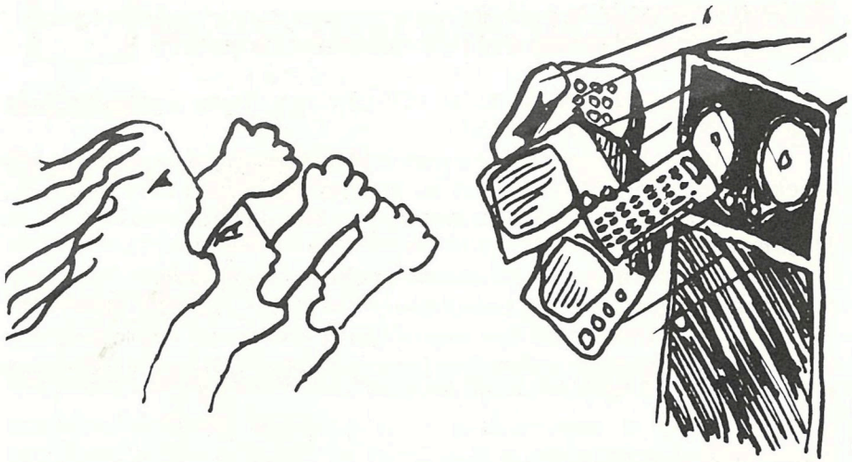
- regular testing of VDTs for radiation leakage
- immediate repair of malfunctioning machines
- radiation shields for all VDT terminals (These are readily available and cost between $120-$150.)
- a 4 hour daily limit for work at VDTs (There's no good reason why employers can't organize the work so that the VDTs are always in use but individual operators only use them for part of the day, doing non-VDT work in the other half.)
- transfer to non-VDT work for pregnant women, or women intending to become pregnant, without loss of pay or seniority
- company-paid eye exams (performed by the employee's own doctor) for all employees *before* they begin work at a VDT; also, the company should pay for any special lenses required.

Precautions You Can Take

- Stay away from VDTs when you are not working at them. Take your breaks away from the machine area. (It also helps physically if you walk around and stretch.)
- Request reassignment to a non-VDT position if you are pregnant or have cataracts.
- Report *any* physical symptoms to the company nurse and to your own doctor as soon as they occur.
- Have your eyes tested regularly. Make sure you get tested for cataract development (this test is called slitlamp biomicroscopy).
- Keep a record of the machines you use:
  - — make, model, serial number
  - — how long you spend at machine
  - — any machine malfunctions
  - — unusual physical symptoms you may have
- Be assertive in holding the company to its responsibility, or in demanding safety measures. As one ex-word processor put it, "You've got nothing to lose. Either you lose your job now or in a year when your eyes are too damaged to do the work." Of course, not everyone will be harmed after a year at a VDT, but it's a big risk.

Get a Note From Your Doctor

If you are pregnant, find a sympathetic physician who will write a letter to your employer saying that you should not work at a VDT during your pregnancy. Doctors, employers, and government officials who do not want to admit that VDTs may be dangerous to pregnant women, but who may be secretly worried have created a loophole for themselves. They say that they are transferring



Our Times

pregnant women off VDTs because the *women are worried,* and *fear* can be hazardous to pregnancy.

If you develop eyestrain, back ache, nausea, skin rashes, or some other conditions from your VDT and want to request a transfer or exercise your right to refuse unsafe work, get medical support. You may have to go to a few doctors before you can find one who will believe that your symptoms are caused by the VDT and say so in writing. But don't give up. Women have found sympathetic doctors. The problem is more likely to be that the company won't believe you or your doctor.

Demand Your rights

Studies have been done that rate the various types of VDTs according to their effect on operators. If your employer is about to introduce VDTs you might be able to have some influence. Contact the VDT Committee of Metro Labour Council or 9 to 5 (an organization of women office workers in the U.S.) to find out how you can get hold of these ratings.

Appropriate furniture and lighting should be researched and obtained. The most important element of good VDT furniture design is flexibility. The operator should be able to easily adjust her chair height, the position of the keyboard, and the height and angle of the screen. Office furniture manufacturers have come out with many new designs for VDT furniture so get their catalogues and show your supervisor examples of the kind of furniture you need. The resources listed under Health and Safety provide extensive information about radiation and ergonomic health problems and corrective measures.

Close attention should be paid to the positioning of VDTs and printers, with regard to noise levels, privacy, heat emissions, and static electricity.

. . . And Lower Your Stress

Eliminating occupational stress requires changes in both the physical environment and in the organization of work, including worker-management relations. Token gestures from management won't solve the problem, nor will training programs that teach you to adapt to a stressful situation.

Occupational stress among VDT operators needs to be taken seriously. Drawing attention to it and demanding changes in the work process may help to force employers to do something about our stressful jobs.

For example, rather than have one woman assigned to a terminal to process text all day while another woman carries out an equally repetitive task, we could suggest a system of job rotation be set up. This would eliminate some of the boredom and stress because although none of the work may be very interesting, at least it would have variety. Job rotation is an excellent way to cope with stress and other health hazards of VDTs: no woman would work at a terminal for more than four hours a day, but all the work would get done. Such a system is no less efficient than one where jobs don't rotate, particularly since efficiency is difficult to measure and does involve factors other than cost and output — namely, workers' health and satisfaction.

We also need to push government agencies such as the Workers' Compensation Board to recognize occupational stress as a genuine occupational disease.

Workers' Compensation

If you sustain an injury at work, or develop a health condition traceable to some substance or process in your workplace, you may apply for disability payments from your local Workers' Compensation Board.

In general, these Boards have not been sympathetic to cases where workers claim that their health problems were caused by VDTs. Most government offices remain unwilling to take any action that would acknowledge that VDTs pose health hazards. At the most, they will acknowledge ergonomic health problems caused by improper furniture or the physical demands of the work. So for example, VDT operators with tendonitis in their hands and wrists have been awarded compensation. Supermarket cashiers who developed shoulder problems from passing the groceries over a scanner and into the bag over and over all day, have also had their condition recognized as a health problem eligible for compensation. But VDT operators who have developed cataracts or other eye problems have had their cases turned down. It is important to keep up the pressure on them.

Get Your Co-Workers to File Complaints

You can also register complaints with the Ministry of Labour, and these may be

made confidentially. In one case, several workers in an office where VDTs were used lodged complaints about their general working conditions. An inspector made an unscheduled visit to the office and issued a decision that the following conditions were unhealthy: too bright lighting, loud noise, inappropriate furniture, and no privacy for terminal operators.

To File or Not to File?

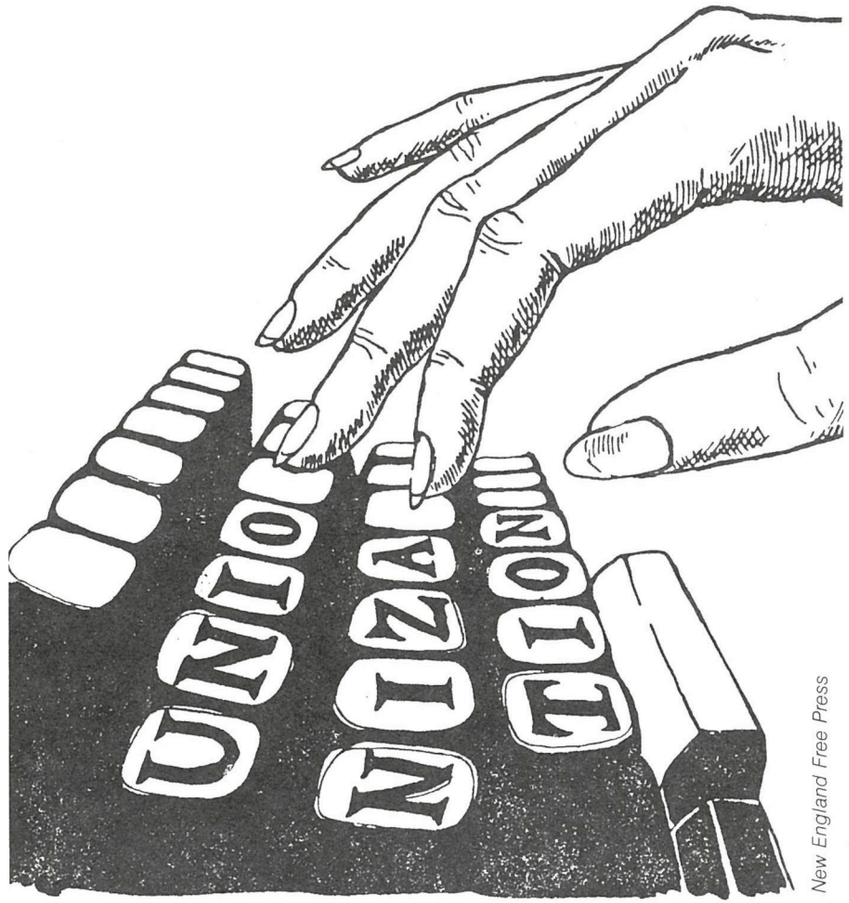
It may seem like a tremendous hassle to file a complaint, ask for an inspection, or refuse to work — especially when the chances of a decision in your favour are not excellent. But it is for that very reason, if you have a VDT-related health problem, that it is important to consider taking some action. It is crucial that *constant* attention be drawn to the health and safety problems caused by new office technology. Sympathetic inspectors and legislation protecting VDT operators will only come about when enough people have gone public with their health problems. We need to confront our employers and the government with the potential seriousness of VDT health hazards now while the problems are just beginning to be apparent. Otherwise we will wait even longer for our claims to be recognized.

Political Implications

Our health is a *political* issue. This has become obvious through the response to our complaints.

The production and sale of new office technology is big business. It is the manufacturers of electronic equipment, software programming, and office-of-the-future designs, who, during the economic crisis, are holding their own, even expanding. Big and small companies are installing new technology in order to make their businesses more profitable. The government is introducing new technology to cut costs. Consider the economic and political implications if and when this labour-saving and cost-cutting technology is universally acknowledged to pose some serious health problems to the people who work with it. There would be laws regulating the use of VDTs, lawsuits brought by workers who had developed cancer or cataracts, and VDT operators would demand — and get — higher pay in compensation for the health risk associated with their jobs. Business certainly doesn't want to see this happen, because it would defeat the whole purpose of automation, cutting costs and disciplining the workforce. And the companies that made VDTs don't want to see this happen because of the impact that it would have on equipment sales. So there is great pressure on the government *not* to recognize VDTs as health hazards — and the Ministry of Labour inspectors and the Workers' Compensation Board are quite aware of this.

This means that attempts to get laws regulating VDTs, or any serious changes at all, will face stiff opposition. It is important for us to know this, to guide us in



New England Free Press

making choices and deciding where to put our energy in working for change. We suggest a two-pronged approach to change and protection around micro-technology.

- Draw as much attention as possible to the ill effects of VDTs. Document all cases. Make complaints to the Ministry of Labour. Go to a doctor who will keep records of your condition. Apply for Workers' Compensation.
- Organize. At this point, the only way to get fast and strong protection is by having a tough union at each workplace. It's a slower method — workplace by workplace — than a law affecting everyone, but it is more realistic, and has more power of enforcement. Many of the rights granted to us by law, such as maternity leave, became law *after* they were won in union contracts.

Taking Action

Working Together

The first step, and one of the most important aspects of active involvement is talking to other people in your office. Unless you are the only clerical worker in your workplace, chances are that your fellow workers share some of your concerns and hopes for the new technology. Their jobs are also threatened. If you are to have any hope of making lasting change, you will need to have the support of as many of the office staff as possible.

Begin by talking with your co-workers informally. Find out what their concerns are, and also what they know about the automation process as it is occurring in your office and in other offices they know of.

After this kind of discussion has begun among people at your workplace, organize a meeting at someone's home after work hours. At this meeting start the process of setting up an informal automation committee to monitor the process, do research, and develop a strategy for having as much influence as possible.

J. Binder

Research

Find out as much as you can about the new technology in general and about the automation process in your office. No process will take exactly the same shape as another, but there will be similarities which are based on the common concerns companies have when they introduce microtechnology. Beyond these similarities, try to figure out exactly what shape automation may take in your office and how it will change your work.

There are two main kinds of research you need to do: background and current.

Background: In the back of this booklet are listed some books, articles and films that have clear, accurate information on the whole subject of new technology. You can also check out your local library. A local women's employment centre might also be a good place to find up-to-date information.

Take a look at business magazines. They will give you a sense of the kind of information and persuasion management is getting. You will need to know what your company is likely to expect from the new technology. Read both sides: critical discussions but also accounts intended for management.

Investigation

Do some detective work around your office. Depending on how advanced the process of automation is, you will need to find out several things. First, try to find out the company's plans. Often new equipment is brought in bit by bit, and it won't be immediately apparent what the complete system will look like. Many companies automate departments separately, and then integrate them into one system. Some companies, particularly smaller ones, may not have an overall plan. Perhaps they have only decided to get word processors and try them out. In that case, your active involvement can make a lot of difference in the direction automation takes.

You may feel hesitant to ask questions — perhaps your supervisor will get suspicious or you will get in trouble. You are the best judge in this situation of what you ask and when to keep quiet.

In addition to direct questions, because the answers you get may not be strictly truthful, be alert and observant. Try to get a reading of how management and supervisors feel about the new technology. Are they on top of it, or are they somewhat uncertain about what's going on? Are they concerned about their jobs as well? If you can get a sense of their knowledge, expectations, and concerns, then you will be able to make your suggestions and demands in a more effective way.

Future Visions

Meet with your co-workers to go over all of this information. Discuss what you have read and what you are finding out about the process in your office. Talk

about how you would automate if it was up to you to decide on a system, the equipment, the physical placement of VDTs, allocation of work, hours at terminals, etc. Develop a clear picture of what you would like. And you may be surprised how much collective knowledge there is among workmates.

Be adventurous in your vision to start. Compromise will come later when you actually begin working this all out with management. But in order to make a strong position for yourself, you need to be clear on everything you want. You need both a vision of how things *should* be as well as a sense of how things *can* be given the contraints of the current situation.

Ask yourselves:

- How could we use new technology to eliminate the drudgery of our jobs, while freeing our time for more interesting tasks?
- What ways could we benefit from an increase in productivity?
- If your company's use of new technology continues in the direction it seems to be taking, what do you think your jobs will be like in six months, or one year?
- Has the new technology been introduced in a way that alters the kind of control you have in your job?
- What are the company's goals for automation?
- What impact has the new technology had on your job? How have things changed? What do you like, dislike about it?
- What health and safety hazards are you exposed to?
- What physical changes need to be made in the office environment to accommodate the new equipment and safeguard health and safety?
- What opportunities for training or promotion exist in the company? How could you gain access to them? What special training do you need?

. . . And How to Realize Them

If you are to safeguard your job, your health, and your right to meaningful work, action is essential. For some, this is the hardest part because we face such obstacles. Sometimes the barriers are so tough that our goals seem impossible. Or we might decide to water down our demands to those things we think we can get. Either way we end up being ineffective. But there are ways of planning a strategy that can help you deal with the hurdles from a realistic, but strong position.

It is important to formulate both short and long term goals, as well as specific ideas for realizing your goals.

Once you know what is happening with automation in your office, and have met as a group to determine what you want, the next step is to communicate with management. Who you speak to, and how you set that up will depend on your office structure, and what would work best. What follows are suggestions only.

- Pick two or three members to represent your group, never only one.

D. Paabo

- It's a good idea to start with your immediate supervisor or boss, and try to enlist his or her support.
- State your concerns in a clear and confident way. Assume a reasonable response on the part of the person you are talking to.
- Ask for one or two things that will pave the way for more involvement on your part. If there is a department committee planning the automation, you might ask to have a clerical representative on the committee.
- Make it clear that you are *not* anti-technology. Perhaps you could begin by mentioning some things people like about the new technology or work routine.

Follow-Up

Following-up on any changes you achieve is as important as the initial planning. You need to monitor what actually gets done, and make sure that things don't slip back to how they were before. Having your demands met, or your suggestions implemented is only the beginning, not the end of your efforts. Particularly if these were short-term objectives, you need to keep your long-term goals in

mind. Keep meeting, keep watching, keep up on current research, keep thinking critically about the situation. Evaluate how the changes you suggested are working in practice. Often things don't work out exactly as you plan. Perhaps you will need to suggest modifications. But in particular, you need to be alert to backsliding, and let your company know that their clerical staff needs to be taken into account.

Documentation

When you are dealing with companies, governments, legal rights, etc., it is always a good idea to document what you do, and what you find out. *Keep records.* Record what equipment staff work at and for how long. Health conditions should be recorded as soon as they appear. Write down what management tells you.

Whatever you are trying to get done, it will probably help your case if you can produce records and numbers. You may not know what will develop at your workplace, or what you will want to do about it. But if you keep records, you will be prepared for any eventuality (especially if you want to take action under the Occupational Health and Safety Act).

Organizing A Union

There are definite benefits you can gain from working together with other clerical workers in your office. In addition to some of the changes you may win, you develop a support network and get practice in analyzing your situation and planning solutions to work problems. And, should you feel ready to try for a union in your office, you will have an organizing committee already in place.

Organizing a union is a long, difficult and often scary process. But it is also exhilarating, and is your only real hope of protection against technological change designed to benefit only the employer. Among the resources listed at the back are materials that give information about getting organized.

Another organizing option is an association of women workers, like 9 to 5, which is organized in the U.S. Resources listed also will explain how they originated, what they do, and who is involved.

What Unions Have Done

Some unions have been able to win good protection for their workers against technological change; others are still struggling at the bargaining table. But as more and more unions include demands for this kind of protection, it will become more common and easier to win.

These are some of the things unions have bargained for:

Advanced notice and consultation

In order to protect its membership, the union must receive advance notice of proposed technological change *and* have input into the planning process. Unions have won contract clauses specifying that the employer must give detailed notice of proposed technological change within a particular length of time prior to implementation. Related clauses set out procedures through which the union is to be kept informed of the automation process, and, most importantly, have the opportunity to influence the decisions made through *meaningful* consultation.

Employment protection

Since a common management objective in introducing new technology is to cut labour costs, employees can expect some impact on numbers employed, hours of work, job classifications, and wages — unless the union interferes. Unions have bargained for clauses that protect employees from layoffs, pay cuts if their jobs are de-skilled, and unwelcome changes in their hours of work. Because new technology increases productivity dramatically, it is possible for employees to do the same amount of work (or more) in less time. Some unions have begun bargaining for a sharing of the benefits accruing from this rise in productivity. Shorter work weeks, longer vacations, and paid educational leave are all ways that workers can enjoy the benefits of the time gained.

Health & Safety

It is not enough to have job security if the jobs saved endanger the health of the workers. Unions are bargaining for contracts that contain explicit clauses: a) limiting the hours an individual can work at a VDT daily; b) stating the frequency and duration of breaks; and c) permitting pregnant workers to temporarily transfer off VDTs with no loss of pay or seniority. Additional clauses require the companies to pay for eye tests and glasses for VDT operators, and to have the equipment properly inspected and maintained. A very important clause is one that prohibits use of the new technology to monitor individual performance.

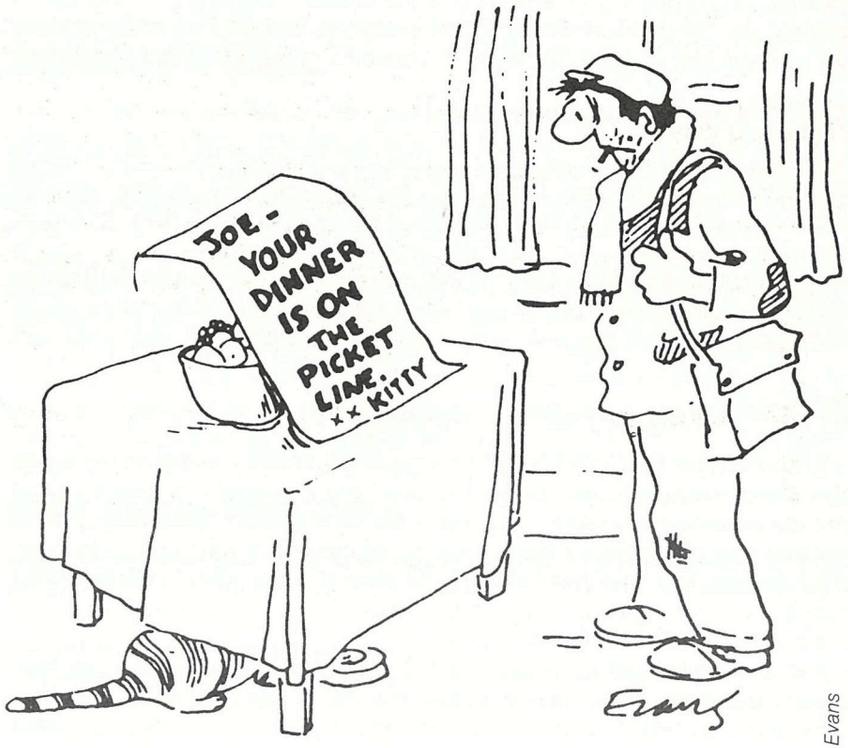
It is hard to turn the clock back on change, and introduce protective measures after the damage has been done. The best time to bargain for technological change protection is *before* a company automates, even though negotiating involves a lot of guesswork about what management will want to do. However, union researchers have been working for several years now to research what happens with technological change and to recommend model contract clauses that can be adapted for specific needs.

And it is *not* too late for union protection in those clerical sectors that have already automated. Now more than ever clerical workers in banks, insurance companies, and other large corporations urgently need contracts that protect

their jobs and their health. In fact, clerical workers may be more eager to organize now when they see their jobs and health endangered by automation.

In this pamphlet, we have recommended measures that office workers can take to protect their health, the quality of their jobs, and their future employment. We have suggested some ways you might be able to achieve these things in a non-unionized workplace. But without union protection and a union contract, you are not likely to achieve any significant *long-term* control over technological change.

DON'T AGONIZE — ORGANIZE!



Evans

Future Trends

Aside from the immediate effects of making work more routine and less satisfying, problems like deskilling and fragmentation are likely to have long-term effects on women's employment and wages. Right now, you may experience the frustration of having skills and abilities you don't get a chance to use. But when you leave your job — for whatever reason — who is going to replace you? If the company replaces you at all, chances are that it will not look for someone with your level of experience and skill. They'll give the job to someone with less skill, and pay them less. That person will be hired into a dead-end job that offers no chance for on-the-job training or advancement.

Not only does the company need less workers, but they can hire cheaper workers as well. And of course these kinds of developments will affect you the next time you look for work.

If you are lucky, the new technology will be a wonderful help to you in your job. but watch what happens over time. How does your job content change? Do you like the changes? Are you having to work harder? Is there an increase in part-time work? Have jobs been lost? How have promotional paths changed since the introduction of new technology? What do your co-workers think about the new technology?

The future holds other kinds of potential changes in women's work. Two particularly dramatic shifts are:

- the possibility of women loosing jobs as clerical work is "transferred" to lower paid third world workers
- the widespread use of clerical work being done from computers in our homes, at piece-work wages.

Business and government are excited about these possibilities, and are trying hard to convince women that they are in our best interests. Let's examine the matter more closely.

Run Away Shops

For years, manufacturing companies have taken advantage of the cheaper wages and looser labour laws in parts of the Third World. Much of the clothing we wear and many of the appliances we use are assembled by poorly paid workers in Asia or Latin America. Wages and benefits are so low in some places that it is actually cheaper for Canadian companies to ship parts to the Third World for assembly, than it is to pay Canadian workers to do the job here, even at minimum wage. The Canadian government not only allows business to do this, but through soft taxation policies on imported products, helps to make this practice as profitable as it is.

In these times of recession, more businesses are closing down their plants in Canada and moving production overseas in order to avoid paying union wages to Canadian workers. The threat of "run-away shops" is often used by companies to keep their employees from unionizing.

Until recently, women's clerical jobs have been protected from this kind of relocation because of the immediate nature of the information clerical workers handle. But now, thanks to the new technology, companies can decentralize physically. Information can be rapidly transmitted via satellite computer links, making it unnecessary to have clerical workers all in the same place.

U.S. and Canadian businesses are beginning to take advantage of an available supply of cheap, educated, English-speaking labour in the West Indies. The result is that women are being paid less than our minimum wage to process text and enter data that will be used by companies back here in Canada.

Of course, not all clerical work can or will be moved overseas. The potential to have clerical work done at a distance from administrative functions means not only that jobs can be moved to the third world but that other changes will take place closer to home.

Not just closer to home . . . at home!

Electronic Homeworking: Bring It All Back Home

Some banks and insurance companies have started experimenting with another way of cost-cutting that takes advantage of telecommunications technology. Terminals are placed in the homes of clerical workers and linked to the company's main computers. The women work at home, doing routine processing tasks that typically involved keying data into the computer memory.

Business magazines discuss working at home (or "telecommuting") in glowing terms. They describe professionals, executives, and clerical workers benefitting from the opportunity to do some of their work at home, in relaxed surroundings but directly in touch with the office through their computer terminals. No problems with transportation or maintaining a work wardrobe — and for women it's billed as the ideal solution if you have to look after children, sick or elderly relatives.

But there are quite major differences between executives, self-employed professionals and clerical workers that make electronic work at home a very different prospect for each.

For the most part, clerical workers are women, and executives tend to be men. And because men and women usually have different relationships to their homes and families, it follows that, whatever their job position, working at home will have different consequences.

Women usually have the responsibility for cooking, cleaning, and caring for children — so a woman working at home would be expected to get all those things done, and (particularly in the case of childcare) often at the same time as she is sitting at her terminal. Whereas a man working at home rarely has to mind

the children at the same time as working, and might possibly have a wife at home to bring him his meals while he works, keep the house clean, and answer the phone when it rings. For him, working at home might well be relaxing and productive.

The other main difference is economic. Executives and professionals earn more than clerical workers. A female professional could work at home and hire someone to look after her children and clean her house, putting her roughly in the same position as a male professional with a wife. But if you are a clerical worker working at home, it would probably take more than you earn to hire someone to do what you do for free at the same time.

Clerical electronic homeworking is usually paid at piece-work wages based on the amount of forms processed. There are usually no benefits, pension plans, vacation days or sick leave. You must work steadily at the terminal, with as few breaks as possible, if you are to earn enough money to make it worthwhile. You

are not protected by any occupational safety and health guidelines. And you work in isolation, without the social contact of co-workers.

> *There is no government control over homework. Is it possible? We get no benefits. I pay the income tax, but I get no benefits. I asked the employer to pay the Canada Pension Plan. He said, "I don't want to be bothered with that, it's your problem." Sometimes, when I am working by myself, I think about the fact that I am getting older and older, and that when I get old, I will have no pension. It is unfair not to give us the same benefits as the women in the factory.* *Homeworker, Toronto*

Some women may find that electronic homeworking suits them. However most women will take this work because they are unable to leave their homes for an outside job. They may need to provide full-time care for children or relatives, they may have a personal disability, or there may be no available transportation. But is this the best solution to these problems?

When social services are cutback or nonexistent, women always take up the slack, stepping in to provide the care and services that society needs but doesn't pay for. The answer to the problem of lack of day care isn't new ways for women to work at home, but free available daycare for those who need or want it. The answer to the employment needs of the disabled isn't isolating homework, it's better services and facilities so that the disabled can take jobs and participate more fully in the community.

Electronic homeworking has captured the imagination of business and government planners. It is up to us to be clear and outspoken that it is *not* a solution to our employment problems, although it may be useful as an *option.*

C. Friere

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Now the Chips are Down (50 minutes, 16 mm)
BBC, Manulife Centre, 55 Bloor St. W., Suite 1220, Toronto M4W 1A5, Ontario

British Broadcasting Corporation (1980)
And What of the Future (40 minutes, 16 mm or ¾ video)
BBC, Manulife Centre, 55 Bloor St. W., Toronto M4W 1A5, Ontario

Canadian Labour Congress, Labour Education Studies Centre (1983)
Microelectronics Revolution: Ready or Not! (20 minutes, ¾" video)
Canadian Labour Congress, 2841 Riverside Drive, Ottawa, Ontario K1V 8X7

Education Media (1982)
The New Technology: Whose Progress? (35 minutes, 16 mm)
Available at the Development Education Centre, 229 College St., Toronto, Ontario. M5T 1R4

Participatory Research Group (1985)
Who's in Control? Microtechnology and Women's Work (30 minutes, slide tape)
Participatory Research Group, 229 College St., Suite 309, Toronto, Ontario M5T 1R4

Sky Works (1982)
Good Monday Morning (30 minutes, 16 mm)
Sky Works, 566 Palmerston Avenue, Toronto, Ontario

Employment counselling and information

Provincial labour federations should be able to provide material on microtechnology and its impact on jobs in each province, as well as names of groups working actively on the issues covered in this booklet.

Times Change Women's Employment Service, 22 Davisville Ave., Toronto (416) 487-2807

Women's Bureau, Ministry of Labour (416) 965-1537

Occupational Health and Safety Division, Ministry of Labour (416) 965-4125

Bookstores where the above books and pamphlets can be found

Development Education Centre, 229 College St., Toronto, Ontario M5T 1R4. 597-0328

Toronto Women's Bookstore, 73 Harbord St., Toronto. 922-8744

To subscribe to PRG's newsletter or to find out about other publications and resources available through our office, please write: PRG, 229 College Street, Suite 309, Toronto, Ontario M5T 1R4.