

BEHAVIORAL PATTERNS IN ONLINE GAMBLING IDENTIFIED THROUGH ARTIFICIAL INTELLIGENCE AND PSYCHIATRIC METHODS

Eleonora Milić¹, Bratislav Predić¹, Suzana Tošić-Golubović², Milica Cvetanović²

This study examined behavioral patterns in online gambling by using advanced technologies such as artificial intelligence (AI), machine learning, and the Internet of Behavior (IoB). The digital revolution has significantly increased access to online gambling, leading to the emergence of complex behavioral patterns among players. While many enjoy gambling as a form of recreation, the growing availability of online gambling poses a risks of addiction. The key role of AI and machine learning lies in the early detection of risky behavior among players. Algorithms can analyze gameplay data to identify patterns indicative of problematic behavior, including excessive spending and "chasing losses", which is the tendency to continue gambling or increase bets to recover losses. Appropriate interventions at the right time can mitigate the risk of developing gambling addiction. This research specifically focused on the use of machine learning and neural networks Multilayer Perceptron (MLP) to identify different player types, analyzing data from a group of online slot game players in the Republic of Srpska. Based on experience in clinical practice, models were trained on a sample of 200 players and tested on a broader group of 11,657 players to predict the risky behavior of players who played online slot games. Future research directions suggest the implementation of personalized tools for player control and support, with an emphasis on promoting responsible gambling and protecting public health. The results were evaluated using player data from the Republic of Srpska, a market governed by regulations designed to protect online gambling participants. This analysis underscored the role of regulatory frameworks and educational initiatives in mitigating the risk of gambling addiction.

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Key words: *behavioral patterns, Internet of Behavior, online gaming addiction, public health, artificial intelligence*

¹University of Niš, Faculty of Electronic Engineering, Niš, Serbia

²University of Niš, Faculty of Medicine, Niš, Serbia