

The Value Exploration and Application Practice of IP Design in UI Interfaces

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Abstract: This paper discusses the value mining and application practice of IP design in UI interface, and analyzes how IP design infuses stronger brand recognition and user attraction into UI interface through unique visual elements, storytelling and emotional experience. This article deeply analyzes the unique role of IP design in improving user experience, including enhancing user emotional resonance, improving interface usability and fun. Through specific cases, it shows the innovative application of IP design in UI interface, which provides designers with a new path and strategy to improve user experience, and is of great significance for promoting the development of UI design.

Keywords: IP Design; UI Design; User Experience; Product Design

1. Research Overview

1.1 Research Background and Significance

In today's digital wave sweeping the world, IP (intellectual property) design has become an important means to enhance brand image and enhance user stickiness. The IP image design of an enterprise can not only help the enterprise establish unique brand identities, but also realize the intuitive expression of corporate information and increase the competitiveness of the enterprise [1]. With the continuous progress of Internet technology and the increasing demand for user experience, IP design is more and more widely used in UI (user interface) interface design, becoming a bridge connecting brand and user emotion.

The significance of applying IP design to UI interface design is to enhance the attractiveness and interactivity of user interface. The unique elements of IP design, such as character image, color matching and graphic style, can enrich the visual effect of UI

interface and enhance the visual experience of users. At the same time, the cultural connotation and story background contained in IP design can generate emotional resonance with users, and enhance users' emotional connection and loyalty to the product. In addition, the application of IP design also helps to shape a unique brand image, enhance brand awareness and reputation, and bring more business opportunities for the brand.

All in all, the research on the application of IP design to UI interface design has important theoretical and practical significance, which not only helps to enhance user experience and brand image, but also can create more business value for enterprises. Therefore, we should deeply explore the integration of IP design and UI interface design, so as to provide users with more quality, interesting and emotional value of the product experience.

1.2 Research Status at Home and Abroad

In the world, the application of IP design in UI interface design has become a trend. Foreign countries, especially countries such as Europe, America and Japan, have deep accumulation and rich experience in the field of IP design. IP design in these countries not only covers entertainment fields such as animation and games, but also widely penetrates into many industries such as commerce and science and technology. In UI interface design, IP design is used to enhance the attractiveness and user stickiness of products, create a unique brand image through unique visual image and story background, and enhance the emotional connection between users and products.

In China, with the vigorous development of the digital economy, the social platforms led by Tencent are continuously solidifying their social foundations, Various technology companies continue to launch different apps, showing a trend of growth and development [2]. The application of IP design in UI interface

design has gradually received attention. More and more enterprises begin to realize the importance of IP design, and have applied it in product design and brand promotion. However, compared with foreign countries, the accumulation and experience in the field of IP design in China is still relatively limited, but in the continuous exploration and innovation, the application of domestic IP design in UI interface design also shows a diversified and personalized trend.

At present, the domestic and foreign research on the application of IP design in UI interface design mainly focuses on how to better integrate the elements of IP design into UI interface, so as to enhance the attractiveness and interactivity of user interface. At the same time, it is also exploring how to create a unique brand image through IP design to enhance brand awareness and reputation. With the continuous progress of technology and the constant change of user needs, the application of IP design in UI interface design will be more extensive and in-depth in the future, bringing more possibilities and opportunities for product design and brand promotion.

1.3 Research Purpose and Content

In the digital age, user experience and brand loyalty have become the key elements of enterprise competition. Design not only needs to take into account the characteristics of different platforms, but also the visual content on social platforms should conform to the format and style of the platforms. The design of a digital brand's image is not only visual aesthetics, but also includes user experience design, which influences brand perception and loyalty through the user's interactive experience^[3]. IP design, as a creative and culturally rich design form, is increasingly gaining widespread attention in UI interface design. The purpose of this study is to deeply explore the integration of IP design and UI interface design, so as to provide a new design strategy for enterprises, enhance product attraction and user stickiness, and then create a unique brand image and enhance market competitiveness.

This thesis primarily focuses on the following aspects: Firstly, it aims to uncover the unique charm of IP design and its potential value in UI interface design. Secondly, this research is devoted to exploring the application strategies

and methods of IP design in UI interface design. In addition, this study also focuses on the impact of IP design on brand image shaping and communication in UI interface design. Through comparative analysis and empirical research, this study aims to reveal how the application of IP design in UI interface design can enhance brand awareness and reputation, how to enhance user's sense of identity and loyalty to the brand, and how to create more business opportunities and market share for the brand through the innovative application of IP design in UI interface.

This paper will comprehensively cover the theoretical basis of IP design, the principles and methods of UI interface design, the integration strategy of IP design and UI interface design, and the analysis and evaluation of practical application cases. Through the comprehensive application of literature review, empirical research, case analysis and other research methods, this study will deeply explore the application status quo, problems and challenges of IP design in UI interface design, and put forward corresponding solutions and suggestions.

2. Basic Theory of IP Design and UI Interface Design

2.1 Definition and Characteristics of IP Design

IP design, also known as Intellectual Property design, is a comprehensive design strategy that integrates creativity, culture and business value. It is not limited to a single product or visual image design, but covers the whole chain process from character creation, story construction to cross-media content development, aiming to create a brand image or content system with unique identity, deep cultural connotation and extensive market influence. The designed IP image can be anything, even a new and original image, but no matter what the image is, it needs to have personality characteristics and be distinguished from other IP images. The core of IP design is to build a deep connection with the target audience through innovative visual elements, engaging storytelling and deep emotional experiences to maximize brand value.

2.2 Design Principles and Trends of UI Interface

Mobile UI interface design is the use of information technology and international network connection, to provide convenient application services for the public [4]. UI interface is essentially the user interface. It mainly includes the overall visual design of interface layout design, user experience effect, operation logic, behavior path and human-computer interaction [5]. UI interface is an important bridge between users and digital products, and its design principles and trends are directly related to user experience and product competitiveness. The following article aims to discuss the basic principles and future development direction of UI interface design, and provide theoretical guidance and practical reference for designers.

2.2.1 Basic principles

User friendliness: The first principle of UI design is to ensure that users can use the product easily and efficiently. This requires designers to deeply understand the needs and habits of target users, through reasonable layout, clear navigation, intuitive operation process, reduce the user's learning cost, improve the use of efficiency.

Consistency: The principle of consistency is specifically expressed in providing users with a uniform style of the interface, which means that users can spend less time on operation learning, because they can directly transplant their experience from operating one interface to another interface, making the whole UI experience more smooth [6]. Consistency of the interface is the key to improving the user experience. Everything from color matching to font selection to icon style should be consistent to build user familiarity and trust with the product. At the same time, the function and operation mode of interface elements should also be consistent to avoid user confusion.

Simplicity: In the era of information explosion, concise interface design is particularly important. The simple design can reduce the cost of user learning [7]. Mobile UI interface design should not only ensure the effective transmission of information, but also meet the psychological needs of users. Designers should remove redundant elements and highlight core functions to ensure that users can find the information they need in a short time. A concise design will not only help enhance the user experience, but also reduce product

maintenance costs.

Accessibility: UI design should fully consider the needs of different user groups, including people with disabilities. Through reasonable color contrast, font size adjustment, voice input and other features, ensure that all users can use the product without obstacles. Designers should fully consider the main functional characteristics of each interface of the product, and coordinate the relationship between unity and diversity in the design [8].

Responsiveness: With the popularity of mobile devices, responsive design has become standard in UI design. Designers need to ensure that the interface maintains good display effects and operating experience under different devices and different screen size.

2.2.2 Future development direction

Intelligence: The development of AI technology will promote the development of the UI community towards a more intelligent direction. Through user behavior analysis, personalized recommendation and other functions, the UI interface can more accurately meet user needs and improve user experience.

Emotion: The future UI design will pay more attention to emotional design, through rich visual elements, animation effects, sound feedback and other means to enhance the emotional connection between users and products, improve user satisfaction and loyalty.

Sustainability: With the increasing awareness of environmental protection, UI design will also focus on sustainability. Designers need to consider how to reduce the energy consumption of products, extend the service life of products, and how to guide users to form green usage habits through interface design.

Integrated: In the future, the UI interface will pay more attention to the integration with other technologies, such as AR/VR, the Internet of Things, etc., to provide users with a more immersive, interactive, personalized experience.

In summary, the basic principles of UI interface design are committed to enhancing the user experience, while its future development trend is more focused on intelligence, emotion, sustainability and integration. Only by adhering to the design concept of aesthetics, practicality and humanization, and constantly improving and

optimizing the design based on the real experience, feeling and evaluation of users, and integrating diversified artistic elements, can designers design the perfect combination of senses and interface recognized by the public, and the human-computer interaction process is more comfortable interface [9].

2.3 Correlation between IP Design and UI Interface Design

The interaction between IP design and UI interface in enhancing user experience is a multi-dimensional and interwoven process, which together affect user perception and behavior, thus shaping a better and more attractive digital product experience. This interaction is mainly reflected in the following aspects:

First of all, emotional resonance and brand identity are important dimensions that IP design and UI interface work together on user experience. Through carefully constructed brand image or content system, IP design endows products with unique charm and personality. These elements are not only visual presentation, but also through the construction of storytelling, cultural connotation and other aspects, to establish a deep emotional link with users. Secondly, smooth operation and visual enjoyment are another important embodiment of IP design and UI interface in improving user experience. Through reasonable layout, intuitive operation flow and beautiful visual elements, UI design provides users with an easy to use and efficient operation environment. Moreover, personalization and customization have become an important means for current digital products to enhance user experience. IP design creates a personalized brand image or content system for users by digging deeply into users' individual needs and preferences. Finally, continuous iteration and innovation is the common pursuit of IP design and UI interface

in improving user experience. With the market changes and the continuous evolution of user needs, IP design and UI interface need to constantly explore new ideas and stories, introduce new interactive ways and visual elements, in order to continue to maintain the competitiveness and attractiveness of products.

3. Application of IP Design in UI Interface Design - Exploration of IP Design Application in Meow Meow FEED

3.1 IP Selection and Character Design of the Work

The exploration of IP design application in the design work Meow Meow FEED is an attempt to deeply integrate creativity, emotion and brand concept. Through the carefully selected IP image -- Lan Xiaomi, and the delicate and rich character design, the work not only shows the innovative spirit of the design team, but also brings a unique experience to the user in the visual and emotional level.

3.1.1 The selection of IP image

The IP image selection of "Meow FEED" focuses on the image of "Meow Meow", which is a popular pet image. As a star in the pet industry, cat has long been deeply rooted in people's hearts with its cute, docile and lively characteristics. The design team, keenly aware of the market potential and emotional value of the image of "Lan Xiaomi", decided to make it the IP core of the work. Lan Xiaomi not only represents the visual focus of the work, but also carries the emotional concept of warmth, companionship and happiness that the work wants to convey. Through the IP image of Lan Xiaomi, the work successfully builds a kind and friendly brand image in the hearts of users, laying a solid foundation for the subsequent character design and emotional transmission, as shown in Figure 1 (e.g., Figure 1. Figure Example).

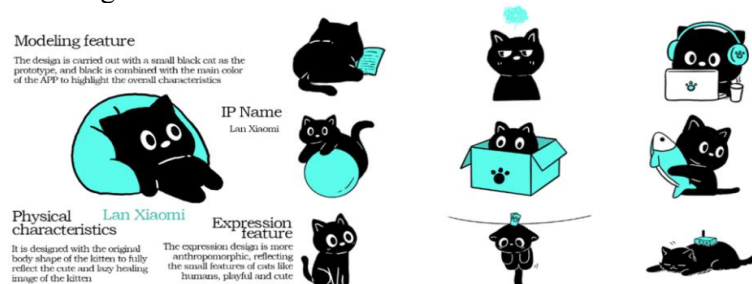


Figure 1. Meow Meow Image Design

3.1.2 Character design

In terms of character design, Meow Meow FEED also shows the ingenuity of the design team. The role of Lan Xiaomi is not only carefully portrayed in appearance, but also deeply explored and shaped in multiple dimensions such as personality, behavior and scene.

In terms of appearance design, Lan Xiaomi adopts rounded lines and bright colors to create a warm and lively visual atmosphere. At the same time, through the construction of different scenes and objects, Lan Xiaomi characters show a variety of styles to meet the aesthetic needs of different users. The correct use of color increases the stimulation of aesthetic objects to a certain extent, making things stay longer in the mind^[10].

In the design of personality and behavior, Lan Xiaomi is endowed with the character characteristics of intelligence, curiosity and friendliness. Sometimes it is lively and active, sometimes quiet and well-behaved, forming a good interactive relationship with users. Through Lan Xiaomi's interesting behaviors, such as playing, foraging, and resting, the work successfully directs users' attention to the brand concept and product functions, realizing the dual transmission of emotion and function.

In terms of scene design, Lan Xiaomi character

is placed in an environment full of life, such as a home, a park, a cafe, etc. These scenes not only provide users with a rich visual experience, but also show the diversified application scenarios and emotional value of the work through the performance of Lan Xiaomi in different scenes.

To sum up, the IP design application exploration in Meow Meow FEED successfully integrates creativity, emotion and brand concept through carefully selected Lan Xiaomi image and delicate and rich character design. This design not only enhances the visual appeal and emotional value of the work, but also lays a solid foundation for subsequent brand communication and marketing.

3.2 Application and Interactive Experience of IP Elements in UI Interface

The design work Meow Meow FEED shows unique creativity and delicate emotional expression in the application exploration of IP design, especially in the application and interactive experience of IP elements in UI interface. By cleverly integrating the IP image "Lan Xiaomi" into the UI interface design, this work not only enhances the visual appeal of the interface, but also brings users a warm and friendly feeling in the interactive experience, as shown in Figure 2.



Figure 2. Application of IP "Lan Xiaomi" in UI Interface

3.2.1 The application of IP element in UI interface

In the UI interface of Meow Meow FEED, Lan Xiaomi, as an IP image, is given multiple roles, which runs through the whole interface design. From the cat welcome animation on the launch interface, to the cat icon and background elements on the home page, to the cat illustration and indicator symbols in each functional section, the Lan Xiaomi image is everywhere, becoming

an emotional link between users and the application. The design team skillfully uses the cute image of Lan Xiaomi and combines it with elements such as color, layout and font of the interface to create a warm and lively interface atmosphere. At the same time, the diversified presentation of the image of Lan Xiaomi, such as the matching of different expressions, movements, and costumes, not only enriches the visual level of the interface, but also enhances

the user's desire and curiosity for application exploration through the interesting interaction of Lan Xiaomi.

3.2.2 The improvement of interactive experience
In terms of interactive experience, Meow Meow FEED also shows excellent design. Through the guidance and feedback of Lan Xiaomi's image, the work achieves emotional communication with users. For example, in the design of the navigation bar, Lan Xiaomi appears in the form of cute ICONS. When users click, Lan Xiaomi will make corresponding actions or expressions to give users intuitive feedback. This design not only improves the ease of navigation, but also increases the user's sense of pleasure and participation through the interesting interaction of Lan Xiaomi. In addition, in the functional operation, Lan Xiaomi also plays an important role in prompting and guiding. For example, when the user completes a task or operation, Lan Xiaomi will jump out of the prompt box and send congratulations or encouragement to the user with cheerful expressions and actions. This design not only enhances the user's sense of accomplishment, but also reduces the distance between the user and the application through the affinity of Lan Xiaomi.

To sum up, Meow Meow FEED shows the design team's deep understanding and innovative application of IP image in the application and interactive experience of IP elements in the UI. By cleverly integrating the image of cat into the interface design, the work not only enhances the visual appeal and emotional value of the interface, but also brings warm and friendly feelings to users in the interactive experience. This design not only enhances the emotional connection between users and the application, but also lays a solid foundation for subsequent brand communication and marketing.

3.3 Enhancement Effect of User Experience and Loyalty

In the exploration of IP design application, the design work Meow Meow FEED successfully achieved significant improvement of user experience and loyalty through ingenious UI design and rich interactive experience. The core of this work is the cat, a beloved pet image. Through its innovative use in the UI interface, this work brings users unprecedented emotional resonance and interactive fun, and further deepens users' cognition and dependence on the brand.

3.3.1 The deep optimization of user experience
In the UI interface design, Meow Meow FEED makes full use of the affinity and fun of cat IP to create a series of pleasing visual and interactive experiences. The interface color is bright, the layout is reasonable, and the image of Lan Xiaomi is interspersed with a variety of gestures and expressions, which not only provides users with intuitive operation guidance, but also improves the overall experience of users through visual pleasure. In addition, the creative use of Lan Xiaomi IP in the functional plate, such as the icon, animation and prompt information designed with Lan Xiaomi as the element, not only enhances the interest of the interface, but also enables users to feel the unique charm of the brand in the process of use. This deep integration of IP image and interface design greatly improves the user's sense of immersion and participation, making Meow Meow FEED a design work that is not only powerful, but also emotionally rich.

3.3.2 The significant enhancement of user loyalty

With the continuous improvement of user experience, Meow Meow FEED has also achieved significant results in terms of user loyalty. The in-depth application of Lan Xiaomi IP not only deepens users' emotional connection to the work, but also inspires users' enthusiasm for participation and sense of belonging through a series of interactive experiences, such as Lan Xiaomi's interesting feedback, personalized recommendation and social sharing functions. In the process of using Meow Meow FEED, users can not only enjoy convenient and efficient functional services, but also obtain psychological satisfaction and pleasure through interaction with Lan Xiaomi. This emotional investment and recognition gives users a strong sense of loyalty and belonging to the works, which further promotes the word-of-mouth communication of the works and the improvement of brand influence.

To sum up, Meow Meow FEED not only optimizes the user experience through clever IP design and application exploration, but also significantly enhances user loyalty. This work takes Lan Xiaomi IP as the core. Through innovative design and rich interactive experience in the UI interface, it successfully creates a design work that is both practical and emotional. In the future, Meow Meow FEED will continue to deepen the application of IP design,

continuously optimize user experience, further enhance user loyalty, and lay a solid foundation for the long-term development of the brand

4. Conclusion and Outlook

4.1 Research Summary

This research focuses on the value mining and application practice of IP design in UI interface, aiming to explore a new path of how to improve user experience through IP design.

In terms of value mining, we deeply analyze the cultural connotation and story background of IP design, as well as its unique value in brand building and user emotional connection. By cleverly integrating these elements into UI design, we found that IP design can significantly enhance users' emotional resonance and sense of belonging, enhance the fun and interaction of the interface, and thus bring users a richer and more interesting experience. In terms of application practice, we discuss the specific application method of IP design in UI interface with specific cases.

4.2 New Path of User Experience Improvement

On the one hand, by deeply mining the cultural connotation and story background of IP, and cleverly integrating it into UI design, it can enhance users' emotional resonance and sense of belonging, make the interface more lively and interesting, and enhance users' sense of immersion and participation. On the other hand, IP design can lead the trend of interface design and promote the innovation of UI interface in visual style and interaction mode, so as to provide users with a more novel and personalized experience. In addition, IP design also promotes cross-border cooperation, introducing more diversified elements and functions to the UI interface, and further enriching the user experience.

4.3 Future Research Directions

The future research direction of the application of IP design in UI interface can be summarized as: integration of personalization and diversification, technology-driven innovation, cross-border cooperation and expansion. As consumer needs become increasingly diverse, IP design will focus more on personalization and diversification to meet the unique needs of different user groups. At the same time,

emerging technologies such as virtual reality and augmented reality will provide new innovation space for IP design and promote the change of UI interface design. In addition, cross-border cooperation will become the norm, and IP design will cooperate with enterprises in different industries and fields to create more business opportunities. In the future, the application of IP design in the UI interface will present a more colorful form, bringing more high-quality and personalized experience to users.

References

- [1] Han Qianyu and Yin Yi. Analysis of the Elements of IP Image Design. *Screen Printin*, 2024, (15): 90-92. DOI: 10. 20084/ j. cnki.1002-4867. 2024. 15. 026.
- [2] Wu Di. Analysis of Interaction Design of Social APP interface -- A case study of mobile phone wechat UI Design. *Popular Literature and Art*, 2023, (03): 51-53.
- [3] Yan Yue. Innovation and Development of Enterprise Brand Image Design in the Digital Age. *Shoes Technology and Design*, 2024, 4 (18): 33-35.
- [4] Lin Yunyun. Mobile UI Interface Design Strategy based on Visual Communication Design. *Shoes Technology and Design*, 2024, 4 (20): 29-31.
- [5] Tao Jie. Application Analysis of Visual Communication Design in mobile UI Design. *Scientific and Technological Innovation*, 2019, (35): 65-66.
- [6] Qin Yanli. Try to talk about mobile UI design principles and methods. *Computer Programming Skills & Maintenance*, 2018, (05): 64-65+68. DOI: 10. 16184/ j. cnki. comprg. 2018. 05. 023.
- [7] Shen Xin. Research on UI Interface Design of Pet App Based on Emotional Theory. *Digital Communication World*, 2024, (08): 70-72.
- [8] Sun Tong and Wang Xiaohui. The development and application of UI interface design in the new media environment. *Art Education Research*, 2022, (17): 112-114.
- [9] Ma Yingze. Analysis of the application of artistic elements in UI interface design. *Journal of Liaoning Normal Colleges (Natural Science Edition)*, 2023, 25 (03): 71-73.
- [10] Wang Wenjing. Research on UI Design Effect of Color Visual Thinking. *Color*, 2023, (08): 11-13.