Study of Ethical Failures in the Design of Shared Mobility Services

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Abstract

The current situation of service design in China is analyzed from the perspective of design ethics, and the ways to realize its ethical value are pointed out. Following Victor Babanac's concept of combination of functions in Designing for the Real World, the new changes of service design in response to the dilemma are discussed from an ethical perspective through the description of shared travel service design from the description of women's travel safety problems and the comparison of safety threats, lack of emotion, and lack of responsibility brought by ephemeral design. The rational development of service design should establish a corresponding ethical awareness from the source of design and realize its ethical value in the dialectical relationship between the logic of capital and the scale of morality in dealing with it.

Keywords

Design ethics; Functional consortia; Service design; Sharing economy.

1. Introduction

Since the post-industrial revolution, in today's fast-changing and widely used science and technology, the way humans transform nature has become more and more developed and effective. At the same time, design has also indulged in the "technological expansion" in the appearance of industrial civilization, diluting our sins of environmental pollution and resource waste, corrupting human moral and ethical values, causing problems such as one-time consumption, lack of emotion in products, and information anxiety, etc. In this regard, design has an unshirkable responsibility. Modern design "from products to services" into the 21st century, market competition has shifted from product competition, brand competition to service competition, and the change of concept makes China is rapidly transitioning from an industrial society to a post-industrial society based on information and services, in which the depth of design ethics is crucial.

Currently, with the critique of ephemeral design and the increase of social responsibility, it is inevitable to inject designers' responsibility into service design in the emerging field of service design and reflect on the phenomenon of ethical failure in design, which is an inherent requirement of both design ethics and service design. At the same time, the economics of sharing is much more researched than design studies, but neither can avoid the economic carrier of shared products and service design, as well as the analysis of their consumption behavior. However, design research lags behind in both the development of related design products and the development of the sharing economy. Shared design is a crossover phenomenon between economics and design, and it seeks to solve human problems first and foremost, especially in an ethical sense, to solve the problem of social survival of human beings.

In this paper, we will explore the safety demands of women in the scenario of shared mobility services to investigate the phenomenon of design ethics failure. As one of the scenarios where women's safety issues are highly prevalent, the study of women's safety in this scenario has

significant social value and practical significance. At the same time, it has a significant role in the long-term effective development and corporate reputation and branding of enterprises.

2. Analysis of Service Design Theory in The Context of Design Ethics
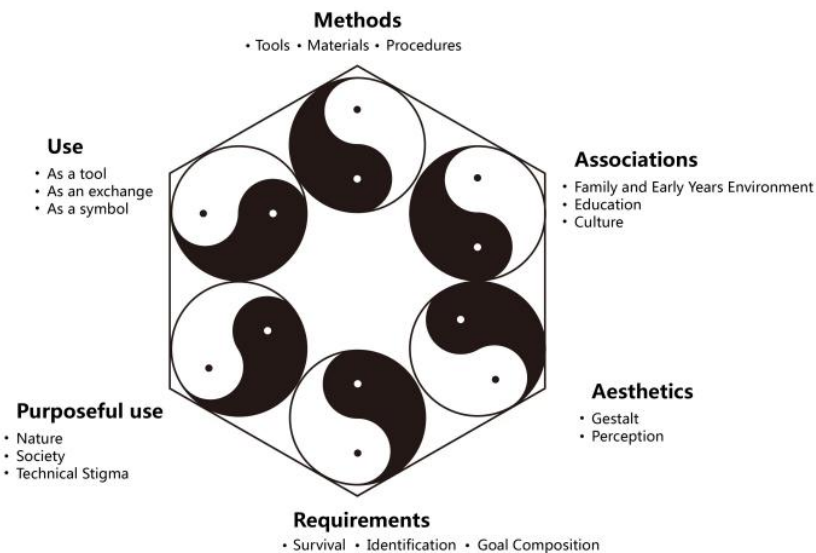
2.1. The connotation of design ethics.

Figure 1. Functional consortium

The concept of design ethics was introduced by American design theorist Victor Papanek in his book Design for the Real World at the end of the last century, in which the author pointed out that the Western design world was rife with the vices of deceit, hypocrisy, seduction, exaggeration and waste, with no concern for moderation, ethics, the environment and a sustainable future. For thousands of years, he reflects, we took for granted the fresh air and pure water we breathed, but today this picture has been drastically altered. While the causes of air, river and lake pollution are complex, it is clear that widespread industrial design and industry itself bear some responsibility for the state of affairs. What is the true meaning of modern Western civilization when Papanak deeply appreciates that it is merely a superficial, deformed, insubstantial and distorted human flourishing? What is the ethical responsibility of designers? The social context of design should not be left behind. He makes a fierce criticism of the consumer design of the commercial society purely for profit, and advocates that designers should take the obligatory responsibility for social and ecological changes. The principles of nature, harmony and sustainability should be followed in the process of design activities, so that design works can truly meet the growing material and cultural needs of people. The introduction of this theory has greatly enriched and deepened our reflections on the ethical aspects of design and has led to the development of design concepts. Since the emergence of modern design, this viewpoint was the first time that design ethics was discussed from the perspective of design theory, and its purpose was studied, and it became a new beginning for the continuous development of modern design theory. Nowadays, human beings have gradually entered the post-industrial society, and the intervention and influence of design on social life have reached an unprecedented level, and people's demands on designers have been further increased. The purpose of modern design is no longer simply to serve the function and form of the product, but more importantly, the act of design itself contains the elements of the formation of the social system, so the design must contain a comprehensive consideration of society. In order to achieve the unity of products and people, and to coordinate the relationship with objective things, design should take sustainable development as the policy, which not only

meets the immediate interests, but also does not contradict the long-term development interests of people. China's designers lack awareness of people's livelihoods and have not taken on the social responsibility they should, which is a problem that Chinese contemporary design should reflect on.

2.2. Service design for public interest

LYNN SHOSTACK, in his papers "How to Design a Service" (1982) and "Designing Services That Deliver The concept of Service Design was first introduced in his papers "How to Design a Service" (1982) and "Designing Services That Deliver" (1984), and is a new term in contemporary design that emerged with the transformation of the world economy. The term service design was defined by Gummesson (1991) as "the materialization of service concepts in drawings, flowcharts" and by Norling et al. (1992) as the work of specifying an idea for a new service in drawings and specifications. The term "service design" has also been used to cover the entire process from concept to specification. Service innovation has also been defined in various ways, from a narrow focus on the "idea generation" part of the NSD process (Edvardsson et al., 2000) to the whole process of service development (Sundbo, 1998), from the original standardized, modularized, and pre-defined 1.0 service form to the dynamic, customized, and scenario-based 4.0 service form, and its design focus has also shifted from the functionality of the service system to the emotionality of the service experience. Gradually transition to the emotional service experience. As the core element of the service system, how to effectively carry out the analysis of user behavior and exploration of needs has become a hot spot of concern under the service design 4.0 form.

Figure 2 Maslow's psychological needs#

2.3. Ethical implications in service design

Contemporary design in China is driven by the profit motive of the consumerist stance, and the attitude and guidelines of design in the commercial system have been revised time and again, so that profit has become the order of the day, which has put the design industry itself at risk of developing out of control, thus raising concerns about the crisis of the design industry. However, when we really look at the current situation, we realize that the problem does not exist in a consumer culture that simply pursues economic benefits; rather, it is due to the lack of spirituality and the resulting blind spots in social responsibility and ethical values caused by traditional art and values. For China, in order to reconstruct the attitude of the giants of the

modernist design world at the beginning of the last century towards design in the service of the common people, it is necessary to bring design back to the perspective of social and public life, to transform design knowledge into strategic knowledge and behavioral motivation for public-oriented problems, social affairs and other programmatic meanings. It can no longer be confined to traditional products, environments, visuals and other specific aspects, but it makes design reach a broader social effect, facing social problems in a broader sense, showing the democratic nature of design. Design must break out of its professional scope and technocratic stance and intervene comprehensively in other professions, strategic knowledge and professional stance to find more efficient solutions to problems.

Since the 21st century, some pioneering and innovative enterprises, organizations and institutions have started to try to change the position of design, decomposing, transforming and generating professional design knowledge into innovative service design knowledge. According to the characteristics of their own resources and business objectives, they carry out overall planning and design of service operation and propose strategic ideas. As an emerging design culture concept, "service design" has gone beyond the general scope of traditional art and design, and contains more ethical bottom line, moral scale and development aspirations. Further, through the intervention of experiential service design, more attention is paid to the existence of human beings in ethical creation, and the ethical connotation is implanted into each contact point of service design, so that people can feel the social sustainability values in the process of participation and experience, and let the culture continue to inherit and develop in this process, so that service design can be transformed into a concrete path to promote cultural progress and social sustainability in the experience of each individual. In this way, service design is transformed into a concrete path to promote cultural progress and sustainable social development in each individual experience. The in-depth exploration of service design is a current issue that cannot be ignored by the design theory and design industry, and its frontier and urgency are self-evident.

3. Service Design Ethics Under the Functional Consortium Model - An Example in The Field of Shared Mobility Services

Nowadays, with the continuous integration of shared travel and service industries, as well as the innovation of modern information technology such as the Internet, China's service forms gradually tend to diversify, and new service products such as shared bicycles, shared rides and shared rechargeable batteries are rapidly coming into people's daily lives. The concept of "sharing" has entered the vision of the public and enterprises with romanticism, but under the concept, there are still some deviations in the ethical values of commercial design and service system design, which need to be explored by designers together. Based on the logical commonality between service design and design ethics, this paper introduces the functional consortium as a model to shared service design, provides insight into women's safety in shared travel service design based on a global perspective, reflects on the guiding significance of design ethics in this field, and improves the service connotation.Papanak believes that design is about creating order, which coincides with the view that service design aims to reconstruct the new order of people and information in the era of Internet of everything and create new services in the context of intelligent design. He opposes the design narrative model of "function-form" dualism and proposes the concept of functional consortium (Figure 2) to achieve the concept of "ethical design of shared mobility services with the concept of functional consortium

The concept of "meaningful order" is proposed. He uses the Chinese taiji diagram to represent that each criterion is a combination of soft-hard, emotion-thinking, intuition-intellect, and the "yin-yang". -The intersection of wisdom. Next, the ethical dysfunctions of shared mobility services are studied from the concept of functional consortium (Table 1).

Table 1.

Combination of functions	Ethical issues in the design of drop-shipping services
Method	Unreasonable physical space and review process
Use	The uncontrollable nature of new things
Purposeful use	Unsustainability of security requirements
Demand	Contextual incompatibility
Aesthetics	Lack of functional beauty
Associations	The non-ethical nature of socialization

3.1. Methodology - physical space and irrationality of the audit process

The interaction of tools, procedures and materials. An honest use of materials is never divorced from the properties of the materials themselves, and designers must use materials and tools in the most optimal way. I am afraid that the combination of tools and materials is not the optimal configuration in the design of shared mobility services. In function occurs within the private physical space of the private car. From psychological research, the distance between people inside the private car has entered the small space that Edward Hall called "intimate distance", which creates the illusion of closeness and the opportunity to commit crimes for the dark side of human nature. This is the failure of the company to take into account the unique psychological, physical, family, and social attributes of women in the service design process, and the failure to do humanitarian thinking from the perspective of humane design. From the point of view of the audit process, the gatekeeper of the drop company is not strict, the review is more formalized is the set of cars, people and vehicles do not match the situation often occurs. In terms of vehicles, there are also some problems with "DDT". The "real-name certification" as long as you randomly fill in your name and ID number can make the platform of the driver personnel more complicated, the risk of safety hazards is relatively large in the case of the murder of the air hostess there is a loophole in the audit.

3.2. Use - the uncontrollability of new things

The result of adopting a new tool is never predictable. By virtue of their corporate image as "advocates" of green and fashionable life, car-sharing companies focus on the promotion of new energy-based car-sharing to reduce air pollution emissions, slow down the development of private cars, enhance people's awareness of environmental protection, create new lifestyles, and create new lifestyles with a "sense of nobility". "The company has been attracting consumers by being the experience of a new lifestyle under the wave of sharing economy. However, what was not anticipated was that its real body was "pseudo-sharing", manufacturing a large number of new cars consuming huge resources, eliminating vehicles for processing, increasing objective travel demand, capital scrambling, burning money for land. Not only are idle resources underutilized, but they continue to generate resources to keep them operating, and when operation goes wrong, it leads to a huge waste of resources, adding to the burden on the environment and society, causing a vicious circle.

In addition, the social issues on women's safety cannot be ignored, and the turning point came in 2018, when an unexpected social malpractice happened in DDT, and the shared travel industry began to gradually cool down and calm down. The topic of women's travel safety continues to be a hot topic. Scholars and experts at home and abroad have conducted a lot of relevant research on the topic of safe travel for women. Due to their unique psychological, physiological, family and social characteristics, women are often subject to harm and harassment when traveling. The safety problem is particularly serious in the area of transportation. Online cars and ridesharing are the most important places where women's

personal safety accidents may occur because of their small space and privacy, and because of the varying quality of drivers.

3.3. Demand - the sustainability of security requirements needs to be maintained

Many designs are only satisfying some transient desires, while people's real needs, long-term needs are often neglected. According to Maslow's needs principle (as in Figure 3), the need for life safety is the most important human need. Human security needs include a sense of certainty, a sense of security and a sense of control, which refer to a person's awareness, understanding and categorization of the objective properties of things themselves or the objective laws of things that are about to happen, respectively. The three together constitute the hierarchy of human security needs. Internet platforms have harvested a lot of capital and dividends while gaining a lot of traffic and attention. The platform should also face up to the problems that exist now and do their best to take up the responsibility that the platform should have. Only under the premise of ensuring the most basic safety and security of users can we really reap the long-term high-quality development.

3.4. Purposeful use - Contextual discrepancies in service design

The designed and purposeful content is bound to reflect the temporal and external conditions on which it is produced, and the design must be adapted to the general human socio-economic order, since it needs to function within the latter. It is impossible to make its services work regardless of any contextual changes. The elements brought by shared travel services cannot be divorced intact from the context of their purposeful use, ignoring the maintenance of social public order, order, and social security.

First, due to the lag in the introduction of laws and regulations, the government and the platform failed to achieve timely and effective supervision of the design of the optimization of the safety assistant user experience of the dropshipping women, resulting in the safety problem has been delayed. Secondly, the public opinion problem, due to the strong accusations of all walks of life for the vices of the dropshipping incident, the safety issue has become a hot issue of public concern, and the huge concern makes the safety issue complicated. Finally, regarding the responsibility of the enterprise itself, every user who registers for the DDT service directly to the jump user agreement click "agree". This creates an information asymmetry between the platform and the passenger. Therefore, it is necessary to build a self-restraint mechanism for drop-shipping. Based on design ethics, corporate moral scale, ethical value will construct the differentiated value of future brands. Shared travel service is a new business model, which requires carrier companies to provide transportation and logistics and other security services to meet the diverse needs of consumers. So the shared mobility service brand is not just acting as a "broker", it is also involved in the transportation business. Therefore, there is a need to clearly define the responsibilities of the platform, positioning it as the main carrier and increasing its obligations.

3.5. Association - socialized amorality

Most associative values are universal within a culture, and cultural traditions often form the root of these associative values. Huang Jieli, the former general manager of the drip hitchhiking business unit who has been removed from his position, once described the social scene of drip: "This is a very futuristic and very sexy scene, and we have thought very clearly from the very beginning that we must play in this direction." The poster of the residual web interface of Drip Windy Ride shows two young men and women waving and smiling like a couple, the advertising slogan "Meet the good - you and I walk together", and the slogan: "Not afraid of labeling, just afraid that you do not date", " Let's date, that's how we should play with hitchhiking"; we will find the words "handsome", "fashionable beauty" and other labels in the information of

passengers and owners, which obviously point to gender socialization, which will undoubtedly increase This will undoubtedly increase security risks. This is a marketing vision based on the social function of the virtual community, ignoring the consideration of system risk and security.

3.6. Aesthetics - the lack of functional beauty

Aesthetics as a tool is a top priority in design, a tool that helps us cast form and color into one, the unity that moves us. In the interactive interface of shared travel companies, the formal beauty of the overall interaction design should be unified with the functional beauty. There is a lack of consistency and unity in the interface design; the page layout is not user-friendly enough; the unclear information grading often confuses the perception of some users; in addition, the visual style is monotonous and does not awaken the safety perception of women.

4. Concluding Remarks

Based on the behavior of shared mobility companies, this paper proposes the issue of ethical responsibility in design by drawing on Babanak's analytical framework of the "functional consortium" and addressing the problems of irrationality and disorder in current design practice. Without doubt, it reflects the continuous progress of design culture. Design can change the world and the way humans behave, requiring designers to be extra cautious, and must learn and apply the scientific method to design for the benefit of humans, the world, and the environment. The boundaries of contemporary design have greatly exceeded the inherent scope of the past, and various concepts have emerged, with industries and forms being included within the scope of design, which in turn involves complex and nuanced ethical issues. The act of design, the relationship between service and people, society and culture, the evolution of nature and ecology, etc., material and immaterial, etc., have all become topics that have to be answered in design ethics. Because of this, service design should actively face and consider the issues, and needs to reconstruct the logical relationship between design innovation and service design, and open up new value space by integrating and organizing the transformation of knowledge, and then making immaterial products.

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