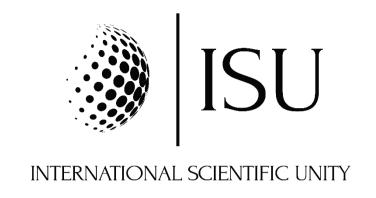# II INTERNATIONAL SCIENTIFIC AND PRACTICAL CONFERENCE

«Modern Approaches to Problem Solving in Science and Technology»

November 15-17, 2023, Warsaw, Poland

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INTERNATIONAL SCIENTIFIC UNITY

II INTERNATIONAL SCIENTIFIC AND PRACTICAL CONFERENCE

«Modern Approaches to Problem Solving in Science and Technology»

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- Exploit restrictions. Restrictions help prevent errors and ensure data integrity. It is very important to properly validate data, set maximum and minimum values for numeric fields, and sizes for text fields.
- Create a connection. Model connections help to link multiple tables, as in our example, we linked the table with the book list to the genre table.

Database design is an important stage in the development of any website or web application. Django provides powerful tools for designing and building databases. The tools allow to create efficient and scalable databases that meet the needs of modern trends.

<div align="center">References:</div>

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INTERACTION OF TRADITIONAL UKRAINIAN CULTURE AND MODERN IT TECHNOLOGIES: CHALLENGES AND OPPORTUNITIES

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In the modern world, traditions and cultural values play an important role in shaping society. At the same time, the field of information technologies provides new opportunities and challenges for the preservation and development of cultural features. Let's consider the interaction of traditional Ukrainian culture and modern technologies in the IT industry in the following aspects:

• Use of technologies to preserve cultural heritage;
• Electronic education for studying the Ukrainian language, history and culture;
• Innovations in the field of culture;
• Cultural projects and startups in the IT industry.

The use of technologies for the preservation of cultural heritage, such as archiving, virtualization and digitization, plays an important role in ensuring the accessibility and preservation of cultural values. 16 million items of national heritage

are stored in Ukrainian museums and archives, but they have never been exhibited. Digitization could solve the issue of accessibility of cultural property for Ukrainians and the world. At the call of UNESCO, on the creation and introduction of electronic archives as a unique treasury of human knowledge, the processes of converting the most valuable documents stored in the network of state archives into a digital format have actively begun in Ukraine. At the same time, as of 2022, among the 9 central state archives and 23 state archives of the regions of Ukraine, only 10-15% of digitized documents are represented on the websites of archival institutions today. Statistics show that the country is still at the initial stage of transferring the archival sphere to digital technologies, and this remains promising for future development [1, c. 36]. Many museums in Ukraine are actively implementing digitization of their collections and exhibitions. This allows to preserve and popularize historical and cultural materials. Implementation of virtual tours and expositions with the help of virtual reality technologies can expand the possibilities of studying cultural objects and events. Digitization and free access to information about artistic monuments will make Ukraine more open to domestic and international cultural tourism. Another aspect: digitization of Ukrainian culture is additional opportunities for education and science. Information about art will be available in school classrooms, libraries, art schools, and rural cultural centers.

Electronic education for learning the Ukrainian language, history and culture with the help of electronic platforms contributes to the support of national self-determination. Here, the situation has improved significantly in recent years. EdEra and Coursera online courses and platforms become platforms for enriching knowledge about the Ukrainian language, allowing both Ukrainians and foreigners to deepen their linguistic skills. Mobile applications for learning the Ukrainian language become not only a means of expanding vocabulary, but also an interactive means of communication and practice. They are necessary for those who seek not only to learn the language, but also to appear in authentic communicative situations, which contributes to the better acquisition of language skills [2; 3].

However, e-learning is not only limited to language. It also opens the door to learning about history and culture. Online workshops and webinars on history, traditions, art and folk culture play an important role in preserving and transmitting knowledge about the past and the present. This allows for a deeper understanding of cultural aspects and helps them go beyond textbooks. The use of electronic education to study the Ukrainian language, history and culture demonstrates an important step in the direction of a modern, interactive and accessible educational environment that promotes deep immersion in the diversity of the national heritage.

Innovations in the field of culture can be represented by five main directions of digitization of the art market: the growing role of digital technologies in the market of works of art (the emergence of art-tech startups based on digital business models: evaluation of works of art, blockchain startups, establishing the authenticity of works, management of art collections, logistics services, growth of online trade in the global art market, improvement of the digital and analytical infrastructure of the global art market [4, c. 42–43]. The digitalization of the artistic space is also manifested in the

use of digital technologies to create art objects and expand the possibilities of perception of an artistic work. Thus, cultural industries are able to digitize and display their exhibits online, thereby making them accessible to consumers [5, c. 31]. Recently, virtual (VR) and augmented (AR) reality has become a popular direction. This direction is implemented not only by the game industry, but also by many other spheres of activity. As the German institute for virtual reality research Deutsches Institut für Virtual Reality notes, in the coming years this technology will penetrate almost all spheres of human life: household, economic, cultural and educational, industrial, medical, etc. With the help of VR, the user is completely immersed in the fictional world and does not see anything of what is actually happening around him. AR allows you to see your surroundings, but with the help of technical information, get additional, clarifying information. For example, you can point the smartphone lens at a building and find out its dimensions, history, etc [6, c. 80].

Cultural projects and startups in the IT industry. Examples of successful projects that combine traditional culture and innovative technologies, which contribute to the development of the modern image of Ukraine in the world, are the created electronic platforms for reading literary works and the use of digital form and virtual reality in theaters, when with the help of gadgets, special effects, computer technologies 3D objects perform with real actors on stage. In Ukraine, 3D technologies are used by Kyiv's theaters of augmented reality Visual Fusion and "Teatr na Podol" ("360 degrees Theater"). The Internet theater "Between Three Columns Theater" is the first theater whose stage is YouTube video hosting, and the viewer can always get a ticket to the front row by subscribing to the theater's YouTube channel. A modern way to popularize the performing arts is to create digital platforms such as Digital Theater, theatresonline.com, timeout.com, stream.theatre, scenesaver.co.uk, which offer access to the best productions, musicals, operas, ballets, shows as services in any place and at any time; find the schedule and links to online broadcasts of events; "rent" the desired performance in digital format for 48 hours, etc. In Ukraine, similar services are offered by OpenTheatre, theatre.lov, hover.link, Open Opera Ukraine [5, c. 31].

Conclusions. The use of these technologies for the preservation of Ukrainian cultural heritage will contribute not only to its preservation, but also to the active inclusion of new generations in the study and understanding of their own cultural identity.

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ЗАСТОСУНОК ДЛЯ РОЗПІЗНАВАННЯ ВИДІВ ГРИБІВ НА ОСНОВІ МЕСЕНДЖЕРУ

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З кожним роком потоки інформації збільшуються, роблячи неможливим для людини обробляти усе вручну. Ми все більше покладаємося на комп'ютери для автоматизації процесів. Поява штучного інтелекту та машинного навчання почала давати можливість обробляти інформацію з джерел, які мають нечіткі характеристики (чіткість, контрастність, розмитість зображення, засвіти) такі як фотографії. Але проблемою була відносна складність використання цих технологій для людей не працюючих зі штучним інтелектом.

Саме тому, було вирішено розробити платформу, яка буде спрощувати процес. Мобільний застосунок на основі телеграм-боту в такому разі буде надавати швидкий доступ до системи розпізнавання без затрат часу на розгортання машини, навчання та/або розпізнавання зображення.

Метою даної роботи є спростити розробникам автоматизацію обробки зображень (наприклад з камер), та дати звичайним людям протестувати технології розпізнавання зображення. Для цього було вирішено обрати тему розпізнавання об'єктів живої природи, а саме грибів.

Для досягнення поставленої мети було вирішено реалізувати рішення у вигляді телеграм боту. Це забезпечить повну кросс-платформенність (з Windows, Mac Os, Linux, Android та IOS) без додаткових зусиль, доступ до платформи якій щомісячно користуються 700 мільйонів активних користувачів [1] та готовий інструментарій для створення інтерфейсу.