Mensaje ofrecido en "Hispanics in Engineering National Conference" con motivo a la celebración del Cuadragésimo Aniversario de la fundación de la UPPR

Ernesto Vázquez Barquet
Presidente
Universidad Politécnica de Puerto Rico
evazquez@pupr.edu

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By the end of the nineteenth century, one famous British scientist expressed: "This is the end of science. All that is possible has been already discovered and invented". In the same tone, the greatest Argentinean tango singer, Carlos Gardel, once said, "veinte años no es nada" or "twenty years are nothing". At this stage of human evolution and knowledge, it would be unthinkable to accept these statements, even by a singer.

Today, we are commemorating the fortieth (40TH) anniversary of our institution. It will be interesting to make a quick review of some of the most significant events that have occurred during these last four decades.

Even though for some people it is difficult to accept its importance due to moral principles, during the sixties one of the most important medical applications emerged: the creation of the contraceptive pill. This scientific application changed the demography, the economy and the history of humankind. Also, during this decade, Pope John XXIII reformed the Catholic Church. John and Robert Kennedy and Martin Luther King were assassinated. Vietnam War transformed the United States, and man and maybe the whole world set foot on the Moon.

During the seventies, the microchips made their appearance and the computer revolution started. In politics, Ayatollah Khomeini came into power. He created a theocracy and ended the modernization of Iran. In the eighties, Gorbachev and his Perestroika emerged, the Berlin Wall fell, and traditional communism and the cold war with Russia ended.

In the nineties, the most important political issue was the fall of Apartheid. In technology, The Web and The Internet were born.

In this 21ST century, the DNA structure of human beings and other living species was decoded. But also, a new and terrible aspect of international terrorism emerged: the destruction of the Twin Towers in 2001. It was the beginning of a terrorist era. In addition, wars with Afghanistan and Iraq increased the present state of national and personal insecurity. Finally, the development of satellite communications, the globalization of the economy, the economic consolidation of the European community and the emergence of the Society of Knowledge has created a new world, a different one. If during the sixties, somebody would have dared to express that these events were going to happen in the next forty years, he or she would have been declared insane. Yet, all of it and more occurred.

Taking the risk of being accused of personificating a soothsayer or a prophet, I can predict without much difficulty based on past events that we will not have to deal with some of the greatest challenges in the near future: overpopulation and poverty. Past and present reality reinforce the fact that poverty, especially in Africa and parts of Asia and Latin America, will be one of the most overwhelming problems of humanity. Science and technology will have to address this problem in a very serious way. Biotechnologists, agronomists, economists and social scientists and politicians, all together, must unite their knowledge and commitment in order to ameliorate this problem.

Earth warming and the deterioration of our environment is another extremely serious situation for humanity. Because of its complexity, this problem calls

for a comprehensive and unified approach from all scientists and engineers. There is no specific or isolated intellectual discipline that could deal by itself with this situation. Sustainable development is a goal and a challenge. It is not a simple rhetorical expression for today's environmental problems.

The spread of major diseases such as cancer and AIDS, call for cooperative research and development from physicians, biotechnologists, chemists and the pharmaceutical industry.

Finally, it would be correct to assume that international terrorism will continue to expand and express itself in the most unthinkable and evil creative manifestations. International terrorism must be dealt in a multidisciplinary and cooperative approach. Fanatism can only be ameliorated by reasoning, and reasoning can only be enhanced by education. However, prevention of terrorism can only be achieved through the development of information technology and through global collaboration.

In addition, schools specialized in foreign diplomacy must revamp their philosophy and promote respect and profound knowledge of other cultures, especially non-western ones, such as: Muslim, Indian, Chinese and Japanese societies. We must get used to accept that, maybe one day, China, India or the Unified European Countries could become the center of the future world. Therefore, it is imperative that we start to review our own conception of the present geopolitical and economic structure.

We must accept not only that the world will keep changing, but that it will do so at a more rapid rate. Then, how can we ignore the challenges of the future? It is my conviction that universities are and will become the most important institutions of our society, today and in the future. Within our campuses new discoveries and technologies will emerge and will contribute to the appearance of a new world order.

The United States has reached a population of 300 million out of which 44 are Hispanics. Thus, the future is placed in our hands. Let us take advantage of this great opportunity, unite our power of knowledge and become the moving force of scientific and technological change in the Americas and Caribbean's future.

Polytechnic University of Puerto Rico embraces that mission. Let us highlight some of our achievements during the last forty years. In 1966, the institution started offering a Bachelors Degree in Land Surveying and Mapping in consortium with a Liberal Arts University. A few years later (1974), Polytechnic University started offering by itself, in addition to Land surveying, a Bachelor in Civil Engineering. This degree in Engineering was followed by degrees in Industrial, Electrical, Mechanical, Environmental, Chemical and Computer Engineering. The institution also initiated a Bachelors Degree in Architecture, Business Administration and Computer Sciences.

At present, we are the only institution in Puerto Rico offering a five year Bachelors Degree in Architecture.

At the Master's level, Polytechnic University initiated a very successful Masters Degree in Engineering Management, a Master in Environmental Management and a Master in Business Administration specialized in Computer Information Systems and International Enterprises.

Since the year 2000, Polytechnic University has developed and is offering Masters Degrees in Manufacturing, Competitive Manufacturing, Civil Engineering, Electrical Engineering, Computer Engineering, and lately in Landscape Architecture.

From an initial enrollment of 86 students in 1966, we currently have, between our main campus and the Florida operation, over 6,000 students. Originally we had a part-time faculty of six (6), now there are approximately 300 full and part-time personnel between teaching and research staff.

From a small two story rented building, the institution evolved into nine buildings in a ten acre location within the commercial heart of San Juan, known as The Golden Mile. We also have two campuses in Florida, one in the Greater Orlando area, and another in Miami. The institution also has two international consortiums, one with the Dominican Republic and the other with Panama.

At present, Polytechnic University houses the largest non-profit private Hispanic Engineering School, and the largest Civil Engineering Department in the United States and its territories. We are very proud of all of our achievements. I want to emphasize that Polytechnic University has just created an office of Sponsored Research. We have appointed seven of our best researchers with PhD's in engineering to develop this important institutional endeavor.

Our goal is to keep the institution up to date and abreast the fast pace of research and technology. We aim to share our achievements with scientists, engineers and intellectuals in Puerto Rico, the United States, the Caribbean and the Americas, and while doing so contribute to the global mission the 21ST century has imposed on all of us.

¡Bienvenidos a Puerto Rico!