P. S. ROSS & PARTNERS

MANAGEMENT CONSULTANTS 200 UNIVERSITY AVENUE/TORONTO 1/CANADA/363-8281

This text revised and condensed
for Toronto Canadian Club
by B. T. R.

CANADA IN THE YEAR 2000

by

KENNETH R. LAVERY

MANAGING PARTNER

P. S. ROSS & PARTNERS

MANAGEMENT CONSULTANTS

The Canadian Club, Toronto March 23, 1970

Today we will be talking a great deal about the Year 2000, which reminds me of the story of the fellow who bumped his head and went into a 30-year coma. Awakening refreshed and clear-headed in 2000, he phoned his broker. With the help of a computer setup, it took the broker only a few seconds to report that his 100 shares of IBM were now worth $10.5 million, his 100 shares of Bell were now worth $5.5 million and his holdings in RBC had increased to an amazing $15 million .

"Good Lord!" exclaimed the man. "I'm rich."

At which point the telephone operator came on the line and said "Your three minutes are up, sir. Would you please deposit $75 thousand?"

Canadians are committed, as few people are, to speculating about the future of their country. We do it in a spirit of wild surmise, such as the poet, John Keats, described in his famous sonnet....

> Then felt I like some watcher of the skies
> When a new planet swims into his ken;
> Or like stout Cortez when with eagle eyes
> He star'd at the Pacific - and all his men
> Looked at each other with wild surmise -
> Silent, upon a peak in Darien.

Or it may be that Bob Edwards of the Calgary Eye Opener recorded the typical Canadian reaction to new mysteries and new beauties when he got off the train in Winnipeg. A newspaper reporter asked him what he thought of the Gateway to the West, and Bob Edwards replied:

"I can tell it sure ain't Paris."

Come with me as I cast ahead to the Year 2000. Its March, in the Year 2000. Many of you are here with me as we listen to your keynote speaker undertake "A Socio-Economic Review of Canada - 1965 to the year 2000". It goes something like this.....

AN ECONOMIC REVIEW OF CANADA - 1965 to 2000

1. No World War Since 1939-45.

What was once called TOTAL WAR heralded the age in which general and total war among technologically advanced nations came to be recognized and rejected as a policy of suicide. This has not, as we know, ruled out the Brushfire Wars.

2. Automation has been completed in most advanced industrial countries. Computers have replaced most of the procedures in industrial and government operations. Today the industrial worker is primarily the supervisor of a machine.

3. Instant global communications made obsolete the communications equipment developed in mid 20th century.

4. In the past 30 years transportation has undergone the greatest innovation since the advent of the railway. Transportation developed the "human pipeline " system, in which airborne seating accommodation now transfers passengers at extremely high speeds from city to city. Today you go from Vancouver to Toronto in 45 minites. But you still wait 30 minutes for your baggage at the other end.

5. The world is now incredibly small in time and space compared to the first half of the 20th century.

6. Today all countries are members of IMF and gold is no longer the basis of international currencies, which are now controlled by global management.

7. By the mid 1990's the Canadian economy was completely integrated with the American econ om y, under the C. C. M. U. - Continental Customs and Market Union. By the early 1990's, we achieved a mobile continental labour force and the integration of our educational systems. In spite of economic integration, Canada has retained Canadian identity. Political systems here, as in Europe, have gained new strength through vastly improved administrative and management organizations.

8. In the early 1970's, there were serious short-term dislocations in the Canadian economy caused by the re-assessment by the Provinces of British Columbia and Quebec, for different reasons, of their positions in the Canadian Federation. At that time, the public sector was well on its way to accounting for 50% of GNP by the year 2000. But growing

discontent of the citizens reversed this trend towards the end of the 1970's. The then radical restructuring of government based on the concept of "a citizens' engineered environment" which followed the citizen riots of 1977/78 proved to be the turning point. The emerging megacity - state form of government was able to meet most of the pertinent needs of our citizens.

The true focus of economic life in North America is the dozen mega-cities of which Toronto is one, about 25 smaller city states which have partial technological autonomy. The Great Lakes mini-state, which Toronto dominates, emerged initially in the Age of Pollution of the 1970's as a concept of environmental control. Its initial success led to a rapid broadening of powers which now apply to all aspects of environmental development.

9. Government now plans and directs the resources of the Canadian people to an extent which would have been unacceptable in the 1960's. Government policies have a priority on all major management decisions in the private sector.

10. In the past 32 years, Canada has enjoyed a fantastic growth as evidenced by the following statistics:

	Year 1968	2000
Population	20.8	40.5
Gross National Product (Billions)	$ 71.1	$344.5
Per Capita GNP	$3,381.	$9,040.

in constant 1965 dollars

11. 85% of the population (34.4 million) now live in our five great megacities in Montreal, Toronto, Winnipeg, Edmonton and Vancouver, compared to 33% (6.9 million) in 1969.

The development of a truly Canadian style and mode of life was initiated in terms of creating the new environment in which Toronto's waterfront was re-shaped, the harbor bubble city of 50,000 people integrated with the island airport constructed for the air bus traffic pointed the way for future developments.

The heating plants in most buildings in Canada's major megacities were made obsolete by the development of the domed city which created substantial savings in heat costs, improvements in health, and significantly reduced air pollution.

12. We have seen a rapid breakdown in what was called the "Protestant Ethic". There has been a substantial erosion of work oriented, achievement oriented, and advancement oriented values. Sensate, secular, humanist, perhaps self-indulgent criteria have led to the New Puritanism of individual morality, development and responsibility required in the age of technology, which Canadians realized made possible a social system in which 75% of its dogs enjoyed a higher service standard than half the human population of the earth.

13. Leisure time activities have grown at a fantastic rate due to increases in per capita income combined with reduced working hours. Today the average work-week is four 7-hour days and the work year is 40 weeks with

12 weeks vacation. With the week-end holidays there are 160 work days a year and 205 free days (except for executives and professionals) as compared with 240 work days a year in 1968.

14. By 1980 the educational system had been revolutionized. From being one of the most antiquated and reactionary systems, it had been propelled at a tremendous rate into meeting the challenge of the future. All of the available and developing technology was brought to focus on optimizing the development of Canada's most important resource, its people.

The greatest milestone in education since the invention of movable type by Gutenberg was the computer. The key to individualized education was the "computeach" which, in a relatively few years, became no bigger than a one-pound box of chocolates, yet had the ability to pick the brains of the far bigger central machines by way of the telephone line. Some interval of time and a good deal of money was required to develop the necessary "software" and programming. To day the design of educational systems has become one of our major industries and accounts for a significant share of our exports.

15. Canada is now one of four "post industrial" countries along with U.S.A., Japan and Sweden. By 1977, Canada achieved a per capita GNP equivalent to that of the U.S.A. in 1965. Today Canadian per capita GNP is 83% of that of the U.S.A., compared to 69% in 1965 and the gap continues to close.

Canada became a "post-industrial" nation in the early 1980's, as defined by Daniel Bell, Chairman of the Commission on the Year 2000, of the American Academy of Arts and Sciences. Post-industrial characteristics are affluence in income, standards of living and leisure. No world distribution of affluence, however, has taken place. Two out of three people still live in pre-industrial economies, with percapita annual income of $600 or less and many of them very much less.

Our per capita income is about 50 times that of the populations of the pre-industrial societies in Latin America, Black Africa, the Arab World and most of Asia. Today 6% of our GNP goes into external aid programs compared to less than 1% in the late 1960's.

16. Primary and secondary industry is now essentially controlled by the "multi-nat corporations" but subject to far greater government control and participation than was the case in the 1960's.

17. Most Canadian economic activities are tertiary and quaternary (service oriented) rather than primary and secondary. Business firms are no longer the major source of innovation. The free market has now taken second place to the public sector and the social services, as predicted by J. K. Galbraith in the New Industrial State, published in 1967.

18. Agribusiness has declined substantially in relative importance, most marginal areas were abandoned and the remaining enlarged and nearly completely automated.

19. A long series of mergers of investment institutions during the 1970's and 1980's resulted in fewer and much larger "multi-nat groups". The financial and stock markets were North Americanized by the early 1990's Most investment by Canadians is now in multi-nat equities rather than fixed obligations and local companies, as was the case in 1965.

20. In the early 1970's there began to emerge a new understanding of the role of management in the emerging post-industrial society. That it was management and not capital that would create the future and be responsible, by and large, for its shape. Massive research and action programs were set in motion to meet the developing "crisis in management".

21. In the private sector, the aging modern industries (agriculture, steel and automobiles) of 1965 gave way to a number of new industries.

In 1969, the Manitoba Government report on targets for economic developments to 1980 noted that a sensational change in mineral prospecting was imminent. Our capabilities in optics, electronics and remote sensing systems linked to satellites created an information technology that revolutionized mineral exploration and development of natural resources across the North. Today we look back at 1969 as a year in which Canada was truly an undeveloped country.

An entirely new industry emerged in the 1970's, "aquaculture" - the ocean farm. In 1967 the oceans supplied only 1.5 per cent of man's food. Today they supply 200 million tons of processed protein annually, enough for the needs of six billion people. The breakthrough came in the design of efficient harvesting methods for fresh and salt water fish and the transformation of the catch into tasty and palatable substitutes for frankfurters and bacon snacks. In the 1970's we recognized that the world's oceans produced at least 400 billion tons of organic material annually, while 500 million people in the early 1970's were short of the kind of protein that sea life had in abundance. The field of technological advance in ocean products had developed rapidly and is the major reason for the accelerating growth of our Maritime regions.

Canada was a country of material production - wood products, metals, stone and fibres. What we used to call ersatz materials, or substitutes, turned out to be new products with new uses, occupying a market place of their own.

The urban crisis in the 1970's provided the final push on new material development. The housing problem received a co-ordinated concentration of the innovative talents that existed in Canadian industry and government. The combination of new materials, technology, managerial and innovative skills began the resolution of the problem by the mid 1970's.

There were many other striking examples of unexpected consequences of innovative planning. Who would have imagined that the basic inventory of water resources initiated in 1970 by the Ontario Government would, in fact, launch the Age of Environmental Control in North America? What began as a timid, precautionary project led quickly to major diversions of rivers, the creation of the Great Lakes Region as a viable mini-state, the regional integration of more than half of North America's natural water resources, the fusion of all facilities for energy and transportation in one quarter of the continent, and the construction of the North East Sea Lane - a replica of the St. Lawrence Seaway - to bind the entire Eastern Arctic and its enormous resources to the Great Lakes Region.

Expo '70 in Osaka, Japan, brought into sharp definition the world-wide focus on the problems of pollution. The central theme of the Scandinavian Pavilion was pollution. In going through the Scandinavian Pavilion the participant was forced to become involved in searching for messages on the subject of pollution. A number of these messages became catch words, part of the battle cry of groups around the world as they mounted their crusade against pollution. You may remember some of these messages.

1. East and West will never meet, so they said. Now we meet in the common fight against pollution.
2. The seven seas flow into one another. Pollution in the Atlantic may bring harm to the Pacific.
3. Pollution is global so we must make a common stand against it.
4. If you only fight pollution in one country, there will be no victory.
5. You live in a village but you are a citizen of the world.
6. Global responsibility means a local respon sibility.
7. Local effort increases International effort.
8. Ban the sulphur in the fuel oil and your lungs will thank you.
9. To breathe or not to breathe - that's the question .
10. The human rights include clean water and fresh air.
11. Noise is not a necessity.
12. There are many vogues, many fashions today, but it should never be fashionable to wear a gasmask.
13. The Dreamer and the Statesman must learn the art of talking together.

Today, most social historians agree that the efforts and accomplishments of IAPOC, the International Anti-Pollution Commission, traces its beginnings back to , and was sparked by, the central theme of the Scandinavian Pavilion at Expo '70.

In the 1960's man was only beginning to understand the technology and philosophy of change as we know it today.

Man was able to plot graphs of the time lag in the discovery of natural forces, the isolation of the natural elements, the accumulation of human experience, the progress of transportation from the pace of a man walking to travel in space. or the number of electronic circuits that could be put into a cubic foot of space. Such graphs all showed almost identical shapes - the curves started their rise slowly, then rose more sharply until the trend lines seemed to embark on almost a vertical course.

In short, man lived in an age of exploding technology.

From 1965 science and technology would advance more in the next 35 years than in all the millions of years since the creation of man.

The majority of changes perceived in 1965 were examples of <u>continuous change,</u> change based on building up from the past.

What were the consequences of continuous change as perceived in the 1960's? Back in 1940 you could look at an organization, a business system, adapt it to the environment of the organization, make a few adjustments and let it run. In 1950, ten years later, you could restudy the situation, the environment, and safely react to any changes by further adjusting the system.

By 1965, most managers realized that if they tried to run an organization that way they'd be in serious trouble. The combination of accelerating rates of change in the environment and the increasing complexities of the systems to be changed, no longer permitted them to react with impunity. In a sense it was like trying to push a bigger and bigger ball up a steeper and steeper hill. The manager had to plan what the environment would be in three or four or ten years time and start designing the systems then to cope with the predicted environment. More and more emphasis was required on the planning function, and the planning function began to cover an increasing time horizon. These were the fundamental consequences of accelerating continuous change as then perceived and most organizations had formally or informally

recognized this, in terms of the increasing emphasis and importance they had placed on the planning function in their organization structures.

By 1970 planning for change was recognized as management's most fundamental task. The short and simple answer had already been given by Robert McNamara who said "the most fundamental task of modern management is to deal with change, the gate through which social, political, economic and technological change - indeed, change in every dimension - is rationally spread through society."

In order to "deal with change", manage change or plan change, the manager in the sizzling seventies had to be clear about the nature of change and the processes which were exerting influence upon its course.

A new type of planning was becoming mandatory and it, in a country like Canada, became the hinge of our future. Today we call it innovative planning. The past, the manager found, was not the only guide to the future. The span of time in which we lived, as he discovered, was not the continuous, linear phenomenon that he had learned to expect. He had to get used to the

idea of discontinuity

Business philosophers were expanding on this concept, as they filed their flight plans of the future.

The most interesting European treatise on business, with special reference to American business, was J. J. Servan-Schreiber's clarion call to European executives to take over the control and direction of the European Common Market from American multi-nat corporations.

The American Challenge
"A startling report on the impact of American industry, technology and culture on Europe and the world."

Servan-Schreiber was a Paris editor and publisher, as well as being an original thinker. He entered French politics in the 1970's. His book had the advantage of being journalistic in style and therefore easy to read. Canadians found Servan-Schreiber's book full of echoes that came from the then continuing Canadian debate on American ownership and control of industry in Canada. It was widely read by Canadian executives for clues to what was going on, not only in Europe.

The difference between countries was revealed in dramatic statistics. Between Canada and the United States, for instance, the proportion of college generation that was actually attending college was more than double, to the advantage of the United States.

In an age when knowledge, particularly as it related to the organization of society, was beyond price, there was a critical danger in falling behind.

In such related matters as the training of teachers and the accessibility of higher education to the entire population, particularly the low income groups, the United States was far ahead. It was producing three times as many engineers, and had up to five times as many children of farmers and the working classes in college as the Europeans had.

We are referring here, of course, to nothing less than the origin of American economic expansion, which has so fascinated and enthralled the rest of the world and, shall we say, aroused the envy of others and loosened the elements of discord and imbalance in world affairs that still

threaten the peaceful future of mankind. Canada escaped the consequences of these developments, and we have done so by adopting industrial technology as the chief force in our society. The factors that motivate the economic expansion of the United States applied equally to the economic expansion of Canada.

Then we had Canada's great gift to Harvard University, John Kenneth Galbraith, whose "The New Industrial State" was still required reading in the early 1970's.

We should also mention the weightiest tome that had appeared in the late 1960's, many never did finish reading it, good intentions to the contrary. That was "The Year 2000" by Herman Kahn and Anthony J. Weiner, the first and most thorough framework for speculation on the future.

This was the book that shocked many Canadians for it was one of the first to assert that Canada's rise to the status of an important middle power, when the job was to finish the war and construct the peace, had been followed by a dramatic decline in power and status. Canada, said Herman Kahn, "is the least important of the intermediate powers."

Then there was Toronto's special contribution to philosophic innovations, the explorations of Marshall McLuhan. McLuhan had taken care to specify his books as explorations rather than final judgements, which greatly improved his defensive position when confronted by horrified pundits from the world of advertising and other theatres of human activity.

Marshall McLuhan
"Understanding Media:
The Extensions of Man"

McLuhan was that rare type hardly ever encountered in academic or commercial circles, a totally original mind. He rejected the idea with which most people had grown up, that human existence was linear and continuous from the cradle to the grave; and instead he asserted that it was discontinuous and acoustic..... acoustic, in the sense that human institutions were geared to the range of the human voice. McLuhan had been written up both in the learned and the worldly magazine, he had even been interviewed by Playboy, thus reaching a plateau of cultural interest rarely achieved by any of his contemporary colleagues.

(Visual switch to cover of Playboy)

In his Playboy interview, Dr. McLuhan defined two major points -- that organization was a result of technology and that, as far as he could see, the prevailing drive in human institutions of business, politics and social organization was toward decentralization - about which he said:

> "All over the world, we can see how the electric media are stimulating the rise of ministates: In Great Britain, Welsh and Scottish nationalism are recrudescing powerfully; in Spain, the Basques are demanding autonomy; in Belgium, the Flemings insist on separation from the Walloons; in my own country, the Quebecois are in the first stages of a war of independence; and in Africa, we've witnessed the germination of several ministates and the collapse of several ambitiously unrealistic schemes for regional confederation. These ministates are just the opposite of the traditional centralizing nationalisms of the past that forged mass states that homogenized disparate ethnic and linguistic groups within one national boundary. The new ministates are decentralized tribal agglomerates of those same ethnic and linguistic

groups. Though their creation may be accompanied by violence, they will not remain hostile or competitive armed camps but will eventually discover that their tribal bonds transcend their differences and will thereafter live in harmony and cultural cross-fertilization with one another.

This pattern of decentralized ministates will be repeated in the United States, although I realize that most Americans still find the thought of the Union's dissolution inconceivable. The U.S., which was the first nation in history to begin its national existence as a centralized and literate political entity, will now play the historical film backward, reeling into a multiplicity of decentralized Negro states, Indian states, regional states, linguistic and ethnic states, etc. Decentralism is today the burning issue in the 50 states, from the school crisis in New York City to the demands of the retribalized young that the oppressive multiversities be reduced to a human scale and the mass state be de-bureaucratized. The tribes and the bureaucracy and antithetical means of social organization can never coexist peacefully; one must destroy and supplant the other, or neither will survive."

Peter Drucker was another of the management philosophers of the 1960's and 1970's.

The Age of Discontinuity
Guidelines to Our Changing Society

One thing about Drucker was that his book titles spoke for themselves. His 1969 Edition was an encyclopedic volume, crammed with pertinent evidence.

In his Preface, Drucker identified four major discontinuities:

The first were the genuinely new technologies which created new major industries and brand new major businesses and which rendered obsolete many existing organizations. Drucker identified four new such industries:

1. The Information Industry
2. The Oceans
3. Materials
4. The Megacity

Others were based on estimates of future scientific or technological breakthroughs. In the late 60's the Rand Corporation assembled a panel of 20 scientific experts and using the Delphi technique predicted the timing of such breakthroughs. The peak of the bar represented the date for any given

breakthrough. As you can see, they were remarkably accurate, if a little conservative.

The second major discontinuity was that we faced major changes in the world's economy. The world would become one market -- one global shopping centre. At that time the only economic institution able to take advantage of this development was the multi-nat corporation.

The third was that the political matrix of social and economic life was changing rapidly. Everywhere there was growing disenchantment with the institutions, be they government, the church, the university or business. The young everywhere were rejecting all institutions with equal hostility.

The fourth was that knowledge had become the central capital, the cost centre and the crucial resource of the economy and it raised the problem of the responsibilities and the opportunities of the new men of power -- the men of knowledge.

The parallel between McLuhan and Drucker on a number of important points was dramatic. McLuhan concluded that, since the individual was growing up by 1970 as the product of the electric media, which was infinite in extent, the institutions that served an earlier culture were being transformed.

Drucker put it this way - (record)

"To most of us, the power of the central government seems to be unchallenged -- whether we applaud it or deplore it. Tomorrow's historians may come to call our era 'the twilight of central government'. Impotence rather than omnipotence may well appear to him the most remarkable feature of government in the closing decades of the 20th century."

The extent to which power was decentralizing from the state to the individual was illustrated by Drucker.

(record)

"Indeed the Vietcong soldiers in Vietnam for all that they are 'guerrillas' and 'live off the land', have many times the firepower per soldier of the most highly powered army prior to the closing years of World War II."

By 1970 information travelled all over the wor ,d in a few seconds; there were no more traditional boundaries that had any effect upon it. Only a few years earlier, the railway traveller took five days to cross Canada, and he had the haunting feeling that he had crossed at least five countries. In 1970 the people of those five regions responded simultaneously to the same information, whether the eyes' witness of television was bringing them the Montreal Canadians or the spectacle of Russia invading Czechoslovakia.

Such was the power of the new media of communications that, as McLuhan said, "The young today grow up absurd. They are 'grey at three'. That is, they have imbibed more information standing up in their playpens in front of a TV than their grandparents imbibed in an entire lifetime."

The child that had imbibed its technology from TV viewing at an early age knew what was possible and what was not. More important, he knew what was obsolete and what was not. He was no longer content with a school system that furnished, by comparison, only a trickle of classified information, which was an unsatisfactory fragment of what he already knew.

Those who were directly concerned with the corporate organization of our society in 1970 faced their problems too, for their confrontation with change turned out to be the most dramatic, most far-reaching of all. The business corporation was the institution that changed the most.

Yes, this was the message that came through loud and clear in the 1970 speculations of those who were concerned with the future of our society.

Finally, we began to identify discrete beginning points of discontinuous change.

1. Major new industries based on new technologies.
2. Major changes in the world economy.
3. A rapidly changing matrix of social and political life, and
4. The emergence of "men of knowledge".

By 1970, the consequences of discontinuous, qualitative changes, of change in the fundamental nature of man and his technology became more apparent. We could define these changes as beginning points of continuous accelerating change and the trick was to predict the nature and timing of these beginning points and take social, political and economic advantage of the

prediction for the benefit of the individual. No longer could we afford to plan only by extrapolating from the past. Now we had to innovate, as well, a very different process. Business and political leaders had to build innovative organizations, in addition to managerial organizations, which would encourage the translation of vision into the new technologies, products, management and political philosophies that would surely emerge in the coming age of discontinuity. We then knew remarkably little about such organizations or systems of management.

In his speculations on the future, Drucker had noted that an innovative organization required a structure that was substantially different in the relationships between people; different, that is, in the organization of human energies for joint performance. The new, innovative organization, he wrote,

> "... requires a team organization rather than a command organization. And it requires flexibility in relationships. Yet there has to be discipline, there has to be authority, and there has to be someone who can make decisions. Team structure is largely unknown to classical organization theory - though a jazz combo or, for that matter, a surgical team in the operating theatre exemplifies it."

The system of management required had to be capable of operation both in public and the private sectors of society. Considerable research and development work was required to arrive at the sophisticated systems of participative management in common use today. The first definitive work, Participative Management Systems by Aird and Meredith, was based on some of the early pioneering work in management by objective programs begun in the early 1970's.

These earlier management systems provided for the maintenance and orderly growth of organizations by means of statements of what was expected of everyone involved and the measurement of what was actually achieved.

The major intellectual breakthrough came with the realization and acceptance that everyone in the organization was involved and had to be really involved in setting their own individual goals to which their energies would be directed in harmony with those of the organization.

By the early 70's the surgical team that had carried out the first primitive heart transplants had become a familiar symbol: the teams that introduced participative systems of management and new structures into both the private and public sectors became just as familiar by the mid 1980's.

Let's turn to the Public Sector for a minute --

What was obviously required by the 1970's for the citizen to regain control of his destiny, was a creative organizational study of his systems of government -- federal, provincial and local. This had to be a fundamental approach; more fundamental than Rowell-Sirois; even more fundamental than that of the Fathers of Confederation in 1864.

The major difference between 1970 and 1864, indeed between 1970 and 1944, was the transformation of Canada from a rural to an urban society, yet the governmental structures had not been altered to meet these challenges.

Joe Martin, the political commentator, put the prospective change in terms that a good many Canadians accepted. He said in 1969

"There is no such thing as a Government of Manitoba, or of Ontario, or of Prince Edward Island; there are simply ten conglomerates supplying a wide variety of services to customers within their territory with no recognition of the fact of one citizen, one taxpayer."

Joe Martin.

The key to the future of government was the need for a strong citizen orientation.

In the early 1970's Prime Minister Trudeau initiated the most comprehensive and far reaching study of government structures ever undertaken. The Commission was representative of all facets of Canada's people and its institutions and for five years we were engaged in finding or redefining "A New National Purpose". The underlying issue of the White Paper controvery at that time had, in fact, been indicated by Mr. Trudeau when he reported that all government expenditure would increase by 20% in two years. The public sector total, so he told the provinces, had been 28.6% in 1960 and 33.4% in 1970, and would reach 36.5% in five years. The prospect of a sharply declining private sector in Canadian Society caused widespread alarm.

The Commission took an organization planner's approach to the design of political structures to best meet the needs of the Canadian people. Our present constitution and the megacity-state form of government are the direct result of the Commission's recommendation and have served our nation and its people well over the past 20 years.

The impact of change upon government had its parallel in the private sector, in terms that were no less exciting. Indeed, the corporation reacted to change even more readily than the government did, for its survival depended on it.

There was no real continuing link between the two types of organization. Businessmen recognized that if they didn't research, plan, and innovate on a basis of exact knowledge of what was happening to its corporate socio-economic environment, then change would be forced on it externally.

Business was still the most powerful factor in the economy for innovation -- but it was in danger of losing this position if it didn't act.

A number of companies created an innovative unit based on the concept of private enterprise, and for many this was the key for the private sector to step forcefully into tomorrow in providing the continuing link between the innovative and managerial styles of organization.

Knowledge Industries Incorporated, one of the more successful conceptual conglomerates, founded by several of the aging industries, traces its beginnings back to the early 1970's and is a good case study of how these firms grew.

PHASE I

Management set up the traditional knowledge services as known in 1970 as separate economic units or mini-states if you will, with key staff holding significant equity positions.

PHASE II

The next step was to set up a Knowledge Research Unit or "think tank", to brainstorm developing technology with key personnel in the knowledge services group. Considerable financial support came from the Province of Ontario in getting this operation off the ground.

PHASE III

Out of this developed knowledge products which in turn were set up as independent economic units, again with key staff holding significant equity positions.

PHASE IV

Gradually, on a planned basis, management began to move into the areas of the future in terms of knowledge services - repeated the brainstorming sessions and repeated the cycle.

PHASE V

They identified the future knowledge product areas and began their development as independent economic units.

Gentlemen, I have tried in the brief time allotted to me to cover the broad sweep of socio-economic developments in our country in the last third of a century. We could have talked of many other developments, but I believe that we have covered the more significant areas.

In conclusion, you may agree or disagree with some or all of these predictions. To attempt to invent the future in specific terms is risky business. What I have painted is only one of a multitude of possible future scenarios. Nevertheless, one thing is certain, the quality of life in the Year 2000 will be as different from today as today is from a hundred years ago, and yet January 1st, 2000 is only as far down the road ahead of us as Dunkirk is behind us.

The choice is between backing into our future watching countless lost opportunities go by as we lapse into future shock, or squarely facing the challenge of the radical evolution surrounding us. Appropriate intervention now can significantly change the strategies, alternatives and probabilities effecting the future world, you, your children and your grandchildren will live in.

Surprisingly, there is no organization in Canada today devoting itself exclusively to the Canadian future. It's high time that deficiency was corrected.

We urgently require the formation of "The Canadian Foundation for the Future" a non-profit organization supported by the private and public sectors, and the first steps to establish such a Foundation have been taken. The goals of the Foundation will be

* To carry out continuing, comprehensive analysis and research programs on all facets of the Canadian Future.

* To develop techniques of forecasting and predicting future environments, alternative opportunities and strategies.

* To communicate and make available the methodologies used and the results of its findings to all interested parties.

Your support could make A Canadian Foundation for the Future a reality.

Finally, I remind you of Lavery's Law

When a knowledgeable person states that something is possible, he is usually right. When he says something is impossible, he is probably wrong.

Thank you.