



Invited Plenary Speech

The importance of creative education in the chat GPT era

Speaker Name,

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Abstract/Outline

Humanity has been leading innovation by inventing machines that can replace human muscles through the 1st and 2nd industrial revolutions, and machines that replace human brains are emerging through the 3rd and 4th industrial revolutions. In the world, only human beings were the main agents of innovation that could understand and decide something and change the world. That is why humans are called Homo sapiens (wise humans). An important factor in this success is that mankind invented language to communicate with each other and invented printing to pass down knowledge from generation to generation.

With the recent emergence of LLM-based (LLM: Large language models) artificial intelligence, ChatGPT, which is wiser than humans by pre-learning all the data accumulated by mankind, is giving us a big shock. AI does not simply read and understand digitized characters, but also understands music and works of art, and begins to create better pictures and songs than humans. Another being was born on Earth with the ability to understand something and create something new. When artificial intelligence started to outperform humans, it began to replace not only human physical work but also mental work. Futurists are worried about a future where humans no longer need humans. There are two paths given to mankind who have lost the status of Homo sapiens - Homo Sentiens and Homo Creativus!

Homo Sentiens: Collaborating with artificial intelligence, statistical and complex knowledge will depend on artificial intelligence, and humans will comfort and communicate mentally with people. For example, doctors will entrust AI with the task of analyzing, diagnosing, and prescribing diseases, and will take care of patients by mentally comforting them. However, AI, which has limitations without physical reality, will combine with robots and replace the role of Homo Sentiens also.

Homo Creativus: AI that surpasses humans in statistical and probabilistic knowledge by learning data accumulated by humans has yet to surpass human creativity. Setting the right direction for the future of mankind or solving complex problems is not simply a combination of knowledge, but a field that requires creative ability. In the future, humanity can play a key role as the owner of the world only when it is differentiated from AI and lives as a creative human being. The following abilities are required for the development of creativity necessary for humans in the AI era. (1) We must learn how to work with chatGPT. (2) The ability to reconstruct the problem is required. (3) We need the ability to ask the right questions (an important role of the TRIZ algorithm and Prompt engineering). This talk will elaborate on what to do with these directions.