

APPLICATION OF ARTIFICIAL INTELLIGENCE METHODS IN LAW

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Computer technologies are increasingly used in law [1]. In particular, several criminal analytical systems have already been built on the technologies of "artificial intelligence". The New York Police Department, in collaboration with Microsoft, has developed the Domain Awareness System (DAS) - a system that aggregates and analyzes public safety information from reports, security cameras, eyewitness sightings, etc.

Palantir Technologies software products are able to combine and analyze various information: video surveillance and telephone records, radio interception data, information about financial transactions, fingerprint and DNA samples, building plans and topographic maps, "hot" news from the media and social networks, reports of informants, etc.).

Palantir's software has already helped to uncover a criminal network that has been preparing terrorist attacks in several countries around the world. It has also been used in Afghanistan to predict terrorist attacks.

ShotSpotter - acoustic system of monitoring and analysing of a street noise detects gunshots and notifies the police. Moreover, the place where an accident occurred is determined with two feet accuracy. And the whole process takes about 40 seconds from the moment when a shot was detected to sending of information to the police.

This technology is already used in 75 US cities. The PreCrime Observation System program predicts the probability of committing crimes based on statistics of previous offenses. Domestic intelligent system of criminal analysis in real time RICAS (Real-time Intelligence

Crime Analytics System) is based on advanced techniques of artificial intelligence [2]. Its technology allows you to establish implicit links in the characteristics of criminal attacks and reflect the geography, time, people and events of the crime in one visual space. RICAS capabilities significantly increase the

effectiveness of uncovering of forthwith crimes, unsolved crimes, and even those that are just being prepared.

According to the authors' opinion, the implementation of "artificial intelligence" technologies ("data mining"; "text mining"; cognitive maps of crimes; image recognition; artificial neural networks, genetic algorithms and others) into the practice of law will allow to improve the efficiency of law enforcement.

The problem of facial recognition due to their poor-quality images and prediction of age-related changes in the photos of criminals remains urgent. In this area, the use of ultramodern innovative neural networks is considered to be promising [3; 4].

The improvement is held by rework of the neural network architecture and optimizing of settings with a focus on modern standards for working with generative models. The result of the research is a generative model, which is a originative competitive neural network.

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