

The symbiosis of the artificial and the natural

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The news has been giving lots of attention to artificial intelligence recently. AI has spread to all sorts of industries, from entertainment to business, law and order, national defense, and of course medicine. Arguably the biggest news about AI, and certainly news that caught attention in Japan, was its prospect in playing popular Japanese board games like Igo and Shogi. Although these games were considered extraordinary if not impossible challenges for AI, accomplishments this year proved otherwise. But not the “intelligence”, I want to stress the “artificial” of AI in this essay.

I stress “artificial” because of its basis in CiRA. iPS cells are cells not found in nature, which makes them artificial. Much like how many researchers are using AI to solve complex problems related to nature, researchers at CiRA and similar institutes are using artificial cells (iPS cells) to solve complex problems related to

health and disease.

The point I want to convey is that we depend on the artificial to understand the natural, especially humans and their abilities and potentials. This realization should give us a positive impression of the artificial, but one that should not come unconditionally.

Our challenge is to incorporate the artificial seamlessly into our lives. Certainly one group of people responsible for this task is the experts who are designing, refining and managing artificial systems like AI and iPS cells. But these people are not enough. The artificial is impacting almost every facet of our lives in ways that is making us question our values. AI is seen encroaching into almost all professions, and iPS cells are changing our views of life. We need all members of society to take active involvement in our evaluation of these innovations.



Jusaku Minari at symposium