DIGITAL SHIELD: HOW INFORMATION TECHNOLOGIES ENSURE PASSENGER SAFETY IN WAR CONDITIONS IN UKRAINE

Viktor Savchenko[1]
Anna Kharchenko[2]

DOI: https://doi.org/10.30525/978-9934-26-408-5-6

Ukraine is going through difficult times due to the war taking place on its territory. The occupation war conducted by Russia leaves a serious impact on all spheres of the country's life, including the transportation system. One manifestation of this is the challenge of providing public transportation to cities located close to the areas directly affected by combat operations.

The situation concerning safety when using public transport in Ukrainian cities is extremely complex and tense, critically important for several reasons:

1. Protection of life and health: In conditions of armed conflict, the risk to the lives and health of passengers significantly increases. Ensuring safety in public transportation can prevent injuries or fatalities during emergencies.

2. Preservation of mobility: Public transport is vital for city residents during times of war. Ensuring safety allows passengers to feel more secure and confident in their ability to move safely.

3. Evacuation and assistance: Public transport can be used to evacuate people to safe places in case of emergencies. Ensuring safety in transportation helps make this process more efficient and safe.

4. Psychological comfort: Ensuring safety in public transport can reduce stress and fear levels among the population during wartime, contributing to both physical and psychological security.

5. Preservation of city functioning: Safe and efficient transportation helps maintain normal city functioning during wartime conditions, crucial for providing necessary resources, aid, and facilitating people's movement.

Thus, ensuring safety in public transport is fundamental to protecting and supporting the life and mobility of the population during wartime.

The necessity of implementing safety measures in public transport poses a serious challenge for local authorities and companies. However, this can also drive innovative solutions through the implementation of information technologies to ensure safety and convenience for passengers in wartime conditions.

[1] National Transport University, Ukraine
[2] National Transport University, Ukraine

Presentation of the Main Material: Based on the study of global experience in organizing passenger transportation during wartime, we can highlight key recommendations for ensuring passenger safety using information technologies for Ukrainian populated areas.

Therefore, during the war in Ukraine, information technologies can become a powerful tool in ensuring passenger safety in public transportation. A key recommendation is the creation of a mobile application for safety in public transportation. Developing smartphone applications that provide passengers with the ability to call for help in emergencies, trigger panic signals, receive up-to-date information about rocket threats in the region, and access electronic maps of bomb shelters would be beneficial. Considering that during air alerts, public transport should stop at the nearest stop, it would be relevant to display the nearest bomb shelter route on electronic boards at public transport stops. Moreover, networks of cameras and video surveillance systems in transport can be an effective tool for detecting potential threats and timely response. These systems, combined with data analytics, enable a prompt response to danger and real-time situation monitoring. Additionally, an effective element for ensuring transport safety is the creation of online platforms providing information about safety, current news on the city's situation, recommendations for safe routes, and developing systems that provide quick access to information about evacuation in emergency situations and assistance to passengers. In turn, the implementation of electronic control systems allows tracking passenger movement and efficiently responding to potential threats in real-time.

These recommendations can help create a safer and more secure environment for passengers in public transport during wartime. It's important to consider the specifics of the situation and swiftly adapt to changes in the transportation system's operation mode to ensure maximum protection and user comfort, creating a reliable environment for their mobility and safety.

References:

1. State Emergency Service of Ukraine. Methodological Recommendations. Available at: https://dsns.gov.ua/uk/metodichni-rekomendaciyi

2. Smith, J. (2020). "Securing Public Transportation in Conflict Zones: The Role of Information Technology." Publisher: TechPress.

3. Johnson, A., & Martinez, S. (2019). "Information Technology Solutions for Wartime Passenger Safety in Public Transport." Publisher: CyberSafe Books.

4. Brown, R. (2018). "Enhancing Passenger Security during Conflict: A Guide to Information Technology Implementation." Publisher: SecureTrans Publishers.

5. Garcia, M., & Lee, K. (2017). "The Integration of Information Technology for Public Transport Security in Times of War." Publisher: SafetyTech Publications.

6. Patel, S. (2016). "War Zone Commutes: Leveraging Information Technology for Passenger Safety in Public Transit." Publisher: InfoSafe Books.