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Research on the AIGC in Mobile User Experience Design

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Abstract

With the rapid development of mobile internet and the widespread adoption of smart devices, the importance of mobile user experience (UX) design has become increasingly prominent. However, traditional design methods demonstrate significant limitations in addressing personalization, multi-device adaptation, and real-time feedback. Generative Artificial Intelligence (AIGC), as an emerging technology, offers new possibilities for the intelligent and efficient transformation of UX design. This study adopts the framework of the Five Elements of User Experience theory—strategy, scope, structure, skeleton, and surface—to explore the application paths and mechanisms of AIGC in mobile UX design. Employing methodologies such as literature review, case study, and comparative analysis, the research focuses on the practical effects of AIGC in user data mining, automated interface layout, intelligent interaction optimization, and visual content generation. The findings indicate that AIGC, through data-driven approaches and automated content generation, significantly enhances the accuracy of user needs identification, the responsiveness of design processes, and the degree of personalization in interface interactions. These advancements contribute to the ongoing transformation of mobile UX design from an experience-based to an intelligence-driven paradigm. This research not only extends the theoretical application boundaries of AIGC in the field of design but also provides methodological support for the

future development of intelligent interactive systems, offering both theoretical value and practical significance.

Keywords: AIGC; Mobile Design; Five Elements of User Experience; User Experience (UX)

1. Introduction

With the rapid development of mobile internet, mobile applications have become core platforms for users to access information, engage in social interaction, and conduct online consumption. According to the 53rd Statistical Report on China's Internet Development, by the end of 2023, the number of mobile Internet users in China had reached 1.091 billion. The continuous increase in mobile application usage time highlights the critical role of user experience (UX) design in enhancing product competitiveness. However, mobile UX design currently still faces several challenges, including the growing demand for personalization, low design efficiency, difficulties in maintaining interface consistency, and the complexity of multi-device adaptation. Traditional design processes rely heavily on manual input, entail high iteration costs, and struggle to respond swiftly to market changes. How to leverage emerging technologies to optimize design workflows and improve user experience has thus become a key focus of the industry.

In recent years, breakthroughs in AIGC (Generative Artificial Intelligence) have opened up new possibilities for mobile UX design. By leveraging deep learning models such as GPT-4, Stable Diffusion, and Runway Gen-3, AIGC enables the automated generation of text, images, and videos, and has been widely applied in the field of design (Sun Shouqian & Cao Leilei et al., 2024). Studies have shown that AIGC can automatically generate interface layouts, optimize interaction flows, enhance the accuracy of personalized recommendations, and reduce design and development costs (Li Xiangdong & Xia Hanfei, 2024). However, its application in mobile UX design remains in the exploratory stage, facing challenges such as unstable content quality, data bias, and privacy concerns, and lacking a systematic theoretical framework for guidance. Exploring how to scientifically integrate AIGC with mobile UX design holds significant research value.

This study is based on the Five Elements of User Experience (UX)—strategy, scope, structure, skeleton, and surface (Xu Fangqi, 2020), and systematically explores the application of AIGC in mobile UX design. First, the study analyzes the applicability and necessity of this theoretical framework in the context of AIGC research. Then, it examines how AIGC functions across the five UX levels: assisting in needs analysis at the strategy layer, optimizing function definition at the scope layer, enhancing information architecture at the structure layer, automating interaction flow generation at the skeleton layer, and refining visual design at the surface layer. Finally, the study discusses the limitations and challenges of AIGC in UX design, aiming to provide theoretical support and practical guidance for future applications of AIGC in mobile UX design.

2. LiteratureReview

2.1 Five Elements of User Experience(UX)

User Experience (UX) is a core concept in human-computer interaction design, aiming to enhance the overall experience by optimizing the efficiency, satisfaction, and emotional connection in the interaction between users and products. In mobile design, the importance of UX is further highlighted due to device portability, screen size constraints, and diverse usage scenarios. The Five Elements of User Experience, proposed by Jesse James Garrett, serve as a theoretical framework to guide UX design thinking and practice. This framework divides UX design into five levels: the strategy layer, scope layer, structure layer, skeleton layer, and surface layer (Figure 1). Each layer plays a critical role in shaping the overall user experience, providing designers with systematic guidance to create efficient and engaging interactive experiences.

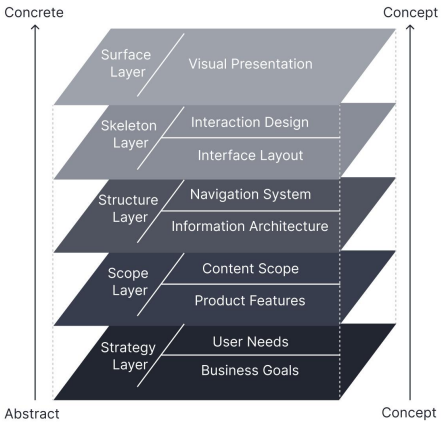

Figure 1 Five elements of user experience

2.1.1 Strategy Layer

The strategy layer establishes the foundation for user experience by defining overarching goals at the initial stage of a project. It encompasses product objectives, user needs, and the desired experiential outcomes—all of which are critical for guiding subsequent layers of design. Studies have shown that a well-formulated strategy can significantly enhance user engagement and satisfaction, thereby shaping the overall user experience (Karaca & Kandemir, 2022). Scholars have emphasized that a comprehensive user-centered design framework must incorporate strategic elements to ensure alignment between product goals and user expectations (Xu, 2012).

2.1.2 Scope Layer

The scope layer defines the specific features and functionalities that a product will include, with a primary focus on the tasks users need to accomplish. This layer provides a foundation for design decisions and helps prioritize functions based on user feedback and expectations. Research shows that by adopting structured methods—such as the User Experience Questionnaire (UEQ)—designers can more clearly define the product scope, thereby improving usability standards such as efficiency and controllability (Schrepp et al., 2014).

2.1.3 Structure Layer

The structure layer addresses the organization of the product's design, specifically detailing the layout of information and functionalities. At its core, it represents a blueprint of the user’s navigational pathway throughout the system. Effective structural design plays a critical role in guiding user behavior and ensuring interaction efficiency. Research has demonstrated that user-centered structural planning can significantly reduce frustration during interactions, thereby enhancing overall usability (Irvan et al., 2025). Moreover, maintaining a clear and coherent structure is considered essential for optimizing navigational flow, which in turn has a direct and positive impact on user satisfaction (Setiyawati et al., 2022).

2.1.4 Skeleton Layer

The skeleton layer refines the structure layer by focusing on the detailed arrangement of interface layouts and interactive elements, such as the positioning of buttons, input fields, and navigational controls. This layer plays a crucial role in shaping the immediacy and intuitiveness of user interaction. Studies have shown that incorporating user experience quality considerations into skeleton design can significantly enhance interaction, particularly in multimedia application contexts (Yang & Zhao, 2017). Furthermore, scholars emphasize

that a deep understanding of user expectations at this level can inform more effective interaction design, thereby influencing how users perceive and engage with technology (Olsson, 2014).

2.1.5 Surface Layer

The surface layer represents the sensory dimension of user experience that users perceive directly, encompassing visual design elements such as color schemes, typography, and dynamic effects like animations. It plays a decisive role in shaping users' emotional responses and overall satisfaction. Research has shown that visual design capable of evoking emotional resonance can strengthen the connection between users and products, thereby enhancing the overall user experience (Jokinen, 2015). Other studies highlight that effective visual presentation is critical for communicating an application's functionality and usability, which directly affects user engagement and satisfaction levels (Balachandran et al., 2013).

The Five Elements of User Experience theory offers a progressive framework that moves from strategy to surface, enabling a more systematic design process. Its incorporation into this study holds both theoretical and practical significance. From a theoretical perspective, the framework decomposes user experience design into five analytically distinct layers, facilitating the systematic evaluation of AIGC's impact across different stages of the design process. From a practical standpoint, the unique characteristics of mobile design—such as varying screen sizes and multitasking usage scenarios—demand refined design approaches. The Five Elements framework provides a comprehensive perspective, ensuring that the application of generative AI addresses all dimensions of the user experience (Nielsen, 1993).

2.2 The Development of AIGC

Generative Artificial Intelligence (AIGC) refers to AI technologies capable of autonomously generating content—such as text, images, and interaction designs—by learning from data patterns. Its core lies in creative output (Rombach et al., 2022). In recent years,AIGC has undergone rapid development, emerging as a significant tool in the field of design.

2.2.1 The Technical Foundations of AIGC

Current mainstream AIGC technologies include diffusion models, improved Generative Adversarial Networks (GANs), and large language models based on the Transformer architecture. Among them, the Stable Diffusion model has significantly enhanced the efficiency and quality of image generation, making it suitable for mobile UX design applications (Rombach, R., 2022). Foundational work by several scholars has established the

theoretical underpinnings of diffusion models, whose subsequent advancements have enabled deployment on resource-constrained devices (Ho, J., 2020). In addition, language models such as GPT-4o have demonstrated strong potential in text generation and interaction design, such as generating conversational interface scripts.

2.2.2 Applications of AIGC in Mobile Application Design

The application of AIGC in mobile UX design is becoming increasingly widespread. Research indicates that diffusion models can generate personalized visual elements—such as dynamic wallpapers—thereby enhancing user experience at the surface layer (Li, 2023).

3. Applications of AIGC in Mobile UX Design

3.1 Applications of AIGC in the Strategic Layer

The strategic layer is the foundational level of Jesse James Garrett's five elements of user experience model. Its core task lies in identifying user needs and business goals. In mobile UX design, establishing a sound strategy guides the development of subsequent design layers and enhances overall product competitiveness. At the strategic level of mobile UX design, AIGC contributes primarily through large-scale data mining, the construction of user personas, and the prediction of market trends, thereby providing data-driven support for strategic decision-making.

Traditional strategic-level design often relies on manual research methods such as questionnaires, interviews, and observational studies, which suffer from issues like information lag and limited sample size. In contrast, AIGC leverages deep learning and natural language processing technologies to analyze user behavior, social media dynamics, and market data in real time, thereby accurately capturing consumer needs and market trends. E-commerce platforms such as JD.com and Alibaba apply AIGC to perform multidimensional analyses of user shopping data, search histories, and feedback reviews. This enables the automatic generation of precise user personas, supporting product positioning and market segmentation at the strategic level. This approach not only allows products to better align with user needs but also plays a significant role in marketing campaigns, inventory management, and supply chain optimization. According to recent research, market prediction models based on AIGC can improve the responsiveness of strategic decision-making by over 30% while significantly reducing decision-making errors (HCI Journal, 2023).

Moreover, AIGC contributes to the generation of personalized business strategies at the strategic layer of mobile design. By deeply learning from large-scale datasets, AIGC can identify emerging market trends and user behavior patterns, thereby providing theoretical support for the formulation of targeted marketing strategies and product development directions. For instance, Netflix uses AIGC to analyze users' viewing history and rating data to generate personalized recommendation strategies, which not only increase user retention but also guide content creation.

In the strategic layer of mobile UX design, AIGC enhances user needs identification and market trend forecasting through intelligent data analysis and real-time prediction. It provides robust support for strategic planning and business model innovation. This methodological approach has been validated across multiple industries—including e-commerce, media, and entertainment—and recent studies have demonstrated its significant practical benefits. As a result, AIGC offers a new direction for the strategic design of future mobile products.

3.2 Application of AIGC in the Scope Layer

The scope layer, the second level in Jesse James Garrett's five elements of user experience model, involves defining the functionalities and content boundaries of a product. It serves as a critical stage where user needs are translated into concrete design solutions. During this phase, design teams must identify and decide which features should be included in the core structure of the product and which may be categorized as optional. This decision-making process heavily relies on in-depth user research and a detailed analysis of business requirements. However, as product complexity increases and user demands diversify, accurately determining product scope has become increasingly challenging.

Traditional scope planning often depends on designers' experience and market research, which tends to be subjective. AIGC, by analyzing user interaction paths, heatmaps, and feedback data, can automatically identify the most frequent and essential functional needs. For instance, Douyin (the Chinese version of TikTok) utilizes AIGC to analyze user engagement data—such as likes, comments, shares, and watch time—to identify preferred content types. With the aid of AIGC, Douyin determines which features should be prioritized for optimization, such as video editing, filter effects, and algorithmic recommendations. Through automated data analysis, AIGC helps Douyin clearly define its product's core functions and content within a broad spectrum of user needs, thereby better aligning its offerings with user expectations.

The comprehensive application of AIGC in the scope layer of mobile UX design successfully translates the abstract goals established at the strategic level into actionable feature specifications and content requirements. This forms a solid foundation for the subsequent structure, skeleton, and surface layers. Such AIGC-driven scope design not only enhances the precision and efficiency of product development but also ensures alignment between the final user experience and the original strategic objectives.

3.3 Application of AIGC in the Structure Layer

The structural layer, the third level of Jesse James Garrett's five elements of user experience model, focuses primarily on the construction of information architecture and the optimization of navigation systems. It directly determines how efficiently users can locate necessary information within an interface and forms the basis for accomplishing tasks effectively.

Traditional information architecture design often relies on designers' subjective judgment and limited research data. As the volume of information grows and product complexity increases, it becomes increasingly difficult to quickly develop an efficient information structure using conventional methods. In contrast, AIGC leverages massive datasets of user behavior, clickstreams, and search logs to automatically identify key content and navigational pathways that users engage with during actual usage. This enables designers to develop more rational and user-centered information architectures.

For example, Google News employs AIGC to conduct real-time analysis of global news data, automatically categorizing content by topic, timeliness, and region. It also constructs dynamic knowledge graphs to ensure users receive accurate content recommendations in a rapidly changing information environment. Similarly, the e-commerce platform JD utilizes AIGC to analyze users' browsing and purchase histories, intelligently reorganizing product categories and recommendation sequences. As a result, popular products and promotional content are placed in more prominent navigational positions, effectively reducing users' search costs and increasing conversion rates. Recent studies indicate that such AIGC-driven methods can improve information retrieval efficiency by more than 30% (HCI Journal, 2023).

In terms of dynamic navigation system design, AIGC can adapt navigation menus and information hierarchies in real time based on interactive data and user feedback, thereby enabling a personalized navigation experience. For instance, the mobile application of Taobao applies AIGC technology to dynamically reconstruct the navigation bar according to users'

click patterns and browsing history. Frequently accessed categories and functional modules are automatically placed at the top, enhancing task completion speed.

In summary, AIGC plays a critical role at the structural layer of mobile UX design. Its contributions lie primarily in intelligent information categorization, automated knowledge graph construction, and optimization of dynamic navigation systems. By leveraging large-scale data and real-time feedback, AIGC facilitates the automated refinement of information architecture, significantly improving both information accessibility and user interaction experience, while also providing a scientific foundation for personalized content recommendation.

3.4 Application of AIGC in the Skeleton Layer

The Skeleton Layer, proposed as the fourth level in Jesse James Garrett's model of the Five Elements of User Experience, primarily addresses layout design, interaction patterns, and functional elements. This layer determines how users interact with the system and how the interface provides clear visual and functional guidance to support user navigation. In mobile application design, the skeleton layer is especially critical, as it directly affects the ease of user operations, information accessibility, and the overall fluidity of the interaction experience.

Traditionally, the layout of mobile user interfaces has relied on designers' experience and user research data, often implemented through fixed templates or manually optimized solutions. However, this approach proves inefficient in the face of personalized needs across diverse user groups and the increasing demands of cross-device adaptation. The application of Generative Artificial Intelligence (AIGC) at the skeleton layer is gradually overcoming the limitations of static, experience-driven design by enabling dynamic and personalized solutions based on data and user behavior.

Leveraging large-scale data mining and deep learning algorithms, AIGC can autonomously generate and optimize interface layouts, enabling real-time dynamic UI generation. While conventional layout design depends heavily on designers' intuition and pre-defined templates, AIGC learns optimal layout structures by analyzing massive volumes of user behavior data and interaction logs. For example, Airbnb employs AIGC to analyze user browsing data in real time, dynamically adjusting the position of homepage recommendation modules and search entry points, thereby making frequently accessed features more prominent. This data-driven adaptive layout approach not only enhances page responsiveness but also

customizes the interface according to individual usage scenarios, significantly improving user efficiency and satisfaction. Studies have shown that AIGC-generated layouts can reduce users' information retrieval time by over 30% (HCI Journal, 2023).

AIGC also demonstrates considerable advantages in the automated generation and optimization of functional UI components. Elements such as buttons, icons, input fields, and pop-ups critically influence the interface's clarity and usability. Using models like Generative Adversarial Networks (GANs) and Variational Autoencoders (VAEs), AIGC can automatically generate user interface components that comply with design guidelines and aesthetic standards, while adapting them to various screen sizes and resolutions. For instance, Taobao employs AIGC to dynamically generate UI components on product detail pages, adjusting the positions of product images, price tags, and promotional information based on individual browsing behaviors, thereby enhancing user engagement and conversion rates.

In summary, AIGC significantly enhances the skeleton layer of mobile UX design by enabling automated layout generation, intelligent optimization of interaction patterns, and dynamic creation of functional components. This not only increases design efficiency and consistency in user experience but also ensures that the final product meets personalized and diverse user needs.

3.5 Applications of AIGC in the Surface Layer

The surface layer is the fifth level of the user experience five-element model proposed by Jesse James Garrett. It primarily involves visual presentation, brand style, animation effects, and content display. As a critical element that directly influences users' emotional experience and the product's overall appeal, the surface layer plays a key role in shaping perception and engagement.

Traditional visual design at the surface layer relies heavily on designers' creative ideation and iterative adjustments, which is time-consuming and often struggles to ensure consistency in style. The core contribution of AIGC at this layer lies in the intelligent generation of visual assets and style optimization. Leveraging generative models such as DALL·E, Midjourney, and Stable Diffusion, AIGC can automatically generate design-compliant images based on textual descriptions, and enable diverse visual representations supported by multimodal data. For example, during large-scale promotional campaigns, JD.com employs AIGC to automatically generate promotional posters by inputting campaign themes, brand elements,

and product features, thus rapidly producing a variety of design proposals in different visual styles.

Mobile user experience design demands not only static visual appeal but also dynamic effects that enhance immersion during interactions. AIGC enables the generation of videos, motion graphics, and transition animations, achieving seamless integration between visual content and user interaction. For instance, e-commerce platforms employ AIGC-generated short video advertisements during promotions, which not only generate high-quality video content in real time but also adapt video resolution and loading speed to users' device performance, ensuring a smooth visual experience across varying network conditions.

Through applications such as intelligent visual asset generation, brand style refinement, dynamic effects, and adaptive design, AIGC significantly enhances the visual appeal and emotional engagement of mobile products. It also drives the automation and personalization of the design process. As AIGC technologies continue to evolve, their application in the surface layer of mobile UX design will further expand, offering users richer, more personalized, and immersive experiences.

4. Reflections on AIGC-Driven Mobile UX

The application of AIGC in mobile UX design has not only brought about technological transformations but also prompted profound reflections on the design process, the required skillsets, and the professional competencies of designers. These reflections can be explored from the following three perspectives.

4.1 Transformation of Mobile Design Processes

The integration of AIGC has fundamentally reshaped mobile UX design workflows. Conventional mobile design processes typically encompass stages such as needs assessment, conceptual ideation, interface prototyping, visual design, and usability testing. These processes are often characterized by intensive manual input from designers and multiple iterative feedback loops. With the advent of AIGC, the design pipeline has become increasingly data-driven, automated, and adaptive.

For instance, leveraging large-scale data analytics and natural language processing, AIGC can automatically generate user personas, predict market trends, and propose functional requirements, thereby enhancing strategic-level decision-making. Furthermore, in the

prototyping and layout stages, AIGC is capable of autonomously generating and optimizing interface layouts and interaction patterns based on user behavior data, thus significantly reducing the design lifecycle.

Recent empirical studies indicate that AIGC-assisted design processes can improve iteration speed by 30% to 50%, leading to lower development costs and enhanced responsiveness to dynamic market demands. In summary, the application of AIGC is redefining mobile UX design methodologies, rendering them more efficient, personalized, and adaptive to real-time user and business needs.

4.2 The Evolution of Designers'Skillsets

The application of AIGC has significantly reshaped the skill requirements for designers. Traditionally, designers were expected to master skills such as hand-drawing, visual composition, color theory, and user behavior analysis. However, in the era of AI-augmented design, the role of designers is gradually shifting from that of a sole creator to that of a coordinator of intelligent design systems and an interpreter of data.

Designers are now required to collaborate effectively with AI systems, which entails familiarity with data analysis tools, a fundamental understanding of machine learning models, and the ability to interact with generative algorithms. In addition, a certain level of programming literacy or the ability to work closely with technical teams is necessary to ensure the appropriate application of AI tools and the effective interpretation of their output.

Existing industry cases show that leading companies such as Airbnb and JD.com have already begun to require their design teams to possess not only traditional aesthetic competencies but also the capability to interpret AI-driven user data and apply automated design methods. This interdisciplinary shift suggests that future designers will be expected to integrate expertise in aesthetics, technology, and data, thereby raising the bar for design education and professional development.

4.3 The Transformation of Designers' Literacy

The widespread adoption of AIGC has also prompted a shift in the professional literacy required of designers, particularly in terms of ethical awareness, creative sensibility, and human–AI collaboration. As AI systems play an increasingly prominent role in design practices, designers must not only focus on technological implementation but also address emerging ethical concerns, such as data privacy, content ownership, and the interpretability of AI-generated outputs.

Moreover, although AIGC can autonomously generate design solutions, such content often lacks emotional resonance and cultural depth. Therefore, it is imperative for designers to retain a high level of sensitivity to design philosophy, brand identity, and user sentiment when working with AI tools. This ensures that the generated content aligns with humanistic values and societal expectations, and reflects meaningful engagement with cultural and emotional dimensions of design.

5. Conclusion

This study aims to explore the application and advancement of Generative Artificial Intelligence (AIGC) in mobile user experience (UX) design. Drawing upon the Five Elements of User Experience framework—Strategy, Scope, Structure, Skeleton, and Surface—the paper systematically analyzes how AIGC empowers mobile UX design across each layer. Through real-world cases such as JD.com, Taobao, and Netflix, as well as recent research findings, the study demonstrates that AIGC offers significant advantages in data-driven analysis and automated generation. It optimizes user needs identification, functional planning, information architecture, interface layout, and visual presentation. These capabilities not only enhance design efficiency and personalization but also provide robust support for product competitiveness in the market.

The integration of AIGC into mobile UX design introduces new perspectives to traditional design paradigms and offers the industry an efficient, personalized, and data-driven methodology. It further accelerates the transformation from experience-based design toward intelligent design. At the same time, this research identifies key challenges in AIGC-driven design practice, including data bias, privacy protection, and human–AI collaboration, thus offering theoretical grounding and practical guidance for future improvements.

As generative AI technologies continue to mature, their application in mobile UX design is expected to expand. Future research should focus on optimizing AIGC algorithms and data training mechanisms, improving the stability and controllability of generated content, and exploring integrated approaches to cross-platform and multimodal interaction design. Ultimately, with enhanced human–AI collaboration and intelligent design methodologies, mobile products are poised to achieve more innovative, efficient, and personalized user experiences, driving the design industry toward a more intelligent and adaptive future.

Reference

[1] KARACA, E. and KANDEMİR, Ö. (2022). User experience design and architecture – an application with arduino. Eskişehir Technical University Journal of Science and Technology a - Applied Sciences and Engineering, 23, 112-118. https://doi.org/10.18038/estubtda.1170735

[2] Xu, W. (2012). User experience design: Beyond user interface design and usability. Ergonomics-A Systems Approach, 171-192.

[3] Schrepp, M., Hinderks, A., & Thomaschewski, J. (2014). Applying the user experience questionnaire (ueq) in different evaluation scenarios., 383-392. https://doi.org/10.1007/978-3-319-07668-3_37

[4] Irvan, M., Jazman, M., Eki, E., Syaifullah, S., & Ahsyar, T. (2025). Redesign of user experience in inaportnet using the user experience questionnaire method tnd user-centered design. Inovtek Polbeng - Seri Informatika, 10(1), 204-213. https://doi.org/10.35314/dpf22c38

[5] Setiyawati, N., Purnomo, H., & Mailoa, E. (2022). User experience design on visualization of mobile-based land monitoring system using a user-centered design approach. International Journal of Interactive Mobile Technologies (Ijim), 16(03), 47-65. https://doi.org/10.3991/ijim.v16i03.28499

[6] Yang, W. and Zhao, X. (2017). Resource allocation in two-way ofdm-based cognitive radio networks with qoe and power consumption guarantees. Eurasip Journal on Wireless Communications and Networking, 2017(1). https://doi.org/10.1186/s13638-017-1000-6

[7] Olsson, T. (2014). Layers of user expectations of future technologies., 1957-1962. https://doi.org/10.1145/2559206.2581225

[8] Jokinen, J. (2015). Emotional user experience and feeling of control., 163-166. https://doi.org/10.1145/2818187.2818284

[9] Balachandran, A., Sekar, V., Akella, A., Seshan, S., Stoica, I., & Zhang, H. (2013). Developing a predictive model of quality of experience for internet video. Acm Sigcomm Computer Communication Review, 43(4), 339-350. https://doi.org/10.1145/2534169.2486025

[10] Garrett, J. J. (2022). The elements of user experience. マイナビ出版.

[11] Li, J., Cao, H., Lin, L., Hou, Y., Zhu, R., & El Ali, A. (2024, May). User experience design professionals' perceptions of generative artificial intelligence. In Proceedings of the 2024 CHI Conference on Human Factors in Computing Systems (pp. 1-18).

[12] Rombach, R., Blattmann, A., Lorenz, D., Esser, P., & Ommer, B. (2022). High-resolution image synthesis with latent diffusion models. In Proceedings of the IEEE/CVF conference on computer vision and pattern recognition (pp. 10684-10695).

[13] Ho, J., Jain, A., & Abbeel, P. (2020). Denoising diffusion probabilistic models. Advances in neural information processing systems, 33, 6840-6851.

[14] Nama, N. P. (2021). Enhancing user experience in mobile applications through AI-driven personalization and adaptive learning algorithms. World Journal of Advanced Engineering Technology and Sciences, 3(2), 083-094.

[15] Jiang, X., Wang, F., & Jiang, Z. (2022). Study on the path of continuous participation of digital art in public space in 6g iot communication. Wireless Communications and Mobile Computing, 2022, 1-12. https://doi.org/10.1155/2022/1109922

[16] Yan, T. and Chen, Z. (2023). Research on user experience design of traditional culture app based on kano model.. https://doi.org/10.3233/faia220696

[17] Sun, S., Cao, L., Wang, S., Liu, J., Yu, Z., Yin, M., & Chai, C. (2024). Application of generative AI large models in the field of design. Furniture and Interior Design, 31(4), 1–8, +I0005. https://doi.org/10.16771/j.cn43-1247/ts.2024.04.001