



## AI AND DIVERSITY IN SPORTS: OPPORTUNITIES AND CHALLENGE

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The decision-making processes of coaches and athletes as well as the improvement of audience engagement have all been impacted by the integration of AI into the sports industry. Artificial intelligence (AI), especially generative AI, has emerged as a key player in influencing socioeconomic development in a number of international areas in recent years. There is no denying its influence; estimates indicate that it will increase at a rate of 19% per year and might reach \$900 billion by 2026. Through advanced data analytics, the technology offers priceless insights into audience behavior, empowering the sports sector to better personalize experiences, enhance the effectiveness of content, and cultivate stronger relationships with supporters. Even if there have been some beneficial disruptions, there are still many ethical and regulatory issues with incorporating AI into sports. In the absence of proper supervision, the sports sector may face problems with unethical behavior, unfair competition, and negative effects for players and other stakeholders. AI has benefits as well as drawbacks. AI has an opportunity to improve patient care, evaluation, and therapy in the medical field, leading to improved results and cost savings]. AI has the potential to increase fraud detection, improve customer service, and automate jobs in the financial sector <sup>2</sup>. AI in education allows adaptive testing and customized learning experiences, however there are ethical issues and a possible loss of human relationship that need to be overcome <sup>3 4</sup>. In general, rigorous evaluation of ethical issues, integration into current systems, and continued scrutiny of risks and rewards are essential for the successful application of AI <sup>5</sup>. Strong confidentiality security is necessary for accurate data use when integrating technology into sports. It promotes fair models in player evaluation and game strategy and improves athlete safety by avoiding injuries. By automating video analysis during training, technology enhances productivity and frees up trainers to concentrate on more important tasks. Biases stemming from socioeconomic, cultural, and gender characteristics are minimized when datasets are diverse. The promise of technology in sports is similar to that of medical care, financial services, and education, where ethical issues and integration difficulties continue to be crucial to achievement. Many important research problems are raised by the effect of AI technology on the labor market in the sports business. These include analyzing how the development of AI has affected the demand for and nature of jobs, spotting new employment possibilities that have arisen as a result of AI adoption, and defining the competencies needed for these roles. It also looks at the displacement of current occupations and its effects, as well as predicting future AI trends in sports and their possible effects on the labor market. These dynamics will be explored through qualitative interviews with industry professionals, with the goal of providing significant insights into how AI is changing the nature of labor in sports and its wider economic implications. Predictive analytics, which optimizes training plans based on past data and variables like fatigue and injury risks, is where artificial intelligence (AI) in sports shows promise. By evaluating player measurements and game data, it can provide coaches with real-time decision support by recommending tactical changes and substitutions. By automating the production of material like social media postings and game recaps, AI algorithms also improve fan engagement through fast updates and tailored content delivery.

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