

OUR CHANGING WORLD

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My parents were born in the last decade of the 19th century. They vividly remembered the first time they saw an automobile or listened to a radio. Yet both of these became integral parts of their lives. I was born in the third decade of the 20th century and, among the many changes, have been the introduction of television and the development of atomic science. You, who are graduating today, most likely were born in the late 1950s or early 1960s. You were quite young when the exploration of space began and a man first landed on the moon.

"By one estimate, nine times as much scientific knowledge has been generated since the second world war as mankind was able to produce in all its previous history."<sup>1/</sup>

The changes that have occurred over the past century fall roughly into four major categories: greater understanding and utilization of physical, chemical, and biological relationships; development of labor-saving devices; improvement of the means of transportation; and the creation of a rapid communication system. These advances have not occurred in isolation, but have interacted with each other to transform the way we live.

1/ "The Economist," Nov. 24, 1984

Furthermore, research and development across this broad spectrum of increasing knowledge, insures that the rapid pace of change will continue.

"The amount of information now doubles every eight years."<sup>2/</sup>

The application of our increasing knowledge has improved our level of living. We are better fed, live longer and healthier lives, are more traveled, and have more leisure than earlier generations. The technological innovations of the future will further improve our living standards. But society must address the problem of equitable distribution of our rising wealth not only within our society but among the societies of the world. Western Europe, Japan, and the United States have developed highly productive economies. Many countries are striving to catch up, while others have not yet started. The two most troubled areas of the world today--Central America and the Middle East--reflect this conflict. One of the greatest threats to peace is that of civil disturbance within nations and aggression between nations over the distribution of income. Sharing our knowledge and technology and helping to improve the level of living of the poorest is not just humanitarian, it is a vital part of maintaining world peace.

2/ "The Economist," Nov. 24, 1984

The rapid development of communications and transportation have transformed us into a world community. Most centers of population can be reached in a matter of hours. Production and consumption of goods and services have become internationalized. Competition between producers of similar goods is no longer limited to those within a common national boundary. Indeed, many finished products today may have components manufactured in different parts of the world. Moreover, this international competition provides much of the force behind the technological innovation that is underway.

The rapidity of communication reinforces the internationalization of our lives. Not only do we learn of major political and social events in foreign lands almost instantaneously, but we learn of their tragedies and aspirations. We exchange ideas and innovations. We conduct business by telecommunication 24 hours a day at some place around the world.

We are learning not only to accept and to live with people of different racial and cultural backgrounds, both within our own country and with other nations of the world, but to enrich each others' lives by learning from each other. We, in the United States, are on the leading edge in changing the economic and cultural status of women. Although we tend to associate labor-saving devices with the factory, the wide variety of household appliances--running hot and cold water, refrigerators, central heating, electric and gas stoves, and washing machines--have changed our lives almost as dramatically as assembly lines and computers.

More than 50 percent of the women are in the labor force and the percentage of women entering traditional male fields, such as law, medicine, and engineering has risen dramatically.

Looking over the wide range of research now underway and the imaginative development of that research to practical application, I feel confident that those of you who are graduating today will have experienced as much change in your lifestyles as has occurred for your parents and grandparents who are here to acknowledge your achievements today.

Given the rapidly changing world that I have experienced and that I anticipate you will experience, what are the purposes of education.

Most important, it is preparation for survival. You've all learned a lot of facts and figures, but more important you've learned ways of analyzing information, and of building on past achievements. Education is a safeguard against false ideas and the source of new ones. Regardless of what area you are receiving your degree in today, you are the fortunate recipients of a vast array of knowledge and, more important, a framework within which to analyze that knowledge. You can stand change, because you have been taught how to deal with it.

In my book, survival means more than coping with the technological and economic changes that will confront you. For me, it means learning to live with yourself and with other people. It means developing inner resources to cope with your individual natures and the essential loneliness of being a unique human being.

"Society cannot be all change. It needs shared traditions, values, attitudes, symbols, [and even] myths ... to achieve social stability and cohesiveness."<sup>3/</sup>

"Knowledge ... helps people to understand themselves and their society. It gives them some conception of the nature, limitations, and potential of human beings and some perspective on history, geography ... and culture."<sup>4/</sup>

One of the miracles, to me, of the United States of America is that we are all immigrants. With our enormously diverse backgrounds, we have created and maintained a democratic form of government. As young people entering into the main stream of American life, you have an obligation to strengthen and preserve our way of governing ourselves. I was quite heartened that the percent of eligible voters actually voting in the last election rose, but it was still less than 60 percent of those eligible. Our governments, at the local, state, and federal level affect our lives every day. You have the privilege of selecting the people who will conduct the affairs of government.

3/ Howard Bowen, Investment in Learning, p. 276.  
4/ Ibid

"...the safety of all the world--the very future of freedom--depends as never before upon the sensible and clearheaded management of the...affairs of the United States...<sup>5/</sup>

You not only have a moral obligation to vote, but your ability to survive may depend upon your active participation in the affairs of government at every level. You face enormous challenges--the most important is preserving peace--but coping with change, educating your children, managing the environment, and living with one another will require your thoughtful participation in society.

I was very excited when I achieved the milestone you are reaching today. I'm somewhat surprised, and very grateful, that nearly 35 years later, I'm still excited and challenged by my changing world. May it happen to you.

<sup>5/</sup> J. F. Kennedy, Yale University, June 11, 1962.