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Union Educational Strategies for Employment and
Industrial Democracy

Karen Fish

A Thesis
in
The Department
of
Education

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for the Degree of Master of Arts at
Concordia University
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ABSTRACT

Union Educational Strategies for Employment and Industrial Democracy

Karen Fish

This research investigates the thesis that unions can provide a valuable service to their members by expanding their educational role into the area of skills training. It explores current trends in job skill requirements in the telephone industry (Bell Canada, BC Tel and AT&T) and assesses these trends in light of the general impacts of introducing automated systems into the workplace.

The research includes a description of the training and job reorganization initiatives of three unions (Telecommunication Workers Union, Communication Workers of Canada and the Communication Workers of America) in response to technological change. The evidence presented suggests that union involvement in skills training without concurrent changes in the organization of work, has not ultimately served the interests of workers. The union strategies presented in the conclusion attempt to combine the goals of greater worker control of technology and skills training for long-term employment security.

Dedication

To the memory of my father and the inspiration of his
curiosity.

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CHAPTER ONE

RATIONALE: AUTOMATION AND THE CHANGING LABOUR MARKET

The Environment of Labour-Saving Technology

It is a commonly held belief that high technology will dominate North America's economic future, will upgrade the skill requirements of future jobs and will require a transformation of our educational system to meet these needs.

It is also commonly held that technology is neutral; the byproduct of our irrepressible urge to create and improve. While some may acknowledge the harm that technology has created, the prevailing ethos of our day is,

it might be good, it might be bad. But more to the point, in the spirit of the marriage vow, we have no choice. The Post Industrial Society, whatever it means, is something we must accept -- through thick and thin, for better or worse (Mosco, 1982, p. 6).

The industrial system that has ruled the world for the past 300 years has used automation to increase the quantity of production rather than find radically new ways to do things. The operating motive of every large corporation is profit, a motive that encourages the drive to divide and rationalize work processes and centralize control. Industry

has sought technologies that maximize outputs and minimize inputs and that give the best return on purchased labour power (Edwards, 1979, p. 112).

Over the past three decades, the industrial base has shifted rapidly from goods production to services and communications. In 1950, 60% of the American workforce was involved in basic goods production; by 1983 that number was less than 25% (Globe and Mail, 1983, p. 2). Researchers predict that given today's technology, as few as 9% of the workforce could produce all the necessary manufacturing and industrial goods for a developing nation (Geldens, 1984, p. 20). This means that the bulk of our still expanding workforce will be working in the service sector.

One of the fastest growing service areas is telecommunications. This industry illustrates the application of technology to replace human brain power as it replaced our muscle power a century ago. The industry has undergone a fundamental change in the last ten to fifteen years with a massive reduction in the number of employees and a corresponding increase in the output per worker (Moore & Levie, 1981). Employment levels in the telecommunications industry throughout the world have stagnated since the early 1970's with job losses most notable in the U.S. (net decline of 17,000 jobs), Australia (net loss of 10,000 jobs), and Canada (net loss of 6,300 jobs) (OECD, 1983, p. 27). Despite continued economic growth in this industry, it is unlikely to produce employment growth in the near future. Even if job loss and job creation balance out in the long term, many of the workers who lose

their jobs will not be qualified for the new positions. As Noble Prize winning economist Wassily Leontief reportedly said, "The workers displaced by robots have as much chance of building robots as horses did in building cars" (Menzies, 1984).

The technological imperative that creates these new work environments is informed by a powerful belief system about human nature. Most of us are raised to see the world as populated by two different kinds of people -- those who want and can handle responsibility and those who don't and can't (Wilson & Nichol, 1977, p. 83). Those who "can" become managers, while those who "can't" accept the decisions of their betters without question. The wall that divides workers and managers is constructed of tenaciously held beliefs in the inviolate right of an elite to make the major decisions effecting working life. The choice of a technology and the way work is organized around it are claimed as management prerogatives even though these choices have a profound effect on all of us.

The Impact of Automation on Jobs

There is neither unanimity about nor unreserved support for the idea that skill requirements will go up but by and large the hope persists that the economy of the future will provide jobs for the qualified and the competent. (Hoos, 1969, p. 103)

For the past two decades, Canadian employers have per-

sistently complained of a shortage of skilled labour. A 1981 survey of 154 firms revealed a three-year history of shortages in skilled trades, engineering, computer science, management and accounting (Clifford, 1981, p. 46). Reported skill shortages sent policy makers scurrying to change our educational system to produce highly qualified workers for a high-technology future (Levin & Rumberger, 1983b).

Levin and Rumberger (1983b) have collected substantial evidence showing that these persistent calls for skilled labour reflect a very small percentage of the developing labour market. Their 1983 survey statistics indicate that expansion of the lowest skilled jobs in the U.S. economy will vastly outstrip the growth of high technology ones; and that the proliferation of high technology industries and their products is far more likely to reduce the skill requirement of jobs than to upgrade them. According to U.S. Labor Bureau statistics, not one of the 20 occupations expected to generate the most jobs between 1978 and 1990 is related to high technology. On the contrary, the high job-yielding categories are in the low skilled areas of janitors, nurses aides, sales clerks, cashiers and waitresses. Only 3 or 4 of the "top 20" occupations require education beyond the secondary level and only two, teaching and nursing, require a college degree. Although high technology jobs will show the highest relative rate of growth, as a group they will account for only 7% of all jobs created between 1980 and 1990.

The findings of a 1982 survey of 104 Canadian companies provides evidence for a "deskilled" future from another

ange. Only 18% of the 25,000 employees covered in the survey required an increase in technical knowledge as a result of the introduction of new technology (Peitchinis, 1980). Westley and Westley (1971) also cite studies indicating that while workers experience an increase in skill requirements during the introductory phase of a new technology, the integration stage tends to reduce skill requirements for all but a few positions. "The production workers' jobs require progressively less dexterity, less knowledge of art or theory, less experience, less physical effort, less judgement and less decision-making" (Westley, p. 45). Computers have, almost without exception, fragmented jobs and reduced worker's autonomy (Cherns, 1980).

Deskilling

The research just cited supports the unpopular claim that new technology is deskilling many jobs. Deskilling results from both the way new equipment is designed and the manner in which it is introduced. The design of most modern automated systems still follows principles laid down by Frederick Taylor at the turn of the century. Taylor's pioneering work in time-motion study was aimed at separating out conceptual and manual components of a work process so that all "mental" or discretionary work could be removed from the shop floor and vested in engineers and managers. This "scientific management" approach, which involves the dissection of jobs into tiny parts that can be closely monitored and paced at a constant rate, has been the classic foundation for organizing work in this century (Rosenbaum &

Dresner, 1979, p. 67).

Taylor's theories assume that workers shun responsibility, seek few rewards other than money, and, like machines, are more efficient if unhampered by decision-making. Each worker is assigned a small piece of a large process and is given little understanding of, or relation to, the process as a whole. Braverman (1974) argued in his controversial work Labour and Monopoly Capitalism, that the implementation of scientific management in industry has made deskilling and degradation the goals of automation, not just the unfortunate side-effects.

Automation absorbs both the routine and regulatory activities of a job, and therefore much of the traditionally valued knowledge and experience of the worker (Taylor, 1979). While control is in the hands of the individual, skill and judgement are premium characteristics, but as the machine takes over its own guidance, the skill requirements of the operator diminish. Often the job elements removed from the employee are those that bestowed interest and dignity in the work. The remaining job is highly specialized, repetitive and isolated with little feedback. The reduction in skill requirements often results in a loss of motivation, status and self-esteem, while the routine and often remote performance measurement systems create resentment and excessive pressure (Walton, 1982). The resulting high turnover rates are no longer a major disincentive for the employer, however, since the jobs require few skills and minimal training (Crompton & Reid, 1982).

Over time, automation creates a large skill gap between workers at the bottom of the job hierarchy and those in controlling positions, making it difficult, and often impossible, for the unskilled to move up a progression of jobs. With the collapse of skill differentials, few clerical workers have the opportunity to develop skills on the job that would qualify them for better positions in new settings. When the "mechanical" jobs at the bottom of the hierarchy are eventually absorbed by machine the displaced and deskilled workers are left with few employment options. In the words of an affected worker:

Having devoted time to becoming proficient in one's work, it can't help to have a demoralizing effect to know that job opportunities are shrinking. To know that one's craft is becoming unrecognizable through technological change. To feel that unsettling effect of knowing that you may be next on the lay-off list. Such concerns often breed 'back to the wall' bargaining and a contempt for the workplace. (Pietchinis, 1980, p. 12)

When work offers no sense of identity or vocation, labour becomes a commodity, something to be sold for as high a price as can be obtained. Unions demand increased wages to offset dreary jobs and industry sees the demands as an incentive to automate (Handy, 1982, p. 195).

Job Stress

In addition to the monotony of many automated jobs, the

new processes often require a faster and more constant pace of work. A number of studies show that fractionated work performed at a high-speed produces considerable mental strain and stress (Tchobanian, 1982) and that job stress and illness are highly correlated (Phillips, 1984). Stress has been attributed to reduced performance and productivity, high turnover, absenteeism, pilferage and sabotage -- all extremely costly for the employer. In Canada absenteeism is estimated at 83 million work days per year (The Social Science Federation, 1984).

Worker Attitudes and Expectations

Ironically, the gradual impoverishment of jobs has been accompanied by an increasingly educated work force, a factor which may be the biggest threat to our current work systems. Even if today's automated factory or office job is no more distasteful than its pre-computer counterpart, workers are showing an increasing unwillingness to do these routine jobs.

Beginning in the 1970's, researchers noticed a significant change in worker values, attitudes and expectations (Phillips, 1984). The most notable shift is the movement away from self-denial (the suffering of work to be repaid in another life) to self-gratification. The new, better educated breed of worker wants rewards now and is more likely to expect to be part of decisions that will effect his or her personal, social or work life.

Tchobanian (1982, p. 195) argues that the present reluctance of American workers to accept industrial jobs is

characterised by three features:

- i) the higher educational standards of workers which do not correspond with many of the jobs available;
- ii) higher standards of living which have shifted worker aspirations up Maslow's hierarchy of needs; and
- iii) the dissonance between the freedom of non-working life and the stratified and authoritarian organization of many workplaces.

Whereas workers once accepted, expected and even demanded uniform treatment, authority and synchronization, more and more of today's workers are demanding "challenge", "meaning" and "participation" in their work (Toffler, 1983, p. 31).

The Corporate Training Response

The low skill jobs created by automation present a problem for the employer not so much of training but of recruiting and maintaining literate, entry-level workers with minimal job aspirations. A large percentage of these newly rationalized jobs require little training although large numbers of employees are often affected. Generally, industry bases its training programs on highly definitive job descriptions -- train them in only what they need to know to do their job. In this way the employer guarantees that training expenditures are primarily instruments for strengthening the utility of workers within the enterprise. Also, if the job is tailored to a specific company's needs, the employer reduces the risk of losing an employee to

another company or industry since his or her skills are not easily transferable.

Further up the job hierarchy, micro-electronic systems create highly skilled and para-professional positions, positions that are predicted to account for only a small percentage of job growth in this decade. A company can choose to promote its own employees or to recruit from universities or technical schools, but in either case extensive company training is required. Although telephone companies once provided extensive professional training for its employees, a practice which helped earn them their paternalistic reputations, in recent years the practice has been to hire university or college graduates from outside, rather than promote and train an employee.

Management attitudes are changing. In a recent speech, the director of human resource planning for Merck & Co., an American pharmaceutical company listed as one of the most innovative Fortune 500 companies in terms of its personnel policies, argued that human resource planning in the 1980's will have to address (Phillipps, 1984):

- the need for career development programs for entry-level workers in order to attract and hold a limited supply of technical and non-technical young workers;
- the need for training and education programs to help employees understand the necessity of automation and to help alleviate stress, fear and frustration that can impede productivity;
- the positive impact of employee involvement in company

decision-making on productivity and corporate loyalty;
and

- job organizational redesign to provide the better-educated, self-affirming employee with greater flexibility and challenge and to counter the perceived dehumanizing affects of automation.

The Trade Union Training Response.

Trade unions grew out of the mass production industrial age. The entire structure and style of trade unions was a belated reaction to, and reflection of, corporate power.

The spread of mass manufacturing...created the need for mass labour organizations, based, like the products themselves...on a uniform product, uniform pay scales, uniform fringe benefits and uniform working conditions. (Toffler, 1983, p. 30).

Technological change is neither a novelty nor an unqualified evil for unions. North American unions arose from the struggle of workers to share in the benefits and protect themselves from the abuses of technological change. For the most part, organized labour has welcomed the introduction of new systems and, like other sectors of the economy, has taken comfort in long-term projections that technology, by mechanizing heavy routine tasks, will create a demand for a better-educated, better-paid workforce (Hoos, 1969, p. 105).

Peitchinis (1980) found that the majority of Canadian union

members accepted or even encouraged the introduction of new technology; 51% welcomed change and encouraged its introduction, 24% were acceptant, and only 25% demonstrated any opposition. Although there is likely greater technological cynicism today, as little as four years ago, most unionists were acceptant of the benevolence of "technological progress".

The labour movement's friendly attitude results from a number of social and psychological factors, some of which have been noted earlier. The result has been that:

the most successful trade union efforts have sometimes delayed new technology and obtained job protection, with attractive buy-out clauses for existing members, but nothing more. Indeed, given the pressures of domestic and internationally competitive markets, localized worker struggles resisting new technology are more likely to lead to union busting or plant closings than they are to preservation of worker skills or modified job control (Zimbalist, 1979, p. xiv).

The labour union movement has had little impact on the introduction of technology in the workplace -- neither in holding it back or in deliberately under-utilizing it to minimize its impact (Peitchinis, 1988, p. 6). Nor has it been successful in providing employment security for its members. Given this record, the role of the union in the 1980's is under serious scrutiny, both from within and without. Moore and Levie (1981) argue that in the face of

enormous changes in the telephone industry, union energy should be directed toward developing a capability to foresee the changes rather than toward developing new technological change clauses. One major opening for unions, they suggest, is in the development and delivery of worker training.

For the most part, unions today concentrate their training efforts in the area of unionism. Many unions have chosen, on ideological grounds, not to get involved in job-related skills training. The result has been that "neither at the local nor at the national level have...unions been able to impinge successfully on employers' rights to manage industrial training....The content of training has essentially been fixed by the immediate production needs of individual firms," (Lee, 1982, p. 159). The union's emphasis on developing bargaining and grievance skills has not produced a membership that can easily fill the role of partners with management in designing and managing new work structures and power-sharing arrangements. Presented with management innovations in technology or personnel policy, many unions find they have neither the knowledge nor the skills to propose conditions under which they will or will not participate. They can only accept outright or reject the change.

CHAPTER TWO

THESIS AND METHODOLOGY

My thesis deals with union involvement in worker education for a high technology workplace. The purpose of this research is to describe some of the technological changes that have taken place in the telephone industry, and how the educational priorities of unions are shifting in response to these changes. Specifically, my thesis is:

- 1) that unions can protect the interests of workers affected by technological change by expanding their involvement in worker education. This expanded educational role goes beyond traditional union-sponsored training in bargaining and grievance procedures to include job related skill development, generic skill development, career planning, and/or basic technological and economic literacy;
- 2) that the realization of such a role will involve consultation and co-operation with management; and
- 3) that the experience of several telecommunications sector unions which have developed, in partnership with management, expanded educational and career development programs, provide sufficient information upon which to build a decision/strategy model that would assist other unions in planning, organizing and implementing jointly-managed educational programs for workers. The model was originally visualized as a type of pay-off

matrix that would weigh the effectiveness of specific strategies under a range of conditions. The task of building such a model has proven to be too large within the scope of this research. Instead, I selected a preferred approach to worker training and education, and then recommended strategies that would lead towards the creation of such a system.

This research concentrated on the educational initiatives of three labour unions operating in the telecommunications sector: the Communications Workers of America (CWA), the Telecommunications Workers' Union (TWU) and the Communications Workers of Canada (CWC). The educational initiatives of other unions are also discussed, but in much less depth.

The investigation was not based on a single methodological approach, but drew upon a number of research tools used in the social sciences. In recent years, critiques of empirical-analytical research methods have led to a renewed interest in 'qualitative' modes of analysis. Ethnographic and ethnomethodological research methods, once reserved for anthropologists, are increasingly being used in the field of education (Popkewitz, 1984, p. 87). In broad terms, the research methods used in this thesis are analytical descriptive research, with a case study orientation.

The investigation of activities within the TWU, the CWC and the CWA are case studies in a broad sense of the term. In an investigation of research methodologies applied in automation studies, the ILO (1964) makes a distinction between case studies that involve an intensive investigation of a total situation, and case studies that concentrate on

one or two features or problems of a particular organization or group of people. The ILO suggests that case studies in the field of automation usually follow the latter, more focussed, approach.

The case studies presented here provide information on a particular set of problems and clarify questions which might merit further investigation. Therefore, the approach could be called problem analysis. Because of the rapid acceleration in the introduction of automated systems, unions are being forced to question some of their basic premises and strategies. This type of problem analysis is an important starting point in the process of developing effective strategies based on a sound understanding of the environment of automation. For the purposes of this research, the value of the case study, with its emphasis on naturalistic observation and study of individual instances in some depth, is its utility in developing insights and indentifying problems for further investigation.

The analysis has necessarily been qualitative since the problems could only be studied descriptively within their day-to-day context. The analysis is dependent on the researcher's point of view and expectations. It is impossible, using these research methods, to have it otherwise.

Since this research is based on relatively superficial contact with the three unions, there has been no attempt to establish causal relationships between any of the factors involved. A collection of independent case studies, such as this one, cannot reveal underlying trends or enable firm

causal relationships (ILO, 1964, p. 43). This research does not probe the attitudes, politics and reasons underlying the situation observed, but rather presents a synthesis of information drawn from a variety of sources. By providing concrete information within a context, and by directing attention to the ways in which problems have been and could be solved, this research is intended to provide unions with food for thought and arguments to support a reaffirmation or redirection of their educational efforts.

Smith (1974) writes:

Case studies have a quality of undeniability. That is, someone is actually doing something; it is not hypothetical. As such case studies accumulate, in varying settings and with varying support, personnel and rationale, it becomes difficult to excuse one's own inaction. It forces one to back off from his rationalisations and to confront the basic choices and values underlying his decisions... (p. 7)

The three main research methods used were: 1) analysis of personal and published documents 2) intensive, open-ended interviews with key individuals, and 3) data synthesis.

1. Personal and published documents: As a first step, and as an essential part of all subsequent steps, I reviewed the relevant literature in the areas of labour-management relations, labour history and structure, skills training, and retraining, paid educational leave, developments in the telecommunications industry, diffusion of innovation in the work-

place, quality of working life and labour market predictions. While this review was highly selective, a basic knowledge of each of these areas was necessary to formulate the research questions, to put personal materials into a theoretical perspective and to analyse the collective experience of several unions. I also collected, synthesized and analysed personal documents such as in-house memos, unpublished research papers, and proceeding of conventions. In some cases, these documents were sent by people whom I interviewed; in other cases documents were solicited directly by mail or telephone.

2) Intensive, open-ended interviews: Since much of the information did not exist in secondary sources, it was necessary to go to primary sources. This method was perhaps the most important information gathering step of the investigation. I conducted what sociologists call elite interviews, or interviews that seek to understand a series of events as seen through the eyes of the main actors. In this approach to collecting information, a representative sample of the population is not sought. Rather, the goal is to obtain sworn testimony from as much of a particular population as can be reached (Feldman, 1981). In this case, the main actors were largely union officials and members as well as scholars and researchers who have been involved in labour-management initiatives of this type. Only two company labour relations people were interviewed because it became apparent that the choices available to unions were most dependent on union perceptions of the labour-management climate. In addition, within the limits of this research I could not do

justice to both labour and management perspectives. This research is therefore an analysis of union responses and union perceptions of their educational role in relation to new technology.

The purpose of the interviews was to gather information about the values, perceptions, priorities and intentions of some of the main actors. The interviews provided information about the chronology and setting of decisions taken, about the factors that encouraged or discouraged union involvement, about the effects of each decision on the environment, about the present status of existing programs and about personal assessments of the success of specific initiatives.

Interviews were largely conducted by telephone, although most informants who work within the vicinity of Montreal were interviewed in person. The telephone interviews were tape recorded, while detailed notes were kept of the face-to-face interviews. Although the interviews were guided by a pre-organized series of questions, it is the nature of this type of interviewing, and essential to gathering individual perceptions, that the interviewee be free to stray from the primary line of questioning. Each interview was influenced by the one preceding it, since new information was gained during each discussion and often this information enriched the line of questioning for the subsequent person. Also, it became more and more apparent throughout the interviewing process that the mental agendas of respondents influenced the kinds of questions they were able or prepared to answer. All

interviews were transcribed so that the information could be synthesized with that from secondary sources. Interviewees were told that their names would be kept confidential.

3) Data synthesis

The synthesis stage of this research was a process of analysing the interview and documented data to identify common themes and ideas and the evidence that supported or contradicted each. Although it is impossible to prove a thesis with this type of qualitative data, it is possible to demonstrate the plausibility of certain approaches. Information collected through interviews and document searches was filed under various topic headings. A card file was used to keep track of cross references. The data in each subject category was then sifted for evidence that supported or contradicted the theses of this research.

CHAPTER THREE

TECHNOLOGICAL CHANGE IN THE TELEPHONE INDUSTRY

The International Context

The technological changes experienced by workers at BC Tel, Bell Canada and the American Bell operating companies need to be seen in the context of the telephone industry's involvement in the information economy. It was Bell Laboratories in the U.S. that created the transistor in 1948, leading the way for extensive telephone industry involvement in the development and application of solid state semiconductor technology (Bernard, 1982, p. 152). Telephone companies have also been in the forefront of the convergence between telephone and computer technology which allows for high-speed communication between electronic office systems. This area of data transmission is the fastest growing market within the information sector (Mosco, 1982, p. 40), and a wide range of actors are getting involved. IBM's joint venture with Comsat and Aetna Insurance in creating Satellite Business Systems (SBS) is a case in point. SBS is a business data and voice communication system that links computerized office communications systems directly by satellite, bypassing the AT&T terrestrial telephone network. Companies such as SBS promise to cut heavily into Bell revenues in business data communications (Mosco, 1982, p. 40).

In the face of such stiff competition, it is not sur-

)
prising that telephone companies are redoubling their efforts to reduce labour costs, increase productivity and tighten their control over the workforce. A recent Bell Northwestern advertisement reads,

Through reorganization, advanced technology and our own hard work, we have reduced our total work force by a third since 1981. Start thinking of us as a growth company. (Orwellian Newspeak, 1984)

The United States and Canada are touted to have the best telecommunications service in the world. Our telecommunications industry also has the highest degree of integration of manufacturing, research and development and operations (CNCP, 1970, p. 11). For example, Bell Canada Enterprises (BCE), created in 1982, is the parent company for Bell Canada (telephone service), Northern Telecom (research and manufacturing) and a group of manufacturing and resource companies. As a subsidiary of BCE, Bell Canada can apply to the Canadian Radio-television and Telecommunications Commission (CRTC) for telephone rate increases without having to account for profits in sales and manufacturing made by the parent or sister companies. The CRTC allows rate increases to cover capital investments in new technology, which are often purchased from a "family" company, all in the name of improved customer service (Gordon & Hansen, 1983, p. 65). The CRTC is only concerned with quality of service and rates and consistently steers away from disputes concerning labour relations (CWC, 1983b).

The preceding paragraphs describe only a fragment of

the environment of corporate moves and counter-moves in which unions like the TWU and CWC are being told they must sacrifice jobs for the sake of economic competitiveness. It is in this context that workers who lose their livelihood console themselves with the belief that their personal loss is at least contributing to economic gains on a national level (Noble, 1984).

The Impact on Jobs in the Phone Company

Many of the technical details in the following description are drawn from a study conducted for the Telecommunications Workers Union (TWU) in the spring of 1983 by Rick Gordon and Ken Hansen, researchers at Simon Fraser University. The study, which involved interviews, analysis of documents and a questionnaire survey of workers, concentrated on the impact of technological change on workers in the Vernon area of BC Tel's operations. The story of technological change at BC Tel is indicative of developments in the telephone industry throughout North America, developments that are transforming the industry from telephone system builders to users of pre-assembled components (Gordon & Hansen, 1983, p. 2). Despite signs in many industries that the limitations of Taylorism have been reached, telephone companies are charging ahead with plans for work rationalization and greater control over a reduced workforce.

The following description is far from comprehensive. Its purpose is to illustrate the general impact of micro-

electronic systems on jobs in the telephone industry. The changes are described as they affect four major job categories in the company: service representatives, installation and repair workers, physical network workers and operators. The operator's job is described in greatest detail since it is the focus of union educational efforts described later.

Service Representative

Billing problems, management of customer records, and customer services of all kinds are handled within this area. This category includes the jobs of service representatives, business account representatives, Phone Mart sales people and the associated clerical support staff.

The service representative's job has been computerized, in stages, through the use of the Customer Records Information System (CRIS) and Service Order Update and Locate (SOUL). CRIS and SOUL connect reps, through their VDT's, to a central data bank. While in the initial two stages of its introduction, CRIS provided faster, more accurate information, leaving the rep's job functions basically intact, recent software additions are changing the very nature of the job.

Whereas in the past customer queries went from the service rep's typed notes to an assigning clerk, then to a facility man and on to the installation and repair dispatch office, the third phase in the introduction of CRIS will eliminate most of this paper process. For each customer call, VDT pages lead the service rep through a specific line of questioning that is under neither her control, nor the

customer's. Telephone system problem analysis, previously done by "test desk men", is now done by reps using mandatory "decision trees" (Gordon & Hasen, 1983, pp. 18-21). Any new information keyed into a customer's account automatically generates service order print-outs at terminals in all relevant departments. These terminals not only record the service needed but also adjust inventory and ordering records accordingly. Customers who arrive at a Phone Mart for service must pick up a telephone receiver to talk to a service rep in the next room. (This depersonalization of service could help minimize public resistance to the eventual centralization of services). Phone Mart service reps who do not use CRIS terminals must account for their productivity on daily time sheets; a disincentive for reps to get too "personal" and a source of automation data.

Automation has allowed the company to systematize the load of incoming calls in order to keep all service reps occupied on the telephone while on duty. As recently as six years ago, service reps were trained in several functions, such as job assignment, repairs, dispatch and distribution of orders; today they tend to specialize in just one or two components. In addition,

different types of service reps have different access to different levels of the system. This may well become the basis for further divisions of job functions, as well as for enhanced management control, since it is only management personnel who have access to the entire system. (Gordon & Hansen, 1983, p. 19)

Installation and Repair workers

Installation and Repair (I&R) workers are responsible for the physical installation and termination of phone connections. Dedicated phone jacks and the increasing number of privately owned terminals have substantially reduced the number of jobs available in this area. The remaining work has become more fragmented, with individuals working solely on prewiring or installations, for example. Splicing, probably the oldest craft in the business and once an intricate process of wrapping and soldering wires, has been replaced by specially designed sleeves and crimps (Bernard, 1982, p.156). Trouble-shooting and repairs are now reduced to replacing modules. A work measurement system based on "reasonable expectancies" (RE's) requires each I&R worker to perform 100 RE's per day and to report, in minute detail, the specifics of each job (Gordon & Hansen, 1983, p. 23). Qualities that once made this job attractive -- independence, group solidarity, and craft pride -- have been reduced significantly. Once the automated system is fully in place, home and office connections will be connected, disconnected and repaired electronically -- no "hardware" connections or I&R workers needed.

The effect of these changes on staffing requirements has already been felt. In October BC Tel served notice that over 300 craft employees would be reclassified into operator and clerical jobs.

Physical Network Workers

Workers in this group are responsible for maintaining the switches that connect area subscribers with interlocking parts of the telephone system. They connect cable pairs to wiring at the central office, trouble-shoot the network of toll routes, erect telephone poles, string cables, lay conduit and underground cables, and install new equipment. Aside from the clerical support team, these workers are mostly men.

Telephone users are linked to one another via large machines called "switches". The imminent introduction of a new generation of switch -- the GTD-5 or the #5 -- illustrates the comprehensive impact of a new technology. This switch is expected to improve the quality of the signal, the speed of connections and the availability of such services as call forwarding, conferencing and speed dialling. But it is the #5's ability to project its own growth needs and relay them to the manufacturing company which will have the biggest effect on jobs throughout the system.

The #5 switch will be monitored at a Regional Network Control Centre which oversees an entire regional network through a bank of VDT's and tens of thousands of alarm points. Alarms flash for doors left ajar or malfunctioning switches, and workers in the centre can call up more and more detailed displays on their VDT's in order to identify the precise location of the problem. The relatively time-consuming and skilled jobs of trouble shooting, analysis and repair will be almost eliminated by the #5 and the Regional

Network Control Centres. Since the new switches are snapped together using pre-assembled blocks, the skills of Central Office installers will be reduced to pulling and replacing circuit cards. Jobs such as traffic forecasting, equipment engineering and ordering will be made redundant. Once the system is fully operational, clerical workers will be able to fix many system faults while the customer waits on the line, and the central computer calculates a routing reconfiguration. The faulty part can be pulled some time later when a maintenance worker is on site. If maintenance is required immediately, the computerized "proximity personnel matrix" tells the dispatcher who to send. The company estimates that the 900 workers needed to install, patrol and repair the system's switches can be reduced by three-quarters (Gordon & Hansen, 1983, p. 14).

Operator Services

The principle entry-level job for women in the telephone industry has historically been that of operator. (Although there are male operators, the pronoun she in this section reflects the preponderance of women in this job.) In the early days of telephone service, a caller simply picked up her receiver and was connected to an operator who dialled the number. With the introduction of dial phones in the late 1950's, the scope of the operators' job was reduced to long distance, directory assistance, emergency calls and "intercept" calls. At first the elimination of operator functions was offset by the increase in demand but subsequent

technological innovations have reduced and could eventually eliminate operator jobs.

In the late 1970's, BC Tel, AT&T and Bell Canada introduced computerized long distance switch boards. At BC Tel and AT&T the technology in question is called TSPS (Traffic Service Position System), developed at AT&T's research branch, Bell Labs, and built by its manufacturing branch, Western Electric. Bell Canada developed and manufactured its own product, TOPS (Traffic Operator Position System) at Northern Telecom. This technology has had an enormous impact on the number of operators needed to run the system. Since 1969, the number of Bell Canada operators in Ontario and Quebec has been reduced by more than half, from 13,600 workers to 5,830 (1983). Operator numbers at BC Tel dropped from 1,321 in 1974 to 66 in 1980. Until recently, job losses have been by attrition; many offices have not hired new staff for four or five years (CWC, 1983a). In 1950, AT&T employed 250,000 operators out of a total work force of 560,000. In 1982, with calls up by a factor of 18, 114,800 operators were on the payroll out of a total of one million employees (CWA, 1984b).

TOPS and TSPS have radically changed the nature of the work for remaining workers. While the work of operators before TOPS was not glamorous, the old cord board system had a few humanizing touches. Operators sat side-by-side in front of a maze of lights and jacks. They wrote out tickets for each call and manually connected each customer. They could take up to ten calls at a time and yet were still able

to talk to their neighbors or help a co-worker who was swamped with calls (STCC, 1984a).

Today operators have virtually no control over the pace of their work and, while on duty, no contact with their co-workers. Seated at their individual TOPS terminals, operators are physically separated from one another by partitions that extend just above their heads. Customer calls are automatically routed to each operator at an average of 26 seconds per call and staff are added or removed from the system to maintain this constant pace. They no longer complete entire phone calls and their job involves few discretionary decisions. Memorized phrases and key board responses fit all cases except the occasional emergency.

In response to a 'beep' in her headphones and a series of letters and numbers that appear on her VDT, the operator responds with one of a few standard phrases such as "your number please", or "may I help you". "0+", for example, means the call was dialled direct but the caller wants operator assistance for billing purposes; "0+ TP" means a charge call from a pay phone; "0 4" is an overseas call that cannot be dialled direct, and so on. The operator uses dedicated keys to identify a credit card call (a special button verifies whether the number is good or not), bill to a third number, or class charges. She presses start time, releases the call from her position and waits a fraction of a second for the next beep. In the case of pay phone calls, the charge for three minutes comes up on the screen and the

operator presses a button so the company's accounting function can take over. If the call exceeds three minutes it will come up again as an operator beep, but it is unlikely to be the same operator, or even an operator in the same town. Operators in Ottawa and Cornwall, for example, all receive calls from the same pool. If an operator spends more than a set number of seconds dealing with a call she must fill out a form explaining why.

It is little wonder that this robot-like behavior gets the occasional "operator, are you a recording?" from a customer (CWC, 1983a). As an operator explains,

It's a sad state of affairs when your job doesn't incorporate anything that makes you feel like being there. The work is so mindless it's like being asleep. It takes over. It's like being programmed for a day.

The rationalization of operator's work has been taken to the extreme where separate offices, with their own specialized group of operators, work on directory assistance or hotel calls or special service and mobile calls. A TOPS operator passes specialty calls on to the appropriate office. For equipment complaints, the operator presses a "maintenance button", a number to identify the type of fault and the customer's telephone number and the call is transferred to the appropriate spot.

The efficiency of the TOPS and TSPS terminals is stunning. While a cord board operator could plug in and out of 250 calls per shift, the TOPS operator can handle 800 calls in the same period. The union estimates that this producti-

vity gain will allow the company to regain its investment in less than five years, if the present trend for rate increases continues (STCC, 1983).

The operator's work is constantly and remotely monitored by the computer. First-line supervisors watch for disturbances in the system on their VDT's. The Force Administration Data System (FADS) created and used by the American Bell System, provides supervisors with productivity ratings every 15 minutes. FADS monitors how many operators are on the board, the number and types of calls handled, the average work time per call, the number of callers left waiting more than 10 seconds before an operator answers, and the average reaction time before an operator responds to the 'beep' (Mosco, 1982, p. 126). Despite this wealth of information, however, Bell Canada operators interviewed said the supervisor's job involves equally as few discretionary decisions as their own. The supervisor is little more than a human front for staffing and system decisions made by the Central Administrative Group (CAG). As one operator explained,

Supervisors don't even make decisions about whether people can leave their stations or anything to do with scheduling. They call CAG to find out how to allocate operators or are told to keep certain people on the system. Basically supervisors just transfer numbers from one sheet to another.

Bell has implemented an "excuse time" list that allows operators to volunteer for unpaid break during a day.

If you're only busy 89% of the time, you're costing the company money so they set up this list to keep operators busy 92% of the time. People get into fights trying to get their name on it. Some people sign up for a day or even weeks of "excuse time" if they can afford it. (CWC, 1984a)

First-line managers are responsible for performance appraisals and for explaining disciplinary, reassignment or promotion decisions. Disciplinary decisions are usually based on information contained in the operator's computerized file, and often the operator has no idea what that file contains. The union has grieved the inclusion in these files of records of late arrivals in the order of one or two minutes. TOPS and TSPS make this kind of close supervision possible.

Operators explained that managers are trained to shift the responsibility for stress-related health problems onto the individuals "non-working" life. Any connection between the stress of the job and health or nervous problems is circumvented by questions about the operator's home life (CWC, 1983a). Management at U.S. Bell operating companies reportedly dispense their own pills -- tranquilizers and a special aspirin-caffeine combination called "greenies" -- to help operators and supervisors make it through the day (Mosco, 1982, p. 127).

Bell management has been combatting high absentee rates with special incentive schemes. Each operator who goes three months without an absence gets three silver dollars, after 6

months, 6 silver dollars and so on. A year without absences gets an operator \$30.00. (As one operator commented, a day of sick leave is worth more than \$30.00.) The company has also offered cut-glass vases and wine glasses for the same achievement and Hawaiian buffets for the operator office with the lowest absentee rate over a given period of time. A poster put up by the company promoting a color TV for the office with the lowest absentee rate, "so you can watch your favorite soaps", was grieved by the union.

It pisses us off when they don't have money to keep this person's livelihood and yet they hold Hawaiian dinners with managers running around with leis made of Glad garbage bags around their necks. They might as well put us all in a sandbox. (CWC, 1983a)

This practice harkens back to the early 1900's at BC Tel where the exchange that achieved the highest rating of calls received a pennant to hang in their lounge for a month. As Bernard (1983) comments, "Operators willingly increased their productivity and accuracy. All for the price of a pennant" (p. 43). Today, operators come to work when they are sick. All for the price of three silver dollars.

There are signs that automation of the operator's job is nowhere near complete. The New York Telephone Company uses voice-operated computers for directory assistance. As a result, average work times have been reduced from 21 seconds per call to 15 seconds per call. Eventually these voice-operated machines could replace all but a few operator fun-

ctions (Getron & O'Toole, 1982, p. 215), Automated Bill Calling, which allows the caller to charge a call via a special touch pad, and electronically displayed directory assistance in private homes (which 1/4 of French citizens now have) could reduce operator numbers significantly over the coming decade.

General System Impacts

While automation could be used to decentralize the telephone company's operations, corporate actions over the past ten years appear to lead in the direction of centralization. In 1980, four of the five operator offices in Northern Ontario were closed, leaving Thunder Bay to service the entire region. Recent office closures in communities such as Kelowna in B.C. and Midland, Tillsonburg and St. Thomas in Ontario will soon be followed by others. In B.C., all business account representative positions have been transferred to central office. Gordon and Hansen (1983) suggest that all service functions for the province of B.C. could eventually emanate from one room, with service reps of all kinds "plugged in like directory assistance operators are at present, to a never-ending stream of customer calls (and data input and retrieval)" (p. 36).

Technological change in the telephone industry is still in the infrastructure stage, but once all the pieces -- the #5's, regional control networks, voice simulators, customer controlled billing, etc. -- are in place, the staffing requirements will be a very small fraction of what they are

today. A vice-presidential memo circulated within AT&T regarding the introduction of computerized systems cautions Bell managers:

The savings available...will only occur if you plan for them to occur and then actually get the people off the payroll. Too often, we are intrigued with the capabilities of a new mechanized system and forget the real reasons for their existence. (Howard, 1980, p. 21)

Workers whose jobs are lost must accept a transfer to another community or another job (generally lower skilled), or quit. Many female workers are unable to accept transfers for family reasons, narrowing their choice to a clerical job, which in many cases is not unionized, or no job. Contractual articles that forbid the termination of workers because of technological change do not help families sell their homes, commute over long distances or accept termination allowances in lieu of a job and pension rights.

Large scale job losses and deskilling are forecast by telephone companies throughout the world. Central office telephone workers in Australia are divided into super-maintenance workers (like those at BC Tel's Regional Network Control Centres) and virtually unskilled card-pullers in the field. The Danish telecommunications union predicts a 50% reduction in central office jobs in the next ten to twenty years (Gordon & Hansen, 1983, p. 4). Centralization at Pacific Tel in California (an AT&T subsidiary) is estimated

to eliminate 3,854 jobs, 44% of which would be service reps
(Strahl, 1981).

Telephone workers have learned through bitter experience that the time to act on technological change is before its introduction. While the initial stages of introducing the technology usually result in an increase in the demand for workers, once the system is fully integrated, jobs start to disappear.

CHAPTER FOUR

THE OPTIONS

This research can show few clear benefits for union involvement in skills training as long as management operates on the principle of rationalizing work. Given the limitations of their often dwindling resources and the weight of their traditions, unions are struggling just to keep jobs of any kind. They watch helplessly as the new industrial processes virtually eradicate the need for their members' existing skills and eventually force workers into lower skilled occupations or onto unemployment insurance and welfare. To date, the improvements won by unions in workers' economic and social status have generally left unchanged their jobs and workplaces. Yet the workplace fundamentally affects their well-being, both physical and mental. The priorities for the labour movement must therefore be:

- 1) to gain greater control over the design and implementa-

tion of technology,

- 2) to restore humanity to the workplace through meaningful industrial democracy and
- 3) to reverse the situation which finds unions always one step behind management, coping with one crisis after another.

Rethinking the Organization of Work

The limitations of the "scientific management" approach to organizing work have been recognized by some managers for at least two decades. Research and industrial experience during the 1960's provided ample evidence that employees need more than a pay cheque to maintain their motivation to produce. Research indicates that workers in highly automated positions get tired and bored and express their dissatisfaction in absenteeism, high turnover and poor quality production. Workers who perceived they had influence over what went on in their jobs had more favorable attitudes towards work and were less likely to leave than those who believed they had little influence (Katzell, 1975, p. 33). Experiments in industrial democracy showed that giving workers a greater voice in defining their work goals, methods and compensation resulted in higher productivity (Levinson, 1972, p. 344). Once job satisfaction was linked with productivity, more and more managers started to experiment with job redesign and autonomous work group schemes aimed at enhancing the social and psychological rewards of work.

According to Emery and Emery (1974), the five basic

requirements for socially and psychologically satisfying work are:

- 1) a sense of being your own boss to at least some extent
- 2) opportunities for learning
- 3) an optimal level of variety
- 4) conditions where respect and help from workmates is possible
- 5) a desirable future

Merilyn Emery (1983a) later put the emphasis on learning, arguing:

No job is going to remain interesting unless it allows for continual learning, a constant buildup of skill mastery and understanding...If a job is organized so that people can get proper feedback, know how they are doing and can stretch themselves to the degree that suits them, then we have a learning environment...such learning environments are a prerequisite to acknowledging human dignity and responsibility. (p.2)

Not all work reorganization schemes meet these requirements. With the individual or job enhancement approach, a worker is given a greater range of tasks, such as having full responsibility for a set number of customers, but is still under the direction of a supervisor. With the autonomous or semi-autonomous work team approach, people work as a group on a series of integrated tasks, making collective decisions about production and quality. Workers may do their own performance appraisals, determine each other's salaries,

decide on system changes or choose candidates for promotion. The team approach generally involves changes in power and communications while job enrichment seldom does.

Starting in the mid-70's, dozens of Canadian firms launched quality of working life (QWL) programs, the contemporary jargon used to identify a wide range of work reorganization initiatives. QWL is ideally described as "a process of organizational restructuring which shifts authority, decision-making and responsibilities down the management hierarchy to workers on the shop or office floor" (Rosenbaum & Dresner, 1979, p.67). During the late 70's and early 80's QWL programs became very popular in industry, and the federal and Ontario governments committed substantial amounts of money to promote QWL reforms.

QWL programs are not necessarily a move towards industrial democracy. Industrial democracy means fundamental changes in power by allowing employee participation in the day-to-day decision-making of a work group, as well as in top management policy decisions (Cooper, 1977, p. 124). Industrial democracy involves formal contractual agreements for direct representation at all levels of management, not just consensual policy making at the discretion of management (DeWitt, 1980, p. 64). Deep-rooted ideas about authority and how it should be expressed in an organization are major obstacles to meaningful industrial democracy.

North American unions have been less than enthusiastic about QWL reforms. The concerns of labour arise from the

highly adversary relationship that characterizes North American industrial relations (Katzell, 1975, p. 14). To many unions, QWL programs are management ploys to side-step the collective agreement and reduce worker identification with the union. Unions suspect that management attempts to improve the conditions of workers may be just an insidious form of work speed-up or an effort to deflect attention away from bread-and-butter issues.

A more cynical view of union opposition to QWL is that it challenges the union's historical claim as the exclusive guardian of workers' interests. King and van de Vall (1978) go so far as to argue that union paternalism toward its own members has contributed to the rationalization and deskilling process.

In labour circles it is common practice to blame the owners' profit motives for the neglect of individual needs in organizing the production process. A more balanced view is that the trade unions share part of the blame, for union strategies have shown more concern for what work does for workers, in terms especially of material gains, than for what work can do to them, in terms especially of feelings of self worth and autonomy. There is evidence, moreover, that workers themselves make a trade-off consciously or not, in which they settle for material gains instead of intrinsic value in work" (p. 185).

Efforts to democratize the workplace have been accepted far more readily in European countries such as Sweden,

Norway, Germany and France, where union-management relations are also more co-operative. It is not within the scope of this thesis to discuss the reasons for this difference or the advantages and disadvantages of the confrontative North American model vs. the more co-operative European model. It seems, however, that in many European countries workers do not consider management's gains from QWL schemes to be incompatible with their own interests (Delamotte, 1975, p. 408).

Influencing the Design of Technology

Technology is a product of decisions that can make workers its victims or its beneficiaries. Power informs design and the design of automated systems reflects the values of those in power. Industry traditionally puts profits before people and machine elegance before human dignity, resulting in work systems so tightly controlled that workers can not possible interfere with the smooth running of the machine (Weir, 1977, p. 52).

The introduction of computer systems can also provide an opportunity to create more challenging work. Micro-electronic technologies can be used to foster a breadth of skills through self-regulated and group-regulated job organization and to divide an operation into autonomous, interactive work sites. Computerized accounts and record keeping can be used to provide more personalized service rather than routine problem processing. Potentially closed loops can be kept open so that the operator is part of the

control process.

Under the sole direction of management, these changes are unlikely to come about. Worker involvement is essential if the social costs and benefits in achieving production goals are to be equitably shared. If workers do not demand a voice in the conception, design, testing and implementation of these systems they are tacitly supporting the values of reducing employment and minimizing adjustment costs. To date, unions have had minimal success in this area. In the best of cases they have been consulted after the equipment is built or the software developed.

Reform through collective bargaining

There is the conception developed partly as a defense of "pragmatic" trade unionism in the U.S. and Canada, that collective bargaining procedures and grievance arbitrations are a road to industrial democracy.

(King & van der Vall, 1978, p. 3)

Many Canadian unions have chosen to tackle job and organizational redesign through contract negotiations and grievances rather than consultative processes, even though these mechanisms have not been highly successful in protecting workers from the effects of technological change (Peitchinis, 1980, p.3). Technological change clauses are relatively recent additions to collective agreements in Canada; in 1962 they were so rare that Labour Canada's review of bargaining provisions did not even include them. Although enormous gains have been made in this area in recent years

(CLC, 1980a, p. 40), very few technological change clauses guarantee worker participation in the development and delivery of training or in the physical design of the workplace. As the International Labour Organization (ILO, 1972) points out;

While many employers as well as unions recognize the need for regular skill upgrading..training provisions embodied in collective agreements are often limited in scope. Retraining clauses that are applicable after new technology has been introduced and when displacement is about to occur are much more frequent than those providing for the development of skill in advance of technological change. (p. 33)

Grievance and bargaining procedures consume a large percentage of a union's time and resources. While the importance of grievances in combatting unfair company practices cannot be underestimated, the time and money involved could fund the search for new ways to defend workers from abusive conditions (CWA, 1984a). Grievances only provide remedial action; preventative, conflict avoidance mechanisms are needed.

This is not to undermine the importance of collective bargaining which can provide a solid grounding for other, less formally defined initiatives. For example, clauses that prohibit subcontracting of work, that ensure a career advancement plan, that prohibit monitoring, that provide annual educational credits or time off in lieu of payment for over-

time or annual educational credits, and that guarantee full training on all elements of a work process can ensure the existence of basics that free workers and management to develop other, more flexible arrangements.

The Canadian Labour Code and provincial labour codes provide some protections such as guaranteed advance notice and renegotiation of contractual relationships affected by the proposed change. Only in Saskatchewan and B.C., however, do unions have the right to strike if an agreement is not reached on the reopened contract (CLC, 1980b, p. 23). These laws do not affect organizational decisions to invest in equipment, how work is organized or what retraining is provided. Also, like advance notice provisions in collective agreements, if the union grieves non-compliance, the company needs only to wait another six months and then proceed with the changes. The powerful Communications Workers of America has never taken on AT&T on these grounds, despite abuses of advance notice provisions (CWA, 1984c).

Union Education for Change

It would be better for men to be deprived of education than to receive their education from their masters; for education in that sense is no better than the training of cattle that are broken to the yoke.

Thomas Hodgkins,
founder of the Mechanics
Institute

As was argued at the beginning of this section, there are few clear benefits for union involvement in skills

training as long as automation is being used to deskill workers and increase management control. The over-riding goal is to return dignity and challenge to work through a process of meaningful industrial democracy. Industrial democracy cannot be legislated or imposed, but rather requires a process of education and attitude change unparalleled in recent industrial history. Education in this context is a mechanism both for inducing change and for providing the means to accommodate and adjust to change. The following chapter looks at past and present educational efforts of unions and employers and at some of the educational needs of union members on the road to industrial democracy. It concludes with a section on union involvement in skills training, and a rationale for heightened union involvement in this still very important area.

CHAPTER FIVE

UNION EDUCATION FOR AN AUTOMATED WORKPLACE

When Labour strikes, it says to its Master:
I shall no longer work at your command.

When Labour organizes a party of its own, it says:
I shall no longer vote at your command.

When Labour creates its own schools, it says:
I shall no longer think at your command.

Henri ~~de~~ Man

An Historical Perspective

The essence of a labour union is education. Labour union activities teach basic economics, sociology and politics, through experience and organized courses. The labour movement has recognized for some time that a well-informed membership is important in the progressive and efficient operation of a union. "This explains why many a labour man, with only scant opportunity for a systematic education, has attained such a high degree of knowledge and culture." (Budish & Soule, 1920, p. 206).

While much has changed since the early days of union organizing, history is often instructive and humbling. Historically, unions have been intensively involved in worker education, largely out of necessity. In the early days of industrialization, when public education was available to only a few, the prevailing attitude was that the masses were to be governed and manipulated, not educated. As a result, unions assumed the major institutional responsibility for

worker education.

The purpose of this early workers' education was "to give those engaged in industrial callings the desire and ability to share in social control; to become masters of their own industrial fate," (Hodgen, 1925, p. 4). Many unions thought they could increase the power of workers, individually and collectively, by raising their level of literacy and cultural and economic awareness. One of the major aims of the Mechanic's Institute, for example, was to create a means whereby working men could "learn all that was really indispensable for a worker to know in chemistry, in mechanics and in the science of the production and distribution of wealth." (Hodgen, 1925, p. 37) During the 20's and 30's, American unions in the garment industry had extremely active educational committees that not only organized lectures on economics and sociology but also cultural events, such as symphony performances, that were open to members free of charge. These unions believed that cultural appreciation was an important aspect of worker education, along with an understanding of the role of labour in the national economy (Budish & Soule, 1920, p. 214).

The Environment of Worker Education

Today, the union educator faces tremendous opposition in presenting a labour perspective on the economic and social world. The point can be made at several levels of intensity, but the mass media and mass education present, almost exclusively, corporate perceptions of labour and the economy. The

worker's perception of his or her job or union is continuously bombarded by media visions of 'reality'. As a labour educator describes the conflict this creates:

Workers have a rich sense of their own work experience and complex language with which to describe it. But when it comes to reflecting on the economy in general, this highly particular idiom comes up short. Without a more analytical language and a satisfactory set of abstract concepts, many unionists fall back on a set of stereotypes and half truths garnered from the very institutions they bitterly criticize - the government, the media, the educational system, even the companies for which they work. (Howard, 1983, p. 35)

The pervasiveness of the corporate bias makes it difficult for union educators to convince members of their right to participate in the introduction of technology. Noble (1984) argues that

in the face of their own experience, people are being asked to ignore their doubts, to see their calamity as a contribution to a greater social welfare.

People are told that to stand in the way of progress is futile, anti-social, morally wrong - and besides, if they try they'll get crushed.

People are told that losing their jobs to machines is normal.

Howard (1983) argues that workers must first learn to appreciate their immediate work environment before they can

make links between the shop floor and the abstract world of economics (Howard, 1983, p. 35). Howard's arguments are reminiscent of Paulo Friere, one of this century's most influential adult educators who was involved in literacy campaigns in his native Brazil and in Chile (Wilson & Nichol, 1977, p. 78). Friere argues that the social institutions of production technologies have a powerful effect on the way people construe reality, influencing the very language of their thoughts. The oppressed, he said, must first develop an awareness of their place in society before they can act to transform it. Friere's educational methods for developing this awareness are active and problem-posing.

Wilson and Nichol (1977) argue that Friere's methods could be used with workers in Britain and North America - a group that is similarly oppressed by alienation, real and threatened unemployment and authoritarian management styles. In both cases, workers' lack of awareness helps ensure the continuation of unjust systems.

The idea that unions might help workers develop an awareness of their workplace and how it fits into the bigger picture meets with resistance from within unions, as well as from outside them. Union policy positions are most heavily criticized by the younger, generally more educated workers who are more likely to be active in some organization and to have greater confidence in their ability to alter its direction or change its leadership (Westley & Westley, 1971, p.37). This possible outcome of "educating the masses" might not always be looked upon with favor by those who hold power

in the union.

Union Education for Industrial Democracy

The intelligence required of a class to render its power effective in action is much greater than that which was needed to assert a right to it.

A.E. Dobbs

It was argued in the previous chapter that before unions in the telecommunications sector tackle the issue of skills retraining, they must attempt to redirect the application of technology so that it is used to create humane and democratic workplaces. If unions are to expand their educational involvement into the area of industrial democracy, they must first develop political, economic and social strategies to guide the effort. Organizing courses is often the first tactic that organizations apply to a problem, generally because it is the easiest and least disruptive response. Unions should be careful not to fall into this trap.

...We need to spell out both the kinds of change we have in mind when we speak of learning and the kinds of learning we have in mind when we call for more of it. (Argyle & Schon, 1978, p. 9).

This is a planning process that requires extensive research.

The importance of research

Inadequate research and strategy-setting expertise on the part of unions could be a serious impediment to the extension of industrial democracy. The research facilities

of most unions are already fully stretched with their present work of providing information for grievances and other routine matters. And the information demands on unions are enormous and growing. Even unions with well established research departments are severely disadvantaged vis. a vis. their companies when it comes to understanding shifts in international markets, the nature of the technologies that are transforming work, and the economic ramifications of new materials and processes. It is little wonder that only the biggest unions have been able to assess the impacts of these new technologies on employment, job classifications and skill requirements or develop strategies based on these forecasts (USWA, 1982, p. 6).

However, without sound strategies to guide their efforts, much of the work of a union can be wasted. The Trade Union Research Unit at Ruskin College in Oxford found that most unions were not confident about how to use company information, nor what kinds of information to seek, largely because they lacked the strategies that would direct their search (Elliot, 1978, p. 87). Thompson (1980) calls this a lack of "strategic intelligence" or information designed to assist in the general rather than specific approach to a problem (p. 29).

Davis and Cherns (1975) suggest that one of the most important steps in developing research and action strategies is to gather information about the activities, successes and failures of other unions. An equally important step is for the union to examine its value base before it begins to

generalize about the experiences of others (p. 8). Effective strategies result from applying all of this knowledge and understanding to specific job-site problems.

It should be noted that one of the biggest obstacles to effective union research in North American is the lack of access to company information. Both the CWA and the CWC report a desperate lack of co-operation in this area. Even at consultative sessions set up to discuss the planned arrival of new work processes, company officials attending had little information and no power (CWC, 1984^b; CWA, 1984c).

Norway's Joint Committee for R&D for Industrial Democracy illustrates the kind of union-management research that can be done if resources are available. This government funded committee reviews traditional approaches to worker participation, provides sensitivity training and information on job problems, develops strategies to promote direct worker participation and permanent programs for upgrading workers (Mire, 1975, p. 426).

Another example of extensive and effective union sponsored research is the Iron and Metal Workers Union in Norway. Facing the introduction of extensive computer-controlled systems, the union hired a government agency to research the new technology. Union members then published a number of texts to demystify the technology for workers, and created a "data shop steward" position to monitor changes at each work site. The result was a Data Agreement between the Norwegian Federation of Labour and the employer's association that has

given the union open access to the company's data banks and participation in all decisions that affect the form and content of their jobs. In 1977, these provisions were written into Norwegian law (Noble, 1979, pp. 48-49).

Until very recently only the largest Canadian unions, such as the United Steelworkers and the Canadian Union of Public Employees, had any type of research capability, a situation that is partly due to the anti-intellectual bias found in North American unions (Westley & Westley, 1971, p. 38). Today, however, union research offices are springing up in response to more complex negotiations, more sophisticated managers and a more educated union membership.

Skill Requirements for Industrial Democracy

In moving toward more democratic work environments, union members will need to develop technical, social and power skills previously associated with management (Elliott, 1978, p. 127). King and van de Vall (1978) report that many worker-representatives in Europe lack the poise and self-confidence needed to debate issues and hold up their side with management. Many workers have little understanding of the technicalities of production and distribution and their relationship to company policy. In some instances the insufficient knowledge and skills of workers has resulted in old practices being revived (Mire, 1975, p. 427). In contrast to their company counterparts, workers are more accustomed to listening and obeying than to being listened to by their superiors (King and van de Vall, 1978, p. 119).

On the technical side, workers will need to increase their knowledge of:

- basic economics and the economics of a particular industry
- wage determination and fiscal and pricing policy
- work design and organizational theory
- the production process and specific job skills

Related to their own planning and the subsequent consultative process with management, workers will need training in the technical language in which managerial matters are couched and an understanding of:

- managerial needs and motivations
- the psychology of group behavior
- how to set realistic and challenging goals
- how to give feedback on group performance and assess the performance of others
- how to extract relevant information from the various environments and conceptualize organizational problems and opportunities.
- decision-making processes
- quality of working life
- team-building skills to resolve task and interpersonal blockages and build effective, interdependent work groups
- communication skills such as listening, drawing others out, building rapport and communicating briefly and concisely
- appropriate leadership approaches for a particular situation

- conquering the fear of learning and the fear of co-operation

(Elliot, 1978; Emery, 1983; Cooper, 1977)

Emery (1983) argues that many of the skills listed in this second category are best learned during the process of change itself. She suggests that communication and decision-making is a frequent area of unnecessary training since it is often a natural consequence of group work. The development of perceptual skills and information seeking are often best addressed at planning rather than training sessions. In this way people use the participation process itself to train themselves to gather and use the perceptual information they automatically and often unconsciously collect.

The Swedish Metal Workers Union takes a very pragmatic approach to its selection of training areas, schooling stewards in work organization, personnel policy, investment and marketing. The union argues that the willingness of members to assume responsibility and exercise their democratic rights is directly related to the state of their knowledge about the dynamics of the business and the industry in general. Sweden's central labour organization is committed to minimizing the educational gaps between officers and members and therefore requires every member to take a course in basic trade union philosophy and practice and has produced extensive material to support local study groups (Labour Gazette, 1984).

Many of the educational programs offered by Canadian

unions or union federations are a first step in the direction of education for industrial democracy. Most unions provide or have access to courses on the history, structure and goals of the labour movement, and the roles of the union at its various levels. These efforts need to be intensified, both in terms of attracting more members to the courses and in enriching and extending the content.

The Educational Role of Unions Today

The advent of universal public education, largely a result of union action, has diminished the missionary zeal of labour unions who now, aside from their involvement in apprenticeship programs, largely restrict their educational efforts to developing skills related to the operation of a union. The following paragraphs describe some of these initiatives.

Union federations such as the Canadian Labour Congress (CLC) and the CNTU provide packaged courses that are used by affiliated unions and federations of unions. These courses cover such topics as how to counsel members regarding personal and workplace problems, leadership skills, arbitration, collective bargaining, labour law, steward training, structure and finance of Canadian industry, affirmative action, bargaining strategies for equality, union busting and others. The CLC also provides a course for instructors outlining basic principles of adult education, how to assess members needs and plan an educational program and the techniques available for instruction. The CLC has recently developed

courses on issues related to technological change (Labour Canada, 1982, p. 11).

The Labour College of Canada, founded in 1963 by the CLC, the CNTU and the Universities of McGill and Montreal, provides education at the first year university level. Economics, history, industrial sociology, political science and trade unionism are studied during the eight-week residential program (Labour Canada, 1982, p. 1). The college also offers correspondence courses which are generally taken in preparation for the residential classes. The Atlantic Region Labour Education Centre, opened in 1972, provides a similar service for labour leaders in the region.

The Centre for Labour Studies at Humber College works in partnership with the Labour Council of Metropolitan Toronto and its more than 400 affiliated unions in offering courses to help trade unionists make their unions work better. The college offers certificate courses in the areas of health and safety, new technology, English and leadership skills. The Labour studies program at McMaster University was set up in 1976 to serve the continuing education needs of the full-time staff of trade unions.

The Institute for Labor Education and Research in New York City is an interesting case of union/academic collaboration in education. The Institute was founded by a small group of radical economists and union activists in 1974 to help transform union halls into continuing education centres (Howard, 1983, p. 36). The centre has six full-time educa-

tors and has developed slide shows, workshops, conferences, and pamphlets on subjects ranging from shop-floor issues (health and safety, grievance procedures, race and sex discrimination) to particular industries (telecommunications, auto, health care). Howard argues that the Institute, which works with local, regional and international unions, is a model for how American unions might fashion not only an economic alternative but a reinvigorated political vision.

At the individual union level, the picture is not nearly as active. Two of the most active Canadian unions in the area of education have been the Steelworkers and the United Auto Workers (Labour Canada, 1975). In recent years the efforts of the Steelworkers appear to have slipped due to a lack of commitment at senior levels. The union's training fund (1 cent per hour worked) has been recently diverted to other needs and there is some talk of removing this item altogether from the bargaining agenda in the next round (USWA, 1984).

In general, Canadian union locals are not very involved in formal member education. The size of the local, and therefore the size of its budget, are influencing but not determining factors in how active a local is in education. Some highly motivated locals put out a newsletter or arrange special education events at each business meeting, while a few have organized certificate programs through local colleges. However, in 1975 Labour Canada reported that only 3% to 5% of union members participate in courses organized by their union or union federation. This finding may reflect the leader-

ships' lack of attention to its members' real educational needs rather than member disinterest (Labour Canada, 1975, p. 45).

Union Involvement in Job Skills Training

The environment

Education and earnings are highly correlated. Low earnings are almost always associated with low education and skill levels, and much less frequently with discrimination or lack of information or promotion opportunities (CED, 1970, p. 28). Access to interesting and remunerative work in our economy is increasingly based on educational qualifications which bar many who did not or could not make the appropriate decisions when very young (Miller, 1967, p. 73).

The number of Canadians who lack basic educational qualifications is staggering. A 1981 parliamentary task force found that 1/4 of Canadian adults were functionally illiterate with less than a grade nine education. In addition, it is estimated that 60% of Canadians are non-learners in that they do not take structured educational programs of any kind (Globe and Mail, 1984). Many of these people have missed out on basic math and science courses which are increasingly prerequisites for many industry-sponsored retraining programs (Menzies, 1982, p. 139). The worker who lacks the skills to understand written instructional materials and who has not been in a school environment for many years must be highly motivated indeed to attempt to improve her occupational op-

portunities through retraining.

Industrial retraining opportunities are also limited. Another parliamentary study of Canada's skill needs for the 80's found that in 1981 only 20% of the industries provided training of any kind (Menziés, 1982, p. 137). And left to themselves, individual firms will not undertake to develop transferable skills in their workers. Seldom will a company provide elementary general skills as it expects the school system to do this. In-house training is usually offered to meet immediate production needs of one company. Instruction in applied skills is given with little if any attention to operating principles or the underlying theories of the system. Industrial training often teaches a set of rules and procedures that narrowly describe how the work is to be done, such as what exact words to say in response to a specific request. At the NY Telephone Company, for example,

new employees are put through programmed instruction so routine that every employee can teach it...and every part turned out by the system will be interchangeable with every other part. The system is to bureaucracy what Taylor was to the factory.... AT&T uses training to announce the formal rules, to articulate and rehearse the unwritten procedures and to teach implicit expectations of the job. (Edwards, 1979, p. 137)

These site specific production skills may be of little use to another company in the same industry, let alone other industries or other times in a shifting labour market. As a

result, the minimally skilled worker has little leverage within the company or in the wider labour market.

Few unions have attempted to assist their members in overcoming these barriers to further training or occupational mobility. The vast majority of North American unions are not actively engaged in retraining. In 1980 only 1/3 of major collective agreements covering Canadian firms with 500 or more employees contained retraining provisions (Peitchinis, 1980, p. 10). Although several unions have added retraining clauses to their collective agreements since 1981, others have accepted, and even chosen 'rollbacks' in this area (USWA, 1984). Also, many unions that have negotiated retraining clauses are not involved to any extent in the selection of candidates or the design and delivery of training.

Hoos (1969) argues that unions and industry show marked similarities in their approach to training. Both point to apprenticeship programs, with all their limitations, as substantial evidence of training activity. And, both lean heavily on their middle-level management workshops and seminars to justify the claim that they are keeping the work force up to date.

The rationale for union involvement in retraining

Given the trend toward job deskilling, the rationale for unions to embark on retraining is far from clear cut. As jobs get fewer and dumber the question, "retrain them for what?" is increasingly difficult to answer. There is seldom pressure on a union from its membership to provide instruc-

tion as a protection against obsolescence or technological displacement. On the contrary, some of the most threatened trade unions have had to stage aggressive educational campaigns to generate support and interest for retraining (Hoos, 1969, p. 125).

This lack of interest in retraining is based on a number of factors, but probably the biggest demotivator is the inability of unions to assure their members that more interesting, more remunerative work will result from retraining. Despite this at times overwhelming disclaimer, however, training/education can provide tangible benefits for both workers and unions. Taking the initiative now, in such a tight labour market, is seemingly an act of faith, but the consequences of not acting could contribute significantly to the labour movement's decline.

A central motivation for union involvement in retraining is to counteract the specialization that characterizes much industrial training -- training that takes the form of programmed mechanical movements with little or no understanding of principles. The worker who has been trained at a TOPS terminal will find it difficult to sell her skills elsewhere, if her job disappears. Education is a concrete step that unions can take to help their workers become mobile again, and mobility will give them back the respect, autonomy and employment security they have lost in the process of deskilling. The union is well placed to fight for more broadly based in-house training along with corresponding changes at

the worksite to allow the worker to use and develop a variety of skills while working.

While Emery's goal of the workplace as a learning environment may not be realistic for the short-term, unions can start to prepare now by helping their members overcome the fear of learning and by providing them with basic skills needed for most training or retraining programs. The operator who has been at a TOPS terminal for many years may have very negative reactions to classrooms and learning. Her highly specialized and repetitive job may make her feel incompetent and ignorant, even though she goes home to handle complex projects and household responsibilities with ease (Kuyek, 1979, p. 19).

Given the predictions of a reduction in skill requirements in the future, it makes most sense for unions to concentrate their educational efforts on developing generic, analytical, expressive, communicative and computational skills as well as extensive knowledge of political, economic, social and cultural institutions. These aptitudes and knowledge will enable workers to better understand their daily experiences and gain access to social opportunities (Levin & Rumberger, 1983a, p. 11). Future job markets and work environments will require adaptability, the best preparation for which is a strong general education, one that includes a varied store of information about culture, language, society and technology and an ability to apply that information and acquire new knowledge. The worker who has a solid basic education will be better able to deal with change than the

one with a narrow vocational training. Basic skills upgrading has many benefits for the individual worker. It can promote personal development, strengthen workers' self-image and heighten their ability to use their time creatively. Acquiring basic skills in reading, writing and math can increase workers' confidence in their ability to tackle new skills areas. The experience of learning to learn once again can help workers adapt more readily to change and deal more effectively with their own lives (Taylor, 1975, p. 119). Vocational and specialist skills can be picked up relatively quickly, on-the-job once basic skills and the initial obstacles to learning have been conquered (Jones, 1982, p. 243). Vocational, or job specific skills training can also have significant effects on the morale and well being of workers. An extensive survey of workers in northern England showed that men who had received government skills training, and who had found work in their field, felt they were far better off than their non-trained peers even though there had been little change in their physical working conditions. Graduate trainees reported more interest and pride in their work as well as better home lives and greater job opportunities (Berthoud, 1978, p. 82). Even trainees whose next job did not make use of their newly-acquired skills reported a moderate improvement in their personal and social satisfaction at work and at home. This finding is consistent with an earlier survey by Berthoud (1978) showing that workers' reasons for retraining were primarily 'dull, boring work' and

'no chance to take pride in your work', and only secondarily such things as wages, job choice and security.

Hayes (1982) argues that the delivery of occupational training to school leavers should meet three goals: 1) to provide the widest choice and opportunity for the worker to acquire competence and to be able to apply for work in his or her locality, 2) to meet the needs of local employers and 3) to teach skills in a way that will help workers adjust to future change and cope with life in the community during unemployment. Hayes assessed the employment opportunities in a number of communities in England and divided the skills required for these jobs ~~them~~ into eleven training areas. He argues that students who follow courses in one of these 'occupational families' will have the widest possible opportunities at the end of the training period.

The indications are that (instruction in occupational groupings) improves motivation; that they prove attractive to employers; and that they add purpose with flexibility to the training process. (Hayes, 1982, p. 8).

Hayes also argues that skills training must distinguish between product and process skills. Product skills lead to clearly definable outcomes and are accompanied by a tradition of learning by procedures and of examination through formal written and practical tests. Process skills are more abstract and open and cannot be learned by rote nor tested by examination. The use of process skills does not normally lead to clearly definable outcomes but to an ability to interact

effectively with the environment through listening, planning, and working in a team, and are therefore more significant than product skills for success at work. "The key to becoming better in their use lies in the way in which tasks are learned and mastered", (Hayes, 1982, p. 7). The assessment of their effectiveness lies in how the worker manages a process in which she is involved. It is the application of these process skills to the acquisition of product skills that gives workers greater career mobility and greater ability to cope with change and choice.

There is also a persuasive political argument for union involvement in skills upgrading. Automation has created a major jurisdictional struggle over which jobs remain within the union fold and which jobs are moved into the management or paraprofessional category. A union that works toward the skill upgrading of its members will have a stronger case as the logical heir to these new, if few positions. Workers would have a claim to skilled job opportunities which might otherwise be filled by college graduates.

If training programs could be shown to:

- 1) provide members with skills that will keep them employed and, consequently, dues-payers or
 - 2) assure the union of jurisdictional rights over newly-emerging and often disputed job categories,
- they would no doubt receive tremendous union support at all levels. Unfortunately, in the telephone industry there is scant evidence at this time that training would benefit

workers or unions in either of these two areas. At the same time, if unions leave the responsibility for training and work organization to government and management, they are choosing to ignore an area of social and economic importance to their members and ultimately political importance to the labour movement.

Apprenticeship-based training initiatives

The most obvious example of union involvement in job-skills training is the apprenticeship. In many sectors of manufacturing, employment training is based on the time-served apprenticeship under which young school leavers learn a trade, through classroom and on-the-job experience, over a fixed period of up to four years. In theory, the union is responsible for maintaining high standards in particular areas of workmanship (Taylor, 1982, p. 101), and therefore also in determining wages and entry numbers. (EETPU, 1984a). When the apprenticeship system began, skilled craftsmen could move around an industry, depending on where the work was available. Automation and specialization in the phone industry have virtually destroyed this mobility.

In recent years the apprenticeship system has been heavily criticized, particularly in Britain, for its inflexibility which prevents workers from acquiring new skills or a wider knowledge of the work process, thereby penalising them by setting limits on their capacities for self-advancement (Taylor, 1982, p. 101). Several apprenticeship-based unions have responded to this criticism by extending existing ap-

prenticeship programs and offering refresher and upgrading courses. Five union efforts to upgrade and expand their apprenticeship programs are briefly described here. The experiences of these unions provide valuable insights into the problems, rewards and challenges that such initiatives would entail for a less experienced union.

The Association of Journeymen and Apprentices of the Plumbing and Pipefitting Industry has a jointly managed international training fund built on 2 1/2 cents per hour worked per employee. This money pays for a training centre in Washington, D.C. where union instructors learn about the latest technology from university and industry people, and extensive programs at the local level. One union local formed a skill improvement committee with its share of the training fund, surveyed member interests and organized classes at the local public school with instructors paid for by the Bureau of Vocational Education (Hoos, 1969, p. 117).

Some courses are now taught on union premises, strictly under union auspices. There is no upgrading system for men who take the courses but Hoos argues that workers who have added skills to their repertoire are in high demand by small contractors while the younger men, if they could be encouraged to take advanced courses, "could be the new elite of the union, the ones who benefit from technology and are not the victims of it" (Hoos, 1969, p. 120).

Another example is the Journeyman and Apprenticeship Training Program of the United Association of Plumbers and Gasfitters. In 1964, the union withdrew all its courses from

the local public schools because it felt the orientation was too short-term and not sufficiently trade-related. Money from the union's international fund was used to build a training hall, paid for by the employer at 5 cents/hour worked, and to organize a program of apprentice and upgrading courses, also paid for by the employer at 2 1/2 cents/hour worked. This employer contribution is seen as a benefit that might otherwise have appeared in the employees' pay cheques. The union school observes public school teacher and credential requirements in order to take advantage of state subsidies. Courses are advertised widely through flyers and announcements at local meetings, all aimed at alerting the rank-and-file to the importance of upgrading (Hoos, 1969, pp. 121-122).

More closely related to workers in the telecommunications sector, the International Brotherhood of Electrical Workers' Skill Improvement Training was set up in 1959 without benefit of employer funding. The program, which is now jointly funded, involves a two year curriculum in industrial electronics and short intensive courses on various aspects of the trade, all held at local public schools. The IBEW also conducts studies to determine effective methods of adult instruction (Hoos, 1969, p. 123).

Under the apprentice section of the United Auto Workers' collective agreement with General Motors of Canada a national joint Skilled Trades Committee has been established. The intent of the committee, which is composed of three company

and three union representatives, is to expand existing apprentice training in light of new and anticipated changes in the industry. At the local level, Apprentice Committees made up of two union and two management members assess the impact of new equipment on training needs and oversee the implementation of the apprentice program. Management, however, decides how the training is delivered, whether in-house or through a community college.

In 1980 the electricians' union in Britain (EETPU) became the first trade union in the country to establish its own technical training facility. The union's initiative was motivated by a recognition that 80% of its 250,000 members were over the age of 30 and had received no formal education for at least ten years, although many were skilled electricians. The program started from the premise of confidence building. The centre now has a training laboratory containing all the equipment and components needed to teach electronics from basics to computer control. Courses have been designed to build on previous knowledge and experience with an ~~the~~ emphasis ~~is~~ on improving technical and practical skills. The program includes a mobile technical training service which can be hired by individual companies (EETPU, 1984b). The Centre trains approximately 1,000 people per year in ten-day and five-day courses and non-residential one-day meetings. All course fees are subsidized by two Industrial Training Boards and the courses are certified by the City and Guilds of London.

Other training initiatives

While the cases are few and far between, some service or white-collar unions are making efforts to support their members through skills training and upgrading. In Britain, local labour unions and community groups have created eight long-term adult residential colleges which offer second chance programs to adults with only school leaving qualifications. The program begins with ten weeks of basic skills upgrading followed by courses in either liberal arts, social and community studies or trade union and industrial studies. Approximately half of the places in these schools are reserved for unionists (Field, 1984, pp. 10-12).

The British Association of Scientific, Technical and Managerial Staffs has recruited 250,000 members in the last 10 years, largely on the claim that they will help skilled workers protect their skills, job status, access to information in the firm and opportunities for advancement. The ASTM's approach may be the successful union organizing formula for the 80's (CWA, 1984b).

In Sweden, white collar workers formed the Salaried Employees Education Association (TBV) in 1935, largely to teach trade unionism. In recent years, the emphasis has shifted toward political and social science studies and vocational training. Advanced training courses are offered to improve professional skills and in some cases joint agreements are negotiated with the employer (Niestein, 1967, p. 300). In addition TBV holds frequent conferences and short-term workshops on training issues of immediate concern.

Closer to home, the United Steel Workers of America sponsor an adult basic education program, in conjunction with ten steel companies and the U.S. government. The purpose of this program is to improve the job prospects of steel workers who have very little education and who were hindered in moving laterally or horizontally in their companies. During the first year of the program's operation, classes at the elementary level were attended by almost three thousand workers, with a significant representation from minority groups (CED, 1970, p. 47).

Problems and opportunities

Hoos' (1969) overview of apprenticeship programs reveals several consistent problems and opportunities for unions involved in skills training. In the problem domain, most of the unions examined were disappointed with the percentage of members who participated in upgrading courses and many advanced courses were dropped for lack of interest. This disinterest, which was also seen in the primary research for this thesis, may reflect a number of factors. It may reflect workers' satisfaction with their present jobs and wages. It may be related to their belief that upgrading cannot protect them from layoffs and deskilling. The preference of many employers to hire college graduates rather than promote and retrain workers from inside does not encourage employees or unions to upgrade their skills.

Another explanation for the lack of worker "push" for retraining is the resistance to schooling found among older

workers. Older workers often experience frustration when confronted with new principles to be learned and are frequently defeated by initial failures to learn quickly (Hoos, 1969, p. 113). It appears that fear of under-employment or unemployment are not sufficiently motivating to sustain perseverance in a training course.

This research indicates that a union must not only organize the upgrading courses, but must also sell to its members the idea that versatility will help protect workers from the job shifts resulting from technological change. The selling job requires a constant publicity campaign, discussions groups and special interest meetings. One union, the American Radio Association, provides a tangible reward for upgrading. The union has publicized that in a showdown it would defend retraining over seniority as a criterion for selection of new posts (Hoos, 1969, p. 114).

On the opportunities side, unions have found that by managing their own courses they can choose instructors without attention to rigid academic criteria and can run courses with only a small enrollment. They can develop courses that are specifically targeted to their trades and that are not cloaked in time-consuming and often intimidating academia. Union involvement can counteract the demoralizing effects of many publicly-run courses which emphasize theory rather than connections to the worker's present job. This demoralization reinforces the worker's conviction that the new job requirements are beyond her capacity. And unlike

companies, unions can devote a large portion of their training effort to the development of generic or transferable skills.

The following chapter contains three case studies which illustrate some of the problems and opportunities discussed in this chapter. The TWU in B.C. established a pre-craft training program while the CWA has won company financed career development and employment security training. The CWC, on the other hand, still considers skills training to be a management responsibility and has resisted any company initiative in QWL reform.

CHAPTER SIX

CASE STUDIES

The Telecommunications Workers' Union

A short history

The Telecommunications Workers' Union (TWU) represents 11,500 workers at BC Tel, Canadian Telephone and Supplies and AEL Microtel. The following description of the TWU's history is meant to put some of the current issues into context. Like the CWC and the CWA, the TWU is a relatively young union carrying the remnants of company unionism and a legacy of extremely troubled labour-management relations.

Telephone workers in British Columbia first organized at the turn of the century under the International Brotherhood of Electrical Workers (IBEW), an international union with jurisdiction over all electrical work (Bernard, 1982, p. 3). In those early days, the Brotherhood played a critical educational role in training young workers in electrical skills. The union managed its own apprenticeship program, giving it total control over the number and quality of tradesmen in the business (Bernard, 1982, pp. 16-17). Apprentices in their early teens and twenties were put through a four year tutelage, and, once graduated as journeymen, were qualified to work in any company in the electrical industry. Locals were

active in continuing education, holding lectures on practical subjects at their monthly meetings. The women's auxiliary of the IBEW met independently from the men and did no educational work, union or otherwise.

In 1906, as telephone craft work became increasingly specialized, the phone company started pushing to train its own people (Bernard, 1982, p. 69). In setting up its own training schools, and bypassing the union's apprenticeship system, the company gained control over job classifications and rates of pay. In 1922, BC Tel workers signed a closed shop agreement with the company, effectively separating themselves from electrical workers in other industries. With this change, worker loyalty started to shift from the union to the company. The union, which continued to insist on a single journeyman rate, was seen as an obstacle to the increased pay and benefits the company was willing to offer (Bernard, 1982, p. 78).

In 1929, company pressure and a demoralized union membership forced the local to fold. It was soon replaced by the BC Tel Electric Employees' Organization, a "society of employees" incorporated for the purpose of "discussing and co-operating with management" on issues affecting the employees (BC Tel, 1930). It was 15 years before craft, operator and clerical workers organized again outside the company, this time as the Federation of Telephone Workers of British Columbia (FTW) (Bernard, 1982, p. 95). But still plant, clerical and traffic workers bargained separately, each with different dues structures and significantly dif-

ferent amendments to a shared contract. The traffic division had no education program, few shop stewards and rarely processed grievances (Bernard, 1982, p. 119).

In the early 1960's, the threat of automation, combined with many years of bad relations with the company, created a resurgence of militancy in the FTW. During the 1970's the FTW lost many members when new jobs resulting from automation were declared to be outside the bargaining unit. Between 1949 and 1979 the ratio of bargaining to non-bargaining unit personnel went from 19/1 to 3.7/1 (Bernard, 1982, p. 169). In the spring of 1977, the FTW became the Telecommunications Workers' Union and began to organize for a new bargaining environment, one in which many of the differences between craft, plant and clerical workers would be destroyed.

In 1977 and again in 1978 the company and union found themselves at "loggerheads over contracting out practices and union jurisdiction. The tension resulted in a series of walk-outs, lock-outs, a supreme court inquiry and even RCMP and police intervention. In 1981 the TWU began another round of selective strikes, prompted by the company's rejection of a conciliator's report.

Finally, in February 1981, after unionized workers had gone 16 months without a contract, the local in Nanaimo took an unprecedented action. They secured the doors, posted union members at all entrances to check entry, relegated management to a suite of offices on the ground floor, and took over all board and maintenance operations (Bernard,

1982, p. 199). The following day the occupation swept the province. Signs were hung outside the offices proclaiming "BC Tel, now 100% Canadian owned". Clerical and craft workers were taught the rudiments of operating and schedules were arranged to maintain 24-hour phone service.

Office regimentation was dropped and breaks were taken when required. Operators varied their responses from rigid mechanical replies, including such openers as "BC Tel under workers' control". Workers rotated jobs to reduce the monotony and operators were taken on tours of the plant to see jobs they had only heard about. Bernard describes the atmosphere as exhilarating, even though members were working without company pay. The occupation lasted five days and ended only with a return-to-work court order and a criminal contempt fine of \$60,000. The TWU has the dubious honour of having more hours on the picket line than any other English-speaking union (CWC, 1984b).

In June 1982, BC Tel offered the union rollbacks in pay and hours or layoffs. With the union's refusal to comply, 2,300 employees received notices of termination. After unsuccessful attempts to prove this action illegal, the TWU won a court ruling that BC Tel had not given the required 16 weeks advanced notice. Shortly after, the workers were reinstated, BC Tel announced it was laying off 2,100 employees out of economic necessity. These notices were eventually withdrawn, largely as a result of the union's initiative to invite Nobel prize-winning economist, Wassily Leontief, as a non-partisan resource person to the arbitration sessions. The

TWU also organized and filmed a conference on technological change around Leontief's visit and the edited film is now used for educational purposes (TWU, 1984a).

Today, TWU staff members say they are "reeling from the changes in the company" and "fighting for their lives". Craft workers have been moved to clerical jobs while whole categories of clerical jobs are disappearing (TWU, 1984d). In the summer of 1984, the first craft workers began working at operator stations following seven days of training. Today, changes in the central office operation seem likely to throw massive numbers of central office maintenance workers out of their jobs, and other areas of the company are unlikely to grow at a rate which will absorb the labour available.

The BC Tel structure and training approach

BC Tel has been owned since 1959 by the U.S. multinational, General Telephone and Electronics (GTE), and is the only privately-owned Western Canadian telephone company. In addition to BC Tel, GTE owns Quebec Telephone, Lenkurt Electric Canada and Automatic Electric Canada, and derives a major portion of its revenues from the manufacture and sale of telecommunications equipment. The company's subsidiaries function as a built-in market for equipment produced by the GTE network (Bernard, 1982, p. 201).

BC Tel operates a large scale training centre that provides courses for company employees as well as workers at its subsidiary, AEL Microtel. The centre designs courses to sell to other companies and the TWU has virtually no input

into this operation (TWU, 1984b). The retraining efforts of BC Tel have been severely criticized by the union for being inappropriate for the changing and blurring nature of new job classifications. Many grievances have been filed concerning the inequitable distribution of training opportunities and the fragmented nature of most courses (TWU, 1984d). The union has attempted to change some training policies but has made little dent in the number of college graduates who are hired for new positions while long-term employees are being laid off (TWU, 1984b). Installation and repair workers first affected by technological change have taken most of the training opportunities, leaving many displaced workers with no retraining option. Older workers have had to contend with stiff competition from the more flexible younger workers who could more easily adapt to the computerized systems (TWU, 1984c).

Educational initiatives of the TWU

The pre-craft course

The story of the TWU's venture into skills training begins with the 1981 occupation. During the occupation, craft and clerical workers took on operator jobs to help cover the demand. Several craft workers found they could not handle the monotony and stress of the job for more than a few hours. They developed a heightened sympathy for the complaints of telephone operators and recognized that they had an ideal opportunity, at least for the duration of the strike, to offer instruction in basic electronics, the knowledge of

which might open up other job opportunities within the company (CWC, 1984b). BC Tel's policy for transfers into an apprenticeship job included two years experience with the company and successful completion of a crafts test. A union sponsored course, it was hoped, would prepare operators and clerical workers to write this exam. The 250 students that appeared for the first evening of the "pre-craft" course was 10 times what the instructors had expected (CWC, 1984b).

Realizing that they had struck a need among the membership, three craft workers developed a formal 10-week course covering basic electronic principles, the knowledge of which was an entrance requirement for any craft job. More detailed company training would follow for the successful applicant. The union's initial proposal to management to deliver the program jointly was declined, but when management saw the extent of the demand, they agreed to negotiate (TWU, 1984a). In the final arrangement, the company agreed to provide classroom space in offices throughout the province and to cover the cost of instructors. The course was taught on a team teaching basis, with one union and one management instructor at each session, but the curriculum remained basically as the union had planned it, taken outside working hours, on the employee's own time.

The response to the course was overwhelming, with over 1200 students enrolled over a two year period. As one operator who took the course explained:

The course arrangement was very co-operative. If you didn't understand something, the instructors

would sit down with you individually and go over it again. If you didn't pass the first time, you could apply to take it again. Everything was done to make it as easy as possible. (TWU, 1984a)

Changes were negotiated to the union's collective agreement, giving operators and clerical workers priority over college graduates in applying for higher skilled jobs if they had successfully complete the pre-craft course. While this agreement did not change the nature of jobs at the bottom of the hierarchy, it did affect the psychological dead-end quality of the operator's job.

It appears that the course was well conceived and implemented, but all too late. After the course had been running for two years, and the union had over 800 graduates on its list waiting for openings in the craft section, the company announced it would be laying off 1200 employees, many of whom were in the craft area. If the course had been offered a few years earlier, when there was still some movement in the company, the story might have had a very different ending, but technological change has killed employment mobility in BC Tel (TWU, 1984b). The company has not hired new employees for the craft area for four years and there have been no job postings to test the effectiveness of the initiative. BC Tel has recently offered an early retirement program and many of the vacancies created by people accepting this proposal will be filled by craft people. Ironically, craft workers are now moving into "non-traditional" operator and clerical positions.

The program has been basically put on hold as the union

grapples with how to keep craft jobs in the company. As a union staff worker explained:

The program itself wasn't doomed, it was the result of the program that was doomed. It was a really good exercise all around but the people who went through the course were thwarted in their expectations. We now have the reverse of what we intended. We wanted to help women get into what was considered the 'big bucks' area and now we have craft workers taking on operator's jobs. (TWU, 1984c)

The union has no plans to initiate another educational program related to skills upgrading since the scale of actual and potential job losses is so great that officials feel "nothing would come of it". As one staff member argued, We're fighting for our lives right now. The members just aren't going to get these kinds of programs for a while. We'll just have to do what we do best for the time being and get back to these other things later. (TWU, 1984c)

Although some TWU staffers see the course as a misdirected political gesture on the part of the union, another argued that

any education you take is going to be of some benefit sooner or later. It is hard to measure where the benefits start and finish. A lot of these graduates are now very strong union members despite the frustration of not being able to apply their new skills. (TWU, 1984b)

BC Tel's support for the pre-craft course reflects either extreme short-sightedness in planning, or a conscious effort to create frustration among workers and destabilization in the union.

Other initiatives

In 1982 the TWU and BC Tel established a joint Computer Communications Committee to look at work jurisdiction, deskilling and the use of VDT's in connection with specific job functions. This committee was established in addition to the Technological Change Committee which, in theory, deals with issues related to technology before it is introduced. The union also contracted an in-depth study of automation in the Vernon area of BC Tel's operation, a study that has already provided excellent support materials for bargaining, member education and strategy setting, not to mention this research.

In its current collective agreement, BC Tel workers have time off in lieu of paid overtime, six to 12 months notice of technological change, training and retraining at the employer's expense when jobs are affected by technological change, and financial assistance for training and retraining not related to technological change. While these provisions are a step in the right direction, the way in which they are implemented is still the source of time-consuming grievances. In its most recent bargaining agenda, the TWU called for a retraining fund to assist the casualties of technological change, and proposed that 3% of the bargaining unit payroll be submitted by the company to a training and retraining

fund. The union wants more equitable availability to skill updating, skill diversification and opportunities for workers to train in completely new lines of work and leave of absence provisions without any loss of benefits (TWU, 1984d). Recently, the TWU has requested more input into company training and has established a committee under the chair of one of its staff members to draft a proposal for union involvement (TWU, 1984d).

The Communications Workers of America

The CWA's history and structure

The 700,000 member Communications Workers of America (CWA) is a major white-collar American union. More than 50% of its members are women. Its origins lie in the many small independent unions and company sponsored workers' associations that sprang up in the telephone industry during the 20's and 30's. With the legislative support of the 1935 pro-union Wagner Act, many "company unions" sought and won union status, usually at the instigation of skilled craftsmen. Toward the end of the decade, many of these locals amalgamated under a loose confederation called the National Federation of Telephone Workers (Bernard, 1982, p. 95). Following an unsuccessful strike in 1947, the National Federation of Telephone Workers was transformed into the CWA, and the previously separate plant, traffic and clerical bargaining units were combined as one.

Today the union is a powerful collection of more than

800 locals divided into 12 districts. By Canadian standards, many of its locals are extremely wealthy. Local 1101 in New York City, for example, has 12,000 members and the highest paid executive officer in the country (CWA, 1984c). In 1974, the union secured national bargaining on major wage and pension issues, but benefit programs such as QWL and job evaluations are still negotiated at the local level. Individual locals have a great deal of autonomy over how their share of union dues and benefit monies are spent (CWA, 1984c).

The AT&T structure and training approach

AT&T is the largest utility company in the U.S. and employs close to one million people (Jacobson, 1980, p. 105). It has significant long distance business in the regulated sector as well as interests in 20 unregulated operating companies, a research arm (Bell Labs) and a manufacturing branch (Western Electric). Like Bell Canada and BC Tel, it is determined to become a diversified company able to profit from the new directions in telecommunications.

Prior to losing a landmark affirmative action case in 1971, AT&T provided little training to women in operator, clerical or sales jobs. Wallace (1976) found that the company treated its female workers as interchangeable units, based on the belief that women shun advancement and responsibility. Prior to 1971, new female recruits were tested differently than the men, and were not even allowed to apply for craft positions (Wallace, 1976, p. 158). Training for

operators consisted of self-paced programmed instruction.

Today, AT&T has a company-wide employee initiated training program and job transfer process for all non-management categories including operators, clerical workers, craft, service and sales personnel (Jacobson, 1980, p. 104). A description of the essential functions and requirements of every non-management job must be posted, and any union employee can apply for a transfer to any of these jobs or for acceptance into any of the training programs, on her own time. Requests for transfers are evaluated by the upgrade and transfer bureau which considers attendance, current job performance and skills. In theory, once an application is approved, the request is filed, ready to be activated when a job requisition comes through (Jacobson, 1980, p. 104). Strict time-on-location and time-on-title requirements must be met before the employee can move out of a position. This requirement varies from 12 to 24 months, depending on the length of the training needed to prepare the employee for that job (CWA, 1983b).

Since 1971, additional efforts have been made to open up craft positions to operators. According to Jacobson (1980); frequent transfer requests come from operators who want to become installation technicians, a position that pays \$100 more a week. Accepted applicants enter a 40 to 50 hour training course - climbing telephone poles, taking phones apart, running wires. (p. 106)

Many of the courses and tools have been redesigned to

accommodate women, and include such things as communication and writing skills. Some courses are college accredited. Despite these changes in AT&T's training policy, grievances related to the inequitable and arbitrary decisions made in this area, as well as the continual down-grading of jobs both in terms of skills and wages, are common. A training program such as AT&T's is only as good as the career opportunities in the company -- of which there are few.

Educational initiatives of the CWA

Quality of working life

AT&T has been involved in work reorganization experiments since the 60's. Early experiments usually involved giving a worker more than one task to perform. Only a few of these redesigned jobs -- the ones that clearly saved the company money -- have been continued (Kuyek, 1979, p. 21).

In 1980, AT&T and the CWA started negotiating three significant labour-management agreements: a technological change committee to discuss and modify technology before it came on line; a QWL program to deal with the introduction of the technology; and a job evaluation committee to assess the new jobs created and how they fit into the existing hierarchy (CWA, 1984c). The union has also established a network through its shop stewards to channel information about the impacts of technological change to one of these committees. This network is intended to harness the knowledge of the real experts, the workers (Kennedy, 1983, p. 73). According to a CWA staffer, these programs have had varying degrees of

success, but the QWL program has worked the best by a wide margin.

The QWL process began in 1981 with a joint agreement about the basic principles of the process. Both sides agreed to four conditions:

- 1) procedures that allow employees at all levels of the organization to influence their working environment,
 - 2) the recognition of QWL as a supplement to the collective bargaining process and grievance procedures,
 - 3) no lay-offs as a result of QWL initiatives and
 - 4) co-operation for an efficient and profitable enterprise
- (Brower, 1983, pp. 8-9).

The union and company jointly trained all union representatives and a cadre of Bell managers in the rudiments of QWL, and these people were encouraged to initiate the process in their locals. Trainees took time off with pay to attend courses and meetings. Advanced QWL training has been jointly delivered by union staff members, local officers and second and third level supervisors. Staff from the CWA's national office have held workshops across the country to discuss the advantages and pitfalls of union involvement in QWL.

There are now approximately 2,000 QWL groups at the office level within the Bell system. According to a union spokesperson who described himself as 'no big QWL fan', the gains we have made here are impressive. There have been enough successes to show that if you maintain the equality of the process you can come to

grips with some of the big problems we have today.

(CWA, 1984c).

In 1984, the national CWA-AT&T committee published A Road Map for Successfully Managing QWL, which describes eight QWL experiences; four from a management perspective and four from a union perspective. Job satisfaction for those involved in the experiments went up 12%, and attendance, accuracy and attitudes towards the union improved (CWA, 1984e). The case studies show that authoritarian relationships between management and subordinates, and concentration on short-term, bottom-line performance criteria are major obstacles to the success of QWL initiatives. To overcome these obstacles the report identifies two important educational needs:

- 1) widespread communication and education to prepare the organization for change and
- 2) problem-solving meetings, training and resource people to support the change process (CWA, 1984d).

Changing the operator's job through QWL

The CWA's experience shows that QWL can achieve breakthroughs in labour-management relations and work organization. In Phoenix, Arizona, for example, 130 operators in a Hotel Billing Centre (HOBIS office) now work without supervision or average work times. The reorganization was initiated by a district manager who was told to set up a HOBIS office and decided to use the QWL process to create a different kind of working environment.

The HOBIS office is part of the trend toward creating

ever-more specialized operator jobs. Placing and billing of hotel calls used to be handled by regular operators; it is now the only responsibility of HOBIS operators in HOBIS offices. HOBIS operators in Phoenix work on shifts and receive over 11,500 calls per day from a seven state region (CWA, 1984f).

When the union/management plan for a "bossless" HOBIS office was announced more than 300 operators applied for the 130 positions available. Eight of the successful applicants were chosen to form the QWL committee. They received a specially-tailored course on QWL, taught by one company and one union representative. (All operators were later trained in the principles of QWL.) The company then trained six staff on the HOBIS system, incorporating QWL principles in the skills training, and these operators trained the others, with one operator acting as Training Room Co-ordinator. In addition, each operator took a "manage your way to excellence" seminar and a three-day workshop on managing resource growth. Optional courses were offered in force and facilities administration. These seminars exposed operators to management concepts, leadership skills, oral and written communication skills and decision-making methods.

In 1982, the local QWL committee agreed to a self-managed office with goals of:

- 1) self development of all employees,
- 2) team work and participation by all employees and
- 3) efficient office management methods.

Operators take turns attending weekly meetings to make deci-

sions about staffing needs, scheduling and financial expenditures. They alternate as the 'line person' who makes station assignments and directs traffic for the system (CWA, 1984g). Remote service monitoring is now done intermittently and by peers. Operators are monitored every other month and can choose three days without monitoring during this period. Average work times are measured for the entire office, not for each operator.

Under the new system, office production in Phoenix is equal to or above all other HOBIS offices in the country and there has been a drastic reduction in customer complaints and union grievances. Absenteeism, at .3%, is ten times lower than the national average (CWA, 1984b).

The \$200,000 annual savings on supervisor's salaries has been put toward training and the improvement of customer services. Operators have organized workshops on how to improve customer service and internal business practices. Some operators have taken training on a wide range of job functions, allowing them to broaden their own work routines. According to one operator,

You can't put a value on the change in a group of individuals who traditionally have been regarded as inferior. These people now feel they can do anything.

They have room to breathe. (CWA, 1984e)

Some members feel there should have been more training on the principles of QWL before the system started to operate, since this was a necessary part of the all important trust-building

(CWA, 1984e).

The CWA Committee on the Future

The CWA's Committee on the Future was formed by a decision of the union's 1981 Convention. Over a period of 19 months, a committee made up of one representative from each of the union's 12 districts plus several senior executive members studied the union's structure and governance and the future of the telecommunications industry -- all culminating in a report with strategic recommendations and a plan for structural changes (CWA, 1984f).

As a starting point, the Committee designed a desirable future scenario and developed a range of strategic options for attaining this goal. These options were discussed with experts in different fields and, in the process, a methodology for analysing CWA's present efforts was developed. The committee identified threats and opportunities for the CWA, which resulted in a set of goals and alternative means to achieve them. All options were analysed from the point of view of what it would take to implement them. The committee's final report was presented to the union's 1983 convention (CWA, 1984a).

In the final report, committee members argued that:

- 1) training and retraining should form the backbone of the union's employment security strategy, and
- 2) that the CWA should be seen as key in the development and delivery of training programs (CWA, 1983a, p. 207).

In the introduction, CWA President Glenn Watts wrote:

The challenge to the CWA over the coming decade is above all to provide our present and future Members with employment security...The key to employment security is through training and retraining...(and) to do this we must be able to gain access to the funds of employers and government, for we cannot do the job alone. While we cannot lay aside our powerful confrontation skills, there is no way we can achieve employment security through training and retraining if we and our employers get bogged down in the old ways. (CWA, 1983a, p. 7)

Although many of the report's recommendations were voted down in convention, most of the items relevant to this study were received with enthusiasm. The convention passed a recommendation that union negotiators bargain for a powerful voice in training and retraining, career development and company-wide problem solving. The union was even given the go ahead to investigate getting into the training business itself by building hiring halls where entry level employees could gain "basic Information Age skills" (CWA, 1983a).

The convention also ratified the creation of a strategic planning centre, located in Washington but involving representation from all districts, to look at the connections among bargaining, organizing, political action, education and public affairs. The union plans to use this centre to develop training modules that could be used by member locals, a computerized job bank to facilitate movement between companies and an updated skill and knowledge certification pro-

gram. The centre will be created through reorganization, with no additional staff or expenditures.

The response to the report has been mixed. One insider felt the committee spent well over \$1,000,000 bringing in experts, consultants and "old time futurists" whose conservative views of the future were coloured by their desire to make sense of the past (CWA, 1984c). But others have praised the report as a trail blazer. Labour writer Wilfred List (1983) praised the CWA for creating

a model for other unions...its Committee on the Future Report tells what other unions have still to learn: that we cannot tame (the forces of change) and turn them to our advantage if we stay in the largely reactive and confrontational mode that has characterized our behavior for many years - and still does. Perhaps the report and the union's response to it will help the CWA become a successful information age union. Certainly the concept of studying a response to the new industrial society pioneered by the CWA, is worth consideration by other unions.

Initiatives in skills retraining

In 1983, AT&T and the CWA signed a national agreement which includes a joint labour-management training and re-training program estimated to cost \$35 million per year for 200,000 participants. The program is being developed and operated by union-management training advisory boards in each Bell operating company. While AT&T has previously provided

extensive job-specific training, the new program will give workers an opportunity to develop skill portfolios that would enhance their job mobility. The courses are paid for by the company but taken on the employees own time (CWA, 1984a).

Details for the training and retraining program are worked out at the individual company level. For example, the 1983 General Agreement between the CWA and Northwestern Bell Telephone Company provides employees, at company expense, with training or retraining programs for personal or career development (CWA, 1983b). The agreement states that this training will be generic in nature and separate and distinguished from job specific training. Job specific training is also covered in the Northwestern agreement, but this provision is only triggered when there is a job opening in the company. Like the career development training, job specific training is voluntary, unpaid and outside scheduled working hours.

At Northwestern, the training agreement is monitored by a training advisory board, consisting of three union and three management members, which provides the company and employees with:

1. advice on training courses and curricula
2. recommendations on training delivery (tech schools, home study)
3. evaluation data
4. information about courses and eligibility

In Pheonix, a CWA local has establish a two year degree granting program through a community college. The

curriculum is based on a needs assessment conducted by the local president and later developed in conjunction with the college. Members pay their own tuition, which is rebated by the company if they successfully complete the course, and the college rents classroom space from the union. According to one CWA staff member, "they've got a good program and have even turned a buck in the process. Every local in the country could do this" (CWA, 1984c).

CWA training for technological change

The CWA also has a highly regarded technological change training program (CWA, 1984c). The week long course consists of four packaged modules with video support materials that can be used by any local. The course involves a great deal of small group discussion. As an instructor explained,

I tell them there are two things I want them to carry away. One, there are choices in how this technology is used, and two, you have every right to be involved in those choices. (CWA, 1984c)

Workers are told to examine every new piece of equipment that comes on line in terms of its impact on skills, positions, management control and pay. Workers are asked to submit this information, on special forms, to their district level technological change committee. The organizers of this training hope to initiate a bottom-up attack on technological change that will eventually force senior union officials to take action.

The Communications, Electronic, Electrical, Technical and Salaried Workers Union (CWC)

A short history

From the 1930's to the late 70's, Bell Canada employees belonged to two company unions -- the Canadian Telephone Employees' Association (CTEA) or the Traffic Employees' Association (TEA). Membership on the executive of either association was seen as a first step toward promotion into a management position (Leimsner, 1981, p. 398). In 1949, operators, members of the TEA, resisted a company attempt to amalgamate their association with that of the craft workers. They did not want any part of a group that was dominated by men (Kuyek, 1979 p. 82).

During the mid 1960's, the International Brotherhood of Electrical Workers made an unsuccessful attempt to ~~take~~ raid the company unions, leaving some bad feelings on both sides. The CTEA never really recovered from this point onward (Kuyek, 1979, p. 82).

Canadian members of the Communications Workers of America peacefully broke away to form the Communications Workers of Canada in 1972, but Bell workers did not take much interest in the new union until 1975. Quebec workers were the first to join, after an aggressive four month organizing campaign by the CWC brought in close to 16,000 craft workers, quadrupling its membership almost overnight (Leisner, 1981, p. 397). Despite their strenuous effort to keep the union out, Bell Canada was taken by storm.

The operators, however, were still safe within the company fold and its extremely paternalistic TEA. In 1971 the operators were allowed, for the first time, to vote on a contract drawn up by the TEA executive and management. That same year, the TEA called its first strike vote, over wages, and after the ballots were counted, 90% of the operators walked off the job (Kuyek, 1979, p. 87).

From 1976 to 1979, a group of Quebec operators and their Ontario supporters waged a campaign against the old-line executive of the TEA. After several setbacks, the operators finally won certification under the CWC in 1979. Later that year, operators staged a series of rotating strikes that culminated in a full strike by 7,400 operators and dining room staff on Christmas Day. At that time the highest paid operator earned \$10,000 a year and none had seen a wage increase in two years (CWC, 1984b).

Today, the newly named Communications, Electronic, Electrical, Technical and Salaried Workers of Canada (CWC) has 35,000 members in Bell Canada, Sask Tel, Northern Telecom, Canadian GE, Telebec and AEL Microtel, to name only half. The union has 137 locals, representing every province except B.C. More than 40% of its members and 35% of its stewards are women, most of whom work as telephone operators and assemblers of light equipment (CWC, 1984b). In 1984, Bell craft and traffic workers settled a long overdue contract that resulted in paid maternity leave, fatter lay-off allowances and a joint health and safety committee. The union was unsuccessful in getting job posting although some

improvements were gained in lateral transfer rights (CWC, 1984c).

Bell Canada structure and training approach

Bell Canada is Canada's leading corporation in terms of net assets and net income, beating out such giants as General Motors, Ford, Canadian Pacific and Imperial Oil (Ontario Labour, 1980). The Bell Telephone Company of Canada was established in 1880 and very quickly acquired interests in all provinces except Newfoundland. Although many of the smaller companies have been sold, since 1981, Bell has maintained ownership and control over much of Canada's telephone network. In 1982, Bell Telephone Company became a subsidiary of a new parent company, Bell Canada Enterprises. The new Bell group includes a research and development branch, Bell Northern Research and a manufacturing arm, Northern Telecom (CNCP, 1970).

Bell Canada's management approach is notoriously paternalistic and as a result the company has a history of employee loyalty being passed down from parent to child. The company's paternalism was once built on its willingness to train unskilled workers, at company expense, to the level of highly-skilled workers. As the need for these workers has diminished, so too has the comprehensive training. Over the years, company training has become increasingly specialized and limited to the exact requirements of the job. Computer-based instruction is now frequently used to teach the minimal skill requirements of new jobs.

Job mobility for operators is minimal. Although operators can fill out special forms requesting transfers to other areas, the company is under no obligation to find applicants an alternative position. Operators at Bell say not one of their numbers has transferred to a craft position in the past five years years (CWC, 1984a).

Educational initiatives of the CWC

The CWC is a young union without the history of militancy that characterizes both the TWU and the CWA. Up until very recently the CWC had not tackled the deskilling effects of technological change in its contract negotiations, opting instead for after-the-fact provisions such as severance pay, wage maintenance and shorter hours.

In recent years, however, there have been signs that the union's attitudes toward bargaining and technological change are changing. At the union's July 1982 convention in Saskatchewan, union president Fred Pomeroy argued that while the union had made substantial progress in negotiating job security and retraining allowances related to technological change, "we have to start moving into new areas by pushing for a say in job design and the location and allocation of work".

This year, the union is negotiating for contract renewal. A union-wide consultation was conducted to identify bargaining priorities and the following list is part of the union's demands.

- time off in lieu of overtime

- an improved retraining program for employees affected by technological change
- a paid educational leave plan funded on the basis of one cent/hour/employee and administered by the union
- a six month, unpaid leave of absence with a guarantee to return to the same job and location
- improved access for operators to craft jobs

As it stands now, the CWC's collective agreement with Bell stipulates a three to six month advance notice of technological change. According to operators interviewed for this research, this provision is virtually meaningless. Ninety days before the introduction of a new directory assistance system (MDAR), the company held a meeting with all union stewards and executive officers of the local. A union representative described the meeting;

When they give you 90 days notice, its just out of courtesy. There's not a chance you can change things. Our stewards asked some questions but there was no opportunity to talk about changing the system. Our third level manager was there and her first level was operating the slide projector. But they don't know much more about this than we do. (CWC, 1984a)

The CWC has not welcomed QWL initiatives advanced by the company, largely because Bell's first steps in this direction were taken without union input. In a June 1982 policy paper the CWC cautioned its members that dishonest employers have used QWL programs to isolate and break the union, reduce the militancy of workers, increase productivity, abandon health

and safety issues and disregard the collective agreement. In 1982 the union urged all locals within Bell Canada to boycott company sponsored QWL meetings because the employer's motives were suspect.

The CWC has been involved in efforts to reduce the stress of monitoring and the monotony of certain operator functions. For example, the Syndicat des travailleurs en communication du Canada (STCC), the CWC's Quebec branch, grieved the existence of a button on the TOPS terminal which allowed operators to call up the average "time-on-call" of other operators in her pool. This button has now been removed although an operator can still call up her own average work time. Also, work in the HOBIS office, a separate room where hotel calls and special billing procedures are handled, used to be assigned as a reward for good work. Due to a union grievance, all operators in Montreal now take turns, in half day stints, in this job (STCC, 1984a).

The national educational efforts of the CWC are organized by a national representative in Toronto, who has other responsibilities. Courses are offered in health and safety, grievance procedures, affirmative action, employee recovery, pre-retirement, public speaking, politicization and group motivation (CWC, 1983b). The STCC in Quebec also organizes a wide range of unionism-type courses, often in conjunction with Quebec regional work councils. The list includes courses on working conditions for women, civil law, VDT's and media relations. Union members can also take courses offered

by the CLC and regional and district labour councils.

The executive of the CWC has taken the position that skills training is a management rather than a union responsibility (CWC, 1984b). The union sees the elimination of barriers to job mobility, particularly for operators; as a more important priority. At the time of writing it was grieving the company's refusal to allow an operator to apply for a craft job. Until such transfers are allowed the union sees no point in getting involved in skills training. Both executive members and local officers expressed some unease that the union is not more involved in the design and delivery of company training, but explained that no push for such involvement has been felt from the 'bottom up' (CWC, 1984b).

Information from operators involved in union activities support this view that members are not pushing for training. The local can sponsor operators to take courses offered by local and provincial labour councils, but the response has been very low. Although weekend shifts mitigate against operators' involvement in these courses, one operator argued that "the women here always have excuses for not getting involved."

One CWC local organized a weekend retreat with ten operators to discuss issues surrounding technological change. At the end of the weekend, these women had produced a new technological change clause and were writing contract language. However, officers of the local say that one year later they have seen no noticeable change in the involvement of these women in union affairs. Those who had been active still were

while those who hadn't still weren't.

In general, operators at Bell Canada show few signs of militancy. More precisely, while they complain about the job during coffee breaks, there seems to be little motivation for collective action to change the job. Several operators interviewed said they preferred TOPS to the old cord board: it is cleaner, more modern and it provides a personal space. "You don't have to deal with someone beside you smelling like onions or garlic," one operator explained. The pressure from operators to take on craft positions is minimal.

Most operators have very traditional values for home and for work and they don't see why anyone would want to change the situation. We hear a lot of griping but no action. A lot of women transferred into clerical jobs at \$80 less per week because the hours are better and there's a better choice for holidays and less stress. But there's also no union. (CWC, 1984a)

Another active union member added, that "people are really brainwashed. They don't seem particularly interested in anything. They don't want more involvement in their jobs."

A local officer explained that elected union representatives are generally more militant than the average operator and therefore do not feel representative of the membership at large. This creates frustrations for union activists, as one explained.

In the union we have this wonderful trinity; negotiate, legislate and educate. But basically we're just working to maintain the jobs we have. It's damn boring to sit here dreaming up lots of schemes when basically we're dancing by ourselves. The members in general just aren't interested. (CWC, 1984a)

A survey of workers in the Vernon area of BC Tel's operation revealed a similar phenomena. When asked if they had a personal objective for job upgrading within BC Tel, 55% of the 123 respondents said "no" (Gordon & Hansen, 1983, p. 63). Unions interested in democratising the workplace have a lot of work to do in changing the attitudes of their own members, let alone those of management.

CHAPTER SEVEN

UNION EDUCATIONAL STRATEGIES FOR EMPLOYMENT AND INDUSTRIAL DEMOCRACY

Labour unions in North America are in trouble. From 1976 to 1983, membership in the three largest industrial unions in the U.S. has declined significantly. The Auto Workers are down from 1,358,000 to 1,037,000; the Steel Workers from 1,300,000 to 590,000 (CWA, 1983a, p. 33). Labour's political, economic and social policies are under attack from industry, government, and even workers themselves. In part this assault results from the labour movement's lack of adaptability; it has not come up with new services or more flexible organizational forms that fit the needs of a changing workforce and workplace.

The pressures of continual layoffs and job deskilling have forced many unions into a corner. Willingly or unwillingly, they spend most of their time on defensive actions, leaving few resources to research the long-range directions of new technologies, to investigate job restructuring possibilities or to plan a comprehensive education program. Few, if any North American unions have done the amount of long-range planning that the CWA undertook in its Committee on the Future. Few have commissioned assessments of new technology as did the TWU. And few have dropped their confrontative

stance in an effort to restore dignity and skill to work.

The confrontative approach that has served North American unions for the past 30 years has in many ways outlived its usefulness. Toffler (CWA, 1983a) argues:

Trade unions face a crisis of survival and I would suggest that ten years from today many of the most powerful unions in the world will have vanished or will have shrunk into economic and political irrelevance. And this, in turn, has fundamental importance for the structure of power in our societies. (p. 33)

The biggest challenge for the CWA, TWU and CWC is to influence the design and application of technology so that work and skill in work are maintained. For this to happen, unions must be involved in the earliest stages of development, years before the product comes on line. In negotiating for this kind of involvement unions are not just fighting a company -- they are bucking a system.

Rank and file employees at Bell, BC Tel and AT&T far outnumber senior management. If these employees decided to fight for work that met some of their needs, between them they would have more than enough information and creativity to challenge management's assumed right to control the workplace. Most workers do not fight for the dignity of their jobs because they spend eight hours a day in an environment designed to prevent them from doing so.

This research has shown that there are alternative models to Taylorized work processes and confrontative labour

relations that provide benefits for both workers and industry. If the labour movement is to survive and flourish, it must involve itself in the testing and evaluation of models such as these.

It is clear the industrial unions that operate in high tech settings must move beyond their industrial relations traditions if they are to influence the development of new technologies and provide a counterweight to management deployment of these technologies. If they don't do this, the robots will deplete their membership, their adversary culture will limit the learning of workers and professional and para-professional employees will come to regard the union as a barrier to their own development.

(Hirschorn, 1982, p. 16)

It is possible that unions that survive the transition will be those that transfer their emphasis from the 'industrial' role of negotiating pay and conditions and protecting the worker within the enterprise toward that 'political' role of concern with issues of power, ownership and control and the conservation of resources. (CWA, 1982, p. 12)

Major changes will be required to the attitudes and priorities of unions if this new 'political' role is to be realized. Unions will have to look beyond traditional concerns for wages, hours and benefits to such things as oppor-

tunities for career development and skills training for power sharing. Some unions have started to prepare for this new role, one that will require a much more elaborate research and education model than now exists.

Thesis One -- Union Involvement in Skills Training

This research provides limited evidence to support my first thesis that unions can protect the interests of workers affected by technological change by expanding their involvement in worker education. There is strong contradictory evidence that training and retraining programs, without concurrent changes in the organization of work to maintain acceptable levels of job skill, only serve to grease the wheels for management's deployment of increasingly automated systems. Although unions can provide a valuable service in fighting for more broadly-based skills training, workers will ultimately have no opportunities to use this knowledge if the deskilling trend of automation continues.

The TWU's experience with the pre-craft course has left it cautious about any future involvement in skills training. The union developed this course during a period of extremely bad labour relations when feelings of worker solidarity were high. It appears that management's subsequent involvement in the course was either an act of bad faith or a reflection of bad planning on the part of the company. None of the trained operators has moved into a craft job.

Given the recent and threatened job layoffs and the

constant indications of job deskilling, it would be hard to argue that the union should release some of its limited resources for skills training. In part this means succumbing to management by short-term goals, a method of operation that has been criticized earlier in this thesis. However, in the case of the TWU, union staff are actively involved in developing other long-term, co-operative mechanisms that will hopefully slow BC Tel's passion for centralization and work fragmentation. Until some of these guarantees have been won, the union would not be providing the best service to its members if it devoted energy to teaching them skills that would soon be made redundant.

The CWC has never made skills training a priority and from all evidence has never even considered making it one. Union staff consistently argued that training is a management responsibility. The union is struggling with the vestiges of company unionism and is relatively much smaller and less militant than either the TWU or the GWA. It is also less innovative and further away from any type of co-operative action with management.

The CWC has been leary of any attempts by Bell Canada to initiate consultative or job enrichment schemes. While much of this hesitance may be justified, it is hard to believe that Bell Canada is more devious and dishonest in its negotiations and management techniques than either AT&T or BC Tel. There are indications in recent years (in the speeches of union executives and the addition of staff to the research department) that attitudes at the CWC are changing. But of

the three unions studied in the course of this research, the CWC could benefit most from the strategies outlined later in this chapter.

The CWA, on the other hand, provides most of the limited evidence to support my thesis. This union has not only developed skills training programs at the local and regional levels, but it has also made career development and education the priority in its strategic planning. The CWA is a glowing example of what Toffler described as an "information age union". Granted that the CWA is almost ten times bigger than the CWC, and has been an independent union for slightly longer, it would still seem that a large part of the difference between these two unions is one of attitude. The CWA has recognized that in order to continue to be a viable institution, it must provide tangible services to its members. And it has looked beyond wages and hours in its investigation of possible service areas.

Unfortunately, the results are not in yet from the CWA's educational programs described earlier in this thesis. It would require a separate study to assess whether any have resulted in improvements in employment security, career opportunities, absenteeism, work quality, productivity or workplace democracy. The evidence so far suggests that the CWA's initiatives have been followed by a revitalization of member interest in their union. The evidence also suggests that union co-operation with local community colleges and schools can help bolster the image and finances of both

institutions while at the same time providing courses that are appropriate to the learning level and job environment of the students. The CWA, like the TWU and CWC is waging a constant battle against job deskilling and job reclassification. But it is also helping to prepare its membership for an uncertain labour market.

Thesis Two -- Union/Management Co-operation

My second hypothesis, that union involvement in job and career development training requires consultation with management, has been born out by this research. Without management co-operation, unions seldom have the necessary information to identify future skill requirements and develop courses to meet those needs. The case study of the CWA also showed that true co-operation goes a long way toward allaying the fears that develop, on both sides, about the motives of the other. Although many CWA staff approached the QWL experiments with a large dose of scepticism, even some of the most hardened proponents of the adversarial system have come to acknowledge the benefits of this type of co-operation.

The bossless HOBIS office in Phoenix, for example, was originally proposed by the regional manager. As a result of the union's willingness to participate fully in the experiment, 130 operators now have challenging jobs and have acquired new skills that have made them generally more marketable. Successful experiments such as this one will lead the way to greater information and power sharing.

Conversely, the TWU and CWC's hostile experiences with management have wasted energy and destroyed much of the goodwill that is so necessary for workplace reform. BC Tel's involvement in the pre-craft course appears to have been half-hearted and the results reflect a lack of consultation and planning. It is also possible that the union did not give management the opportunity to investigate and discuss the longer term implications of the course.

Thesis Three -- Model Building

My third hypothesis, that the experience of two unions in the telecommunication sector could provide sufficient evidence to develop a model for union delivery of training programs, is valid only to the level of complexity of the chosen model. The recommended model, to be described later, is far less complex than was originally intended, although the framework does provide basic guidelines for unions interested in expanding their educational role.

There are four basic models or approaches for delivering skills or career development training. The models are:

- 1) government delivery of training programs
- 2) company delivery of training programs
- 3) union delivery of training programs
- 4) union/company sponsored training programs

This chapter describes some of the advantages and disadvantages of each model. The preferred model, union/company sponsorship of training programs, is described last and in

most detail. The description of this model is accompanied by a list of strategies for unions interested in expanding their involvement in job skills and career development training.

Government sponsored retraining programs

Although this model was not specifically investigated, some of its strengths and weaknesses were identified in the course of other investigations. In theory, government-run training and retraining programs use public funds to provide workers with enhanced career mobility, to provide industry with the required production skills and to provide society in general with a more productive and flexible workforce. The public sponsorship of schools and universities is supported by a similar rationale. However, the common criticism of these programs is that the policy makers and officials who develop them are not located or informed well enough to determine real skill needs or understand the rapid changes in production processes. In general, government training and retraining schemes have not been highly successful in bringing labour supply and demand closer together. They are plagued by high drop out and low placement rates. In addition they can do nothing to reverse job deskilling since they only seek to provide companies with the requisite, if limited, production skills.

Company sponsored retraining programs

Until recently, job skills training was left almost entirely to employers in a laissez-faire system where the

state played only a marginal role. Today, the state provides most basic technical skill training with the company providing the site-specific skills. This model is clearly cost-effective, at least in the short run. Workers can be taught the essentials of a job very efficiently -- no wasted public or corporate dollars for transfer or system learning. Highly "taylorized" training packages and devices can be used to fill skill gaps quickly at minimal cost. Any production resulting from the training can be used to offset costs. And because the firm makes a minimal investment in its employees, it risks no great loss if they leave after training, which they are unlikely to do since their skills are so job specific.

In North America, on-the-job training is almost exclusively aimed at increasing worker productivity for a particular firm. The argument goes that because the employer pays for the training, s/he has the right to decide who gets trained and how. Industry's emphasis on know "how" rather than know "why" produces workers whose skills are not easily transferable to other systems and whose confidence in their ability to think, to solve problems and to take responsibility has been diminished. The notion that the company has an obligation to the long-term career development and employment security of an employee, a philosophy embodied in most Paid Educational Leave programs commonly found in Europe, is still foreign to most North American employers. At the same time, industry's tendency to invest in those employees who already possess a high degree of skill and education, contributes to

the growing gap between the educationally rich and the educationally poor. Even companies that offer "occupationally-related" skills training, on a voluntary and unpaid basis, give an unfair advantage to those who already possess the most varied and skilled jobs. Few courses are "occupationally-related" to the telephone operator's job! This growing polarization in the workforce is unacceptable. If training is left to corporations alone, the economic forces that drive the rationalization of work will meet with no organized opposition and the polarization of the workforce will continue.

Union-sponsored training programs

Unions organize their own courses and schools in order to politicize and indoctrinate their members and produce the skills needed for the dynamic operation of a union. They also provide special services, such as counselling and pre-retirement courses, as part of their dedication to workers' well-being, both on and off the job. This principle has not generally spread to the area of skills training. The few union-only initiatives in this area have met with one overriding problem. Without company involvement, the union is vulnerable to sudden and unreported changes in company procedure or work processes that could destroy the relevance of these courses. This kind of setback is demoralizing for organizers and students. The TWU's experience with BC Tel is a good example. Even though the company contributed to the pre-craft course financially, its lack of involvement in the

planning stages could be partially responsible for the resulting gross mismatch between qualified workers and the jobs available.

The area in which exclusive union sponsorship does not risk being undercut by production changes is in basic skills training and educational work aimed at encouraging the desire for, and ability to work toward, greater industrial democracy. This is an important new area for union service to its members. Both public and private funds should be negotiated for the development and delivery of training in this area. Industry already receives public funds, in the form of tax breaks, for its training efforts.

Company/union sponsored training programs

Company/union development of skills training programs combines the benefits of the previous two models. The following list of advantages provides strong evidence in support of co-determined training programs.

1. The design and content of jobs can be negotiated in conjunction with discussions of training needs. Issues related to organizational redevelopment and worker participation, as well as the ideological perspectives of unions and management, can be incorporated into skills training.
2. A balanced program can be developed combining theory and practice and emphasizing the connections between a particular job and the system as a whole. The result is more motivated and adaptable employees able to

respond and contribute to changes in procedures and emergency situations.

3. The long-term employment security (as opposed to job security) of workers can be fostered by providing remedial and basic skills training and a systems approach to skills development.
4. On-the-job-training reduces costs.
5. Courses can be specifically tailored for a known audience, resulting in more relevant and effective training and more motivated learners.
6. The consultative process needed to set up a joint program encourages co-operation. Co-operation tends to break down stereotypes, paving the way to union/management co-operation in other areas.

On the disadvantages side, union/management sponsored systems are likely more time-consuming and therefore more costly than exclusive management involvement. From a short-term profits perspective the joint approach is probably not justifiable. However, a growing number of employers and employees are realizing that such short-sightedness can have expensive long-term consequences.

Strategies

The following strategies are aimed at union organizers who want to expand the union's role in member education to include participation in the design and delivery of skills training as well as in the development of more democratic

and humane work systems.

1. Collectively and individually, unions could lobby for government funding of research into:
 - a) workplace technologies that provide opportunities for skill development and co-operative work arrangements.
 - b) alternative organizational structures that maximize the skills and initiative of workers.
 - c) experimental delivery systems for occupational and career development training.

(Refer to pp. 52-55 for elaboration.)

2. The union itself must be consistently democratic before it can call for democracy in the workplace. Efforts should be made, through education, newsletters and regular feedback procedures, to facilitate responsible participation among members.

(Refer to pp. 47 and 95-97 for an example of the CWA's experience in this area.)

3. As a first step toward building more co-operative mechanisms for workplace management, unions should initiate common interest forums with management to discuss:
 - a) the predicted scheduling of the introduction of new technologies and the predicted impact on the quality and quantity of jobs.
 - b) the social and economic factors motivating the introduction of these technologies.
 - c) alternative technological and organizational configura-

rations to maximize human skill and responsibility. These forums would not be decision-making bodies but would be aimed at preparing the ground for the more formalized committees described in the next strategy. The TWU and the CWA have used common interest forums with some success.

(Refer to pp. 80, 81, 86,87 (TWU), and pp. 90,91 (CWA).)

4. As a further step, unions could push for the formalisation of union/management committees on
- a) technological change,
 - b) QWL
 - c) and job reclassification and training.

These committees should have equal representation from union and management and should concern themselves with day-to-day decisions affecting the workplace as well as long-term planning decisions. It is important to note here that ideally such committees should be supported by legislation requiring companies to provide a minimum of one year's notice of technological change and documents describing the rationale, design and impacts of these changes in layman's terms. Current Canadian legislation in these areas is very weak.

(Refer to pp. 38, 39, 44, 46 and p. 86 (TWU) and 90-95(CWA).)

5. Unions could designate an educational officer, preferably a member of the job reclassification/training committee, who would be responsible for linking union members with existing counselling and training opportunities and

recommending new initiatives for the union and the company.

6. Unions could co-ordinate information sharing among members sitting on the job reclassification/training committees to provide support for the process and to identify training needs. Courses could then be developed by the union to assist members in becoming effective participants on these committees.

(Refer to pp. 50,51, 55-57.)

7. To support the work of its members on the union management job reclassification/training committee, unions could conduct research into the employment futures (skill priorities and job openings) in their particular industry.

(Refer to pp. 23, 86 (TWU) and pp. 52-55, and pp. 96,97 (CWA).)

8. Unions could create formalized technological change networks aimed at gathering and analysing information about existing and expected changes in work processes. This information can be used by participants in the job reclassification/training committee and also by the union executive in identifying priority skill training areas.

Several unions, among them the CWA and the TWU, have identified technological change shop stewards and have designed special reporting forms to ensure that any information about changes in work processes is immediately fed into the information network. The design of these

networks must provide for a two-way information flow -- from rank-and-file members to national office and from national back to the members. There is danger here, as with other union consultative processes, that the synthesized data is not sent back to its originators, creating resentment and finally pull-out of support.

(Refer to pp. 90, 99 (CWA).)

9. Related to the previous strategy, unions could develop methods of analysing this information so that trends can be detected early and the knowledge organized in the interest of meeting specific union objectives.

(Refer to pp. 23, 86 (TWU) and 95 (CWA).)

10. Using both bargaining and consultative forums, unions could lobby for involvement in the design and delivery of in-house training. The goal of such efforts would be more systems-oriented training, with the explicit intent of broadening the skills and abilities of employees and of promoting employees from within the company for new job openings.

(Refer to pp. 63-69, 86,87 (TWU), 96-98 (CWA).)

11. Unions could lobby for the redirection of a percentage of the profits resulting from more efficient systems into training.

(Refer to pp. 86,87 (TWU), pp. 103,104 (CWC).)

12. Unions involved in apprenticeship training should assess

these programs in terms of the employment flexibility they provide workers now and for the future.

(Refer to pp. 69-72)

13. Unions could bargain for greater job mobility within a company and for the elimination of artificial barriers between low-skilled and higher-skilled jobs. Promotions within the company should be partially based on the successful completion of courses arranged or offered by union/management. The pipefitters union has set such a precedent by putting skill upgrading ahead of seniority in selecting candidates for promotion.

(Refer to p. 84 (TWU) and 89,90 (CWA) 106,123 (CWC).)

14. Unions could develop a public relations campaign to promote these new training and consultative mechanisms. Such publicity is needed to counter the widely-held association between labour unions, greed and abuse of power. Such a campaign should also promote the idea that workers are entitled to a share of the benefits of technological change and that the designers and implementers of new systems have a responsibility to those directly affected. It should be directed at shifting responsibility away from displaced workers and onto the decision-makers, as David Noble argues.

(Refer to pp. 23,75)

15. Unions could establish a consultative problem solving mechanism for union members to develop strategies around

such issues as deskilling, new technology and management control, alternative job structures and training. The "search-conference" model used by the Federation of Danish Trade Unions is applicable here. On the request of a local, the federation organizes lecture series and invites speakers from outside the union and from the company itself to present their perspectives on the chosen issue. Union members then split into groups and return with questions for the guest speakers. The groups identify problems for further study and submit their findings and favoured solutions to the local's next annual general meeting for decision. The federation has organized this type of workshop on an industry-wide basis as well (OECD, 1983, p. 159).

(Refer to pp. 59,60 and 95-97 (CWA).)

16. Regional or district union offices could co-ordinate local study groups by providing them with research and educational materials and by maintaining a flow of information among the groups.
17. Unions could work with community groups and colleges to develop upgrading courses in basic skill areas such as written communications, logic and analysis, basic science, math, the economic and cultural environment, problem solving and entrepreneurial skills. The CWA local in Pheonix is an example of the successful application of this strategy.

(Refer to pp. 58-61, 73,74 and 98,99 (CWA).)

This is a challenging time for union organizers and educators. One union staff member said that given the anti-union environment today, he envied the struggles of UAW organizers in the '30's (CWA, 1984c). Unions are seeking new dimensions to their role as the protector of workers' interests. The future of unions lies in two areas:

1. in their ability to help shape workplace technologies so that skill and dignity in work are maintained and
2. in their ability to provide members with job and negotiation skills that will allow them to participate as equals with management in an increasingly automated workplace.

It is hoped that this research will lead some unions in these directions.

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