

Football – How AI can put match-fixing off-side

A veritable scourge in the world of football, with almost a thousand matches fixed every year, the detection of cheating has become essential to preserve fair play and fan confidence. Artificial intelligence has a major role to play in this battle.

What if Artificial Intelligence wasn't just a cold monster destined to extinguish human intelligence? What if AI, despite the fears it inspires, had positive sides? The field of medicine has already seen tremendous progress thanks to this new technology. And it's not the only one. The world of sport, and football in particular, is on the verge of a revolution in the fight against match-fixing. For a human being, detecting these biased matches is complicated. Imagine the number of times you've shouted in front of the television or in the stadium: "The referee's bought !" More than once, no doubt, you've thought there was a problem, and that the referee or the players had pocketed a handsome sum of money. Perhaps, but be careful not to become paranoid. Football is a game which, by its very nature, thrives on mistakes, otherwise every match would end in a 0-0 draw.

Old tricks soon to be detected

Nevertheless, any suspicious behaviour should make us wary. It's the first sign that a pre-written match scenario is unfolding before our very eyes. For example, a goalkeeper who systematically dives away from the trajectory of the ball, or a defender who crudely avoids contact with his direct opponent.

Tricks that have long thrived on the green rectangle, but which risk being violently tackled by artificial intelligence.

AI algorithms can analyse vast quantities of historical data, including match results, player performance and television images. AI can track and analyse the odds of bets offered by different bookmakers. Significant discrepancies or sudden changes in the odds can be a sign of a potentially rigged match.

Social media in the eye of the AI

By identifying anomalies and patterns that deviate from expected outcomes, AI models can give early warning of possible match-fixing. Even better. AI can monitor social media and online discussions and identify unusual connections. Valuable information that can help the authorities with much more in-depth investigations. This data is already widely available. Every televised match is flooded with a cascade of statistics such as the number of kilometers covered by a player, his percentage of successful passes or even his duels won. AI can now be used to look for patterns across these multiple data sets. For example, it can identify matches where there is a significant correlation between betting patterns and unusual player or team statistics.

The key role of sports federations

Sports federations and their partners in the betting industry play an important role in training AI models to identify patterns and characteristics associated with matchfixing. Thanks to its ability to absorb, synthesize and deduce new data, AI is able to constantly improve its knowledge. When training an AI model, it is therefore necessary to reference and annotate the data to indicate which matches have been rigged and which have not. This classification process requires expertise and an indepth understanding of the matches and associated rigging, making it a complex task. This effort is essential if we are to achieve AI's key advantage, which is its ability to combine all these numerous parameters and detect anomalies in record time.

Romain Girbal is a French entrepreneur who cofounded two successful startups. Exclusive and IB2.