Social change is a complex matter. In extreme cases it happens rapidly and unexpectedly. In others it is the result of concerted efforts and careful building. The institutions of a society both reflect and create social change. What is the role that public universities as societal institutions should play in producing positive and productive social change both locally in their home societies and globally for the world and its citizens? How can they best play this role? How can the public and private sectors best support and interact with universities in their mission of creating and reflecting positive social change?

Universities are often powerful catalysts of social change. At this time in history, humanity is faced with tremendous challenges; environmental, social, cultural, and medical challenges that urgently call for solutions. Universities are society’s solution finders. As such they have important roles as agents of change. Professor-researchers create new knowledge and through its transmission to their students and to the society-at-large, universities create change. Change in our societies might be envisioned as generational, with paradigm shifts occurring at the juncture of generations. University professors’ ideas are often at the heart of such paradigm shifts.

Universities also reflect social change. How they manage and advance the results of the social change that occurs in the world around them
involves important responsibilities; responsibilities whose outcomes will impact in an iterative fashion back onto the society that exists outside the doors of the university.

To begin these reflections on universities and their role in social change, I would like to share with you the story of an important chapter in the history of Quebec, the province of Canada in which my university is located. It is a story of how higher education institutions were influenced by social change and how, in turn, they changed society. In the 1960s and 1970s, Quebec underwent a major social transformation which has been called ‘The Quiet Revolution’. A major part of that revolution was the establishment of publicly funded and publicly administered secondary schools, colleges, and universities. During that time period, Quebec established its first Ministry of Education and numerous young people who, previously could not even afford secondary education, obtained university degrees. This, in turn, has led to the rise of intellectuals and professionals whose ideas, discoveries and innovations have advanced Quebec society and Quebec’s culture and economy in countless ways over the last four decades. Their influence has, in fact, reached well beyond Quebec, and, indeed, has had national and international importance. In many ways the ‘Quiet Revolution’ of Quebec is a reminder that positive social change can occur as a result of deliberate planning. It also serves as an example of the striking interaction that can exist between social change and universities.
Universities Reflect Social Change

One of the many ways that universities can reflect social change is through the admission of their students. Among the fundamental principles of public universities are accessibility, quality, diversity and equity. These principles have led to certain admission policies, namely those based on students’ academic merit without regard for race, class, sex or religion. The book, *The Chosen*,¹ recounts the history of admission policies in American universities. In his book, Jerome Karabel traces patterns of admissions in three Ivy League universities of the United States in the first half of the twentieth century. Their admission policies at that time might have been called ‘social maintenance policies’ in which quotas were established for certain ethnic and religious groups. This was done to preserve the social composition of their student bodies and, in the long run, of the American elite.

Karabel contrasts such exclusionary policies with ‘affirmative action policies or what might be referred to as ‘social change policies’. For example, in the 1960s, the major social changes that occurred in North America and Europe paved the way for admission standards that favoured the deliberate inclusion of certain minority groups. This practice known as ‘affirmative action’ has been contested repeatedly, even into this century, when the University of Michigan brought the issue to the Supreme Court of the United States. Nevertheless, the current and most customary approach to university admissions world-wide is based on merit policies where academic performance and test scores determine who is admitted. The virtue of

accessibility and the temptation to be quantity-driven in public universities whose funding is based on enrolment must always be balanced and accompanied by concerns for quality and equity.

Clearly, the various approaches to admissions have had, and still have, consequences that both reflect and create social change. For example, recently in Canada, merit based admission has led to a large majority of women in several university programs. Almost seventy percent of the students in Medicine in my university are women. In 1971, 68 percent of university graduates were men. In 2004 women accounted for 58 percent of university students in Canada. The long term societal consequences of this rapidly evolving dynamic remain unknown at the present time but they are likely to be significant. The careful weighing of admission policies has become a responsibility of today’s public universities and in many ways it has led them into relatively uncharted territories.

Taking another Canadian example, our urban universities, for instance, reflect the face of the social change caused by massive immigration. Sixty percent of the university students in Toronto, the largest Canadian city, have neither of Canada’s official languages, French or English, as their mother tongue. These students and those in many other urban universities around the world reflect the linguistic, cultural, religious and racial diversity that fluid migration has created. The very social change that created this diversity in our student bodies now challenges our universities to insure the fair and respectful treatment of all. This has, in turn, led universities to make certain social changes as they carefully consider new forms of reasonable accommodation to diversity. At the same
time the diversity of Canadian society is one of its strengths. Students in a university like my own learn from and with students who come from widely varied ethnic, religious and racial backgrounds. This encourages tolerance, an understanding of difference and respect for the ‘other’, all of which have a positive impact on human relations.

Universities also reflect the diverse languages of their societies. Around the world the cultural expression of thought through a wide variety of languages creates a rich social tapestry of concepts and ideas. In a world where once every 14 days a language becomes extinct, the preservation of linguistic diversity is all the more important. Our students’ and scholars’ thoughts and identities are forged and expressed through their languages. Peoples’ languages reflect their ways of being. At the same time, the capacity and chance to master and use more than one language is important for creating global connections and one that should be encouraged in today’s universities.

In summary, universities have a major societal role to play as they reflect social change and manage its consequences within their own walls.

**Universities Create Social Change**

Universities are also creators of social change. Through their internationalization and through their creation, transmission and transfer of knowledge, they can have positive and productive impacts on the world.

**Social Change through the Internationalization of Public Universities**

Public universities, unlike private universities, have typically been considered to have a particular mission and a set of values that include the
preservation of local culture and the development of society. However, the rapid explosion of knowledge has meant that universities can no longer define themselves primarily in terms of the cities, states and countries where they are located. Instead their scope and mission have expanded to encompass the internationalization of education and research.

As an example of this, the latest statistics from the Science and Engineering Indicators demonstrate that Canada contributes 3.5% of the world’s scientific knowledge; the rest must be accessed from other countries. At the same time 40 percent of Canadian publications in the natural sciences and engineering are co-authored with non-Canadian collaborators. This is more than twice as large as the 18 percent that was reported in 1988. We cannot any longer, in fact, we do not any longer, work on research in national silos. Nor can we afford to ignore the countries of the world where science and technology are less well developed. It is through boot strapping and joint partnerships that we will make the discoveries from which we will all benefit and to which we can all contribute. Today’s students will be tomorrow’s researchers. They need to be educated in universities that promote the internationalization of research and development.

Through their research, universities create new knowledge and use it to educate future citizens. In doing so they are catalysts of social change. Today’s students need a different awareness than those who were educated fifty or even ten years ago. Their universities need to play an active role in awakening them to the diversity of cultures and languages as well as to the interrelationships among the societies of the world. This awareness will create a more informed citizenry and highly qualified personnel who are
better able to work and interact in varied settings with people from various backgrounds. Today’s students also need to understand that solutions to major societal challenges lie in understanding phenomena at a global level. For instance, they need to understand that the physical environment knows no boundaries, and its preservation depends on cross-border cooperation and responsibility. They need to understand the evolution of health threats that travel with speed and devastation across borders endangering the lives of the peoples around the world. They need to understand the commonality and variation of causes that create domestic violence in virtually every country. They need to learn about the interplay of global economies. They need to be confronted with the social and cultural changes that lead to and result from the rapid disappearance of languages around the world. Tomorrow, today’s students will be the driving forces behind our global co-existence. Collectively, the public universities of the world have the responsibility to develop the minds and ideas that inspire public policy and decision making and to insure that they serve all of mankind from North to South and East to West.

Public universities from around the world need to work together in a multidimensional fashion to develop strategic new models of cooperation and partnering in teaching and research. Through joint endeavours, they need to strive to address global issues such as migration, environment, public health, communications and new technologies. Students from universities around the world need to spend time in each others’ universities learning each others’ languages and studying in joint programs together. Researchers, graduate students, and postdoctoral scholars need to work in
trans-national research teams. University administrators need to exchange information and jointly seek solutions to the numerous challenges that they face in the governance of today’s public universities. This is why the Université de Montréal has recently launched the *International Forum of Public Universities*.

The *Forum* brings together 21 public universities that are recognized within their countries, four continents and world-wide for the quality of their research, teaching and their societal impact both locally and globally. It will include universities in both developed and developing countries.

The creation of the *Forum* is the outcome of meetings held at the Université de Montréal during its 125th anniversary celebrations in 2004 and at a succeeding conference held the following year at the Université Libre de Bruxelles in which the University of Peking played a significant role. The *Forum*, in essence, will promote the values that lie at the heart of the mission of public universities in an era of internationalization.

The Université of Montreal is proud to have taken a leadership role in creating this network of universities. It has done so because the *Forum* itself is a concrete symbol of the importance of teamwork among nations. Its member universities will work together to discover and teach new knowledge in new ways; knowledge that will bring social change and in so doing, will improve the future of nations – all of our nations.

Governments, for their parts, also have a crucial role to play in supporting their public universities efforts to create positive social change through the internationalization of higher education. Financial support is needed to support student mobility, international research teams, and the
creation and funding of joint educational programs. In turn, knowledge created by universities can be used to enhance our countries’ economies, inform our governments’ policies and produce an informed citizenry. World-wide, there are a number of very positive government initiatives that are encouraging internationalization. Here, in China, the government has provided a wonderful model by asking the China Scholarship Council to create thousands of scholarships that enable Chinese students to study in other countries. The German government’s Excellence Initiative is providing funding that will bring doctoral students from many countries into selected German ‘graduate schools’. The European Union through its seventh framework program is supporting international teams of researchers. South Korea, for its part, has provided very ample financial support for its researchers to join and contribute to the international teams supported by the European Union. In the province of Quebec, we are fortunate to have a government that provides funding to its universities for student mobility. Moreover, the Canadian government agencies that support university research are now considering the recent European models that provide funding to trans-national teams of researchers working on joint projects. Both Canada and Quebec have signed strategic science and technology agreements with countries such as China, India, Brazil, Israel, France and Germany. Certain of these agreements require that university-researchers have private sector industrial partners, thereby, reflecting the importance placed on the interplay between universities and the private sector in creating social, scientific and economic change.
Social Change through the Transfer and Transmission of Knowledge

Historically, in Medieval Europe, the model of knowledge transmission was one of apprenticeship in which students learned and lived around their masters. Today’s universities need to continue this role of creatively developing knowledge to sustain our evolving entrepreneurial society while at the same time developing the social, cultural, and scientific knowledge essential to a harmonious human and global destiny.

The new knowledge created in universities is a major economic and societal driver at many levels. It impacts on the economies of our cities, states or provinces and countries. A study of the Montreal area universities revealed a number of important ways that the city’s four universities have an economic impact on their local environment. It showed that the money generated (i) by the production of knowledge in universities that led to innovations and (ii) the integration of these innovations into the economy created an average annual increase of the total Gross Internal Product of almost four billion dollars to the province of Quebec. Furthermore, in a time when we have an increasingly knowledge based economy; universities play a role that is more important than ever, namely, educating the people who become available to work in numerous economic and societal sectors. The availability of manpower for these sectors leads to economic growth that, in turn, leads to more jobs and increased well-being for the population.

University research represents one-third of all the research done in Canada. This research results in discoveries, many of which result in innovations. The commercialization of the new knowledge discovered in
universities is a major economic factor. University graduates and research centers create knowledge that leads to the creation of new enterprises and to the strengthening of existing ones. Strong enterprises become the poles of attraction for other enterprises. Increasingly, the knowledge produced in universities has had an impact of the growing strength of industrial-research clusters. In such clusters each universities and industry strengthen each other. For this reason the economic and societal impact of universities makes a dynamic impact. As new knowledge increases it stimulates innovations and they, in turn, increase the capacity to compete.

The interplay between universities and economic gain is an important factor in social change. The linkage of universities to the private and public sectors needs to become more sophisticated, more mutually informing and bilateral. The private and the non-university public sectors and universities need to grow together crafting joint strategies and policies. These sectors need to call upon each other for advice and development. Universities, for instance, need to be involved in the planning and development of the industrial sector. Recent trade missions to China organized by the Quebec and Canadian governments have had the salutary impact of putting Chinese and Canadian business leaders in contact with their Chinese and Canadian university counterparts. It is important that this kind of contact increase and open the way to enhanced communication between universities and their societal partners from both the private and public sectors.

As a part of their relationships with other sectors, public universities also have the responsibility for ensuring the return of culture and knowledge to society by making the knowledge created within their walls readily
available to people outside of them. They should help promote their scientists and scholars so that their work can reach and inform a wider audience. Universities and their professors have an important societal role to play in popularizing knowledge for the public. Our world today is one of rapid technological and social change. Helping the population-at-large understand these changes is something that universities are particularly well suited to do.

Excellent, timely and pertinent education can also create economic advantages and economic advantages help create employment that can lead to better lives for university graduates and other people of the world. Economic improvement should also provide the resources for increasing investments in the education of more highly qualified personnel and in university research. These investments can then lead to the creation of more new knowledge. New knowledge, in turn, can improve educational levels and standards that, in an ongoing iterative process, will continue to have an impact on the economy and the well-being of people.

Knowledge creation and transmission implies an implicit connection between teaching and research. This connection needs to be understood and strengthened in our universities. Public universities need to educate their students to have curious and inquiring minds and to learn by exploration rather than by repetition. They need to educate them to have the basis for understanding knowledge as it renews itself and at the same time educate them to create new knowledge. The latest discoveries need to be brought into the classroom and students at all levels of university education need to be brought into research settings to learn about knowledge creation.
Furthermore, universities’ means of teaching need to evolve and need to be informed by new technological and pedagogical knowledge. Research does not detract from teaching; it enhances it. So, too, can teaching stimulate research. Professor-researchers often uncover new questions while teaching that can lead their research in new directions.

The doors and windows of the world’s ivory towers should open so that students can move fluidly between university settings and settings outside the university during the course of their education. In this way their education can reflect and enhance the interplay that needs to exist between universities and the private and public sectors. Moreover, their movement out into the world can and should take them farther a field than their immediate environment. Universities should encourage students by joint programs and exchange programs to spend time in other countries. Let us imagine for a moment a new generation of undergraduate students who spend time both inside and outside of the academy during their university studies and who also spend time in their home country as well as in other countries. We can also imagine a next generation of graduate students who spend time doing research in both university and outside-of-university research settings in both their home country and abroad.

Universities have to meet the challenge of adapting to societal and technological changes. They also have to be responsible for creating positive technological and social changes. It is by reaching out beyond the usual borders that hem in thoughts and actions that universities will, in the terminology of Quebec’s history, ‘quietly revolutionize’ or move society forward - socially, culturally, scientifically and economically. They will enact
what we might call a ‘knowledge revolution’ by creating and sharing
knowledge in partnership with other nations and other sectors of society and
by educating the students from diverse backgrounds to learn and think
beyond borders and in connection with others.

Outward movement and connecting corridors can be seen as vectors
for social change; vectors, that universities should follow as they engage in
the discovery and transmission of new knowledge. Put quite simply,
universities are one of society’s most powerful, if not the most powerful,
agent of social change. They provide the world with new ideas and, even
more critically, universities shape the youth that will hold the world of
tomorrow in their hands.

It is a privilege to work within them and it has been a privilege to
participate in this Forum.