2015 Graduation Ceremony and Graduate School Commencement Ceremony Living in the Century of an Explosion in Diversity

First of all,

Please permit me to extend my sincere congratulations to each and every one of you who completed your studies at your respective schools and are embarking on a new life. As the president of Osaka University, I'd like to heartily congratulate you on your efforts. I also would like to express my admiration for your parents who supported your achievement of these goals.

Today you're graduating from Osaka University with an advanced degree. You must be filled with expectations for what lies ahead. You have gained experience in classes, laboratories, clubs, and social activities at Osaka University. My hope is that whatever goal you aim for you will become reliable leaders in that field and make use in the world the knowledge and skills you've cultivated at Osaka University. I hope you will contribute to the future of Japan as well as the development of human society and improved welfare. I hope you believe you have the quality and ability to be active in the world as leaders. I also hope you will move in society with grace and responsibility.

The history of development borne of diversity and of conflicts caused by diversity

First, I'd like to talk about what future will be waiting for you. I think now we're in the "Century of an Explosion in Diversity." Since the birth of Homo sapiens in Africa some 200,000 years ago, humans have moved and spread into Europe, Asia, Australia, and American continents over tens of thousands of years. During that time, 4 human species, the Khoisan, Caucasoid, Mongoloid, and Aborigine, were born.

Between 10,000 and a few thousand years ago, civilization emerging in locations such as Mesopotamia, Egypt, the Indus Valley, China, and Maya flourished. There were years when these civilizations maintained a peaceful relationship with each other for geographical reasons. They were born independently, but transformed while involving surrounding areas and affecting each other.

In that process, a variety of religions such as Judaism, Christianity, Islam, Buddhism, and Hinduism were born with a growing diversity in language and culture. The four human species were fragmented and currently a variety of races live on the earth. Possessing a range of diversity, these people affected each other during the long history of mankind, causing conflicts, even wars in some cases. Such diversity-related conflicts were not just in a subservient-dominant relationship, but developed science and technology such as gunpowder and weapons.

Exchange of people of diverse backgrounds also led to innovative changes in human society. Diversity also brought about spiritual richness to human society. Certainly the long history of mankind is the history of development borne of diversity and of conflicts and wars caused by diversity.

The wave of globalization in the history of mankind

If we define the slow migration between continents by Homo sapiens and their diffusion to the five continents as the first wave, the birth of agrarian civilization and its spread to the surrounding area during the period between 10,000 year B.C. and the 12th century will constitute the second wave. During that period, the foundation of diversity in language, race, custom, culture, and religion in current human society was made.

The third wave of globalization took place during the 400 years between the 13th century and 17th century.

The emergence of the Mongol Empire, which built a world empire including Central Asia and part of Europe, brought about regional-scale land traffic, opening the Age of Exploration which stretched from Asia to the east side of Africa. In the 16th century, Portugal, Spain and other countries connected the continents of Eurasia, Africa, Australia, and America by the seven seas.

The fourth wave is a series of events including the colonialism which started from the industrial revolution at the end of the 18th century in England, imperialism in Europe, the emergence of the U.S., resulting two world wars, socialism, and the Cold War after World War II. During that time the world major player shifted from the UK to the U.S. The wave of globalization terminated with the end of Cold War, symbolized by the breakup of the whole Soviet Union and the collapse of the Berlin Wall at the end of the 20th century.

Today, the fifth wave of globalization which started at the end of the 20th century is the wave caused by the unprecedented extreme narrowing of the earth caused by the rapid development of science and technology based on the relativity theory and quantum mechanics that flourished in the 20th century.

The 5th wave of globalization

In the history of mankind, traffic means developed slowly until the industrial revolution. 200,000 years ago, it took tens of thousands years for humans to migrate from Africa to North America. Tens of thousands of years ago, humans obtained means of migration by animals such as horses.

Later they obtained not only maritime transport means such as ships, but also compasses invented in China in the 1st century, which made it possible for people to navigate waters without getting lost. People developed means for using manpower, animal power, as well as natural energy such as wind and water. Thanks to steam engines, internal-combustion engines, motors, and generators invented in the 18th and 19th centuries, people succeeded in efficiently generating energy not dependent on nature.

By using such technologies, means of transportation such as cars, railways, and airplanes were produced, which made it possible for people to travel quickly. People crossed the continents on foot over time, but now, the growing use of airplanes has made it possible for people to cross it in just half a day. If the supersonic airliners under development are achieved, it will take only three hours to travel from Tokyo to New York. Artificial satellites can circle the globe in just an hour.

People used smoke signals and carrier pigeons as communication means; however, through the invention of telegram and radio, now information gets around the world in a flash via the Internet. Furthermore, the Age of Internet of Things (IoT) is about to begin. The world is going to be united through the Internet.

Through the development of means of transportation and conveying information, the earth has been narrowed slowly but surely in the last 100 years. Compared with changes that happened in the past 200,000 years, today, the earth is narrowing at a speed beyond time and space. Humans have been swamped by the wave of globalization several times, but the wave of globalization human beings are facing right now are different from that in the past. In other words, the foundation of our life, the earth itself, has drastically become small. In that sense, we are swallowed up by an unprecedented wave of globalization. That is, we are in the middle of the greatest revolutionary era since the birth of new human beings 200,000 years ago.

The 21st century, the century of an explosion in diversity

We need to consider what will take place in our 21st century globalized society. In addition to the development of means of transportation and conveying information, there is an issue of rapidly-growing population. The world population remained in hundreds of millions for a long time. The population exceeded 1 billion in the 19th century and then rapidly increased, standing at 7 billion now. It is expected that it will grow beyond 9 billion in 2050.

In this way, not only in terms of means of transportation and conveying information, but also in terms of population growth, the earth is surely becoming smaller and smaller. Combined with the increased population, diversity which existed on the relatively wide earth for a long time, in the midst of this 5th wave of globalization, is going to be epitomized in a narrowed time and space. In addition to this condensed diversity, rapid population growth and technological innovation have raised intricately-intertwined global problems such as food problems, energy crisis, environmental problems, infectious diseases, and biodiversity.

Diversity -- differences in language, race, customs, culture, and religion, and political form -- is essential for creating groundbreaking innovation and a spiritually affluent human society; however, diversity has also brought about negative results such as obstacles and conflicts. That's why it is said that the history of humanity is also the history of development borne of diversity and of conflicts caused by diversity.

In today's increasingly globalized world, unprecedented in size in human history, the negative side of diversity epitomized in narrow space and time has grown even stronger and various conflicts are taking place throughout the world. There is even a possibility that the 21st century will become the "Century of an Explosion in Diversity." I think that humans are in a phase of major change in the same way continuous change in temperature turns a solid into liquid, into gas, and then into a totally different sphere, non-continuously. In the 21st century globalized society, overcoming barriers caused by diversity will become essential for humanity's survival.

Importance of Harmonious Diversity

In order to live in a global society, understanding, respecting, and maintaining diversity is important. It is also necessary to positively support diversity and use it for the creation of innovation. I believe only the "creation of harmonious diversity" can maintain peace in a global society and create innovation in economic and social activities and that this will lead to the further development of human society.

The Osaka University where you have studied is a center of scholarship. Osaka University has conducted research to ascertain the true essence of things and has made efforts to cultivate personnel who will possess the ability to find the essence of what is true in multiple fields. A university is a center of scholarship. The role of a university, to contribute to society through education and research, never changes; however, I think universities in the 21st century will have an additional role -- making a great contribution to a more globalized society by creating "harmonious diversity through scholarship."

Scholarship, along with sports and economic activities, is a kind of language common to all humankind. These languages common to all humankind have the power to overcome barriers. Exchange among humans by means of scholarship makes it possible to achieve the maintenance of diversity, and, at the same time, to overcome barriers caused by it. That's why we must further promote person-to-person exchange via scholarship on a world scale. In this way, universities can contribute to the globalization of society through the "creation of harmonious diversity." As graduates of Osaka University, you will play a great role in global society.

Know yourself and cultivate your power

How should we prepare ourselves to create harmonious diversity? I think it's important to recognize and respect diversity, in other words, to have mutual understanding and mutual respect for different cultures. To this end, we need to understand other people's ways of looking at things and feelings. As *Analects of Confucius* said, we must be open-minded. Thus, both the "foreign" and "self" components need to coexist in time and place.

I think being able to live together harmoniously with others is essential for people who will be active in our 21st century globalized society which is being swallowed up by the 5th big wave. For nations and people with different cultures and religions to live in harmony and prosper, it's critical to understand diversity, respect others and harmoniously live together in society. This is a necessary frame of mind for people living in a global society.

To this end, it's necessary that they know themselves, love their country, and understand and respect their own culture. If one cannot love one's self and one's nation and not be proud of such, how can such a person understand and respect other people and other nations? For that purpose, it's necessary that people know themselves and cultivate their power.

For any organization and human being, the present condition of the organization or the human comes from their roots. Their experiences are handed over as a kind of DNA. When speaking of the future, you cannot neglect them. All of you share a common history that you studied at Osaka University. Being graduates of Osaka University, you will be viewed as persons selected from society and you will have the responsibility to give back to society accordingly.

To know yourselves, you need to know Osaka University. So, what is the Osaka University where you have studied? On this day of your graduation, let's think about the Osaka University that has become and will remain an important part of your life.

The root of Osaka University: Tekijuku

Thanks to the enthusiastic support of the citizens of Osaka, then president of Osaka Prefectural Medical University and the second president of Osaka University, KUSUMOTO Chozaburo (you may recognize his name from the Kusumoto Awards that are given to outstanding students in this graduation ceremony), then governor of Osaka Prefecture SHIBATA Zenzaburo, and other university personnel, Osaka Imperial University was founded in 1931 with two schools, Medicine and Science. It was the 6th imperial university and its first president was NAGAOKA Hantaro.

However, our university's roots actually reach back to Tekijuku, a private "place of learning" founded in 1838 by the doctor and scholar of Western sciences OGATA Koan who worked to save people with then state-of-the-art knowledge. Tekijuku's open academic culture and forward-looking spirit gave birth to Osaka Prefectural Medical School and, eventually, to the Schools of Medicine and Science at Osaka Imperial University. In 1933, Osaka Industrial University merged with Osaka Imperial University, becoming the School of Engineering.

When the School of Law, Economics, and Letters was established following the end of World War II, collections of books regarding traditional Chinese and Japanese learning possessed by Kaitokudo, a place of learning of Chinese and Japanese studies for merchants and founded by merchants in Osaka in the late Edo Period, were passed on to Osaka University. These book collections were symbolic of the original scholarship and the "Osaka spirit" that our university inherited with these tomes.

With the introduction of the new education system in 1949, the School of Law, Economics, and Letters was

divided into the School of Letters and the School of Law and Economics, setting up a structure for our current comprehensive university. Osaka University continues to grow under the motto "Live Locally, Grow Globally." After going through transitions such as the legal status change to that of a national university corporation in 2004 and the merger with Osaka University of Foreign Studies in 2007, Osaka University now represents our country as a genuine comprehensive university.

Let me explain about Tekijuku, one of the roots of Osaka University. More than 1,000 students came to Tekijuku from all over Japan and studied day and night. The students included FUKUZAWA Yukichi who served as a school chief and founded Keio University in his later days, HASHIMOTO Sanai who was killed at the age of 25 in the Ansei Purge, SANO Tsunetami who found Hakuaisha, the predecessor of the Japan Red Cross, NAGAYO Sensai who built the foundation of Japanese medical care system and public health system, OMURA Masujiro who created a modern military system for the Meiji government, OTORI Keisuke who diplomatically confronted the Western powers, and IKEDA Kensai who served as the first dean of the Faculty of Medicine at The University of Tokyo built in 1877. Thus, Tekijuku produced persons who were active as leaders in various fields before and after the Meiji Restoration. Tekijuku played a major role in the modernization of Japan in the early Meiji Period.

In the Osaka University where you have studied, Tekijuku's spirit of "responsible ethics, concern for people, for society," the aspirations of young people who have studied here, the Osaka merchants' passion for scholarship and their eagerness to build an imperial university in Osaka, these have been handed down to you from the earlier generations. Our future depends on you young people. Society asks you to fulfill your responsibilities as leaders in a variety of fields, and for the further promotion of inquiring minds as a part of intellectual creative activities nurtured at Osaka University. I hope you will fly high in the world so that human beings can develop spiritually rich society by overcoming barriers in diversity. You who have studied and conducted research at Osaka University can achieve this goal.

From "Tekijuku" to the "World Tekijuku"

Osaka University will celebrate the 100th anniversary of its founding in 2031. Osaka University's greatest aspiration is to become one of the world's top 10 research universities by our 100th anniversary in 2031, to become a "World Tekijuku." The principle is to make a contribution to the development of a spiritually affluent human society.

Just as our predecessors who studied at Tekijuku brought new perspectives to Japan during a period of stagnation and turmoil at the end of Edo Period, I want you to have a great aspiration and dream and be active in the 21st century globalized society. I hope you will be proud to have studied at Osaka University and keep in mind that you graduated from this University and you will reach the tops of mountains in your own way so that you can make your dreams come true.

Achieving dreams is difficult. That's why they are called dreams. A dream is far from reality and cannot be achieved easily. So it's only too easy to think that achieving a dream is impossible and, thus, give up. However, if we hold on to our dreams and continue to make every effort to achieve them, one day, someday, those dreams just might come true.

Dreams are meant to be achieved.

Please hold to this throughout your long lives.

Allow me to close by wishing you all good fortune. May each of you live a long life filled with health and happiness. My sincerest congratulations to you all!

March 25, 2015 Toshio HIRANO President of Osaka University