## **PHILOSOPHY**

## Irina V. Lapshina<sup>1</sup>, Anna V. Alekseeva<sup>2</sup>, Ruslan I. Bazhenov<sup>3</sup>

<sup>(1</sup>Taganrog institute named after A.P. Chekhov (branch) Rostov state university of economics (RSUE), Taganrog, Russian Federation; <sup>2</sup>Institute of management in economic, ecological and social systems of the southern federal university, Taganrog, Russian Federation; <sup>3</sup>Sholom-Aleichem Priamursky State University, Birobidzhan, Russian Federation)

## Multimodal artificial intelligence: a tool for effective and coordinated response to modern emergencies from the perspective of cognitive modeling

Various aspects of the use of artificial intelligence (AI) as an emergency response tool are analyzed. The need for modeling is noted, as a result of which a clear set of action plans for citizens is obtained based on triggers that are adapted, checked using man-in-the-loop mechanisms and sent to emergency response services. It is shown that AI makes it possible to create more accurate early warning systems, which is necessary to ensure the safety of citizens and reduce the level of risks for them. New connections have been identified between existing AI models adapted in world practice and aimed at reducing the level of risks for citizens living in dangerous areas of the planet.

**Key words:** cognitive modeling, artificial intelligence, information systems, emergency situations, response to natural disasters.

June 20, 2025