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A Framework of "Re+design" workshops

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Abstract

In current Engineering Design an important topic has been recycling used or discarded items into "new" usable artifacts. Citizens also have become interested in Recycling, and Recycling thus becomes a social movement.

In this paper, we focus on the interface of designed common small-scale products. We propose methods for changing interfaces of products and creating new uses and value-added. We call this concept "Re+design". We are not merely Re-designing, but instead adding to existing value. Therefore "Re+design" is a more appropriate way of designing the artifacts of recycling movement. Consequently, value is added to artifacts Re+designed from garbage as their original function remains.

"Re+design" is a very easy and simple way for citizens to create their own environments by themselves. Accordingly, we also discuss "Re+design" workshops, which target various participants including children, students, families and senior citizens. We propose this as one way for design education and life-long learning. Finally, we present the effectiveness of "Re+design" and our future visions.

Keywords: creative design, design education, design understanding, life-long learning

1. Introduction

In recent years, the issue of "life-cycle design" has been eagerly discussed in a number of academic fields. Several studies in Japan proposed models for life-cycle design based on 3R, that are, "Reduce, Reuse and Recycling" [1,2]. Those models aimed to sustain the functions of artifacts and circulate them with their original values intact. Such models are remarkable ways of realizing our better environment, in which we can use artifacts more effectively and carefully.

Most existing models mainly focus on the functional aspects of designed artifacts. However, all designed artifacts include not only invisible functions but also visible interfaces. Generally speaking, visual interfaces of artifacts are more popular for ordinary people. For instance, the concept of House-reform is widespread. That is a method mainly for changing the interfaces of houses while retaining the functions and structures within it. That is very popular and many people have tried House-reform in their ordinary lives [3]. On a more micro level, people reuse the paper packs of milk for different purposes from original one. For example, people change their interfaces and make pretty boxes. Based on such observations, interfaces of products seem to be equally as important for citizens as well as their function.

In addition, there is a garbage or environment problem in the background. Recycling resources has been done. Collect a plastic or glass bottle, can, and recycle used paper products are notable example [Figure1].

Figure 1. The sign and pictograms of garbage dump

Another example of Recycling is flea market [Figure 2], garage sale, bazaar, and auction, etc. There are a convenient way to recycle an unwanted item that else could use.

Figure 2. Flea market in Tokyo

In Japan, the municipal authority charges every company to collect the garbage. Then it should also be added that a law of recycling [4] enacted in 1999. This law is the municipal authority charges every home to collect the solid waste, for example, furniture, an electric product, a bicycle, etc [Figure 3]. There is the thing beyond 30cm angle in general.

Figure 3. A dumping ground of bulky garbage

But, It is interesting to follow up this point further, but this is not our present concern, as stated above. The purpose of this paper is to present the study of "Re+design" workshops which target various participants. We should consider the study of "Re+design" workshops in all its aspects. What is especially important is one way for design education and life-long learning [5] in the future.

2. Outline of the "Re+design" workshops

2-1: Methodology

Our methods of "Re+design" are as follows:

(1): Walking around and finding some dumping grounds.

(2): At a dumping ground, picking up several usable "garbage" items.

(3): Separating usable functional parts of wastes from other parts.

(4): Attaching new interfaces to picked functional parts.

(5): Creating new products.

(6): Placing those products in their environments.

It is very easy to do. Therefore, methods of "Re+design" seem to be more effective for ordinary people, not for so-called experts. To disseminate spread this concept, we decided to hold a "Re+design" workshop in Tokyo from 2001. Various people participated in our workshop. In the workshop, we provided some instructions for participants.

Those are as follows:

(A): Drawing a map when finding a dumping ground.

(B): Hitting on many ideas and making sketches before working.

(C): Planning the process of their works.

(D): Consulting other participants when they confront problems.

(E): Making presentations and having discussions after finishing the works.

(F): Reporting the actual usefulness of products after a few weeks.

Our workshop is one way of enhancing for design education and life-long learning. "Re+design" workshops include fieldwork, training, collaborations, feedback and measuring satisfaction of participants themselves. Our direction (A) includes drawing a map because that is a common point of departure for fieldwork. It seems to be a good way for understanding familiar districts and locations of dumping grounds.

Directions (B) and (C) are to tell the importance of process design. Direction (D) and (E) are focused on collaborative design. And (F) is a phase of feedback, that is, to make sure of actual usefulness of products. Thus, we designed one total experience to each participant. We are planning this workshop as continuous ones.

2-2:Result

The results obtained were contrary to our intention.

Participants created various products as follows:

(I): An audio speaker that is covered with new wooden frames. (a 16 year-old-student)

(II): A TV painted with watercolors (a 10 year-old-child)

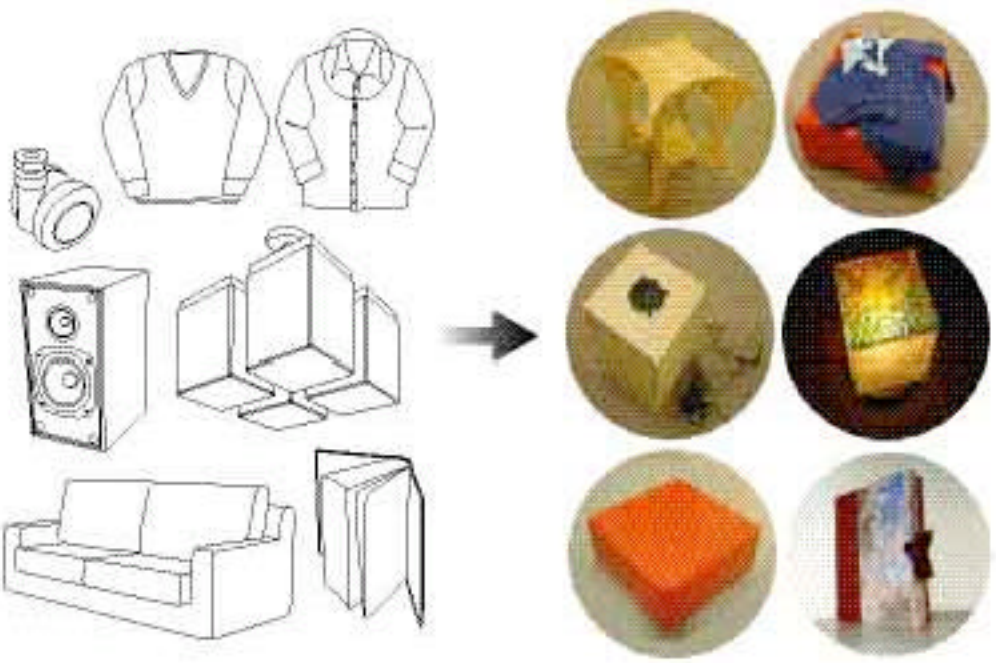
(III): Lights set in glass box (a 29 year-old-student)

(IV): An old dictionary covered with new paper (a 60 year-old-man)

(V): A cloth put a new sleeve (a 34 year-old-wife)

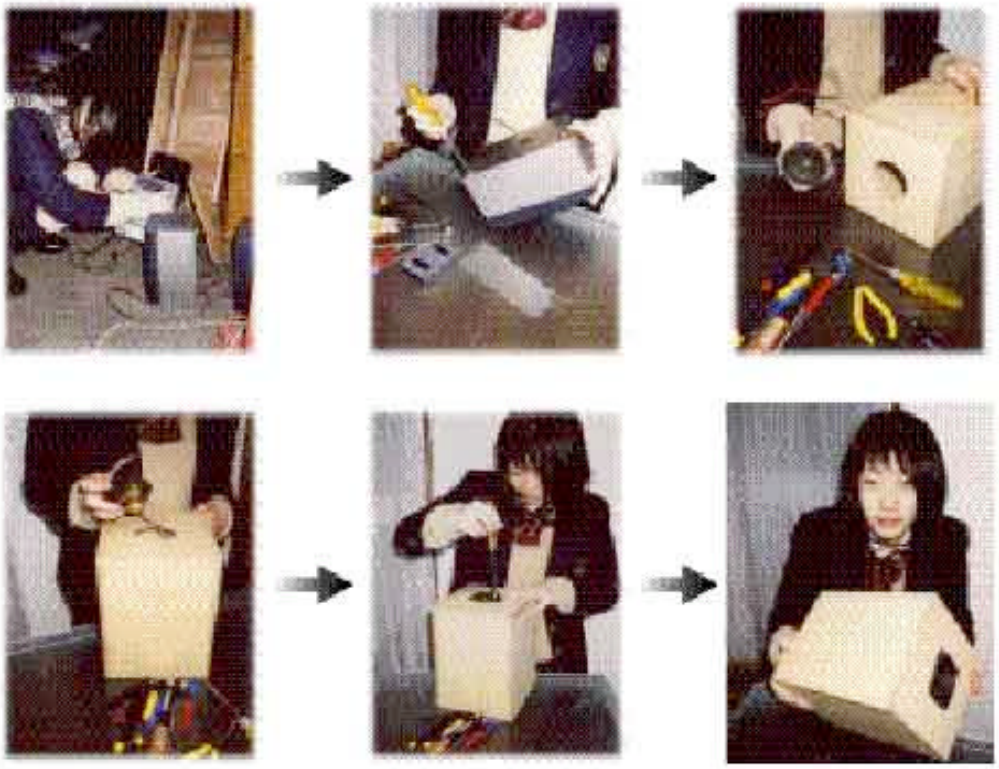
(VI): A chair combined with tires (a 21 year-old-student)

Here is a Figure4, which shows the result of "Re+design" products.



Figiure.4 The result of “Re+design” products

Most of participants are using their products in their every-day lives. Having examined numerous examples, we shall look at important instances (I) of this below Figiure.5.



Figiure.5 The examples “Re+design” process

To begin with, let us introduce her. She is a high school student and lives in Tokyo. She takes a direct part in our Workshops. Firstly, she found usable "garbage" items in the dumping ground. She checked whether sound comes from the used audio. Secondly, she divided into an inside and the exterior or outside. In short, an inside is speaker of the used audio and the exterior or outside is interface of it. According to her, the used audio is unpopular among the people and outdated style, but it is still usable. She goes on to say: "I would like to make new speaker for myself. Its likes my room!" Finally, she hits on a good idea and created "Re+design" product that is an audio speaker covered with new wooden frames.
Further, participants provided insightful feedback. Moreover, we held an exhibition in Tokyo in 2001 and created the Website that showcases the "Re+design" Products.

2-3: The participants' and observers' feedback

We will show the feedback under the following topics: participants and observers. The latter is educators who were looking at our workshop from outside.

The Participants feedback as follows:

1. It was very interesting and exciting.
2. We have learned the mind, which values a thing from this experience.
3. We would like to take notice of the surrounding scenery.
4. It is one of the new discoveries in my life.
5. It is easy for us to do.
6. It is pleasant to make a thing with my hand.
7. I would like to participate in this workshop once again.

The observers' feedback as follows:

1. It is applicable not only to the subject of design studies or technology but subjects of social studies, information studies, etc.
2. The importance of a thing can be taught.
3. The conventional design education was put great emphasis on creating a new product. But, the results of this workshop will change the direction of the design education.
4. Not only a child but also an adult can enjoy themselves.
5. It was the best way to take advantage of the empty classroom.

3. Conclusion

All opinions of participants were very simple. This remake is very interesting, because, it shows that that "Design" is easy thing and very near. In short, they think they are not

conscious of “Design”. Take industrial design for example. Industrial design raises our life. Supposing "Industry" is technology, "Design" produces value to products. And anyone can do a design. On the other hand, the opinion of observation means that this project was directed effectively. Specially, there is a point, which should be observed in the usage of an empty classroom. It means that the number of children may decrease. In order words, we can say “aging society “in other words. This is a very serious problem. Therefore, we propose our workshop as one means to solve such a social problem. We assist older persons to participate in our workshops by using an empty classroom. It is necessary to form a society where older persons as well as children there live with peace of mind. It is important for us to collaborate with experienced older persons and children. We suppose that ideal venue for the coexistence. That is, this is one form of the life-long learning, which we propose.

Although "Form must Follow Function " [6] was the thesis, which Lewis SAVAN recited from the 1880s to the 90s, the design has not connected the function with such a single track-circuit to a form. A form and aesthetic value are one aspect, which is inherent in a function. We dared have defined “Form” as “Interface”. A design is a system by which is only insisted to neither a form nor aesthetic sense, are tied and set various elements, such as the use, a method, association, the purpose, and a demand, and the degree of the connection shows the height of functionality. It has been difficult for people in connection with a design to get to know the mechanism, which ties up the element for materializing things. However, it is only the belief that comes from the view that a design is only the element of the end of things. The methodology for seeing connection of elements and relation of the meaning was lacked.

In short, our proposed “Re+design” has three important aspects. That are, “Remake “ the interface, “Remain” the original functions and “Reuse” them in ordinary lives. They are methods for citizens to observe, design and utilize artifacts “by themselves”. In other words, our concepts indicate “Customization and Personalization”. In fact, the actual values of artifacts are different for each person. Therefore, people should create their own products with values that they assign themselves. Our workshop can be applied to social activities and life-long learning for all generations.

Our future works include as follows:

- Classifying “Re+design” products and making a catalog
- Holding auctions of “Re+design” products
- Making an detailed experiment with experts and designers
- Planning a service-model of “Re+design”

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