

# **Artificial Intelligence & Sports: Will AI Soon Be Athletes' Go-To Trainer?**

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Athletes are constantly seeking to get stronger, faster, improve technique, and avoid injuries. However, finding a way to accomplish these goals may prove difficult, especially for high-level athletes, if their training regimens are not individually and personally tailored. Now, artificial intelligence (AI) may offer an easier—and faster—solution than a team of athletic trainers and sports medicine therapists could provide.

## **AI as Athletic Trainer and Sports Medicine Therapist**

High-level athletes have begun using AI with video functionalities to create personalized workouts, that not only improve the athletes' skillsets, but also reduce the risk of injury. By utilizing videos ("computer-vision") and slight changes in an athlete's body position, AI can predict potential injuries and suggest movements to avoid them.

AI computer-vision has potential to positively affect athletes from a multitude of sports: baseball pitchers are using AI computer-vision to throw more efficiently; golfers are using the technology to improve their swings; and soccer players are using it to reduce injuries. In fact, ten U.S. figure-skaters even used a form of AI computer-vision to reduce fatigue at the 2022 Beijing Winter Olympics.

These advancements are just the beginning. In years to come, AI computer-vision technology may allow athletes of all levels to reap the new technology's benefits through the use of wearable sensors.

## **Potential Issues with Athletes' Use of AI Computer-Vision**

While the AI computer-vision technology boasts benefits to athletes, it also poses three notable issues.

### *1. Copyright*

Because the AI computer vision technology collects (and creates) a large amount of information about individual athletes, an issue arises concerning who will *own* this—potentially personal—information. The information that the AI computer vision collects is clearly valuable to team managers and coaches, due to its ability to help athletes excel technically and physically. Therefore, value is created when athletes use the technology, and opportunities for athletes to benefit financially exist.

As this technology develops, high-level athletes may consider negotiating and entering "up-front" agreements with managers and coaches to address copyright and ownership issues before beginning their training or membership on a team. However, many concerns are yet to be realized.

## 2. *AI's Non-Holistic Approach*

Athletic performance can be affected by more than just practicing tailored movements while utilizing a statistical probability of injury. Mental and emotional factors can contribute, sometimes immensely, to athletic performance. Currently, AI computer-vision does not account for non-physical factors.

## 3. *Ethical Dilemma*

The use of AI computer-vision—like any new technology—can be abused. Sports-data firms have begun using AI computer-vision, not to reduce injuries, but to *predict* future athletic stars by collecting television videos from various sports leagues and applying an algorithm that can track an individual player's speed and location. Is this an abuse of technology and an invasion of the privacy (and personal lives) of athletes who play on television? Or rather, should sports-data firms be encouraged to continue this practice in hopes of giving talented athletes “opportunities- of-a-lifetime?”

For more information, see the full article [here](#).