Applying Hara Kenya's theories from contemporary graphic and product design to digital and interaction design

Shengwei Zhu

Xianda College of Economics and Humanities, Shanghai International Studies University, Shanghai, China

Abstract: Hara (2010) [1] posits that design can be divided into two systems: the "sticks system" and the "container system". The former is centered around the purpose of evolving and changing the world, while the latter is focused on preserving substance and wisdom. I believe the former is akin to human beings striving to extend their power through design and technologies, while the latter employs design forms to manifest human wisdom and spiritual strength, not only in the preservation of substance but also in the spirit of wisdom itself. Hara suggests that human imagination is not merely tied to material objects but rather exists in the space between our hands and abstract materials. Therefore, in this thesis, I aim to initiate a simple and preliminary discussion on how to balance these two design systems.

Keywords: Hara Kenya's theories; Graphs and product design; Digital and interactive design

1. "Sticks system" design and "container system" design

Turkle (2012) [2] mentions that he has studied technologies of mobile communication and interviewed hundreds and hundreds of people over the last 15 years, both young and old, about their plugged-in lives. What he has found is that the small devices in people's pockets are so psychologically powerful that they not only alter what people do but also influence who they are.

However, these new developments can seem daunting. Every time a new medium is invented, history teaches us the importance of constantly improving its design and establishing rules for perfection, rather than being involuntarily shaped by the power of the medium and risking the loss of our ability to design and think for the greater good. As one of these individuals, Hara (2007) [3] proposes that people need to contrast what is happening now with the changes in design and art driven by technological innovation in the past, deriving insights and lessons from those experiences.

"Sticks system" design, as discussed in Hara's (2010) [1], is a book that forms his dialogue with designer Mayaso Ave about design philosophy and practice. Based on the book, people may consider 'sticks system' design as the process of extending human force and power through tools, equipment, weapons, and so on, with the aim of changing the world and shaping our humanity through these means. With the development of network and digital technology, tools are constantly being upgraded while humans are pushing the boundaries of their capabilities. Maker culture have democratized design, making it accessible beyond the hands of a few designers.

Lupton (2006) [4] emphasizes that people globally are making things themselves for various reasons: to save money, to customize goods to suit their exact needs and interests, and to reduce dependence on corporations that manufacture and distribute most products and media. Beyond practical and political motivations, there is pleasure derived from developing an idea, bringing it to physical reality, and sharing it with others.

Design has become a modern literacy for people living in this century, as human survival has shaped the environment, reflecting practical wisdom aimed at improving lives. Similarly, the "container system" is also mentioned by Hara. It is not opposed to the concept of the 'sticks system' but rather serves as a complementary idea. Design has evolved into a container that preserves human wisdom and spirit. It is neither a utensil that stores substance nor a mere designed object; instead, it is a space encompassing various aspects of human life.

Moreover, this concept brings to mind Microsoft's "productivity future vision", where intelligent glass 'containers' seem akin to vast jails that stifle human imagination and creativity. Is this the happiness most

people truly desire? The answer is likely negative. Hara also suggests that people need to consider these two systems when designing, particularly in fields that heavily rely on new technologies, such as interaction design. People cannot solely focus on enhancing their physical capabilities while neglecting the spirit of wisdom and aesthetics. In Hara's view, this neglect would be more dangerous than falling behind in technology.

2. Sticks out of the container

This view can be compared with the thoughts of John Ruskin and William Morris. In the mid-nineteenth century, mechanical production advanced the times however, the resulting departure from traditional beauty was unacceptable to many. In response, William Morris launched the Arts and Crafts Movement to oppose industrial products that lacked vitality. Although they did not reverse the trend of mechanization, they prompted reflection and established new design standards during the industrial revolution.

To some extent, today's network and digital tools have indeed improved our lives and work with great efficiency, unlike the old days when tasks were hindered by constraints of time and distance. However, despite the increasing power of our "stick system", does technology truly bring happiness to human beings? At this juncture, people may find it challenging to evaluate the phenomenon.

The mention of Chernobyl still evokes great panic, as the disaster in 1986 left a lasting impact on an entire generation. Consequently, there is increasing support worldwide for boycotting the use of nuclear energy. Despite advancements in technology that may make nuclear energy safer to use and control, people still live in the shadow of nuclear fear. The fear is a primary factor driving nations like Germany and Italy to close their nuclear power plants and for the International Energy Agency to slow down its output. The 'Huggable Atomic Mushroom,' a work from Dunne & Raby[5] / Michael Anastassiades, is part of the Designs for Fragile Personalities in Anxious Times series. It is designed to address irrational but genuine fears of nuclear annihilation, demonstrating how design can materialize and represent fears.

Today's technology industry seems to have a similar impact on humans as to that of nuclear energy. In 2008, researchers from the University of Massachusetts at Amherst and the University of Washington presented papers at Defcon and Black Hat conferences, disclosing a bizarre form of attack that had apparently not been expressed in public before, even in works of fiction. They had spent two years of team effort figuring out how to use a mobile phone technology to hack into a pacemaker and turn it off by remote control in order to kill a person. It is a cautionary example which poorly applies the rules of the "cloud" and there is a strenuously constructed lattice of arguments that decorate this murderous behaviour so that it looks grand and new. In fact, there are many such kinds of problem worth our attention and thinking. Maybe those problems do not involve life and death, but the real consequences perhaps are to be more serious than we have seen.

On the other hand, in order to show the authority of Wikipedia, the webmaster could deliberately remove different opinions so that opinions of minority will be permanently submerged. Over-reliance on 'wisdom crowd' and 'hive mind' will let people undermine their self-awareness. People cannot distinguish the difference between original work and derived work; in addition, the digital culture also slows down the cultural process, less innovation in the form of music. Web anonymities become network mob that attacks those innocent people randomly. The free open-source movement will increase the danger of the virus. Breaking the 'dissepiment' tends to make people lose creativity.

Now a lot of people tend to make too much over positive rendering of virtual culture or the virtual world, but they can discover the interaction which is closer to the real world, and it will make people more sober and sensible in virtual world. However, when all the restrictions in real life disappear in the network world, it will cause the rise of people's fanaticism and irrational side.

Lanier (2010) [6] uses MIDI as an example, before MIDI, a musical note was a bottomless idea that transcended absolute definition. It was a way for a musician to think, or a way to teach and document music. It was a mental tool distinguishable from the music itself. However, after MIDI, a musical note was no longer just an idea, but a rigid, mandatory structure one couldn't avoid in the aspects of life that had gone digital.

3. "Re-design" and interaction design

However, if it is none of these technologies, human beings may not be able to have created so many

new products. A few scholars doubt if technologies really bring us more creativities. Bourriaud (2005) [7] mentions in the late 1990s that with the innovation of technology, a large number of creative works were using readymade works as row raw materials, reproduced by the new technology. It could be recognised that reproducing was a new way as a creative act. It has a creative idea by remixing things. However, there is still no lack of works, decorated by new technology with no idea, through which technologies become a decoration which is of no difference from those decorative patterns on the ancient bronzes.

Hara (2007) [3] mentions, when he organised the exhibition called "Re-design", he was without the target about inviting some outstanding designers to improve daily consuming products, but to re-examine them. It is very hard to challenge some design that has already existed in daily consuming products for a short time. The designs of those products like toilet paper, tea bag, are the result of constant thought and polishing. No one can change everything in one-off time as it could bring a huge breaking change to user's life in a negative way. Nevertheless, why did designers still do this for proposal? The reason is as simple as the fact that when designers bring new theories and ideas into a design, it will make the product different from previous and that these differences tend to cause lots of thinking, the value of which keeps people doing re-design. Likewise, I trust "re-design" can be applied to today's interaction design.

Today, what we often emphasize in the design industry is being concise and easy to use. However, in twenty years ago, a lot of big companies and manufacturers mainly made their slogans like 'our products have most functions in the world'. Pogue (2006) [8] says "I call this the Sport Utility Principle. People like to surround themselves with unnecessary power. "

Such as some Japanese electrical appliances in twenty years ago, a microwave often carries more than a dozen models, but what user often used is that a few patterns on it. The reason why users will use those uncommon-used modes occasionally is never been used and specially to give it a try. Furthermore, the very complex user interfaces of those great products could be another reason that why people will give up those cumbrous and unnecessary functions.

Colborne (2011) [9] mentioned that designers usually provide users with as many options as possible. However, too many choices will make users edgy. There are also some examples mentioned by Colborne, like the Flip camera. Compared with those high-end professional cameras, Flip looks really basic and backward, without high resolution and physical zoom lens.

However, and one year after its launch, it was suddenly sold over millions. Among the United States market, sales of cameras only reached six million in 2007. When digital video camcorders started to be increasingly complicated, most people want to have a camera to record some short video clips for sharing with their friends or uploading onto YouTube instead, not intending to make high quality movies. Flip only has 9 buttons, including a big red button for recording. He also mentioned a redesign of the remote-control case. Usually, there are more than 40 buttons on a remote-control, sometimes even not less than 50. However, if we use removing, organising, hiding and transferring as four strategies to re-design it, by removing unnecessary functions, rearranging the button, hiding and transferring the item which can be combined, we can actually make only 9 buttons on it. Tanaka (2009) [10] indicates that in ancient Japan there was an aesthetic called 'wabi-sabi'. This is the concept of pride from kind of repairing the broken tea cup after its damage, containing a deep philosophy. The so-called world cannot be established if there is only one material. People may use this idea in their design process for avoiding the excessive and unsuitable functions or apparel decorations. Re-design could be the way to practice this concept in the design project.

Koren (1994) [11] mentions that "wabi" originally denoted leaving the secular world and living alone with nature, painstakingly and simply. It is the space situation, life style, introversion, philosophical construct of subjectivity. "Sabi" originally denoted loneliness, thin or withered. It means the time situation, concrete materials, extraversion, and aesthetic model of objectivity. Hermit and ascetic consider it as a way to get the rich spiritual life. The philosophy, spirit and moral principles of wabi-sabi has been inspired by Chinese Taoism and Zen, wabi-sabi's state of mind and understanding of materialism root from a desolate, minimalism atmosphere of nine and ten centuries of Chinese poetry and ink painting. To feel the existence of wabi-sabi, human beings have to slow down their paces and patiently close and slow observation. It provides the way to make ultimate essence(metaphysics), sacred knowledge(spiritual), emotional well-being(psychology), behavior(moral), audio and visual senses(material) and other elements as one. The design of the 21st century needs to be the reflection of last century and the responsibility of saving. Design will be more diversified with an environment of higher science and technology and will need to re-examine human values and standards.

4. Haptic

Hara (2004)[12] emphasizes that society and the economy have long been led by scientific technology. It is called a technology-driven situation in which technology is the primary force behind the production and development of objects and phenomena. Sometimes, design has been closely linked with technology, aiming to make use of it in everyday life of media or materials whose creation was initiated by technology. Those are real features of the design in this era, especially in intention design realm which looks impossible to be without new technologies. To perpetually use the newest technology seems to be a simple way for creation and design in this period, in which technology has been a driving force in the world's development. Indeed, technology-driven society has contributed plenty of very outstanding designs. However, while affirming scientific progress, Hara wishes to propose that we pursue manufacturing which originates in the pursuit of the sense, and that what we use is not technology but human sense to evoke the animating force of manufacturing.

Lanier (2010) [6] suggests that it is easy to forget the very idea of a digital expression that involves a trade-off with metaphysical overtones. A digital image of an oil painting is forever a representation and cannot be a real thing since the real painting is a bottomless mystery. An oil painting changes with time, i.e. cracks appear on its surface. It has textures, odors, and a sense of presence and history. It is a kind of thinking that can be compared with wabi-sabi. Another way to think about it is to recognize that there is no such a thing as a digital object that is not specialized. Digital representations can be reasonable on one hand, but human beings can never foresee all the ways in which a representation might be used. It just means that digital media has to be used with special caution. We cannot make our body abstract, and we should not forget the fact that greater part of science is bent on human's well-being. Some people once imagined that something wonderful would happen to them if they could make themselves happy with an 'illusory self' casted into the electronic media. However, it has now been clear that people may not attain real happiness by resorting to virtual happiness.

"A digital tomorrow" is a piece of design fiction from Nicolas (2012) [13] and it is a series of short sequences imagining the digital rituals and gestures of the near future. In fact, the video shows the so-called future technology seems very ironic. Glass immersion is a wearable and advanced modular audio-visual unit, enabling a person to directly wear two small screens in front of his or her eyes instead of sitting in front of a screen to watch videos. Therefore, to live in a virtual world becomes possible and only if the glass is taken off should a person return to his or her real world. Furthermore, a car interaction has been developed not to involve any key when starting a car, fully by using recognitions of palm, face and voice. It seems to be safer, but human beings are not programmed after all. There are always uncertainties such as precision, accent, facial cover that may largely affect a car interaction system. As a result, the system needs to be calibrated from time to time.

These manmade errors cannot be the same at each time, making the operation becomes extremely complex and inefficient. When a person opens his or her car, he or she needs to keep standstill until matched. Sometimes they need make-up to start the car, or they need to calibrate the system until the voice is recognized. All of these seem to lead people to accommodate an onboard operating system. Indeed, the social applications enable people to meet a friend at distance, and the research experiment of the conversion between brain neural electric current and digital signal is never stopped. Digital products and the virtual world have not let people concentrate or rely on their own judgment and awareness. Human behaviour is undoubtedly being sidetracked by the so-called future technology and simple things have become complex. This is not people's expectation for human care from technology. Everything becomes meaningless and weightless that people are all living on the floating data which is without any sense.

Considering further, people may find that it would be very reluctant if they simply divide senses into five categories because using fingertips to touch an object gently is not the same feeling as that of giving a heavy pressure with the palm touch on certain object. The feelings will be completely different when people touch different material, smell different or taste different. Sometimes these feelings will bring out the different association called synesthesia. The so-called sense is of mutual penetration and is interconnected together by a media which is difficult to explain clearly in words. A person is not only a combination of sense creed receivers, but also a sensitive memory and regeneration device which can reproduce various images according to basic memories in the mind. The image which appears in one's brain is a grand picture engendered by the interwoven with regeneration of human memories and several kinds of simultaneous sensory stimulations. Hence, those interactive products which never let users leave an image on glass screen always let users use gestures to operate an interface on a glass screen by touch or from distance. All of these kinds of concepts are undoubtedly a violation of a person's rich senses.

As a great example, gel remote control shows us a combination of new technology and human sense, or so-called the "stick" and the "container". It makes concept of the Dali watch come true in real life; shape changing depends on different situation, highly showing the understanding of 'friendly user experience' for hand touching sense. Because remote control usually does work by itself and is ignored when not in use, the designer uses special material to remake an image of it. It changes its shape when being touched, breathing subtly when being alone. It will quickly regain its own shape when it is held by someone. If battery dies, it will droop and drain of support. All the moments and interactions look like a life that intrigues people.

5. Conclusion

Because of today's extremely high use of networks and digital technology, things are getting easier. What were considered problems, restrictions and issues in the past currently do not exist at all under the assistance of modern technologies. Human power becomes as strong but light-weighted as it has ever been. Under current technology trends, people are seemingly driven to see themselves be infinitively extended. However, does it include all the imagination of people's wisdom and spirit should the original purpose of design which can impress people became something that can bring more sensory stimulation such as pleasure, excitement and freshness? Or just like entertainment shown on YouTube became a pastime rather than encourage people to think about the spiritual power of design. I think these are the issues that contemporary designers need to figure out other than rely on new technology and be complacency with the thrill brought by it.

We have now seen many practitioners in this industry and they are spirited to tell everyone how social networking, cloud computing, artificial intelligence and Bitcoin will make a significant change of our life in this era. To inculcate the technology will make people's lives better. They firmly believe that standing on such a stage and revealing their complacency and that they are among the industry. Currently, the hottest trend is intelligent interactive systems, largely due to the tremendous success of smartphones. People have now begun to believe that their lives indeed need these intelligent systems everywhere. Hence, people wish to put intelligent interactive system into every corner of their lives as they need smart watches, smart cars, smart houses, smart communities, smart cities, etc.

Nevertheless, vast majority of people are gradually being changed by invisible penetration of the modern technologies. Quite a lot of enthusiasm of them are not for sensible, but out of blind obedience of fanaticism. Because they fear that eventually became a man who abandoned by this age, so they choose to become the blind followers. But we can have more thoughtful discussion, are their concerns without any reason there? Perhaps this is another viewpoint to find a better solution. I am not criticising these phenomena. I cannot extricate myself from this information flood as well. I always think that being a practitioner of this industry does not mean I can go blind and catering the masses to bring more this kind of thoughts to our design. Otherwise, I am afraid that human beings will be disoriented, and they could not see a bright future which they may have imaged at the initial time.

Solely relying on the latest technology doesn't always result in good design. Instead, it's the mastery of utilizing technology to explore its possibilities that defines the capacity of designers. However, this doesn't imply that designers should be indifferent to the latest technology. On the contrary, they should actively and independently explore its potential, as neglecting to do so would undermine the power of design and design wisdom.

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