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# **暫窮理図解**13

### New horizons opened up by imagination — Science and creativity —

Maki Sugimoto

Virtual reality studies are attempts to recompose our sensory information (including that of our five senses) and re-present it, allowing us to feel as if our bodies were in a world different from reality. The origin of "creation" of such virtual reality can be traced back to Lewis Carroll's tale (fiction) "Alice in Wonderland."

In 1965, Professor Ivan Sutherland, the pioneer of VR and AR, explained the VR concept in his thesis entitled "The Ultimate Display" that the ultimate form of presentation device in which a computer can control all sensory information could be "the Wonderland into which Alice walked." This remark indicates that the professor had an exceptionally superior imagination of finding a world of spatiality inside the computer back in those days when the computer was regarded as a pure "calculating machine."

Fiction can also lead to stimulating an interest in initiating a new research endeavor. Professor Masahiko Inami is well known for his study on transparentization "Optical Camouflage" based on the retro-reflective projection technology. He and his team explained this study in their 1998 thesis entitled "Study for the Reality Fusion (II)" while citing Masamune Shiro's (manga artist) "Ghost in the Shell" as a reference. It was because the "Thermo-optical Camouflage" that appeared in "Ghost in the Shell" motivated them. Nurturing our imagination by reading a variety of fiction in this way can broaden our horizons and offer food for thought for exploring new possibilities while also serving as an impetus for converting such possibilities into reality. Science/technology and fiction are always complementary to each other. It may be safe to say that new fiction can be created based on science/technology while nextgeneration sciences and technologies can be inspired by fiction.

Creativity that can give shape to imagination is another vital factor indispensable to researchers. Researchers and research teams that have both imagination and creativity have the power to open up a new world.

I'd like all of you to enjoy a lot of exciting stories and nurture "imagination and creativity" – the powers to create worlds you have never seen before.

# Science and Technology Information

# 14th Annual Keio Science and Technology Exhibition

Date: December 13 (Fri.), 2013 10:00 ~ 18:00

Tokyo International Forum (Exhibition Hall 2, Basement 2)

Contents: Demonstration-oriented exhibit booths along with Technology Partnership Seminars and Round-table Sessions by researchers

Featured event:

A panel discussion in commemoration of the 75th anniversary of the Faculty of Science and Technology

Theme: "Emerging challenges in global tech leaders education" Main panelists:

Mr. Koichiro Tsujino (Founder & CEO, ALEX Corp.)

Mr. Michimasa Naka (CEO, StormHarbour Japan Ltd.) Mr. Ken Endo (Associate Researcher, Sony Computer Science Laboratories, Inc.)

Admission free. \*No prior registration required.



### **Editor's postscript**

When I first met Assistant Professor Sugimoto, my impression of Mr. Sugimoto was that of a student because of his young, gentle-looking face. As I began interviewing him, his eyes turned brighter and his look changed to that of a researcher and an educator as he talked about his field of study and sincerely said that he would like his students to maintain the spirit of inquiry.

When the time came for him to demonstrate the competitive game "Augmented Coliseum" for photographing, his lab students were cooperative enough to help the demonstration by suspending their research work for a while. When introducing a study of projecting images on a 3D object from a projector, it was not Mr. Sugimoto but the lab students that gave the demonstration and explanations.

Perhaps partly because of age proximity between the teacher and students, the Sugimoto lab was full of a friendly and yet lively atmosphere. (Yuko Nakano)



# \*\*\* 窮理図解

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