

## **Encouragement of Design to “Use” -Towards Industrialization of “Product Creation” X “Product Usage” Keio University Professor Yoshiyuki Matsuoka**

### **Culture of “Create” and “Use”**

In the days of the Stone Age, when the humans have begun to use tools. The humans created products (tools) by themselves and used it by themselves. In other words, the person to “create” and “use” were the same. However, the situation greatly changes, when an expert of product creation appears. The expert becomes the one to “create”, and this has started the differentiation of the humans who “create” and “use”. The differentiation of people becomes more remarkable in the late 18<sup>th</sup> century and continues up to present day.

In present day product creation, first the person who “create” thoroughly thinks about the person who “use”, then design a “product”, and produce the product. Next, the person, who “use” the product will use it, and experience the “function” of the product. If a “function” is insufficient, the person who “create” will make improvements and reproduce the product. Then, the person who “use” the product will again, use the improved product. This circulation system is the bases of today’s “product creation”.

### **The Function Depends on the Circumstances to “Use”**

Here, we will discuss about the function of the product. For example, in order to drink a delicious liquor, one must not only consider about the liquor brand. One must also consider about various “circumstances” such as, side dishes, liquor glasses, atmosphere, drinking friends, and way of drinking which affects the taste of the liquor. The function of a product is similar to this example, and cannot be decided only with the characteristics of the product. It is the combination of the product’s characteristic and the usage circumstances of the product that decides the product’s function.

From the perspective of considering the circumstances of the function, it could be considered that other than the design to “create” products, the design of the circumstances of the product “use” (design to “use”) is considered effective. However, the design to “create” products have been the most popular up till now, and the design to “use” was only used to achieve research and analysis results in order to be applied as the conditions

of the design to “create” product. Then again, I think that the way the design to “use” had been carried out is a waste.

### **Paying Attention to the Design to “Use”**

Therefore, the design to “use” is put into consideration. The design to “use” discussed from here is not the former design to “use”, but a design which designs the “circumstances” such as, usage or usage environment of the product. From this definition, it could be said that this design is design of “product usage” and not “product creation”.

As an example, the design to “create” product has come to its limits to correspond to the environmental problems. Most smug emission countermeasures for vehicles, have been dependent on design to “create” vehicle (e.g. engine improvements). However, it is well-known that the appropriate application of the technique to “use” (e.g. understanding how the pedal operation is performed under road conditions) leads to a huge effect. The “product usage” design, which applies the technology considering the circumstances, may still have numerous possibilities within it.

### **The Synergy of “Create” and “Use”**

There are many varieties of design to “use”. For example, there are many cases to design the product (tool) that constitutes the circumstances, to improve the product’s usability. This could be said as a “product creation” for “product usage”, and is already found in operation and indication system, which are both very interesting.

Nevertheless, the design to “use” described here, is not a design of “products”, but a design of services about “value”, including the usage of the product. The piano lesson and the tuning, the piano industry provides, can be given as one of the example. The user not only purchases the piano, but also practices and tunes the piano. Then the practicing and the tuning of the piano raises the quality of the sound. Furthermore, the attachment the user feels toward the piano grows through practicing and tuning, leading to the synergy of “create” and “use”.

### **The Timeaxis Design**

Timeaxis design is also one of the examples of designs aiming for the synergy of “create” and “use”. This design literally means to design the timeaxis. To be specific, the design to “use” incorporates the bio-inspired technology that employs the life system’s

trait to a product. The bio-inspired technology enables timeaxis change of the product adapted to the environment. In addition, the service technology is applied to the design to “use”. The service technology enables the correspondence of timeaxis change, such as the changes of usage conditions through use stages and the changes of society and sense of values. The timeaxis design, uses such traits to realize a product with long-term usage and which its value grows through continuous usage, in order to breakaway from a throw-away society and to grow a mental culture that treasures products. The timeaxis design enables a business that combined “product creation” with “product usage”, and unified the secondary sector of industry (product creation) with the tertiary sector of industry (product usage) as the sextiary sector of industry. This new sextiary sector of industry is expected to bring economic effect.

### **The Reconsideration of “Create” and “Use”**

This article focused on the design to “use” from the relation of “create” and “use”. Furthermore, the industry made from the unification of “product creation” and “product usage”, which forms a synergy of “create” and “use” was discussed.

In recent years, diversity is born in relations of “create” and “use”. The timeaxis design was given as one of those examples. Also, 3D printer is an example that relates to “create” and “use”. The 3D printer enables the new relationship of a “create” and “use”, through the process of the user creating and using the product by themselves. Various arguments are done, due to the appearance of the 3D printer, which caused a stir in the mass production manufacturing since the Industrial Revolution.

Perhaps, it may be time, for us to reconsider “create” and “use”. In addition, the reconsideration is hoped to become opportunity in gaining a hint to realizing a new manufacturing industry for the future.