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## **TRANSFORMATION OF MUSEUM SPACE FOR INCLUSIVE EDUCATION**

In June 2024, the National Strategy for the Development of Inclusive Education until 2029 was approved [1]. We are convinced that educational institutions and cultural heritage preservation institutions should play an essential role in achieving strategic goals, including recognition of human diversity by Ukrainian society and paying attention to the needs of all participants in the educational process. Especially since the Law of Ukraine on Museums and Museum Affairs states that “the needs of children, disabled person and elderly should be taken into account during the design and operation of museum premises” [2], despite the institutional standards of inclusiveness are not defined. We think that using information and communication technologies in museum practice makes it possible to consider the needs of people with disabilities and war veterans.

Scientists define ICT as the system of information technologies, including computers, software, storage, and audiovisual systems, with telecommunications, such as telephone lines and wireless connections. These technologies enable the creation, access, storage, transmission, and modification of information. The forms of ICT use include the application of hardware, software, and alternative forms of communication to support the individual educational needs of students with special needs. It helps to ensure full involvement in communication and interaction, to realize an individual educational trajectory, and improve personal development and inclusion in the learning and social environment [3, 4].

To study the development of museum practice for people with special needs, we interviewed 50% of museum workers in the Ternopil region (a total of 288 persons as of the end of 2022) [5]. The respondents were 46.7% of employees aged 45-55, 23.3% - 35-45, 20% - 20-35, 10% - 55-60; 76.7% of women and 23.3% of men. 58.3% of them confirmed the use of inclusive technologies in the museum practice of the Ternopil region. Of course, only some elements of the museum's inclusive space are in use. We can see these in the possibilities of mobile movement, the use of Internet services, the functioning of websites, mobile applications, etc. For example, at the beginning of the war, the Ternopil Regional Museum of Local Lore converted a freight elevator and installed an elevator for people with disabilities [6].

As international practice shows, using information and communication technologies (ICT) in museum practice significantly improves exhibition design and presentation of artifacts and content. These include information kiosks, audio and smartguides, interactive displays, 3D technologies, holography, virtual and augmented reality, webpages, and virtual museums. These tools allow for the effective presentation of museum content and educational activities via social media and web platforms,

which promotes better audience engagement before and after the visit. Being used for electronic records, restoration, and conservation technologies, ICTs also play a crucial role in museum management. Mobile technologies give access to museum collections and exhibitions at anytime from anywhere. It makes museum visits more personalized and enjoyable. In addition, outside of the museum, ICT creates a platform for continuous communication, which contributes to the formation of deeper personal relationships between visitors and the development of the museum community.

Mobile technologies greatly simplify access and increase the effectiveness of communication platforms of other online museums, including virtual ones. People with disabilities often have difficulty moving around museum buildings and accessing works of art. Using audio guides, audio and video projections, interactive tables and screens, virtual and augmented reality technologies, 3D and holography, tablets, apps, and QR codes creates a barrier-free museum environment that supports people with disabilities. It is an effective and successful way to facilitate and improve the provision of educational services and make cultural heritage accessible to all segments of society. In addition, the combination of ICT with theories and models of metacognition, attention, meditation and emotional intelligence, art therapy, as well as environmental factors and nutrition, contributes to a rapid and significant improvement in learning outcomes that goes beyond traditional educational and supportive practices [7, p. 269, 277].

Internet access is an essential part of life for visually impaired or blind people. Special inclusive mobile applications provide access to museums and their works of art for this audience. Traditionally, museums focused on visual perception, which limits the ability to interact with exhibitions using other senses besides sight. It is difficult for people with disabilities to access information and exhibits, which limits their mobility in the museum space as well. Assistive technologies help to overcome these barriers.

Often used are the inclusive mobile application *MusA*, created to help visually impaired people access museums and their works of art; the interactive audiovisual experience *The Oregon Project*, which uses proximal sound to interpret two-dimensional images; the program “*Using of Color-Concept Directed Scent*” for visually impaired people to get acquainted with paintings, which is basing on the assumption that each scent has its connection with color and concept, which the researchers called color and concept directionality, respectively; the *Blind Museum Tourer* technological tool, which was developed for the Museum of the Lighthouse for the Blind in Greece, the National Archaeological Museum and the Acropolis Museum and used for physical access and navigation in their premises; 3D printing devices that allow tactile familiarization with museum exhibits, given the possibility of a non-absolute identity of the object and its model [7, p. 269, 277].

The museum space of the Louvre Art Museum in Paris is barrier-free, with parking spaces; an elevator in the interior of the facility, folding chairs and wheelchairs; specialized guides for people with physical disabilities; free tactile booklets featuring several prominent works in relief and Braille; an audio tour and subtitled video about the exhibition. The Albertina Art Museum in Vienna offers a tour in sign language. The National Gallery in London offers VR tours created using 3D camera technology. The National Museum of Singapore offers specialized sensory bags for autistic children [8].

“Inclusivity is not about any particular group of people, but about everyone being included in society equally,” says Kateryna Hotsalo, a researcher at the Khanenko Museum, where they began developing the inclusion agenda in 2008. The target audience is people with special needs: people with mental disabilities, blind and visually impaired people, people in wheelchairs, etc. The museum has updated its website, added a panel that allows you to adjust the contrast to facilitate the perception of information, and provided images with original alt-texts that can be read by special programs for blind people [8]. This museum has created tactile copies of works of art. There is enough staff to provide wheelchair support. Special programs, such as the *Museumhane*, are aimed at supporting families with children who have learning and communication problems, including those with autism spectrum disorders (ASD) and Down syndrome [8].

Using computers and assistive devices strengthens the independence and socialization of people with special needs. The inclusive use of ICT in museums helps to bridge the gap in access to cultural heritage between different segments of the population and social groups. It helps to create a more accessible and inclusive cultural environment where everyone can use museum resources and works of art as freely and comfortably as possible. Thus, the inclusion of the museum environment aims to realize an important task: to create equal conditions for all members of society, regardless of their age, gender, health status, or place of residence, using ICT.

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## **ОСОБЛИВОСТІ ВІРТУАЛЬНИХ КОНФЛІКТІВ ПЕРІОДУ СУСПІЛЬНИХ ЗЛАМІВ**

Сучасний світ, насичений інформаційними технологіями, стає ареною для нових типів конфліктів, які відбуваються у віртуальному просторі. Віртуальні конфлікти набули особливого значення у періоди суспільних зламів, коли суспільства переживають значні зміни та нестабільність. Така ситуація потребує глибокого аналізу та розуміння, оскільки віртуальні конфлікти можуть мати серйозні наслідки для соціальної та політичної стабільності. Ця тема є надзвичайно актуальною, оскільки сучасні інформаційні технології відіграють ключову роль у формуванні громадської думки, поширенні інформації та мобілізації громадськості.

Інтернет і соціальні мережі стали основними платформами для комунікації, де інформація розповсюджується з неймовірною швидкістю. Це призводить до того, що навіть незначні події можуть перетворюватися на масштабні конфлікти, залучаючи до них велику кількість людей. У цьому контексті важливо досліджувати специфічні риси віртуальних конфліктів, їхні причини та наслідки, а також розробляти ефективні стратегії для їхнього управління та вирішення.

Важливо також зрозуміти, як віртуальні конфлікти взаємодіють з реальними соціальними процесами, як вони впливають на громадську думку, політичні рішення та суспільні настрої. У періоди суспільних зламів, коли соціальна напруга зростає, віртуальні конфлікти можуть підсилювати поляризацію, створювати додаткові джерела нестабільності та навіть провокувати реальні протистояння. Тому вивчення цієї теми має не лише теоретичне, але й практичне значення, допомагаючи знаходити шляхи для підтримання миру та злагоди в суспільстві.

Однією з ключових особливостей віртуальних конфліктів є їх швидке поширення. Сучасні засоби комунікації, такі як соціальні мережі, миттєві месенджери та онлайн-платформи, дозволяють інформації розповсюджуватися миттєво. Це створює умови для швидкого ескалації конфліктів, коли один