AUSTRALIAN INSTITUTE OF MANAGEMENT

PRESIDENT'S DINNER, 1980

SYDNEY HILTON, 25 SEPTEMBER 1980

MANAGEMENT, MYERS AND THE MICROCHIP

The Hon. Mr. Justice M.D. Kirby
Chiarman of the Australian Law Reform Commission

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THE STOREY MEDAL

I want to start with a few words of my own in praise of Sir John Storey and of Mr. Downie, the winner of the 1980 John Storey Medal.

Sir John was the son of a Labor Premier of this State. He graduated in Science from Sydney University and after War service commenced a career in business which must have few parallels in our country. Beyond his immediate concerns, he took initiatives which led to his becoming the first President of the Institute of Industrial Management, the forerunner of the Australian Institute of Management. During and after the Second War, he turned to national service, being chosen Chairman of the Joint War Production Committee and the Immigration Planning Council. On his death in 1955 he left large bequests for the education of his successors in the field of management training and efficiency.

The John Storey Medal keeps alive the name and example of this considerable Australian. Its 1980 recipient, Mr. Downie, has demonstrated those qualities which also marked Sir John Storey's life. His participation in the affairs of this Institute, his concern with education and community activities, and his interest in international developments in the field of management merit the approbation not only of this Institute and its members but also of the wider Australian community. It is the manager who devotes part of his time to the affairs of the wider community who earns its special thanks. In a sense, he lays down the capital of knowledge, training and education that prepares succeeding generations for the management tasks vital to the success of our form of economy and society.

The point of what I have to say tonight is that never has there been a time when public spirited concern with social issues has been more urgent. Never has there been such a time when management faced such sophisticated challenges and problems of technology. Never have the social problems been more complex. Yet this is the exciting challenge before management today, in an age of unprecedented scientific and technological change.

It is about the dynamic of science and technology that I want to address a few words to you. I do so against the backdrop of the recent report on Technological Change in Australia, produced by the Committee of Inquiry chaired by Professor Rupert Myers.

THE MYERS REPORT

I titled my address 'Management, Myers and the Microchip' with some trepidation. The last public speaker I know who indulged himself in alliteration of this kind was the ill-fated Spiro Agnew. When Ralph Nader came to Australia a few weeks back I had to introduce him to a packed audience at the Sydney Town Hall. I reminded the audience that in 1971 Nader had been voted in an American poll as the seventh most admired person in humanity: squeezed somewhat uncomfortably between Pope Paul VI and Spiro Agnew.

It is not only Popes, but also Politicans who must constantly be reminded 'sic transit gloria mundi'. At the zenith of his triumph, a newly chosen Pope is bidden to watch the burning of the ballots by which he was chosen and he is reminded: 'Thus passes away the glory of this world'. So it is with business. So it is with management. The glories and triumphs of today's innovations are fast overtaken. Today's efficient new system is tomorrow's obsolescence. The pace of change has increased remarkably: largely as a result of new technology. The 'time cushion' within which managers, lawmakers, judges and others could adjust to change is markedly diminished.

Failure to adjust quickly enough to new technology, failure to learn of it and to implement it and to do so successfully may mean ruin not only for management but for all involved in the business concern including its employees. Using the wrong technology or an outmoded system or one which may not be adapted to future change can be equally disastrous. In the mechanical age the tasks of management were simpler. There was more time to consider change. The changes themselves were less radical. Oversight and mistake was less disastrous. The British penchant for 'muddling through' and the faith in the 'gentleman amateur' would usually suffice. That era is closing. The manager of tomorrow will be a kind of technologist. His skills in following technological change, seizing and adapting innovations to his company's use, will be more important than skill in corporation politics or the occasional 'bright idea'. I say this without denigration. Even the old professions will have to adapt to the age of the microchip.

THE AGE OF THE MICROCHIP

The remarkable scientific developments of our age include the a demonstration of nuclear fission and the extraordinary advances of biology which produce the test-tube baby, transplants, the potential of human cloning and the use of surrogate (or host) mothers.

However, the development of the computer, the miniaturisation of the 'microchip', the linkage of computers by telecommunications and the revolution in information sciences are in some ways even more dramatic and certainly more pervasive. By a most remarkable combination of transistor technology and photo-reduction techniques, the 1970s saw moves towards the miniaturisation of computers. One hundred thousand transistors can be integrated with circuits crammed into a single quarter inch of silicone. This silicone 'chip', the 'microchip', seems every day capable of containing more and more data: retrievable at increasing speeds and diminishing costs. The Law Reform Commission is examining these developments because of the potential they have for diminishing individual privacy. In the course of our inquiry it has emerged that:

- The cost per function of a chip has been dramatically reduced by more than ten thousand-fold in something like 15 years

- The cost to hire a satellite circuit was in 1965 $30,000 a year. In 1980 it is $700 and coming down

- The cost of a satellite earth terminal was in 1965 $100,000. Last year it was $12,000. This year it is $1,000.

- A single optic fibre one-fifth of the thickness of a human hair can nowadays do work which until lately required 10,000 ordinary telephone wires.

That these developments have implications for management is beyond question. The new technology has, for the first time, made robots cheaper and more efficient than many human counterparts. For the equivalent of an hourly 'wage' of $4.60 (the average cost of maintaining them) robots can now perform tedious and dangerous work with a high degree of reliability. By way of contrast, an average human worker on an automobile assembly line may earn more than $10 an hour. Large plants, many employees and even many managers will be overtaken by developments of this kind.

THE MYERS REPORT

What guidance does Professor Myers and his committee offer for the manager in this bold new world of rapid innovation? You will remember that the Prime Minister established the Committee of Inquiry into Technological Change in December 1978. It was required to identify technological changes which were occurring and likely to impact Australia. The committee's report was released in July 1980. It concluded that there was no doubt that likely future technological changes 'have the capacity to reduce the number of jobs required to produce a given level of output'. (Vol. I, 3.195). The committee then made this point:

> The enterprises and individuals most likely to manage the changes with the least disruption are those that implement the changes progressively and keep up with the technology. Those most likely to have difficulty will be enterprises that defer changes over a long period and then attempt to catch up in a single investment—rationalisation plan. (Vol. I, 3.197).

There is a wealth of material in the Myers report pointing to the rigidities and inflexibilities in Australia's institutional arrangements, some of which stand in the way of ready managerial adjustment to the pressures of technological change. Not the least of these is the proliferation of industrial tribunals, industrial awards, industrial unions, employer organisations and industrial classifications. The fine distinctions and relativities long established between particular categories of work and the conflicting industrial organisation of differing occupations make it more difficult easily to switch employees, within a firm, from one task to another. To do so would be to disturb time-honoured relationships and possibly even established industrial rights. Yet unless there can be greater flexibility to adjust to technological change, the rigidities may uphold rights for a time but, Canute-like, they will fail to hold back the tide of international technological innovation. Myers again:

> The effects of a particular technological change on the different firms within an industry are likely to be as varied as the characteristics of the firms. Some will be less able to cope with change and will contract, change their operations or go out of business; these consequences are more likely for firms with less flexible and adaptable management and labour and for those with higher costs and lower profits. Other firms will continue profitable operations at a smaller scale, or will expand; and new firms may commence operations in the industry. (Vol. I, 4.37).

The Myers Report calls attention to the differential way in which the effects of technological change will be perceived in the community. Whereas some workers and individuals may experience adverse effects, some will find new opportunities. Government will be concerned for the impact on community welfare and on our competetitive place in the world. Particular interest groups and particular geographical areas may suffer disproportionately from the change. For example, it is suggested that married women, the intellectually handicapped, migrants and others doing relatively unskilled work will find the competition of machines too cost-effective to withstand. Of management's view, Myers says this:

> The views of management lay stress on the benefits of change and the importance of profits for survival and growth; they usually incorporate the prerogatives of management on behalf of owners or shareholders to arrange the types and methods of production in pursuit of short and long-term profit maximisation. (Vol. I, 5.88).

MANAGEMENT'S RESPONSIBILITIES

Reflection on the pace of change, its sophistication and complication and the individual human 'fall-out' which cannot simply be swept aside as the unimportant left-over of inevitable developments led the Myers Committee to call for better consultative processes in Australia. Good management in Australia will heed this call, if only out of self-interest:

> A comparative study of approaches to industrial change in Britain and West Germany ... showed that in Britain the threat of industrial conflict heavily influenced the way some managements went about securing change, and made them reluctant to inform employees of proposals at an early stage. By contrast the study showed the German approach to securing change as one that avoided open conflict by means of what has been described as 'co-operative conflict resolution'. The study concluded that the British system was clearly deficient in that 'institutions for consultation tended to be poorly established, consultation was haphazard and irregular, not a familiar part of the industrial environment. ... As a result management approached change hesitantly, secretively and fearfully, while the work force, as might be expected under the circumstances, responded suspiciously and aggressively. Change thus becomes inseparable from a mood of crisis'.

I leave it to this audience to judge whether we in Australia are closer to the situation of Germany's determined, open and fearless implementation of change by 'co-operative conflict resolution' or whether we exhibit the British features of hesitancy, secretiveness and fearfulness resulting in suspicion and aggression.

When we look at the institutions we have to help us cope with technological change, we should remember one of the supposed strengths of the English-speaking people. This is said to be the strength of developing institutions which will resolve conflicts in an orderly and routine way: normally a committee! Since Federation, we in Australia have developed institutions designed to resolve industrial conflicts and disputes. In our Constitution such institutions were specifically envisaged by the Founding Fathers. The charter of the Arbitration Commission was the 'prevention and settlement ... of industrial disputes'. Until lately the overwhelming emphasis has been upon the word 'settlement'. Of late, the High Court of Australia appears to be giving encouragement to new attention to the word 'prevention': the prevention of industrial disputes before they gather steam.

Taking and adapting old institutions to new problems is part of the tradition of our culture. It would be my hope that the unique, indigenous Australian industrial tribunals will be innovative enough to play a creative role in preventing and solving some of the undoubted industrial, managerial and individual problems that will come in the wake of technological change. Some recent commentators, including a judge of the Commission, have doubted that the unions and employers will be imaginative enough and bold enough to use this procedure. The Myers Report, the National Labour Advisory Council, the government itself and commonsense all argue for the need for close consultation between management and labour during the uncomfortable period of technological adjustment. Quite the worst reaction of management to the dynamic of technological change would be to ignore it and to hope that it will pass by. One hears unsophisticated talk of how, in the 50s and 60s, we survived the so-called threat of 'automation' and would do so again. For once the British attitude of 'muddling through' will simply not do. The forces that are at work are international in dimension cumulating in force and dramatic in effect. If we are to remain competetive, we in Australia must not only keep pace with technological change: we must do more in the education of our young people to ensure that we can make innovative Australian contributions to the forces of change. Otherwise we will become increasingly a client - even a vassal - state of those who pay more regard to the necessities of further education especially in the sciences. Our further education rates in Australia are just plain poor. They rank with Greece, Spain and Portugal as amongst the lowest of O.E.C.D. member countries. Our society and its managers must be better educated. The new information technology itself will submit increasing numbers of Australia's management to instantaneous scrutiny in far away places, without benefit of plaintive explanations and excuses.

If all of this sounds daunting, it should not be. Those who are daunted are unworthy to lead and to manage in a time when the mind of man is daily producing miraculous advances. As this century closes, the life of the manager will be more difficult. But it will be more exciting and challenging. For the good health of our country, for its competitive place in the world and for its domestic tranquility and peace, I hope that this Institute and its members will be equal to the dynamic challenge of today: the challenge of technological change.