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**DESIGN OF A MOBILE APPLICATION AS A TOOL OF
POPULARISATION AND PROMOTION OF ART PRODUCTS IN THE
INFORMATION SPACE****ДИЗАЙН МОБІЛЬНОГО ДОДАТКУ ЯК ЗАСІБ ПОПУЛЯРИЗАЦІЇ ТА ПРОСУВАННЯ
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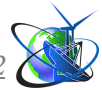
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Abstract. *Ukrainian digital space is currently experiencing a lack of innovation platform, which would provide an opportunity for artists, photographers, sculptors not only to popularize domestic art, but also to present and sell their developments and cooperate as with museums and galleries so with commercial organizations, which are commodity auctions. The use of graphic elements and their competent applying in the development of a mobile application taking into account the laws of composition and further implementation of the developer web design product in the domestic and world markets, undoubtedly gains practical significance.*

The principal aim of this article is to develop and promote in the Internet space the mobile application art-gallery in accordance with modern principles of designing and the use of new trends in design. In this work we used general scientific (theoretical and empirical) and specific research methods: analysis - research and justification of the object, its features; deduction - transition from the study of general information to specific; classification - grouping by properties and criteria; comparability - the research of several objects by specific characteristics; observation - tracking objects in real conditions; modeling - the process of creation projects. In the article modern trends in mobile design and their impact on the customer's experience are investigated. The basic principles of effective design are considered and analysis of important aspects that affect the convenience of user's interaction with applications has also been carried out. The method and methodology of creating a mobile interface are substantiated. The results of the research are considered to be the developer interface of the mobile application of the art-gallery "Art Room". Scientific novelty is based on the identification of theoretical patterns of creating effective web advertising and applying a complex of the latest design principles in the development of a popular innovative product for one of the digital ecosystems - Amazon. Conclusions. The absence of a powerful competitive internet platform and mobile applications aimed at the development, popularization and sale of domestic art products and a range of services in the field of fine arts in Ukraine and around the world was established in the information space of Ukraine. The analysis and study of modern methodological approaches to the development of mobile applications is based not only on a competently designed user interface design (UI DP) taking into account the laws of composition, but also on the designer's understanding of the basics of audience of consumers' cognitive psychology of the final product. The design of the application interface of possible competitors has key shortcomings, therefore, the task of tuning in its own development was set, and potential consumers of the finished product were determined. At the core of the design solution of the "ArtRoom" application is a multifaceted conceptual idea of creating a Ukrainian information platform aimed at popularizing national art and the perception of cooperation between artists,



photographers, sculptors and various cultural institutions. Its key task is to ensure the marketing of the above-mentioned goods and the use of tools for the dynamic promotion of this development in the information space. The visual component of the finished information product is made in accordance with the design of types and genres of fine art, taking into account the UI/UX methodology regarding the balance of all colors and interface elements and the rules of web design and composition, using the online tool Figma, contains 22 standard, adapted to different device models, screens with created quick access panels and the possibility of using previously studied photographic elements. For the successful promotion of the mobile application "ArtRoom" in the information space, strategies for effective promotion of the art gallery program have been developed, including: marketing in social networks, cooperation with influencers, optimization of application stores, feedback, cooperation with artists and collectors, organization of events, cooperation with the media and journalists, the use of QR codes and technologies, the creation and implementation of a blog.

Key words: guide, mobile design learning, web-development, methodology.

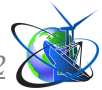
Introduction. Apps have become a part of our digital lives. According to the research the number of their users in the world is constantly increasing, therefore, the application market is saturated and competitive. Technology development and smartphone distribution led to the emergence of many additions for various spheres, from entertainment and communication to business and education. UI is a key element, which determines the perception of the gear and influences on the effectiveness of its use. From correctly designed and convenient design depends on not only the user's satisfaction, but also on the success of the application itself on the market.

In a digital environment the combination of art and technology generates web-design - dynamic field, where development and aesthetics form the basis of user experience and the UI becomes a bond between human interaction and technological innovations. The evolution of mobile devices allows you to create interactive and exciting UI with the use of new features such as speech recognition, augmented reality, etc. Modern designers and developers must investigate the best practices and new technologies for project's creation, which matches user's expectations.

Understanding the peculiarities of designing for mobile applications helps to create products, which are more convenient, intuitive and pleasant for its users. Applications became a monetization tool, product's promotion and clients' base increase. Applications have gained popularity due to their accessibility, mobility and usability. That is why the research and development is an essential step in achieving success in this dynamic and competitive industry.

Research and publication analysis. Accessibility of interactive applications and overcoming its possible barriers to their perception when using design templates UIDP and conceptual design tools were studied in a number of scientific works [7, p. 3-11; 1, p. 30]. The analysis of research and publications reveals that the accessibility of interactive applications and the overcoming of possible barriers to their perception when using design templates (UIDP) and conceptual design tools have been studied in a number of works [1, p. 3-11; 4, p. 30; 20, p. 23]. It has been established that the rational use of visual communication design can convey its best effect, which will help implement more design ideas [14, p. 6].

The implementation of solutions that support the production process of mobile software from the creation of an idea to its delivery to the user and service has



already led to the development of a number of methodological proposals for accelerating the production of mobile applications [2, p. 12] and the use of artificial intelligence for this [9, p. 4]. There is a sharp increase in methods that differ from established configurations and involve the involvement of users in the development of products, services, and systems [21, p. 1-5]. However, this process has a complex nature [19, p. 5] and must comply with ethical norms and design conventions, certain requirements of human psychology, as well as security and privacy conditions.

Design should reflect the inner essence and value of the product, be aimed at social good [22, p. 210-224] and not be used as a tool of manipulation [23, p. 385-387]. When teaching design, the importance of a dynamic state, without a fixed view of the problem, and the value of human-oriented design are emphasized [24, p. 687-689]. Another review of articles [25, p. 829-832] demonstrated clear evidence that design plays a key role in driving transformational change in organizations, where design leadership was widely discussed, as well as the importance of virtual reality (VR) technologies in the conceptual stage of designing.

In the production and use of graphical user interfaces (GUIs), the process of grouping information is important, which is a component of visual intelligence and involves the application of knowledge from cognitive psychology. Some authors [5, p. 14] note the effectiveness of grouping based on the semantic relevance of component groups, which is superior to other modern methods of object detection. This can reduce cognitive processing to the point where the perception of information is directly linked to action. The design of the interface should be such that users are not distracted by the actions of their hands, but have the opportunity to focus on cognition [16, p. 2-4; 18, p. 4].

The popularity of the mobile application among users also determines the design of the interface [6, p. 2-5; 7, p. 5-8] and user experience [10, 5 p.]. Estimating the popularity of mobile applications involves the use of various scales and algorithms for determining the degree of satisfaction of the target consumer [12, p. 9; 13, p. 6].

Computer graphics and innovative image technologies can also constantly increase the level of visibility of communication design [15, p. 5; 20, p. 1], which requires consistency between the mode of visual thinking and modern requirements for mobile applications.

The development of social networks, where communication and interaction of users take place, as well as websites for the sale of goods, provide tools for preserving confidentiality and ensuring the completeness of information dissemination [3, p. 2-18; 11, p. 6; 19, p. 25-27]. Web applications send and retrieve large amounts of personal information and data every day. Each application contains confidential information and has its own privacy policy. Therefore, studies are conducted on the comparative evaluation of leading frameworks in terms of not only convenience but also security [17, p. 6].

Therefore, the process of creating mobile applications takes into account more and more facts and new knowledge from various fields of science, which production and use will determine its effectiveness.

Materials and methods. To achieve the goal, a study of the historical aspects of the promotion and formation of online advertising, types of application platforms and

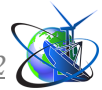


their features was conducted, which allowed to better understand the evolution of the industry and make predictions about its future development and prospects, as well as to highlight the main criteria for creating a modern product: responsive and adaptive design; minimalism and simplicity; intuitive interface; visual appeal; interaction and motion graphics; security and privacy; special accessibility. The origin, transformation, typology of mobile applications and characteristics of coding languages had been processed. In this work general scientific (theoretical and empirical) and special research methods were used, taking into account modern trends in web design. The process of creating the application included the design of the interface, its actual development, and release. The interactive nature of this process allows for continuous improvement and adaptation of mobile applications to evolving user needs and market dynamics.

Results and discussion. To design the interface of the application, the concept of creating a Ukrainian platform called « Art Room "was chosen. This project aims to promote national art and promote cooperation between artists, photographers, sculptors and various cultural institutions such as museums, art galleries and trademarkets. It is worth noting that online galleries in Ukraine do not yet have their own applications, therefore, the "ArtRoom occupies its niche place in the market and stands out from competitors with its convenience and practicality. The design features of this work are a minimalist style with an achromatic color scheme, the use of interface elements with rounded corners, the development of interface design in accordance with the methodology UI/UX, taking into account the balance of colors, shapes and fonts; carrying out the design process in the online tool Figma; filling the application with 22 screens with a size of 375 ×720 pixels, allow them to adapt to different device models; creating a quick dashboard access in the lower section of the screen; use of previously researched photographic elements; application of achromatic color palette of interface elements - buttons (black color with a light gradient, size - 260x45 pixels (larger) 140x30 pixels (smaller) forms for filling - 245x40 pixels, light gray color with inner shadow; choice of three fonts (Arsenal for headings, Montserrat for the main text, Montserrat Alternates for accent elements of the interface); balance of all colors and elements according to the rules of web design and composition.

The first part consists of three consecutive stages: determining the direction of the application and its value for users, where the lack of an application for art galleries in the Ukrainian digital space was found; determining the target audience and its needs, which turned out to be artists (painters, sculptors, photographers), gallery scouts , galleries, collectors and art connoisseurs; analysis of competitors and similar applications on the market, which turned out to be several applications of art galleries and museums, as well as Ukrainian art websites. At this stage, the details of the design of a similar genre were determined, as well as separate attention was paid to the elements of the functional part (buttons, sections, menu, navigation), identified problematic points, opportunities for improvement and wishes for further development of the gear.

The second part of creating the interface of the developed application is devoted to its design. It took place in six consecutive stages: determination of the main



functions of the application - review of works, purchase, order, payment, possibility of communication, feedback and personal space for self-expression; creation of layouts (Wireframes), which allows you to visualize the basic structure of the program with approximate forms of the screens before proceeding to a more detailed design; analysis of the user path(Userflow) - identification of problem points of intuitive navigation and their improvement, visualization of the entire user path from the first screen to the last, taking into account all possible deviations and decision points; interactive prototyping, which provides an opportunity to simulate the functionality of the program and collect feedback from interested parties; selected color palette in accordance with the brand and the target market; interface design - creation of 22 screens using the above stages and corrections, selected visuals, color schemes and typography, going a long way from research and sketches to the finished product.

Increasing the level of recognition and promoting the success of this development, ensuring its competitiveness in the information space requires a strategic and multifaceted approach. For this issue recommended strategies for effective promotion of art gallery programs may include:

1) social media marketing - creating your own accounts on popular platforms such as Instagram, Facebook, Twitter and Pinterest; publication of works of art, creative contents, banners, animated advertisements and conducting interviews with artists, exhibitions' overview and other interesting events;

2) cooperation with influencers - interaction with influential persons in the field of art and culture, co - creation of content and promotion of this product;

3) optimization of application stores - improvement of icons, screenshots, description of the application and keywords to increase visibility in search engines, use of Google Ads for the target audience;

4) feedback - conducting live broadcasts, surveys , exhibitions, contests and regular e-mailings;

5) cooperation with artists and collectors to increase the authority and recognition of the gallery;

6) organization of events - exhibitions, auctions and other events to attract the attention of a wide audience;

7) cooperation with the media and journalists - interviews and publications in art magazines;

8) feedback channels - enabling users to send comments and suggestions;

9) use of QR codes and NFC technologies - insertion of QR codes into physical advertising materials for quick access to applications;

10) creating a blog - spreading information about the art and the application through articles, interviews and tips.

Among the factors that contribute to recognition and popularity in the field of art, there are two main ones: exclusivity and innovation. They might become the foundation for the successful development of art -galleries and artists.

Exclusivity is the ability to be unique, distinct from others and stand out on the market.

In the context of an application, this may include the following:



- unique works of artists, which can become an attractive aspect for collectors and investors;
- organization of exclusive exhibitions with limited access, which increases the value of exhibits and enlarges their prestige;
- publication of limited editions of works of art, which creates a sense of scarcity and stimulates demand for them.

In turn, innovation is an ability to adapt to changes, introducing innovative approaches, ideas and technologies, in our case - the application of an art- gallery.

Innovations in this field can be as follows :

- the use of interactive technologies to create unique art exhibitions that are available online; future usage of virtual reality;
- the unique artists' style and technique, that attract attention and stand out from the crowd, making their works unforgettable;
- use of blockchain technologies to ensure authenticity and passability of works;
- analytics and using of data to determine demand and trends in modern creativity.

Maintaining the right balance between the above factors, contributes to the long-term recognition and popularity of the product. Exclusivity and innovation together create the recognition and the value for an art -gallery brand. Users are searching for the unique and advanced approach and are willing to invest their intelligence and resources in creativity that provides them with new experiences and perspectives. Exclusivity creates a sense of uniqueness and luxury, while innovation ensures that the app remains relevant.

Conclusions. The absence of a powerful competitive internet platform and mobile applications aimed at the development, popularization and sale of domestic art products and a range of services in the field of fine arts in Ukraine and around the world was established in the information space of Ukraine.

The analysis and study of modern methodological approaches to the development of mobile applications is based not only on a competently designed user interface design (UI DP) taking into account the laws of composition, but also on the designer's understanding of the basics of audience of consumers ' cognitive psychology of the final product.

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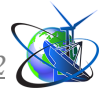


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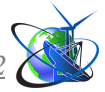
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Анотація. В українському цифровому просторі наразі спостерігається відсутність інноваційної платформи, яка б надавала можливість художникам, фотографам та скульпторам не лише популяризувати вітчизняне мистецтво, але й презентувати, продавати свої розробки та співпрацювати як з музеями та галереями, так і з комерційними організаціями, якими є товарні аукціони. Використання графічних елементів та їх грамотне застосування у розробці мобільного додатку з урахуванням законів композиції та подальше впровадження розробленого продукту веб-дизайну на вітчизняному та світовому ринках, безсумнівно набуває великого практичного значення. Метою даної роботи є розробка і просування в інтернет-просторі мобільного додатку арт-галереї згідно з сучасними принципами проектування та використання нових тенденцій у дизайні. У даній роботі використано загальнонаукові (теоретичні та емпіричні) і спеціальні методи досліджень: аналіз – дослідження та обґрунтування об'єкта, його особливостей; дедукція – перехід від вивчення загальної інформації до конкретної; класифікація – угруповування за властивостями та критеріями; порівняння – дослідження декількох об'єктів за конкретними ознаками; спостереження – відстеження об'єктів у реальних умовах; моделювання – процес створення проєкту. Досліджено сучасні тенденції у мобільному дизайні та їх вплив на користувацький досвід, розглянуто основні принципи ефективного мобільного дизайну, а також проведено аналіз важливих аспектів, які впливають на зручність взаємодії користувача з додатками. Обґрунтовано методiku і методологію створення мобільного інтерфейсу. Результатами досліджень вважається розроблений інтерфейс мобільного додатку арт-галереї «ArtRoom». Наукова новизна базується на виявленні теоретичних закономірностей створення ефективної веб-реклами та застосуванні комплексу новітніх дизайнерських принципів у розробці затребуваного інноваційного продукту для однієї з цифрових екосистем – Amazon. Висновки. Встановлено відсутність в інформаційному просторі України потужної конкурентоспроможної інтернет-платформи та мобільних застосунків, спрямованих на розвиток, популяризацію та продаж вітчизняної арт-продукції і спектру послуг у галузі образотворчого мистецтва в Україні та світі. Аналіз та вивчення сучасних методологічних підходів з розробки мобільних додатків базується не лише на грамотно спроектованому дизайні інтерфейсу користувача (UIDP) з врахуванням законів композиції, а й розумінні дизайнера основ когнітивної психології аудиторії споживачів готового продукту. Дизайн інтерфейсу додатків можливих конкурентів має ключові недоліки, тому поставлено задачу щодо їх уникнення у власній розробці, визначено потенційних споживачів готового продукту. В основі дизайнерського рішення застосунку "ArtRoom" знаходиться різнобічно продумана концептуальна ідея створення української інформаційної платформи, спрямованої на популяризацію вітчизняного мистецтва та сприяння співпраці між художниками, фотографами, скульпторами й різними культурними установами. Ключовою її задачею є забезпечення маркетингу вищезазначених товарів та використання інструментарію для динамічного просування даної розробки в інформаційному просторі. Візуальна складова готового інформаційного продукту виконана згідно дизайну видів та жанрів образотворчого мистецтва з врахуванням методології UI/UX щодо збалансованості всіх кольорів та елементів інтерфейсу та правил веб-дизайну і композиції, використання онлайн-інструменту Figma, містить 22 стандартні, адаптовані під різні моделі пристроїв, екрани зі створеними панелями швидкого доступу та можливістю використання попередньо досліджених фотографічних елементів. Для успішного просування мобільного додатку "ArtRoom" в інформаційному просторі розроблені стратегії ефективного просування програми художньої галереї, що включають: маркетинг у соціальних мережах, співпраця з інфлюенсерами, оптимізація магазинів додатків, зворотній зв'язок, співпраця з митцями та колекціонерами, організація подій, співпраця з медіа та журналістами, використання QR-кодів та технологій, створення та ведення блогу.

Ключові слова: гайд, вивчення мобільного дизайну, веб-розробка, методологія.



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