

ICISTS 2018 on  
Presence of the Wall: Constraint or Control  
Monday, July 30

## **Welcoming Remarks: Technology for Digital Utopia**

Good morning!

Distinguished guests, students and all participants!

It is indeed my pleasure to welcome you all to ICISTS 2018. I would like to offer my sincere thanks to the 300 participants from 60 universities and 20 countries who flew such a long way to KAIST.

I am also very proud of ICISTS. They have made unwavering effort to address the integration of science, technology, and society for the past 14 years. Their leadership, passion, and energy has made this forum serve as a global platform to bring up the most compelling but timely issues every year.

KAIST is very fortunate to have such an insightful group of young leaders. They are working to realize KAIST's vision, 'Global Value Creative Leading University.' You are truly shaping a new future. Let's give them a big hand to congratulate them for their hard work and celebrate this wonderful gathering here.

Humans have been building new technologies and new values to make a better society. In every historical corner, good faith efforts toward better lives and human prosperity have helped history to progress.

History tells how we have constrained and controlled science and technology to better serve the people whenever necessary. The inventions of penicillin and acetone made breakthroughs to end two World Wars.

After passing through the past three industrial revolutions, we have made more progress in our lifetimes than in the rest of human history. We will live in a new digital future with full-fledged high technology of the Fourth Industrial Revolution.

In the new future, technology should serve to create a digital utopia. It should serve for equality, democracy, and sustainable growth. As such, when the value of technology makes people its priority, any constraints against the digital utopia will be controlled. The megatrends of the Fourth Industrial Revolution give us clues to control the constraints against the digital utopia.

Hyper-connectivity binds the world. Now, the number of mobile devices outnumber the global population. Technologies are processed by Data, Networks, and AI, which I call 'DNA.' The 'DNA' gives extraordinary power to those who use them to do good and harm beyond time and borders. Just a single sentence or an image online can influence millions of people. We have to recognize the full weight of responsibilities the new technology and digital influence will accompany.

Super-intelligence leads us to think about the identity of human beings. Irreplaceable merits of Homo sapiens such as creativity, empathy, insight, and wisdom extend a new paradigm of human relationships with AI-powered robots and machines. To sustain the good intentions of technology, we should understand when and how to stop bad ones. We have the responsibility and duty to care when the best of our intentions go off track. Ethical considerations and unintended consequences of technology remain big challenges we should build on.

Convergence in the coming years is a crucial approach to realize the digital utopia. We will live in a society where the Cyber, Physical, and Biological worlds are conjoined by sensing, communication, computation, and control, which I call 'CPB' convergence. New findings and innovations mostly occur through convergence with inter- and transdisciplinary approaches.

Technology changes so fast in this new digital future. Every new technology does not appear welcoming and comfortable. Sometimes creativity will conflict with ethics. However, when you bring ethics and empathy to technology, it will be a force for good in the world eventually. We have to make sure that technology reflects and upholds the right values for realizing the digital utopia. Otherwise, it will turn out to be a digital dystopia.

Some of you might be aware that recently some scholars have expressed their concerns about AI research of KAIST. However, KAIST values human rights and ethical standards to a very high degree and has strived to conduct research for better serving the world. And our commitment toward the happiness and prosperity for humankind will go on.

KAIST also values challenge, creativity and caring. As indicated in numerous historical examples, real breakthroughs always come from people. It's for caring based on good faith not for the sake of just technological advances.

Upholding the high value for humanity will lead to risks and challenges against all odds. So, start to make the new technological standard by better integrating it with people. And use your positive energy and passion to influence the world better. I would like to see many of you go into the real world and seek creative ways to make new inventions, control risks, and keep going when you face uncertainty and new challenges.

Your vision and ideas for these provocative challenges, as well as new opportunities, will help advance the digital utopia down the road. I hope you will be fully exposed to enlightening moments at KAIST through active and inspiring interactions with your colleagues from around the world. When we work together, we can always do better.

Let me close my speech by wishing you success in your future and a wonderful time during the conference at KAIST.

Thank you very much.

30 July, 2018

A handwritten signature in black ink, appearing to read 'S. Shin'.

**Sung-Chul Shin**

President, KAIST