**Case Study: Law- AI in Sports Entertainment and Music are Machines Replacing or Improving Sports and Music?**

Student Name

Institutional

Professor

Course

Due date

**Is AI improving or replacing sports entertainment and music?**

In the cutting-edge landscape of sports and entertainment, the incorporation of artificial intelligence (AI) is poised to unlock a groundbreaking era, rather than replacing human creativity, by augmenting and amplifying it. The utilization of AI technology has shown to be highly advantageous in a variety of industries, such as sports and music. In sports, AI can provide valuable and advanced insights to professionals, assist in injury prevention, and support referees. AI has the potential to revolutionize the music industry by promoting creativity and providing a personalized experience for music lovers. This research aims to investigate whether AI is actually improving the sports and entertainment sector or replacing them.

In sports just as mentioned above AI has done tremendous work in the following aspects:

**Performance Analysis**

To enhance the performance of teams and players, it is crucial to have effective control tactics and game planning. AI comes in hand with providing information to coaches about players’ performance. Some of the specific ways in which players’ performance is analyzed is through statistical analysis where data on players’ past games is collected and analyzed. This does improve players’ training and what they need. Another specific way AI is used in performance analysis is through computer vision where high-resolution cameras and image processing software, enables the tracking of player movements and the collection of data on their positioning, ball tracking, and tactical maneuvers. This proves how AI is incredibly beneficial in providing valuable insights into the performance of individual players and teams, empowering coaches to fine-tune their strategies and elevate the overall gameplay experience (Aliyarov Kh et al., 2023).

**Injury Prevention**

In 2017, Roger Goodell, the commissioner of the National Football League (NFL), shared his excitement about using the latest technology to improve the health and safety of players. Wearable technologies embedded with AI prevent sports injuries by tracking and identifying when an athlete is at risk of an overload during training. The wearable technologies also collect data on various parameters such as heart rate, body temperature and oxygen levels.

**Referee Assistance**

On average, referees make over 200 decisions per game (Brand et. al., 2009). Referees should always pursue the goal of making decisions that comply with the rules. All decisions are though subject tohuman judgment and are final. To support human judgement, AI technology is now used. A very good example where AI has assisted in refereeing is the goal-line technology in soccer. As per FIFA’s (International Association Football Federation) definition, it is “a technical means of instantly determining whether the whole of the ball has crossed the line.” Computer Vision can also assist in identifying potential penalties across sports so as to reduce mistakes, controversies and prevent games from swaying one way or another due to a poor refereeing decision.

In music just as mentioned above AI has done the following;

**Generating Creativity**

AI is used in music composition, generating melodies, harmonies, and even entire songs aiding composers and even producers.

AI-generated music platforms are using machine learning algorithms to create unique and original music for videos, games, movies, and many other media project. However, some critics argue that AI-created lacks human touch and soul. Therefore, it is important to consider AI-generated music as an augmentation of human creativity but not to replace it.

**Personalized Experiences**

Musicstreaming platforms are using AI technology to collect data about the user’s music listening behavior and serve personalized music recommendations based on their music taste and listening habits (Thingstad J. 2023)

**In Conclusion:**

As AI is improving and enhancing various aspects of sports and music it is important to note that the human creativity remains intact. AI isn’t here to take over and the best can come when AI and humans collaboratively work together and not in competition. Although issues in copyrights and job displacements are valid concerns to address.

**References**

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