Innovation of Industrial Design Thinking Mode under Intelligent Internet

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Abstract: With the continuous improvement of the level of Internet information technology, no matter what kind of thinking mode or business mode, industrial design thinking innovation should be realized. This article analyzes the problems of traditional industrial design product development, puts forward the design thinking brought about by the intelligent Internet to industrial designers, and proposes to use the characteristics of the intelligent Internet to change industrial design thinking, which provides a reference for traditional enterprises' industrial design thinking transformation.

1. Introduction

After entering the era of the intelligent Internet, most traditional enterprises are facing transformation and upgrading. Many companies have taken advantage of the thinking of the Internet and the convenience of intelligent technology to successfully cross-border Internet and smoothly transform resources integration[1]. There are also many companies who cannot get started and don't know how to change and innovate.

(1) In the market research part, when the company is preparing to develop new products, it needs to use research methods to examine the user's response to new products, understand the state of the industry, and establish market-oriented development needs. However, due to cost factors, it is impossible to collect large sample data, and the lack of accurate analysis of the needs of the target group has led to product research without scientific and reference standards, subsequent sales are not ideal, and consumers have many negative evaluations of the product.

(2) When discussing the function and technical part of the product, the designer is not an important part of the product development process. Even some companies have not set up a design department, do not pay attention to the purpose of design, and understand the industrial design function as simply doing Beautifying design of the product.

(3) In the later stage of product marketing, manufacturing companies usually contact third-party marketing companies to contract product promotion. Traditional marketing strategies ignore users' perceptual demands for products, excessively communicate product performance, and promote product packaging and promotion. In terms of product display, third-party designers are unable to fully understand the design and development intentions of new products, are extremely prone to deviations or fail to truly convey the original design intention of the product, resulting in unsatisfactory product sales.

2. The Internet Brings New Thinking to Industrial Design

General Secretary Xi Jinping pointed out in the report of the 19th National Congress of the Communist Party of China that at this stage, social contradictions in our country have been transformed into contradictions between the people's increasing needs for a better life and imbalanced and insufficient development[2]. It can be seen that the important features of the new era are obvious. The upgrading of consumption has profoundly changed the development environment of industrial design. People have put forward higher requirements for material and cultural life. The physiological needs have not satisfied the people 's desire to build a high-quality life. And more diverse user needs, such as personalized needs, are waiting to be supplemented and enriched. Especially in the era of the intelligent Internet, the rapid development of new technologies and applications has brought new challenges to all walks of life and brought new thinking to industrial designers. Enterprises and industrial designers must actively keep up with the times. Established the thinking of the Internet, discovered the deficiencies in the development of traditional products, and used new technical means to grasp the psychological and social needs of users. At this time, the ever-changing changes have made users have more choices. The various characteristics of the Internet have led to changes in people's lives, aesthetics, and thinking that are different from the past, grasping the pain points of users, innovating products and being at the cutting edge Sexual design is a prerequisite for companies to seize the market, and it is also a question that designers need to think about.

3. Innovation and Transformation Strategy of Industrial Design Thinking under Intelligent Internet

3.1 Meet the User's Product Emotional Design Needs

Consumption upgrade has given users a new understanding of "quality life" at the present stage, and the problem of how to design products to meet the needs of users is faced with. Practical functionality is important, but as a product's audience, "people" have emotional appeals. As a product in our daily lives, we also need it to promote our emotions during use and bring us more Pleasant experience.[3] Therefore, adhere to the "people-oriented" design concept, meet the emotional needs of users, play the role of industrial design to produce more humanized and personalized products should be traditional enterprises and designers in the face of the Internet's many homogeneous products should be To change design concepts. Alessi has a unique design evaluation process that uses four principles as design criteria: price, function, senses, memory and imagination, and communication and design language. A model of emotional design is also the design of the Volkswagen Beetle (Figure 1). The two lights on the front face are like two cute big eyes (Figure 2), slightly naughty, and the body uses a lot of arcs. Elements, and the bionic design similar to the appearance of the Beatles, as if to make the cold shell of the Beetle car cute and warm, wherever you go, happiness is brought to you, this emotional design makes people love this car.

Fig.1 The Beatles

Fig.2 Car Headlights

3.2 Establishing Intelligent Internet Product Design Thinking

3.2.1 Shape Design

Affected by the "simplification, decentralization, etc." characteristics of the Internet era, users also hope that on the basis of satisfying product performance, they can have a more humane shape to simplify the user's perception of product use, and on the basis of comfort The design is also more aesthetic, in line with the characteristics of the times. Therefore, morphological design is also a problem that designers should consider today[4]. The shape of industrial products and user interface must become more concise and human in today's fast-paced life. For example, the design of the Apple mobile phone has always pursued a "simple" design form. Jobs pays attention to humanized human-computer interaction experience. Whether it is the size of the fuselage or the screen size, it is reasonably set to be easy to control and carry.

3.2.2 Color Design

In addition, color has also become an important factor that depends on whether users will buy the product at this stage. Under the circumstance of intelligent and interconnected technology, users demand that colors have more contemporary characteristics, especially smart products can use more technological colors, so metal Colors such as "rose gold, iron black, brushed silver, sky gray, simple white" and so on are now very popular. In terms of materials, products will also tend to pursue the "modern + technology" feeling. Because human emotions, emotions, and cognitive systems interact and complement each other, in order to enhance the user's love of products, industrial designers must multi-prongedly improve the user's "tactile, visual, olfactory, and auditory" perception system when using the product Experience.

3.3 Use Intelligent "Big Data" to Get Closer to the User's Psychology

While the Internet brings changes, it also provides superior conditions for enterprises and industrial designers. Its "interaction, timeliness, accuracy, objectivity, and time and space" and other attributes have brought close proximity to industrial product designers and users. The distance is convenient for enterprises to gain insight into user needs and accurately grasp user pain points. In particular, the application of big data creates convenience for obtaining data. Its four characteristics, namely, large amount, diversity, speed, and value, enable enterprises to accurately extract effective information through the management of big data, which not only shortens the product research cycle, but also It reduces the cost of research and design, provides a real and effective reference for

the design, and plays a key role in improving the quality of the product, facilitating subsequent optimization and improvement.[5] In addition, the emergence of the Internet's big data has enabled the product to truly realize the "user-centered" design concept. It accurately locates the target group of the product and taps its habits, behaviors, and needs. Not only can users adopt feedback on product use in a timely manner, but also enable users to participate in the product design process, allowing them to be both users and "designers", making it easy for companies to create cutting-edge product designs.

3.4 Cross-Border Integration with Industrial Design

Traditional enterprises should gradually change from "marketing-oriented" to "user experience-oriented", and take the user experience as the entry point for innovative products in the Internet era, recognizing that design is a key factor to improve the competitiveness of enterprises in the market, It is the industrial designer who leads the engineer, not the other way around. The nature of industrial design determines that it is a cross-disciplinary discipline with a wide coverage and involved in the research fields of many disciplines.[6] Industrial design cannot be regarded as just a landscaping work. It should be designed and proposed parameters, technology to solve the problem, not just to do technical innovation for technology. Therefore, enterprises should give full play to the professional advantages of cross-border and integration of industrial designers, so that design can participate in product research, development, and marketing. Industrial design is a means for products to enter the market.[7] It takes "user needs as the center" to determine the target market and design positioning of products. The strength of enterprises in developing new products is not only reflected in technological progress, product quality and product quality. With the improvement of production efficiency, under the condition that various companies are on a par with each other at the technical level, the comprehensive ability of design is the core factor for improving the market competitiveness of enterprises.

4. Conclusion

In summary, the transformation and upgrading of enterprises in the era of the intelligent Internet needs to highlight the importance of industrial design, change the traditional product development model, change the traditional product design thinking, and integrate closely with the Internet to grasp the pain points of current consumer demand for products and focus on innovation .

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