СЕКЦІЯ: ІНСТРУМЕНТИ, МЕТОДИ ДИСТИНЦІЙНОГО ТА ЗМІШАНОГО НАВЧАННЯ В ЗАКЛАДАХ ОСВІТИ

DIGITALIZATION OF THE INTERACTIVE CULTURAL TOURS: PROJECT SUPPORTED BY DAAD

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Cultural tourism has long been a bridge between people and their heritage. However, traditional methods of cultural engagement often face limitations, such as geographical barriers and accessibility issues. The advent of digital technologies has opened new avenues for creating immersive and interactive cultural experiences. Digitalization not only enhances the accessibility of cultural sites but also ensures the preservation of intangible heritage for future generations.

Here are some key aspects of realization such project with the support of DAAD in science education at Ternopil Volodymyr Hnatiuk National Pedagogical University.

The project was aimed to integrate modern digital technologies into the realm of cultural tourism, creating innovative opportunities for exploring cultural heritage. The core idea was to develop a mobile application that offers users an interactive experience during visits to historical and cultural sites. The app will provide access to historical facts, multimedia content, and virtual tours via smartphones. Through interactive maps, augmented reality features, and personalization capabilities, the applications will foster a deeper understanding of cultural heritage, enhance user engagement, and promote sustainable tourism.

This approach aligns with the contemporary expectations of tourists seeking interactive and personalized experiences. Additionally, the app will improve accessibility to cultural heritage for people with disabilities or those unable to visit physically. The project also contributes to heritage preservation by leveraging digital technologies and reducing environmental impact through minimizing the use of paper materials.

The goal of the project is to revolutionize cultural tourism experiences through the development of a mobile application that leverages digital technologies. By providing immersive and interactive tours tailored to individual interests, the project aims to enhance visitor engagement, promote accessibility, and preserve cultural heritage. Ultimately, the project seeks to foster sustainable tourism practices and drive

innovation within the tourism industry while contributing to the economic development of cultural destinations.

The project idea is highly relevant due to several factors:

1. With the rapid development of digital technologies, there's a growing demand for innovative solutions in various sectors, including tourism. Leveraging these advancements can significantly enhance the cultural tourism experience.

2. Modern tourists seek more interactive and personalized experiences. A mobile application offering immersive cultural tours aligns well with these evolving preferences.

3. Digitalization can make cultural sites more accessible to a broader audience, including people with disabilities or those unable to visit physically. This fosters inclusivity and ensures cultural experiences are available to everyone.

4. Digital tools can aid in the preservation and promotion of cultural heritage by showcasing artifacts and historical narratives in engaging ways. This is crucial for ensuring the longevity and appreciation of cultural sites.

5. By reducing the need for physical materials such as paper guides and maps, digitalization supports environmentally friendly tourism practices. Additionally, promoting responsible visitor behavior through digital platforms can contribute to sustainability efforts.

6. Enhancing the tourism experience through digital means can attract more visitors, leading to increased revenue for cultural destinations and local businesses. This, in turn, stimulates economic growth and development in these regions.

In summary, the project idea is highly relevant as it addresses emerging trends, fulfills changing visitor expectations, promotes accessibility and inclusivity, preserves cultural heritage, supports sustainable tourism practices, and contributes to economic prosperity.

The concept of the project was centered on the development of an innovative mobile application that transforms the traditional approach to cultural tourism by integrating digital technologies. The app was designed to provide users with a deeply immersive experience while exploring cultural and historical landmarks. By leveraging tools like augmented reality, geolocation, and multimedia content, it enables tourists to engage with cultural heritage in a dynamic and interactive way [1].

For the implementation of this project, the following technical resources were required:

1. Computers and Development Software: Powerful computers equipped with software for mobile app development, such as Android Studio or Xcode.

2. Server Infrastructure: Servers for data storage and processing, possibly utilizing.

3. Cloud services like Amazon Web Services (AWS) or Google Cloud Platform.

4. Additional Devices for Testing: Smartphones and tablets for testing the app on

5. Different devices and operating systems.

6. Resources for Content Creation: Cameras, microphones, and software for creating textual, visual, and audio-video content.

The application will allow users to access a wide range of information about historical sites, artifacts, and cultural narratives through their smartphones. For example, when visiting a historical landmark, users can point their device at an object or location to see augmented reality reconstructions, such as how a site looked in its prime or detailed animations of historical events. This feature transforms the visitor experience

by merging the physical and digital worlds, offering an engaging way to connect with the past [2].

Additionally, the app includes geolocation services, which help users discover nearby cultural sites, providing not only navigation but also rich historical context for each location. Users can explore interactive maps that highlight key points of interest, suggest routes for self-guided tours, and even provide audio or visual explanations as they move through the area.

A significant aspect of the project is its inclusivity. The app is designed to be accessible to a diverse audience, including individuals with disabilities. For instance, it will offer audio descriptions for visually impaired users and text-based guides for those with hearing impairments. This ensures that cultural heritage becomes more universally available, breaking down barriers to access [3].

The project also emphasizes personalization. By inputting their interests – such as architecture, local legends, or art – users can receive tailored recommendations and curated tour experiences. This not only enhances engagement but also makes the exploration process more meaningful and enjoyable.

In essence, the app is a tool for modernizing cultural tourism. It connects people to history through technology, creating a sustainable, interactive, and educational platform that aligns with the needs and expectations of today's travelers. The ultimate goal is to foster a deeper appreciation of cultural heritage while supporting sustainable tourism practices.

The digitalization of interactive cultural tours is a promising field that combines technology with cultural preservation and education. While challenges remain, ongoing advancements in digital tools and methodologies continue to enhance the scope and impact of these initiatives.

References

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ПОРІВНЯЛЬНИЙ АНАЛІЗ МЕХАНІЗМІВ КЕШУВАННЯ В ПРОГРЕСИВНИХ ВЕБЗАСТОСУНКАХ

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У сучасній веброзробці продуктивність і швидкість завантаження застосунків відіграють ключову роль у забезпеченні якісного користувацького