«ТЕНДЕНЦІЇ ТА ПЕРСПЕКТИВИ РОЗВИТКУ НАУКИ І ОСВІТИ В УМОВАХ ГЛОБАЛІЗАЦІЇ»

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FOUNDATIONAL ASPECTS OF UI AND UX DESIGN

The article explains what UI and UX design are, highlights their differences, and shows why they must work together. It describes the roles of UI and UX designers, the importance of accessibility, research, testing, and teamwork. The main idea is that high-quality UI/UX is an ongoing process that helps create a convenient, appealing, and competitive digital product.

Key words: *UI, UX, design, interface, experience.*

У статті пояснюється, що таке UI та UX дизайн, у чому їхня різниця та чому вони працюють тільки в поєднанні. Розглядаються завдання UI й UX дизайнерів, важливість доступності, досліджень, тестування та командної роботи. Основна ідея полягає в тому, що якісний UI/UX – це безперервний процес, який допомагає створити зручний, привабливий і конкурентний цифровий продукт.

Ключові слова: *UI, UX, дизайн, інтерфейс, користувацький досвід.*

UI/UX design is the process of creating digital products based on two fundamental principles: UI (User Interface) and UX (User Experience).

User Interface (UI) – is the user interface. This term describes how a product looks: colors, design, animations, content, and shapes of components. All of this is the visual part that the user directly interacts with. In essence, UI design is the craft of translating a brand's strength and visual assets into a product's interface, ensuring consistency and aesthetic appeal at every touchpoint. User Experience (UX) is the level of how easy or difficult it is for users to achieve the goal with which they came to the interface. UX focuses on the emotions, habits of the target audience (TA), and their further interaction with the product. It considers all aspects of interaction, from ease of navigation to the overall impression of the product [2].

UI and UX are not separate concepts, but their symbiosis. They are used simultaneously and support each other to achieve the best result and impact on the user. UX creates a convenient and logical environment for the user, while UI complements it with an aesthetically appealing and emotionally expressive visual. These two components necessarily take each other into account during product creation. A common analogy is to think of a product as a restaurant: UX is the delicious food, comfortable chairs, and efficient service that make the meal enjoyable, while UI is the beautiful plating, elegant decor, and thoughtful lighting that create the atmosphere.

UI and UX design does not necessarily have to be performed by one person. Often in companies, these are two different specialists who work closely together and complement one another's work. However, understanding the basics of both areas is essential for each of these professionals. A UX designer without a grasp of UI principles may create a logically perfect structure that is visually uninspiring or difficult to implement. Conversely, a UI designer who ignores UX may create a beautiful interface that is confusing and frustrating to navigate.

The task of a UX designer is to create a convenient and logical interface prototype, considering all possible needs and limitations of users. This includes accessibility for people with visual and hearing impairments, thoughtful placement of elements for harmonious composition, and ease of use. For example, the placement of important buttons should be in a zone accessible for clicking with one finger. There are many such aspects, and they depend on the country, region, demographic, geographic, and economic characteristics of the target audience [3, p. 75]. To achieve this, a UX designer employs a wide array of methods, such as creating user personas (fictional archetypes of key user groups), mapping user journeys to visualize the entire interaction path, and conducting usability tests with real people to identify pain points and areas for improvement long before the final design is coded.

The task of a UI designer is the visualization of the prototype provided by the UX designer. This specialist creates the design, also guided by the above aspects, but in a visual sense: selecting color schemes, creating content, adjusting spacing, ensuring adaptability for different devices, typography, and more. All these elements are combined into a coherent composition that must be not only visually appealing but also functional. Design is not just a "pretty picture," but the correct application of psychology and marketing principles. Each color and font style has a certain influence on the user according to the goals of the product, as design is part of the business strategy, whose aim is to sell a product or service. For instance, a financial app might use conservative colors like blue and green to convey trust and stability, while a children's educational app would likely use bright, primary colors and playful fonts to stimulate engagement and joy.

It should be remembered that high-quality UI/UX design is an iterative process that does not end after the product launch. It is constantly improved based on user behavior analytics, A/B testing of different interface versions, and feedback from real people. For example, if data shows that users often do not notice an important button, the UX designer suggests changing its placement, and the UI designer makes it brighter or larger [1, p. 4]. This cyclical process of designing, testing, learning, and refining ensures that the product evolves in step with user expectations and technological advancements, maintaining its relevance and effectiveness in a dynamic market.

In addition, good design is often invisible. When a user easily and intuitively performs their tasks (finds a product, orders a service, receives information) without thinking about how to do it, this is the best evaluation of the specialists' work. Such an experience builds trust in the brand and motivates people to return. This seamless interaction creates a positive emotional connection with the product, transforming a one-time user into a loyal advocate. The absence of frustration and confusion is the ultimate hallmark of a successfully executed design strategy.

Today, UI/UX design is becoming increasingly important because there are many digital products, and each one wants to stand out. Companies invest a lot of time and money in design because it determines whether a user will stay on a website or in an app. Good UI/UX not only attracts people but also helps them use the product easily and without unnecessary difficulties. In a crowded digital landscape, a superior user experience has become a key competitive advantage, often making the difference between a product's success and its failure.

It is important to understand that design is not only about beauty or convenient buttons. It is a whole process that requires researching the market, observing how users behave, testing different ideas, and fixing errors. Therefore, designers often work together with marketers, developers, and other specialists to create a truly high-quality product. This cross-functional collaboration is crucial, as it aligns the design with technical feasibility, business objectives, and market positioning, ensuring the final product is not only usable but also viable and valuable.

Modern tools such as Figma or Adobe XD allow designers to quickly create mockups, test different options, and easily make changes. This significantly simplifies the work and allows the product to be improved faster. These platforms support real-time collaboration, enabling distributed teams to work together seamlessly, share feedback instantly, and maintain a single source of truth for the entire design system, from the initial wireframe to the final interactive prototype.

Moreover, in the field of UI/UX design, increasing attention is being paid to accessibility, as digital products must be convenient for all users, including people with disabilities. Another important direction is interface personalization, where the system adapts to the behavior and preferences of an individual user. Beyond these, we are seeing the rise of voice user interfaces (VUI) and gesture-based controls, which are expanding the very definition of 'interface' and pushing designers to think beyond the screen.

The development of technologies such as artificial intelligence, machine learning, and neurointerfaces also has a significant impact on UI/UX design approaches, opening new possibilities for creating even more intuitive and efficient digital products [4, p. 2]. AI can now analyze vast amounts of user data to predict needs and automate complex tasks, while generative design tools can offer countless creative variations based on a set of constraints, allowing designers to explore possibilities that were previously unimaginable.

Thus, UI/UX are two sides of the same coin aimed at creating a successful, useful, and competitive digital product that fully meets the needs of both the business and the user. Their harmonious integration forms the foundation upon which user satisfaction, brand loyalty, and commercial success are built in the digital age.

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