

President's Address at Osaka University and Graduate School
Autumn 2019 Graduation Ceremony

Heartfelt congratulations

As President of Osaka University, I would like to express my heartfelt congratulations to all of you. You are about to take another step forward: a new phase in life after completing your studies here at Osaka University. I commend you for your days and years of hard work and effort.

I am also pleased to be able to share the joy with parents and family members present. Let me express my deepest gratitude and respect for their unrelenting support and faith in the value of education and research, without which, most of you would not be graduating today.

Let me say a few words to international students in particular. You have lived away from the comfort of home and studied in an unfamiliar environment, using different languages and adjusting to different living conditions. I wish to praise your mental strength and ability to adapt to and harmonize with cultures that differ from your own.

Contribution of science and technology to the eradication of disease

I want to share a story about science and humanity.

You may have heard about the disease called smallpox. It is a contagious disease that threatened humanity since ancient times. Outbreaks of smallpox occurred throughout history, causing the deaths of hundreds of millions of people. It was one of the world's most feared diseases transmitted from person to person. All people could do was to pray. There was no way to prevent the spread of the disease until an English physician, Edward Jenner, introduced an inoculation or a method to immunize people against smallpox.

Ogata Koan, the founder of Tekijuku, a school that is one of the spiritual roots of Osaka University, is known for spreading this inoculation method against smallpox in Japan. He invested his funds to protect people from the threat of the disease.

The smallpox vaccine is widely accepted worldwide and the World Health Organization (WHO) declared its eradication in 1980.

Smallpox is the only human infectious disease eliminated by humanity. In other words, science and technology enabled humanity to overcome a deadly disease.

Benefits of modern science and technology

Our ancestors considered life "a gift". However, science and technology revealed much about life. For example, by identifying high-risk genes, we are now able to prevent certain diseases. We can also determine and eliminate the causes of endemic diseases that have long plagued humanity.

Recently, new approaches to clarifying phenomenon in science are being discovered using large amounts of data. Through the process of collecting and analyzing this data, new discoveries in science and technology are being achieved. We even hear the word "data-ism," which is the idea that "the universe consists of data flows, and the value of any phenomenon or entity is determined by its contribution to data

processing.”

In the field of music, it is now possible to use data from musical scores and human brainwaves to create melodies that make people feel comfortable and satisfy listeners. In archaeology, by analyzing data acquired from a grain of rice on a fragment of an ancient pot, we can determine when the pot was used. As you see, the concept of data-ism is now embraced by the natural sciences and the arts, humanities and social sciences.

These examples show that data can make our lives more convenient and comfortable.

Basis of data science

My field is data science; however, I didn't think data science would progress at such a rapid pace. As a researcher in this field, I am excited but also bewildered by this progress.

Some say that not everything about data science is good. For example, there is a divide between a small group of people who have access to vast quantities of data and those who lack such access. This divide may be more pronounced than the conventional divide between the rich and the poor.

Others express concern that people become so dependent on data for making important decisions that the human choice may even be controlled by data.

As a data science researcher, I have always believed that one should not conduct research that could mislead or distort society. And I have always tried to stay faithful to this belief. Today, I'd like to share this conviction with you all.

We all need to have a sense of justice or what I call an axis of what is right. But where should we place the axis?

Emotional maturity required by a future society

Concerning such challenge of contemporary society, Dr. Takenori Inoki, an economist and Professor Emeritus of Osaka University, once said that we should not expect too much from technical innovations without taking sufficient measures to ensure their ethical uses through rules and proper manners. He also emphasized the need for a balance between intellect and morality, or emotional maturity. His remarks provide important guidelines for your future steps.

A balance between intellect and morality.

Today, Artificial Intelligence, a part of our daily lives, has become a point of return for data science.

AI can process vast quantities of information at a fast speed, and humans are no match for AI in this regard. AI suggests options for us to choose from large amounts of data based on algorithms designed to maximize efficiency and optimality.

On the other hand, people choose and take action based on their knowledge while considering the balance between intellect and moral sense. The ability to act on this balance is an attribute unique to humans, which AI cannot perform at this stage. Dr. Inoki also argues that the ability to keep a balance between intellect and moral sense is not inherent in us, but is acquired through education and experience.

I believe you have already developed an intellectual base through your studies at Osaka University under its educational philosophy to nurture students with critical thinking, design prowess, and transcultural communicability.

Our moral sense varies from time to time, region to region, and generation to generation, and we cannot simply state what is absolutely right. Nevertheless, the moral sense is, for good or for bad, a quality that makes us human. It is the capacity beyond AI.

If you combine your intellect, experience, and moral sense, you can develop into good citizens who are spiritually, intellectually, and emotionally mature.

A renewed look at the Osaka University Charter

Now I would like to remind you of the basic philosophy of Osaka University declared in the Osaka University Charter.

“In both fields of education and research, Osaka University will, in the traditions of its founding schools Kaitokudo and Tekijuku, continue and advance a free and open-minded citizenry, a citizenry possessing critical thought. Rooted in the essence of academic learning, Osaka University will encourage the spirit of autonomy and independence without flattering any power of authority.”

Up until today, this philosophy has guided you to your intellectual and spiritual maturity. From here on, you should strive to enhance this quality in your respective roles in society.

I hope that you, as citizens, will be able to ask yourself, “Is there a risk that what I am doing could damage society?”. If you ever doubt or do not have confidence in what you are doing, whether research, work or otherwise, and you must have the courage to stop yourself.

I want you to reflect on your role in society and take the right step. This is my wish for you. Don't hesitate. Let your mature spirit, the balance of your intellect and morality, help you take a step forward.

Conclusion

Still, there may be a time when you feel like you have nowhere to turn. At such times, please visit Osaka University and talk with your former supervisors and students on campus. Supervisors care about your well-being even years after graduation, and current students strive daily following your footsteps. Their energy and hopes for the bright future would remind you how you once were. Come here and remember your aspiration to become a scientist, a professional or specialist when you were students here. By returning to where you started, refresh and ease your mind.

So go forth, bring what you have learned here to society, but remember that Osaka University is always here for you.

Congratulations again on your graduation today. I anticipate with great hope that each and every one of you will have a bright and beautiful future.

September 25, 2019

Shojiro Nishio

President of Osaka University

References

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