

The Role Of Modern Technologies And The Human Factor In Improving Public Safety In Metropolitan Facilities

Bekhzodbek Islombekovich Islombekov

Independent researcher
University of Public Safety
Tashkent, Uzbekistan
Islambekov1802@gmail.com

Abstract: The article analyzes the important aspects of the issue of using the most modern technologies to improve public safety in the metro and training highly qualified personnel of the internal affairs bodies to apply such techniques in the metro.

Key words: public safety in the metro, modern technologies, qualifications, highly qualified personnel.

Introduction

Nowadays, the rapid growth of the population on our planet is significantly increasing the need for the most mobile and efficient means of transportation of people in the capitals and megacities of the world's largest countries - subways. Although the subway was first invented and put into operation in England in 1863 [5], by the end of the 20th century, it existed only in a few large and few countries of the world, no more than 80 [4;617]. To date, according to Internet data, by the 20s of the 21st century, more than 200 subways were launched and operating in 63 countries of the world.

Research Methods

This indicates that over the past quarter century, the construction of the metro system in the world has exceeded the old one by 2.5 times. In this regard, the 21st century can be called, without exaggeration and rightly, the century of metros, which are an important link in the transport system, the lifeblood of the countries of the world. The metro, in turn, is a categorized object that requires the most important, most necessary and urgent measures to ensure public safety on its territory using the latest technologies through the implementation of public order, citizen security and crime prevention. Because between 1990 and 2020, a number of terrorist acts committed in the metros of the capitals of developed countries of the world, for example, Tokyo (Japan), London, Glasgow (England), Paris (France), Moscow, St. Petersburg (Russia) and other cities, forced not only these countries, but also other countries with metros to develop drastic and radical measures to ensure public safety. At the same time, all countries with metro systems have begun to use the most modern achievements in improving public safety on their territory, based on their internal capabilities and scientific potential. Since the metro is a complex facility with a high level of risk and differs to a certain extent from other transport systems.

Results And Discussions

According to Russian expert Viktor Gromov, the metro is a public transport, potentially dangerous, technically complex and critically important object with two functions. Disruption of its operation can lead to emergencies and negative consequences for the infrastructure and economy of cities, passengers and the population living in a certain area. The complexity of the engineering infrastructure, the requirements for minimizing the consequences of emergencies, have led to the development of norms and rules that turn modern metros into advanced high-tech infrastructure for management and control [3].

In other words, the analysis of the rules in the field of ensuring public safety in transport and the metro requires detailed knowledge of the composition and structure of the metro and all its elements. In some critical situations, it is impossible to completely inspect passengers entering the metro and their hand luggage or other belongings. Because to solve this problem, it is necessary to equip the subway with an engineering and technical security system with a maximum throughput capacity of at least 14 passengers per second.

Even one hundred percent screening may not provide comfortable and safe conditions for transporting

passengers, preserving their lives and health, maintaining high efficiency of employees, and protecting the environment during the use of technical systems. Various unusual ways and methods were used in terrorist acts committed in subways of foreign countries. In addition, most of the crimes committed are observed in the traffic structure - in subway cars. That is why there is a need for professional personnel who can use modern technologies to their advantage in preventing them in the subway of our capital. Of course, in the current conditions, although some effectiveness is being achieved in exposing a person prone to crime based on his facial appearance, behavior, and demeanor through the existing surveillance cameras in metro facilities, optimal options for achieving success in this direction with one hundred percent confidence have not yet been found. The annual expansion of the number of Tashkent metro facilities (from 1977 to 2025, the number of stations increased by 4.5 times, including above-ground metro stations. In 1977, there were 12, and by 2025, there were 50), the increase in the flow of the capital's residents, tourists visiting our country, and migrants in general, has led to a certain change in the criminal stability in the metropolitan areas, and the increase in the number of metro users has also affected the growth of delinquency and crimes. Of course, this period, which covers almost fifty years since the capital's metro began operating, has been marked by major changes and reforms, alternating with various political-legal, socio-economic, cultural-educational, administrative-demographic processes, but it has also led to the emergence of new types of crimes in the field of crimes and offenses that have adapted to the times and formed based on the requirements of a market economy. Examples of crimes committed in the metro include extortion, theft, cybercrime, illegal entry into prohibited objects of the metro - "graffiti". In particular, the occurrence of the last two offenses only in the underground networks of the strategic infrastructure objects of the metro - ventilation systems, warehouses, underground power plant systems, central control structures, is considered from the outside as an act deserving of a lighter punishment in the form of committing an offense simply by "illegal access to a protected object", but the real goal and intention of the offender is only it means that it is not limited to the entrance, and doubts and suspicions that a bigger and more terrible crime is hidden behind it, prompts to increase intelligence and be more vigilant. The reason is that no one can guarantee that terrorist crimes will not be committed by entering these places. Therefore, connecting the protection systems of prohibited objects of the metro with new innovative technologies - surveillance cameras, the latest, most modern alarm devices to central consoles - in our opinion, will allow for the earlier detection and elimination of such violations.

The Resolution of the President of the Republic of Uzbekistan "On measures to increase the efficiency of the Tashkent Metro" dated October 16, 2021 No. PD-5260 places special emphasis on the modernization of the capital's metro based on new technologies and training qualified personnel, according to which:

“the introduction of modern management mechanisms based on advanced foreign experience;
modernization of infrastructure and phased renewal of the traffic structure;
the introduction of a digital process management system using modern information technologies;
increasing the level of passenger and traffic safety by improving the security system in the metro;
integrating the network of surface passenger transport routes with the metro network in order to increase the popularity of the metro...

providing the sector with qualified personnel by introducing a system for training professional personnel with modern knowledge” [1].

Any crime committed in the metropolitan area, regardless of its nature, causes harm to the safety of citizens to one degree or another and requires timely and appropriate measures to be taken by law enforcement agencies. According to the Russian scientist V.S. Galetsky, who conducted research on the prevention of malicious crimes committed in the metropolitan area, criminological problems associated with crimes against the private property of citizens in the metropolitan area undoubtedly deserve an independent criminological assessment and, first of all, prompt a scientifically based response to them by the internal affairs bodies, whose activities are aimed at preventing crimes [2;58].

Based on the above, any emergency or crime occurring in the metropolitan area is most often committed with the participation of the human factor and is detected by employees who manage it using modern technologies (human factor). Therefore, the most modern innovative technologies currently in use in all countries of the world are managed by specialists from the police or internal affairs bodies. Digital technologies that identify a person's face in the subway are now being used in most countries. In some

countries (for example, in China), they are integrated into the "safe city" system, and the movement of all citizens not only in the subway, but also throughout the city and its infrastructure is monitored by "smart" eyes. This, without infringing on the freedom of the citizen, detects any violation of the law and notifies the relevant services. In this regard, it is the need of the hour to cover all infrastructure objects of the subway with such visual technologies.

Conclusion

As for the human factor, now not only the employees of the internal affairs bodies in the metro, but also all services and divisions of the internal affairs bodies involved in ensuring public safety are increasingly in need of personnel who are familiar with the latest technologies and who are fluent in one of the foreign languages. Therefore, it is becoming a requirement of the time to widely organize work on training, retraining and improving the skills of personnel to be recruited, to exchange experience with foreign countries in this direction, and to send young personnel to foreign countries for internships to study work. Thus, the place and role of the latest technologies is extremely important for achieving high efficiency in ensuring public safety in the metro, and the goal can be achieved by combining the two factors related to the training of highly qualified personnel who are fluent in them.

References:

1. On measures to increase the efficiency of the Tashkent Metro: Resolution of the President of the Republic of Uzbekistan dated October 16, 2021 No. RP-5260 //National Database of Legislative Information, 10/16/2021, No. 07/21/5260/0967.
2. Галецкий В.С. Предупреждение корыстных и корыстно-насильственных преступлений на объектах Московского метрополитена: автореф. дисс. на соискание ученой степени юридических наук. – Москва: ФГКОУ ВО Академия управления Министерства внутренних дел Российской Федерации, 2021.
3. Громов В. Метрополитен в аварийных режимах и при террористических воздействиях. [Hitps://www seckutec.ru/articeles/metropolitan-v-avarijnyh-rezhimah-i-pri-terroristicheskikh-vozdeistviyah](https://www.seckutec.ru/articeles/metropolitan-v-avarijnyh-rezhimah-i-pri-terroristicheskikh-vozdeistviyah).
4. Ўзбекистон Миллий энциклопедияси. 12 жилдлик. 5-жилд. – Тошкент: Ўзбекисон миллий энциклопедияси давлат илмий нашриёти, 2003.
5. Day John R. Reed John. Te Story of Londons Underground – 10 th. – Harrov: Capital Transport, 2008.