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*L'An 2000 — L'appel de l'avenir*

Cette fin de siècle, fin du 2<sup>e</sup> millénaire et fin de l'ère industrielle, présente pour nos collèges des défis cruciaux et historiques. Tels des icebergs, il y a des forces qui modifieront et mouleront notre environnement en Amérique du Nord et nous les voyons déjà à l'horizon. Nous devons relever ces défis car l'avenir de nos institutions d'enseignement et même de notre société est en jeu. Répondrons-nous à l'appel ?

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Figure bien connue dans le monde de l'éducation aux États-Unis, Dale Parnell a exercé les fonctions d'enseignant, de directeur d'école, de surintendant de l'instruction publique (Oregon), de professeur d'université et de président et directeur de l'American Association of Community and Junior Colleges qui regroupe au-delà de 1 200 établissements. Il a participé à de nombreux comités sur l'éducation et il est l'auteur, entre autres, de *The neglected Majority et de Dateline 2000. The new Higher Education Agenda*, publié en 1990.

**DATELINE 2000 : The New  
Community College Agenda**

*We are living in a historic time... It is the end of a century, the end of a millenium, and the end period of many aspects of our industrial age life. There are major forces moving in iceberg-like fashion into the complex North American environment. It is possible to see the tips of the iceberg moving with enormous force, and a key question is where, how, and when will community colleges intersect with these forces ?*

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*Conférence 2A1*

*Collèges  
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creators of the future*



Association des collèges  
communautaires du Canada



Association québécoise de  
pédagogie collégiale

**DATELINE 2000 : The New Community College Agenda**  
 by Dale Parnell  
 Commissioner  
 Oregon Community Colleges

You are invited to step into what well could be the most important last half of a decade of human history. It is the end of a century, the end of a millennium, and the end of many aspects of our current way of industrial life. The 1990s have introduced us to the new age of technology, the new learning age, and it will bring rich possibilities as well as tough challenges for community colleges.

Let's take a look at what could be the most promising, but fast-moving and unsettling 7 or 8 years in memory. As the old saying goes, "If you can keep your head while all about you are losing theirs, you simply do not understand the situation."

In one brief lifetime this speaker has gone from cow chips to potato chips, to computer chips, to nanochips. Over this current century we have experienced enormous social upheaval, and absorbed turbulent changes. We introduced the atomic bomb to the world, and two other wars of considerable magnitude with much human pathos. We have experienced turbulence on our college campuses, a social revolution in mores, a civil rights struggle, antitax revolts, and a flood of new individuals, particularly females, into the labor force and into higher education. We can now travel faster than the speed of sound, including travel into space, and experience instantaneous visual communication around the world. We have become a global community in terms of trade, travel, and telecommunications. The computer is revolutionizing the publishing industry, the defense industry, the financial world, health sciences, basic manufacturing ... and education.

Who would have forecast these developments fifty years ago, or even two or three decades ago ? But the astonishing fact is that our country has experienced all of this in real-life living color and our democratic systems have not collapsed. Our political, economic, and educational institutions have a certain resiliency to be able to bounce back from trouble and adversity.

When one weighs the evidence on all sides, it appears that our North American continent may be on the edge of a major period of economic growth and technological expansion, which will be fueled by education. Publisher Austin Kiplinger states the case this way in his book *The New American Boom* :

In 1925 Calvin Coolidge said, "the business of America is business". Today, I say "the business of America is EDUCATION." Education constructs the foundation of technology, and technology in turn provides the track for industry and commerce to advance into the 21st century ... Evidence is mounting that the economy, in the 1990s and extending into the 21st century, will raise American living standards to new high records for consumers, and will increase the (North) American share of business in world markets.

The decade of the 1990s will continue to be a decade of tough challenges, but also holds great potential for community colleges ... particularly in the last half of this decade. The road to the year 2000 will not be free of potholes and regional problems, but scientists, engineers, and business leaders are predicting that an education-based technological boom is on the way that will take off in the last half of the 1990s in a steep upward curve into the 21st century.

This new education boom will happen in an environment of automation and increased productivity; slower population growth; higher wages for a better-prepared workforce; better education and training for the workforce; more and better research, and new and improved procedures for technology transfer to the marketplace.

When one analyzes our North American higher education institutions, we see the sheer diversity of the enterprise. For example, out of 2,785 U.S. colleges and universities admitting freshmen students, nearly two-thirds of colleges have open admissions, and only about 16 percent are identified as being highly selective, admitting students who are in the top academic quartile of their high school graduating class. It is necessary to gain some appreciation for that diversity in order to understand why and how our contemporary higher education system works in our two countries. And it does work, primarily because that diversity meets the needs of an increasingly diverse population ... and a changing economy.

Community colleges can and must work in the face of enormous population diversity. We meet that diversity by providing and supporting both open access and quality standards in our colleges. But these twin goals have presented us with a persistent tension and indeed working this out has been one of our major challenges in community college education. Even though much remains to be done, great progress has been made. But what about the year 2000 ?

You can stimulate an animated discussion in higher education circles when you talk about faculty tenure, but a glaze moves over eyes when you try to discuss institutional mission and goals or learning outcomes and value-added education. What Albert Einstein observed many years ago is true today, that this age can be characterized by a concentration upon means and confusion about ends.

A church bishop was riding on a transcontinental flight. The scientist sitting next to him could not help but observe that the bishop was a religious man. In an effort to make conversation he said, "Bishop, do you know what my religion is ? Do unto others as you would have them do unto you." The bishop said with a gleam in his eye, "Professor, do you know what my science is & Twinkle, twinkle, little star, how I wonder what you are ?" This tongue-in-cheek story illustrates the tendency in our culture to oversimplify matters and major in minor issues.

What will be some of the major forces impacting Canada and the United States in the last decade of this century, and where do our community colleges intersect with these forces ? That is the key focus of this presentation.

How strong is the link between the economy and education ? How can community colleges help millions of at-risk individuals move into the economic mainstream of life, particularly those surviving in our large urban environments ? How can our community colleges adjust our curricular programs to meet the needs of the older college students, or the nontraditional, ethnic minority students ?

It is relatively easy to look backward and enumerate the sweeping economic, political, and social changes that came about as a result of the industrial revolution. It is much more difficult to look forward and outline the coming changes with any degree of accuracy. Yet it is possible to see the tips of these iceberg-like forces on the move, barely visible, yet moving with enormous power into our North American economic environment. Here is the key question for the years ahead : Will there be serious attempts to steer these iceberg like forces and convert them to productive use, or just allow them to go where they will, altering or destroying all in the way ? Here is a second and allied question : Where and how will our community colleges intersect with these forces ?

One of the problems facing the leaders of our community colleges is keeping up with the sheer speed of change. This problem can be symbolized by an observation from a General Motors executive when queried as to why GM did not enter into more partnership arrangements with colleges and universities. He replied, "Their speed is deceptive ... they are slower than they look." To be sure, community colleges are developing new attitudes, new organizational structures, better response time, and a host of other modifications to address the speed of change. But some analysis of the forces now moving in our society and around the world should be of assistance in steering our collegiate enterprise toward Dateline 2000.

Since the end of World War II, education has undergone tremendous change. As an example, contemporary colleges and universities have been transformed from the insulated (and sometimes isolated) halls of learning for young people into more complex and multifaceted institutions serving all ages and a variety of new constituencies. The agents of change — population demographics, economic competition, technological developments, and political decisions — will continue to reshape the form and substance of higher education in the decade ahead. But how will community colleges respond ? Are there major restraints that will inhibit our ability to respond ?

When college presidents and other leaders in higher education discuss the challenges and opportunities and how community colleges might respond to the forces of change in the decade ahead, three basic institutional challenges emerge : (1) understanding and acting upon the connectedness of issues; (2) building a sense of community within and outside the college; and, (3) fully developing our human resources.

## CONNECTEDNESS

Can our diverse education system ever be viewed as a seamless garment? Our nations as well as our colleges are caught in a web of relatedness. As an example, most of the economic competitiveness problems of our two nations are interrelated, sometimes making them seem insoluble. A high performance economy depends upon the development of a high performance workforce, but in too many ways the needs of our workforce have been neglected. Superior manufacturing, in turn, relies on top-flight research and development, but there are signs that our nations are losing ground on our once-commanding lead in technological innovation and technology transfer. Economic success in this learning age depends upon well-educated citizens at all levels of the population spectrum, but the educational shortcomings of our school systems have been amply documented.

Time after time, when discussing one issue we find ourselves zeroing in on others. A discussion of developing a world-class economy almost inevitably turns toward the problems of inadequate education, or our lack of global awareness. Most of our national leaders now agree that most of the key issues must be addressed simultaneously; we simply cannot afford the luxury of solving problems one at a time. Systems must interact in support of each other in a synergistic way. Growth and improvements in whole industries such as financial services, computers, communication, biotech research, and manufacturing will have a multiplier impact across many other industries, improving their profitability and productivity. The impact of developing high performance workplaces will then spread out across our countries in thousands of new and different ways.

These connections and relationships are already at work, knitting something that looks like a fish net. There is a cell here and a cell there tied together by nodules of information, or cooperation, or just by individual contacts.

It is reality that many of the most pressing issues in our society have no home in the typical college curriculum and time-honored disciplines. Where is the curricular responsibility for discussing the improvement of intergroup race relations on or off the campus? Where is the curricular home for studying the environment: in biology, in chemistry, in physical science, in political science? What discipline has the responsibility to study the drug abuse problem: in health classes, in law enforcement classes, in political science classes? There seems to be little congruence between the disciplines and organization of the college curriculum and the tough multidisciplinary issues of real life. In fact, in too many cases, we have allowed there to be a disconnection between education and real life issues.

The connectedness issue also runs vertically into the secondary schools as well as horizontally into the community. College and university leaders are discovering that their students had a life before college and that their institution's roots grow deep into the soil of the secondary and elementary schools. However, there has been precious little communication among college and high school faculty. For easier articulation to take place for students, the inner wall of separation within the academic community must be broken down. The distrust will never melt away until genuine conversation between the two groups of teachers begins... Yet even today we still talk about vocational education and academic education as though they exist in separate worlds.

No longer can the debate of the importance of the liberal arts or career programs be allowed to degenerate into an either/or argument. They are both important, balance is needed, and the technological-learning age demands it. Educational excellence at all levels must be defined in terms of connectedness, continuity, and applicability that combines knowing with doing.

The search for synergy emphasizes the importance of an interdisciplinary education and the development of broad skills. College-educated workers of the future must be able to handle projects from start to finish, from the definition of system requirements through project management. This will require "hands on" managers and project leaders able to roll up their sleeves and help with the work in practical ways. Manufacturers are now predicting a rapid shift from assembly line production to smaller units with smaller suppliers involving fewer workers with the abilities to do more complex things.

Rapid technological changes are motivating fundamental shifts requiring a workforce that is well educated, highly skilled, and highly adaptive. The National Research Council now estimates that the occupational half-life, the time it takes for one-half of worker's skills to become obsolete, has declined from seven to fourteen years to three to five years. Workers at all levels of the workforce will need basic literacy skills and cognitive skills enabling them to be lifelong learners and adjust to new work situations.

## BUILDING COMMUNITY

Building and strengthening community life inside and outside our academy is an energizing challenge, but also a great opportunity. Building Communities is the title of a report of the American Association of Community and Junior College's Commission on the Future of Community Colleges issued in 1988. This commission, chaired by U.S. Senator Nancy Kassebaum of Kansas and Ernest Boyer, president of the Carnegie Foundation for the Advancement of Teaching, stated in this widely acclaimed report :

We propose, therefore, that the theme "Building Communities" become the new rallying point for our community colleges. We define the term community not only as a region to be served, but also as a climate to be created.

Even though this report was prepared for U.S. community, technical, and junior colleges, the theme of "building communities" is applicable to Canada as well as the U.S. when the term "community" is defined as a climate to be created. Certainly, the concept implies more than colleges simply sponsoring public events. Given the broad definition of "community", what are the implications for all of our colleges ?

College and university students must feel a sense of belonging and involvement if a sense of community is to be achieved. This is particularly true for ethnic minority students. Not only must more minority students be encouraged to enroll in our colleges, they must also experience success and a feeling of belonging in their college experience if they are to stick with it. This issue argues for all sorts of new collaborative efforts between colleges and secondary schools. Students and parents must be counseled early with regard to what a college expects of them so that students can better prepare while in high school.

A good bit more attention must also be given to commuter students (young and old) if this large number of college students is to feel a sense of community on a college campus. Ways must be found to help the commuter student interact more with campus life.

Little or no research has addressed ways to foster the types of development among commuter students that are taken for granted among residential students. While the 18- to 21-year-old commuter student frequently enters the college experience with characteristics that differ from the residential student in the same age group, it does not necessarily follow that the commuter student does not need similar types of development. Should it not also be assumed that community college commuter students need and deserve comparable development of self-concept, autonomy, social and academic integration ?

We have been conditioned in our Western culture to accept competition among students as the standard operating mode. Research on study habits among various groups of students at the University of California (Kerkley) has discovered that the key difference between Asian American and African American students is that the Asian students tend to study together, seminar together, and generally help each other, while African American students tend to study alone, work alone, and generally approach collegiate studies on an independent basis. Our community colleges are beginning to understand that most students learn better when they study together and support each other in a cooperative learning mode. Students and faculty alike are beginning to understand that creating a climate of community operates best on the premise that students and faculty derive mutual benefits from getting to know each other as individuals.

The community college of Dateline 2000 must encourage cooperative learning experiences not only among students, but also among faculty. Because community colleges work between high schools and universities, they might logically serve as conveners of regional educational consortia. The resulting partnerships among various levels of education could include cooperative efforts aimed at developing teaching-learning excellence, enhancing teacher enrichment, developing continuity in learning, improving student retention and the further education of disadvantaged students. Formalized discussion among faculty from various levels of education could also encourage feedback related to student performance.

## HUMAN RESOURCE DEVELOPMENT

The missing link in the current economic policies of our two countries is systematic attention to human resource development. It is puzzling how any national economic policy can be successful for very long in the world today when the development of the most precious resource in a country, the human resource, is given short shrift. The United States, in particular, has no coordinated national human resource development policy, or even a national strategy; there are only bits and pieces. Yet most of our contemporary economic development challenges focus significantly on the human resource development strategy.

There is little economic logic in encouraging capital investment in machines and equipment through tax incentives and other public efforts, if a country fails to make a similar level of investment in the people who will operate, maintain, repair, and build the machines. Much of a nation's well-being in the decade ahead will be tied to full development of and utilization of its human resources. When unemployment rises, governmental expenditures for unemployment insurance and welfare rise as well, while tax receipts fall. Some of the costs of social unrest and crime can also be tied to an idle, indeed, a wasting population.

Many of the U.S. social policies of the past seem to have been designed primarily to foster social equity rather than to encourage the development of human potential, economic self-sufficiency, and individual empowerment. People must be educated and trained not just because they are poor, but because they represent a fundamental resource for maintaining the economic health of our nation. It does make a difference when governmental leaders at all levels recognize people as untapped resources instead of seeing people as merely causing more social problems to be alleviated.

A large majority of the jobs of the future in our two countries require some form of postsecondary education or training for entry. The need for employees with higher levels of competence will greatly expand as more and more employers move to high performance work places. As a result of these changes much attention must be given in the decade ahead to the linkage between the economy, education, and human resource development.

The success of Canadian and the U.S. in meeting the challenges of uncertain but far-reaching economic change will depend, in part, on how well the knowledge, skills, and resources of colleges and universities are utilized, and how flexibly these institutions respond to the human resource development challenge.

Significant changes are expected in the type of work to be done in the future, and the workers available to do the work. These changes hold some large implications for community colleges. The workforce of the future, at all levels, must develop higher levels of problem solving and reasoning abilities. The workers must also be computer literate. They must be broadly educated with the ability to apply knowledge.

In analyzing future workforce needs we find the greatest workforce need will be for workers with significant levels of postsecondary education and training. The most significant growth in jobs will come in professional, managerial, and technician categories. It is estimated that by the year 2000, 70 to 75 percent of all new jobs in North America will require some form of postsecondary education for entry, but not necessarily a four year college degree.

We can recite the economic history of our two countries with the three words of "farmer", "laborer", and "clerk". At one time the largest block of workers were employed in farm or farm-related occupations. Today less than 3 percent of the workforce are employed in the farm categories. With the advent of the industrial revolution came the laborer or blue-collar worker. In about the mid- 1950s another transition occurred, with the largest block of workers becoming the clerical, or white-collar, worker.

We are now experiencing another economic transition between the industrial and technological age. There is speculation that the next word to describe the largest block of the workforce will be "technician." Between now and the year 2000 most new jobs created will be in the technology-related and service parts of the economy. This does not mean that manufacturing jobs will disappear, it does mean that many manufacturing jobs will change.

Just remember these three phrases as you think about high performance workplaces and the relationship to what we do in education :

- Zero Based Defects
- Flexible Automated Manufacturing
- Just in Time Delivery

These and other contemporary employer practices will require a better educated and better trained workforce than we have ever experienced in our history. In an increasingly competitive global economy our two countries must work cheaper ... or work harder ... or work smarter. There really are no other choices. I choose the alternative of fully developing our human resources so we can work smarter.

Technology will be the driving force of our economies in the future. It is creating millions of jobs, revitalizing older industries, and spawning entirely new fields. In the process many jobs will be eliminated, others will be radically altered, and new kinds of occupations will be born. The technology age will force decision makers to consider hard new policy choices. Do we import workers and export jobs? Or do we invest in the full development of our own human resources? Do we choose low skills or high wages?

Human resource development threads must run through the economic policies of our two countries with education and training as the central focus. In analyzing state-level economic development efforts in the U.S. eight trends emerge and five relate to education. These trends are:

- Improve elementary and secondary education in order to improve the skills of the future workforce.
- Expand the work of community colleges in technical education, adult worker training and retraining, and technology transfer.
- Fully utilize the research resources of colleges and universities and develop better technology transfer methods.
- Promote more partnerships between public and private employers and community colleges.
- Develop a more literate adult workforce.
- Accelerate job creation efforts.
- Help businesses participate more fully in the global economy.

The gap between high-wage skilled employment and low-wage unskilled jobs tends to widen as technology moves forward. New education and training programs will be required to train the unemployed and underemployed to perform in occupations in which shortages are growing. Significant shortfalls are expected for a number of skilled workers, including craftspeople, machinists, mechanics, and technicians of all kinds.

In the decade ahead our nations will complete an economic cycle that started with the introduction of new technology, moved to retraining the workforce, and then to worldwide marketing. Eventually, the retooled technology-age industries should be able to reduce prices and increase quality, and increased quality, given increased productivity from a better trained and higher-skilled workforce. This kind of progress will be fundamental in helping our countries maintain a competitive edge in world markets. Such progress will not occur in a skill shortage, inflation-producing economic environment.

International competition, existing and looming skill shortages, deficiencies in training and education programs, and new, more technical national defense requirements are motivating a new national interest in human resource development efforts. Higher education will not be allowed to sit on the sidelines. The economic future and educational future of our countries are inextricably linked together.

The economic policies of Canada and the U.S. in the decade ahead must include development of human resources as an integral part of overall economic strategy. Historically, our strength reflects an unflagging faith in the investment in human potential. Any new vision for a revitalized economy in the 1990s will fall short of its goals unless it addresses human resource development needs. In many ways community colleges hold the key — through the provision of education, training, retraining, and research — leading to future economic prosperity. The technological age is reshaping how we live and work, and it is certainly reshaping educational programs.

If we are resourceful enough, there will be many ways for our colleges to adapt ... and many unanticipated events that could change the future. But, perhaps our greatest protection lies in the growing importance of community colleges to the countries that sustain us.