

Women's role in IT industry in the age of 4th industrial revolution

1. It is my great pleasure to meet you all. I am Minister of Gender Equality and Family of Korea, Chung, Hyun-back. I would like to welcome all of you, chairs and panels, experts and delegates from all over the world. I would also like to extend my gratitude to Executive Director of the Asian Pacific Women's Information Network Center (APWINC) of Sookmyung Women's University Kim, Myonghee.
2. I am very honored to attend this workshop on creating new entrepreneurship opportunities for women on information and communication technology.
3. About a year ago, AlphaGo became a sensation in Korea. After Google's artificial intelligence AlphaGo and Korea's top player Lee Sedol had a five-game Go matches, people began to pay larger attention to the 4th industrial revolution. Today, information and communications technology is advancing every moment. I believe all of you are witnessing similar changes in surrounding technological environments in your own country.
4. The 4th industrial revolution combines IT, internet, and communications technologies. Software is expected to work as a tool for making innovations in productivity for companies. Big data, algorithm, artificial intelligence and robot engineering will replace human labor across all industries including manufacturing, service, knowledge, and entertainment.

5. At 2017 Davos Forum, the World Economic Forum and A.T. Kearney proposed four distinct scenarios for changes that the 4th industrial revolutions will bring about. First, their “disrupted” scenario predicts that there will be high levels of productivity with unparalleled innovations. Second, the “deterred” scenario talks about innovations being interrupted with the systems becoming more vulnerable to cyber-based threats. Third, the “damaged” scenario expects islandization of more advanced economies and less developed countries, and of large enterprises and small and medium-sized businesses to accelerate, given their different capabilities to incorporate and utilize new technologies. Last, with the “devolved” scenario, it is anticipated that small-scale production will expand with our failure to cope with global warming and more people questioning the mass production system.
6. It is my opinion that how we prepare and cope with the upcoming changes can shape the path towards the revolution. This also depends on how women, who are the half of the world population, respond to changing technology and industrial environments.
7. As women paved the way towards the industrial revolution and economic growth by coming out of their home and entering the labor market in the past, women have an important role to play in driving the fourth industrial revolution. Therefore, it is the time for us to prepare for new possibilities.
8. It is very important to help female entrepreneurs grow into someone who can shape the foundation of the industry in the ICT field as the ICT is at the core of such environmental changes. Endless innovation and challenges will be required for firms and individuals to adapt to new industrial environment.

9. The Government of the Republic of Korea provides comprehensive and systematic support for female-run enterprises by establishing the Basic Plan to Promote Female-run Business Activities each year with the Act on Support for Female-owned Businesses of 1999 and allocating separate budgets of approximately 500 to 600 million Korean Won. Such support is especially important for female-run enterprises because they tend to have higher profit margins but lower debt ratios.

** Profit margins: 4.4 for female-run enterprises, 3.4% for small- and medium-sized enterprises (SMEs); * Debt ratio: 147.3% for female-run enterprises, 162.7% for SMEs*

(The Small and Medium Business Administration, 2014)

10. Entrepreneurship should be encouraged as it creates new jobs. Moreover, an entrepreneur's innovative idea can drive future growth. Therefore, we run online courses on IT, female entrepreneurship, and about 500 specialized fields for women's entrepreneurship. Learning centers are in operation to provide tailored programs for users.
11. As the current administration of Korea emphasizes innovation, it is strengthening its support for different age groups to help people adapt to the 4th industrial revolution. "K-girls day", which allows female youth to visit the field of industry, companies, research institutes, and universities, is held to lower the entry barrier for women to STEM fields and help them prepare early to face the fourth industrial revolution.
12. The Republic of Korea provides mentoring and career development programs to female undergraduate students majoring in these fields to foster female resources in STEM fields. The government is also running a matching program between small- and medium-sized venture firms

and female R&D experts who are not currently employed and support them with personnel expenses and research grants.

13. Women's Re-employment Support Centers are working to help women who had to exit the labor market due to pregnancy, childbirth, childcare and other care responsibilities. To ensure that women are well-trained to adapt to the changing environment, the Korean government is offering special training programs for high-skilled and high value-added sectors such as IT and contents development jobs through at these centers. In addition, we are currently operating specialized career development support centers to help women in the STEM fields.
14. The Republic of Korea is committed to make its efforts on creating working environment for female resources in the ICT fields by providing software personnel training programs for students and those who are on the job market and re-training programs and employment support programs for career-interrupted women.
15. As I stated earlier, there are many different prospects on changes that the 4th industrial revolution will bring about in our lives. However, all agree that the change will be immense. I believe that today's workshop can be the beginning of a great journey of getting ready for such changes in the Asia-Pacific region.
16. Marie Curie, a scientist and the first woman to receive the Nobel Prize, once said that "Nothing in life is to be feared, it is only to be understood. Now is the time to understand more, so that we may fear less."
17. Her quote is more than 100 years old. However, I think it is still relevant for us today as we proceed to adapt to new changes in

environment. It is my firm belief that there is infinite possibilities and bright future waiting for us, if we, as women, understand more about information, communication technologies and get ready for the future together. Thank you. /End/