
Ethical Analysis of Biometric Data Collection in Collegiate Athletics

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Background

Technology has become an integral part of all aspects of life, especially for health and wellness. The most familiar use of technology within health and wellness are devices that track biometric data on fitness tracking devices such as such as a Fitbit®, Apple Watch®, and other health monitoring services. Applying health data to overall wellness and performance has also been implemented into athletics as a means to track performance and analyze risk of injury. As new technology is developed and implemented into athletics, rules and regulations are warranted to ensure these devices are used effectively and responsibly. In the United States, major sports leagues such as the National Basketball Association (NBA), National Hockey League (NHL), and National Football League (NFL) have made provisions about wearable technology and established protocols for the collection, analysis, and management of biometric data. Many of these challenges at the professional level have been outlined in Barbara Osborne's article, "Legal and Ethical Implications of Athletes' Biometric Data Collection in Professional Sport".³ Similar to professional sports organizations, technology for performance and injury risk analyses is being considered for college sports. College athletes, however, do not have the same rights and responsibilities as professionals. At the college level, there are unique potential legal and ethical challenges in regard to data collection and usage.

Defining Biometric Data

Biometrics is the measurement and analysis of any particular physical characteristic; more specifically, biometrics refers to the methods of the collection of such data.² Biometric data can take the form of heart rate, sleep data, and biomechanical processes. These processes include measuring landing forces and accelerations of joints.

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This data is useful in athletics as one can monitor player health, performance, and possible injury risk factors. Currently, no federal laws exist to specifically regulate biometric data collection, which leads professional and college organizations, as well as the technology companies who manufacture devices, to self-regulate and manage extensive biometric data. Most of the data that is collected falls in the parameters of the Health Insurance Portability and Accountability Act (HIPAA), however, it depends on how the medical staff has handled and transmitted the data.⁷ Biometric data is still considered health data and must adhere to the regulations set under HIPAA regulation.

Professional Precedent

Professional athletes sign collective bargaining agreements (CBA) which are deals between owners and players associations that dictate the rules of contracts, trades, revenues, salary cap, and drafting.⁷ The current language in CBAs is unclear with regards to whether an athlete can leverage power for having better than average biometric data. The question of player privacy in regard to this data is also a factor. Players' concerns about biometric data are that it will be used against them in contract negotiations. Coaches are also motivated to collect this data as it grants teams a competitive edge and better understanding

of their athletes. The NBA CBA is the first of its kind to address biometric data, with provisions to protect players.¹ Some of the stipulations include that wearable technology is not allowed to be worn in games, players have full access to their data, teams cannot use the data for contract negotiations, and teams can be fined up to \$250,000 if found in violation of these policies.⁷ However, CBAs of other major American sports leagues are not as comprehensive in language as the NBA's, thus failing to define the ownership and responsibility that a team has over biometric data of the player and the future implications of this data in terms of the athlete and his or her careers. These are some of the pressing issues that these organizations will be forced to address in future CBA negotiations.

The Unique Challenge of the Collegiate Environment

College athletics has its unique challenges in terms of biometric data collection and usage. Unlike professionals, who get paid lucrative contracts in exchange for the forfeiture of some private health rights that may include biometric data, student-athletes do not get financially compensated for their participation in sport. While athletes may receive generous perks for competing for a university, including scholarships and stipends, they are still not considered employees of the university, which can present legal challenges. Arguably, student-athletes are de-facto employees as they bring the university publicity, contracts, and money. In the 2016-2017 school year, the NCAA made \$1 billion in revenue, of which \$761 million came from the NCAA's men's basketball tournament.⁴ Professional athletes are able to unionize and bargain for their rights with their respective players associations via CBAs, while collegiate student-athletes do not have access to these options. However, that may be subject to change.

In September of 2019, California Governor Gavin Newsom signed a bill that allows college athletes to profit from their name, image, or likeness.⁶ The bill states that colleges cannot allow such endorsement deals to affect students' ability to receive scholarships. California student-athletes are also now permitted to have agents. Proponents of the bill say that this measure will drive top recruits to schools in the state. Others are concerned that the NCAA may retaliate by preventing California schools from competing in NCAA events.⁶

The most prominent case of an attempt to unionize was demonstrated by the Northwestern University Football Team in 2015; however, the National Labor Relation Board rejected the petition denying their claim that student-athletes are university employees and should be allowed to collectively bargain.⁵ This ruling prevented student-athletes from bargaining for more personal freedoms and monetary negotiation. The complicated relationship that collegiate student-athletes hold with their respective universities as a quasi-employee only expands in scope with respect to biometric data. Another important distinction is the pressures that can be placed on student-athletes to comply with the university and the team medical staff in their request for biometric data. There may also be social pressures from their teammates, thus diminishing the autonomy of the athlete. Pressure to comply with data submission can be potentially hazardous as the player may not fully understand the implications and repercussions of the usage of data, especially when rights to data privacy may not be respected.

Pros and Cons of Implementing Biometric Data Into College Athletics

The implementation of biometric data in college athletics has a promising future. There is a common saying that "knowledge is power", and such holds true for biometric data. Team personnel can acquire everything ranging from real-time feedback on player performance to information summarizing a season's worth of athlete exposures to dangerous concussive forces and other biometric data such as heart rate trends. Long-term data collection can inform team personnel on injury prevalence patterns, allowing

them to adjust training programs to potentially mitigate injury risk. Player performance can be optimized by identifying biomechanical movement patterns and other individual deficits that may put a player at risk for injury. Tracking sleep and eating habits can help ensure the athletes are still at a high level of performance even when out of practice or the gym. The use of biometric data in sport can be beneficial for college athletes to help identify injury and risk factors for personal health and sport-specific longevity.

Biometric data and its utilization within athletics are a promising means to track and manage athlete performance and possible injury risk. Some considerations that must be addressed, many of which are specific to college athletics. These considerations are unique to the college setting and may not translate closely to the challenges and situations experienced by professional athletes. Biometric data may provide valuable information on player health and risk of injury; however, student-athletes do not receive workers' compensation or a guaranteed salary payout if they were to be injured during participation, unlike professional athletes. Access to biometric data is an additional consideration that needs to be evaluated, especially since student-athletes do not receive a salary to participate in sport. Lastly, with technology still developing, there is further research that needs to be done into the accuracy and validity of this data in game-time situations. Therefore, both on the college and professional level, this data should not override a health-care professional's diagnosis.

Looking Forward

Given the exponential rate of technological advancement, there are some challenges to maintaining the same pace while developing regulations to manage and implement biometric data. As college teams move forward in the future, considerations of managing information and data are warranted to protect the student-athlete. Further research and exploration are needed on the topic of wearable technology and the scope of which it can provide accurate information, and how it can be utilized in the context of player

health and safety. Universities and the NCAA may benefit from collaboration to establish privacy standards for these types of data, with emphasis on player privacy within the university and in commercial operations. Failure to implement policy could result in negative consequences for player mental and physical health, as well as possible litigation against universities and private industry if information is mishandled. As technology advances, the issues that have been outlined above will continue to be present in both professional and college athletic spheres. The unique challenges in each athletic environment will require critical examination, not only on validating new biometric technology, but also on the attitudes of affected parties on the evaluation and the collection of biometric data.

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