Toward the Innovative Collaboration Between Art and Science: The Task in the Age of Media Culture through Case Studies in the Contemporary Field of Media Arts

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Abstract

Since the middle of the 1960s, a new movement toward the collaboration between art and technology has been growing all over the world almost at the same time, partly influenced by the critical writing of C.P. Snow’s “The Two Cultures” and Georgy Kepes’s insightful essays in “The New Landscape”, and partly by the appearance of new media technology expedited by the theory of Marshal MacLuhan. From the 1970s through 80s, this movement has been gradually shifting to the digital media arena due to expanding computer technology. Since then, its major creative trend, enhancing the collaboration between art, science, and technology, has become even stronger, and it has been appealing to society as one of the most desirable cultural contributions in history. I have been witnessing such historical movements since the 1960s as a journalist until recently, and I cannot help but think that without such an active integration between the artistic sensibility and scientific way of thinking in the future, we will be unable to overcome the conflicts among different cultures in the world, which have become more and more serious.

Since the beginning of the 1980s, the introduction of powerful digital media technology has given us the potential to make this integration more feasible. By using such media technology as a bridging tool, we now have new scope to make the collaboration between art and science easier. For these reasons, in the past 20 years, ambitious artists and even engineers who are interested in artistic expression have started to create innovative artistic works based on such integration. Especially by using the unique character of digital media, which can bridge the traditional art genre or category, radically new forms of media art have been created in the past few years. In such an environment, new initiatives to establish media art/design schools or media science/art institutions are in progress throughout the world. Our school, IAMAS, was organized as one of such creative institutions in 1996 in Gifu, Japan. After 7 year’s efforts through trial and error, we have been successful in producing new outputs based on such collaboration between art and science. I myself have been involved in administering the school from the beginning, targeting for a better systems base, relying on my own experience since the 60s and the teamwork among our staff and our long time friends in the fields of arts and sciences around the world.
In my presentation, I will show you some of the examples of recent creative works realized through such innovative integration, made by unique artists with engineering skills, and also by scientists or engineers with artistic sensibility. Some of them have backgrounds in both art and science and have learned the joy of collaboration. I will also show some of the works made by the students of those new media institutions, including some from our school. If you have been interested in such collaboration between art and science previously, you might have seen some of them already at various art events or exhibitions. I’m sure there are some of you who are already involved in such unique creation through collaborating with artists or by yourself.

An interesting aspect of the newer type of media art is that it appeals to more people easily, from kids to the elderly, compared to the sophisticated conceptual artworks that are often found in contemporary arts today due to its easy interactivity with our human senses. It sometimes stimulates the esthetic sensibility and the basic curiosity of the human mind, and even expands the ordinary senses within daily life. It also gives the audience a sense of self-appreciation of the ability of the human mind, because the member of the audience him/herself is able to become involved in a new creative process through such interaction with the installation work. It broadens our consciousness toward a new way of understanding about our senses, the meaning of life and death, and even the inter-relationship between man and nature. It might give us an insight to find a better way for different people in the world to co-exist. It could also inspire people to find a better way of creating peaceful conditions in the world.

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is President and Professor at the International Academy of Media Arts and Sciences (1996–), and the Institute of Advanced Media Arts and Sciences (2001–). Born in 1930 in Tsingtao, China, he studied architecture at Tokyo University where he received the M.A. degree. He is a former editorial staff writer for the Asahi Shimbun newspaper and former professor at Keio University, Faculty of Environmental Information, at Shonan-Fujisawa Campus. Sakane worked as a journalist for the Asahi Shimbun newspaper for more than thirty years, mainly covering the intersecting fields of art, science and technology. Based on his experiences, he wrote numerous columns for journals and authored many books including “The Coordinate of Beauty,” “Katachi Mandala—Thinking Through Seeing,” and “Passage of Images.” He has also translated many books, including "The Magic Mirror of M. C. Escher." In addition, he has organized many technological art exhibitions in the fields of art and science including “Fantasy of Holography,” “Cybernetics Art—The World of Vibration Art,” “Art in Light and Illusion,” “Science-Art for the Japan Pavilion at Expo 92,” “Sensitive Chaos,” and the “Interaction” exhibition series at IAMAS. He was a Nieman Fellow at Harvard University (1970-71) and was awarded the Japan Culture and Design Prize in 1982. He has been the Honorary Editor for the journal Leonardo, published by the MIT Press, from 1996 to the present.