WOMEN, WORK AND TECHNOLOGICAL CHANGE

Technological change is occurring with dizzying rapidity in many
different occupations.   The speed of these developments and their
implications for employment and the work process pose a significant
challenge for workers and their trade unions.   When faced with the
intricacies of computerization most people would join Queen Juliana of
the Netherlands when she said: *"I can't understand it.   I can't even
understand the people who can understand it."*[1]

Lack of information about technological developments - let alone con-
sultation as to their introduction - has left many unions in the position
of having to react to changes as they occur.   The difficulties are
increased when one considers that these changes are planned for years
before they take place but that unions are rarely able to play any part
in the decision-making process.

HOW DOES TECHNOLOGICAL CHANGE MOST AFFECT WOMEN?

Women are concentrated in a far narrower spectrum of occupations than
are men.   While 32.6 per cent of male workers are employed in wholesale
and retail trade, finance, insurance, real estate and community services,
almost twice the proportion of female workers (58.4 per cent) are employed
in these areas.[2]

One third of all women workers are employed in sales, clerical or keyboard
occupations.   These positions are all heavily dominated by women and
some (eg typist, keypunch operator, telephonist) are filled almost wholly
by women.   Women's work in general is concentrated in the less skilled
and lowest-paid areas of the workforce.   Their jobs are likely to be
fragmented, monotonous and with little opportunity for advancement.
This is true for many industries in which women are employed and is
particularly apparent in the "white-collar" sector.

Clerical work was once a semi-managerial occupation offering excellent
opportunities for advancement in the business world.   Clerks were
involved in the entire process of business management and were able to
gain an understanding of the running of the enterprise.   With the
dramatic increase in the size of the clerical sector large offices have
come to resemble paper-processing factories.   This process has been
accelerated by the use of computers in a wide range of commercial,
financial, retail and communications enterprises.

COMPUTERIZATION

Computerization is the single most significant development producing
drastic changes in the work of hundreds of thousands of employees.
In 1957 the Director-General of the International Labour Office predicted
that: *" . . according to many observers, the short-term impact of
automation and analagous developments may be greater on white-collar
employment than on manufacturing employment."*[3]

Some major effects of computerization are:

1. Job Fragmentation

Although secretarial work has never offered much in the way of pay
or promotional opportunities for women, it can be a varied and even
interesting job.   Reception, stenography, typing, record-keeping,
filing, accounts, making arrangements for travel and meetings are all
part of a secretary's job and allow her some responsibility and autonomy.

The introduction of sophisticated and costly machinery, however, leads employers to view clerical work in a different light.   A clear analogy can be drawn with factory work.   In both cases greater investment in fixed capital impels employers to get the maximum usage out of the machines.   One way of achieving this is to exert rigid discipline over workers by measuring output, controlling time away from the machines and so on.   In factories this is done with moving process lines, bonus systems and time-and-motion studies.   In offices human contact is reduced to a minimum by the establishment of pools where typists can be closely supervised.   The introduction of dictaphones minimizes contact between employer and secretary and reduces the role of secretary to that of routine typist.   Filing and copying systems are centralized so that some people are performing these routine, deadening tasks all day every day, thus making it easier to control and measure each worker's output.

2.   Increased Monotony

While computerization is often hailed as a liberator for office staff in that boring jobs are automated, in fact it most often operates to turn workers into slaves of a machine.   Keypunch operators doing electronic data-operating are tied, 40 hours a week, to a machine punching cards.   Unlike ordinary typists, they cannot even understand the symbols they are punching out.

As Braverman points out, " . . a variety of other machines and systems are applied to other work processes not within the immediate orbit of the computer.   For example, file clerks serve elaborate and semi-automatic machine systems which eliminate the need to know the sequence of the alphabet or even the sequence of numbers.   Everything is eliminated but the task of placing under the photographic apparatus of the machine one document after another.

"Typists, mail-sorters, telephone-operators, stock clerks, receptionists, payroll and timekeeping clerks, shipping and receiving clerks are sub-jected to routines more or less mechanized according to current possibilities, that strip them of their former grasp of even a limited amount of office information, divest them of the need or ability to understand or decide and make of them so many mechanical eyes, fingers and voices where functioning is, insofar as possible, predetermined by both rules and machinery."(4)

3.   Reduced Employment

It has been estimated by one public service union that word-processing machines could cut staff levels amongst typists by up to 50 per cent. A major insurance company claimed, in its annual report, that staff levels had been cut by 21.7 per cent over an 18-months period as a result of automation.

The introduction of Electronic Funds Transfer equipment ("automatic tellers") into banks and retail stores will have drastic effects on employment, eliminating the need for counter staff altogether.

Computerization of telecommunications, with extended direct subscriber dialling for international calls and automatic directory assistance, will, according to the Australian Telecommunications Employees' Association, "virtually destroy the telephonist as an identifiable work group".

It must be borne in mind that this technology will be introduced gradually and may not result in actual retrenchments.   Employment will be allowed to reduce by natural wastage, which will have catastrophic consequences for young people who are presently at school.

4. Reduction of Skills

Over sixtyfive per cent of unemployed females under the age of 21 are currently seeking work in the clerical/administrative sector. One consequence of automation is to create jobs which require the minimum of skill or training. An examination of the computer industry shows increasing concentration of employees (mostly women) into the low-skilled areas with no opportunity to learn or advance.

Braverman quotes one study which concludes:

"Whereas messengers are frequently promoted to file clerks, file clerks to typists and typists to stenographers, keypunch operators tend to remain keypunch operators."(5)

Describing the growth of the industry, he states:

"It soon became characteristic that entry into the higher jobs was at the highest level of the hierarchy rather than through an all-round training. And the concentration of knowledge and control in a very small portion of the hierarchy became the key here, as with the automatic machines in the factory, to control over the process."(6)

The trend in large stores towards eliminating counter staff in favour of supermarket-style checkouts has made it possible to hire a greater proportion of unskilled junior employees. With no opportunity to learn about merchandise, selling or customer relations there is nowhere for these people to advance.

5. Working Conditions

The human relationships once thought to be characteristic of white-collar jobs are being progressively cut out. Sales staff relate to customers only in queues at the checkout counter. They are no longer able to advise and discuss purchases. Each sales assistant is isolated in her little cage, unable even to talk to her fellow workers. The same is true of "data factories" where industrial management techniques are employed.

"The factory atmosphere is unmistakably present. Not only are the office machine operators often required to punch a time clock but they are not permitted to converse while at work. They are subject to dismissal with as little notice as a week or at most a month. There are few distinguishing marks between the employee in the electronic office and the factory worker in light manufacturing."(7)

6. Health

Forced to sit at a machine all day, typists and keypunch operators face an increased probability of developing backaches and muscle strain. The noise level in a large typing pool or EDP area is high enough to cause headaches and perhaps damage to hearing.

The practice of having one person taking charge of all photocopying and thus exposed to bright lights and chemicals for long periods can cause headaches, eye-strain and dermatitis. Eyestrain is also a problem associated with the increasing use of visual display units in type-setting, word-processing and telecommunications.

The Australian Telephone and Phonogram Officers' Association, which covers telephonists, has pointed out that not only do computers *"create undemanding unrewarding work"* but that new buildings designed to house them are windowless, with airconditioning geared to the requirements of the computer - not the workers. In short *"computers require better conditions than human beings have been forced to put up with in the past."(8)*

Computerization, with workers becoming more like cogs in the production machine, has led to the introduction of shiftwork into EDP and other computer areas. The adverse effects of rotating shiftwork on the health, family and social life of workers have been well documented. [9]

UNION STRATEGIES IN THE FACE OF CHANGE

As computerization and automation impose vast changes on workers' lives it becomes imperative that this process be understood by unions. First they must find out just what is happening and, secondly, they must develop strategies to protect the rights of workers against the rule of machines.

Possible strategies and policies could include:

(1)   Research into technological development with particular emphasis on the effects of new work processes on workers.

(2)   Demand for union role in decision-making regarding the introduction of new technology.

(3)   Opposition to any retrenchment resulting from technological change.

(4)   Demand that workers share in the benefits of automation and higher production through a shorter working week and voluntary early retirement.

(5)   Pressure on government and employers to provide job training and alternative employment for those who will, in the future, be denied jobs because of technological change.

REFERENCES

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(4)   Braverman, H. Labor and Monopoly Capital. Monthly Review Press. 1974.

(5)   Ibid

(6)   Ibid

(7)   Ibid

(8)   Telephone Echo. Journal of The Australian Telephone & Phonogram Officers' Association. Vol.4 No.3. Aug. 1977.

(9)   Discussion Paper No. 12 - Women and Shiftwork. Working Women's Centre.