

McGill Engineering Commencement Address
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Introduction

Chancellor Pound, Principal Munroe-Blum, Dean Pierre, members of the Faculty, parents, friends, and most important of all, graduates!!!.

What a great honor to not only receive an honorary degree from Canada's leading university (at least as ranked by the recent ratings of MacLeans!) but also to participate in your commencement exercises.

This is particularly meaningful since my University has benefited so greatly from two significant imports from McGill:

First, a McGill graduate, Harold Shapiro, the twin brother of your previous principal, Bernard Shapiro, was both my predecessor as Michigan president and also my teacher in the arcane craft of university leadership...

Second, in 1875, it was McGill that introduced to Harvard this strange form of soccer in which you could not only pick up the ball, run, and be tackled, but actually even kick it. Fortunately McGill has been able to keep this game of "football" in a proper perspective, but unfortunately it has both infected and consumed many of our campuses south of the border (particularly so at Michigan where we are finishing off a massive \$300 M construction project to add luxury boxes to Michigan Stadium, already the largest stadium in the United States with a seating capacity of over 112,000.)

For this too we can thank—or perhaps blame—McGill!!!

Actually, since my university is less than 30 miles from Canada, just across the river from Windsor, we have long had great admiration...perhaps even envy...of your nation, its diversity, creativity, energy, and perhaps still a pioneering spirit which seems to have been absent from the United States in recent years—although hopefully with new leadership it is beginning to reappear!

Giving a Commencement Address

My immediate task this morning is to provide some remarks to today's graduating class.

If the truth be known, it is much easier to draft a commencement address than to listen to it.

For, you see, there is really only one commencement address, although it is given thousands of times every year, in thousands of different ways.

The basic message is always the same.

First you tell the graduates that their education has prepared them to go forth into a world in which they will have the power to shape their future, to control their destiny.

Then you throw in some advice on how to go about doing this.

And, of course, it is also traditional for graduates to totally ignore this advice.

The only real challenge is to figure out how to say this once again, in yet a different way, and to keep it all under 10

minutes, since it is the only remaining barrier between you and your degree!

So here goes...

A Future of Change

The French poet, Paul Valery, once said, "The trouble with our times is that the future is not what it used to be."

My cloudy crystal ball suggests a future characterized by rapid, unpredictable, and frequently dramatic change, a future of great challenge and responsibility.

But it will also be a future of great opportunity and excitement.

Let me dwell on this final point for a moment, because all too often we tend to press the panic button when we face the future, particularly by simply extrapolating the events of the past.

Certainly, events of the past several years have been both tragic and traumatic—9/11, Iraq, the energy crisis, the collapse of financial markets, ...

As you graduate in the early years of a new century—indeed, a new millennium—it is also true that you will face problems and challenges of a magnitude that would have been incomprehensible a century ago—energy sustainability, global climate change, global poverty and health, conflict and terrorism.

Our world is becoming ever more connected and democratic as we are increasingly bound together through commerce, culture, arts, literature, travel, and communications.

Yet this has also been one of the most intellectually productive times in human history. Knowledge continues to grow exponentially. The more we learn, the more we are capable of learning.

But as the pace of the creation of new knowledge accelerates, it also seems apparent that we are entering a period in which permanence and stability become less valued than flexibility and creativity, in which the only certainty will be the presence of continual change; and the capacity to relish, stimulate, and manage change will be one of the most critical abilities of all.

True, in the immediate future there will be less security than before, less stability, more unpredictability; but to quote the philosophy Alfred North Whitehead, "The great ages have been unstable ages!"

Has McGill Prepared You for This Future?

Has your college education helped you to evaluate, welcome, and control change? I certainly hope so.

As McGill engineering graduates you will have the powerful tools of modern science and technology, but through the intellectual breadth of your McGill education you have also gained an appreciation for the rich heritage of culture and art and experience from past generations that will provide the wisdom and the knowledge to enable you to shape your own future.

This latter characteristic of your education is important, since perhaps Whitehead was correct when he suggested the purpose of a college education is "to learn the art of life."

Perhaps the real objective of these past few years at McGill has been to stimulate in each of you a spirit of liberal

learning, a spirit that would enrich your lives and, through you, the lives of your families, friends, and colleagues.

Ah, but this might not have been at the top of your list... After all, universities provide many other distractions...parties, sports, concerts, and politics...

But not to worry! Your college education was intended only as a stepping stone to a process of lifelong education.

Indeed, most college graduates of your generation will find themselves changing careers time and time again during their lives.

I suspect that most of you will find yourself continuing to learn, and relearn, and relearn yet again through self-study and a return to school on occasion, as you attempt to adapt to a world of change.

Emerson once suggested that the wisest counsel of all to the young was to "always do what you are afraid to do."

We should approach life as a true adventure of opportunity and risk.

After all, we are made for risk. We thrive on it.

The truth is that adapting to change and challenge is what keeps our species evolving.

And in so doing, to regain perspective, our sense of excitement about the future, the optimism and confidence in ourselves and in each other.

Your generation has already shown early signs of the imagination and wisdom, daring and energy that characterized earlier ages and enabled them to achieve greatness.

Beyond that, there is an old saying in engineering that "the best way to predict the future is to invent it!"

In fact, that is one of the most significant skills provided by the unique character of a "liberal arts" engineering education you have received at McGill.

You have the ability to go out into that exciting world full of change, challenge, and opportunity and not only shape the future but to actually invent it!

Indeed, it is your challenge to make certain that the future is never again what it used to be!