Expert Insights

Solve Global Issues through ICT Innovations

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Joined the Ministry of Posts and Telecommunications in 1980. Appointed Manager of the Computer Communications Division, Telecommunications Business Department, Telecommunications Bureau, Ministry of Internal Affairs and Communications in July 2001, Counsellor, Cabinet Secretariat to the Assistant Chief Cabinet Secretary in January 2003, Manager, General Policy Division, Information and Communications Policy Bureau, Ministry of Internal Affairs and Communications in August 2005, Manager, Policy Planning Division, Minister's Secretariat, Ministry of Internal Affairs and Communications in August 2007, Deputy Director-General, Minister's Secretariat, Ministry of Internal Affairs and Communications in July 2008 (responsible for Information and Communications Bureau), Deputy Manager, National Information Security Center, Cabinet Secretariat in July 2009, Deputy Director-General, Minister's Secretariat, Ministry of Internal Affairs and Communications in July 2011 (responsible for Information and Communications Bureau), Director-General for Policy Planning, Ministry of Internal Affairs and Communications in September 2012 (responsible for information and communications), Director-General of the Global ICT Strategy Bureau, Ministry of Internal Affairs and Communications in 2013, and his current position in July 2014.

Recently, I begin speeches with a specific topic: Professor Tadao Umesao, a cultural anthropologist, who began writing papers on information industry theory in 1962. He equated the era of information industry with the era of knowledge industry. Using an analogy with the primary germ cell layers in animal embryos, he proposed the concept that: (1) the agricultural age is comparable to the endodermic stage, during which the digestive system develops, (2) the industrial age is comparable to the mesodermic stage, during which the bone and muscle systems develop, and (3) the information industry age is comparable to the ectodermic stage, during which the cranial nerve and sense organ systems develop. Thus you can call this age the "knowledge industry" age. He pointed out that, in this new era, information would bring further fundamental changes to human institutions and organizations; that, at that time, humans would experience a major transformation in fundamental values; and that the information industry should be seen as an extremely significant trend in the history of civilization and therefore should not be treated as just a field of engineering. It was about fifty years ago that he stressed these points. We are now in the midst of an information and communication technology (ICT) revolution (or maybe at its beginning). I believe it is again time to ponder the meaning of Professor Umesao's words.

The global environment is likely to undergo dramatic changes, such as the total population of the world exceeding nine billion by 2050, of which about 70% will be concentrated in urban areas, with emerging and developing countries accounting for more than 40% of global gross domestic product (GDP) in 2017. The need to resolve global issues such as global warming, energy, food, water shortages, and disaster prevention is now urgent and crucial. Japan is also facing various difficult issues and problems. The human race, fortunately, has ICT as a tool for intensive technical innovation. ICT can contribute to the creation of new added value, and to solving social issues such as healthcare, education, disaster prevention, and resource problems. This means that we have great opportunities for finding innovative solutions to both global and domestic issues through the strategic use of ICT.

As an example, Japan is the world's front runner in confronting a "super-aged society." While we are facing various issues including a shrinking workforce, rising healthcare costs, and the dilution of solidarity in communities, we can overcome these by utilizing the power of ICT, which transcends time and distance. I believe that it is Japan's duty to present a model of a "smart-platinum society" (an aging society made vibrant by ICT) to the whole world.

The Internet has for the first time provided us with a "global space" (cyberspace) that is open to people all over the world. It can be said that the Internet provides a common platform on which all nations can submit ideas to each other and solve the various issues of each country. Although the challenges of cyberspace include information security and privacy, we should not treat these as opposites. Instead, we should look for innovative solutions to the various issues, with the most important basic principle being to ensure the free flow of information.

Now, we should not be engaging in abstract discussions, but looking for a practical and speedy approach to how ICT should be used to solve the front burner issues. The expression I use for this is, "the era of global inventiveness."

Tokyo will host the Olympics and Paralympics in 2020. I strongly hope that Japan will become an esteemed country through the creation of innovations with collaboration among various industries, academia, and the government, and will contribute to solving global issues by the innovative use of ICTs.