

Increasing Importance of Instinct

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The word "VUCA" is getting wide attention these days. Indeed, our world today is full of Volatility, Uncertainty, Complexity and Ambiguity. But come to think, our daily life is changing every moment and every day is different.

Then, how have we coped with this real world which changes every moment. It is INSTINCT. As the real world is changing every moment and is unpredictable, the tool we have is nothing other than INSTINCT. Then, how does INSTINCT respond. This is to utilize Fourier Transform.

If we look at the time domain, we cannot understand the situation, but if we look at the frequency domain. We understand the situation. In short, we utilize pattern-matching.

When we listen to the radio, we can distinguish men and women and can understand the emotion of the speaker. This demonstrates how the pattern works.

The pattern approach is Deep Learning. But Deep Learning is static pattern -matching. Our world is dynamic. So, we introduce Recurrent Neural Network (RNN). But RNN assigns weights between nodes in a random way and it is done automatically. We cannot manage the system.

But if we introduce Reservoir Computing (RC), we can manage the output, So we can manage the system as we wish. What is more important in Introducing RC is it enables us to utilize micro technologies.

We can make sensors and actuators extremely small. So, we can make them part of our body. and we can run them simultaneously. In short, it becomes new INSTINCT. The introduction of RC enhances our human capability.

Octopus teaches us the importance of INSTINCT. Although its head is big, its brain is small. Its brain capability is that of a dog. Then, why does it have such a large head.? It is because it directly interacts with the outside world with its eight arms and recognize the situation. Therefore, Octopus is known as expert of escape. It can escape from any environment and situation. In fact, it can even escape from a screwed container.

Human, on the other hand, collects body information and sends it to brain, and structure it to knowledge. So, there is time delay. Therefore, knowledge does not work in the world which changes every moment.

In short, Octopus intelligence is Wisdom, while an intelligence is Knowledge. Today, what is needed is Wisdom. Let us make the most of INSTiNCT !