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The use of Wearable Technology in Sports and the Legal Implications

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Wearable technology has been seemingly integrating its way into the field of sports over recent periods. Ground-breaking technological advancements have been instrumental in improving game performance and analysis. This article deals extensively with the usage of wearable technology in sports and the subsequent extraction of empirical data which recently have been subjected to major controversy in light of privacy concerns. In recent years, there has been a significant surge in the application of wearable technology at various different levels of sports including amateur and professional level sporting and it is a no brainer that the wide adoption of wearable technology would be subjected to questions regarding the privacy of information and compliance. Furthermore, this article also deals with the essential legal implications of the application of wearable technology in sports and the forthcoming of various players' associations who are optimistic in serving for the best interest of athletes.

Keywords: *wearable technology, data privacy, collective bargain agreement.*

INTRODUCTION

Technology in recent years has been effortlessly integrating its way into sports. The advancement of scientific applications has revolutionized sports and the performance of athletes. The notion of the "quantified self" meant a widespread usage of wearable tech. A quantified individual seemingly uses technology and subsequent data to improve performance in daily life[1]. These devices over the years have become more innovative and their usage has become more prevalent due to its ability to deliver a detailed biometric understanding of the athlete. Wearable technology is a rather new development and slowly slinked its way to European football during the early 2010s. These devices are integrated into the clothing or directly on the body and aid in tracking the workload of players. Potential injuries related to concussion, head trauma, injured muscles, or exhaustion can be indubitably avoided, in essence, these devices help keep athletes safe and healthy.

The wearable tech industries over the years have risen up to a trillion-dollar industry, where the right application can remit precise information about an athlete's biometrics. One such example can be illustrated by a revolutionary device that wirelessly collects lactic acid data as athletes train. Lactic acid is an athlete's most vicious enemy causing fatigue, pain, and even loss of consciousness. Long periods of intense exercise require more energy than oxygen alone can provide. In the absence of oxygen, muscles produce lactic acid, which can only be tolerated in small amounts as it can be toxic in high doses[2]. For the first time, athletes have real time information that enables them to avoid over-exertion. So how does the revolutionary wearable device work?

The lactic acid monitor is essentially a sensor that measures the oxygen levels in an athlete's muscle through an optical sensor, which shines different colors of light into the muscle and based on the property of light and how it fluctuates, a detailed report on the oxygen level in the muscle can be obtained. The athlete just simply needs to put on the wearable device and the comprehensive reports are directly sent to the paired Bluetooth device. Our history has gathered emotional moments where high-performance sports have almost defeated athletes. Perhaps one of the most memorable examples took place in the Olympic Games in 1984. The image of marathon runner Gabriella Anderson pushing her limits to reach the finish line still anguishes

[1] J Mdil, 'Wearable tech in sport: the legal implications of data collection' (*Lawinsport.com*, 2022) <https://www.lawinsport.com/topics/item/wearable-tech-in-sport-the-legal-implications-of-data-collection> accessed 05 September 2022

[2] Peakalkalinity, 'Lactic Acid affect athletes' (*Peakalkalinity*, 2018) <https://peakalkalinity.com/fairhope/lactic-acid-affect-athletes/> accessed 05 September 2022

us today as much as it did even then. However, it hasn't all been smooth sailing for the wearable technology industry, they have been subjected to major backlashed regarding the rights of legal access to biometric information. The issue is not just limited to privacy but also extends to gambling and other concerns.

OWNERSHIP AND ACCESS

High school and youth-level sports

With the ever-increasing popularity of wearable tech, its incorporation into a large section of youth in high school seems rather apparent[3]. However, questions regarding the privacy of information are expected to surface with the vast amount of biometric data that would be obtained. Additionally, schools would need to employ highly skilled medical professionals with extensive knowledge of technology and competent enough to interpret the data. Furthermore, difficulties in compliance, storing private information, and inadequate representation at amateur level sports are its major challenges.[4]

Another major issue regarding the adoption of wearable technology at high school and youth level sports would be its price. The cost for such devices is not so modest, which leads to considerable inequality among athletes. Someone belonging to an underprivileged background would find it merely impossible to compete against an affluent opponent privileged with the luxury of the latest technology. This not only creates an imbalance but questions the concern of fairness and heavily jeopardizes the integrity of sports.

COLLEGE ATHLETICS

College athletes are more or less faced with similar problems as high school athletes but with additional intricacies due to their added level. The majority of college level athletes sign what is called a national letter of intent, which is legally binding during the onset of their season. This meant many athletes repudiated numerous rights to commit to one season in the National

[3] Pressbox, 'Sports Tech Wearables And Youth Sports' (*Pressbox*, 2022) <https://blog.leagueapps.com/sports-tech-wearables-and-youth-sports/> accessed 05 September 2022

[4] Sports Medicine Weekly, 'Wearable Technology Chicago' (*Sports Medicine Weekly*, 2022) <https://sportsmedicineweekly.com/blog/is-there-wearable-technology-in-the-young-athletes-future-2/> accessed 05 September 2022

College Athletic Association (NCAA)[5]. However, this contract is contemporarily cited as the "worst contract in America" due to it being heavily one sided and extensively beneficial to the institutions only.[6] Additionally, this contract has been the centre point of major controversy attributed to its sharing of private information regarding athletes' performance and biometrics without any prior consent or knowledge. For example, the University of Michigan in 2016 signed a deal with Nike, wherein according to the agreement Nike would supply sports equipment in return for athlete generated data.

This meant Nike claimed ownership and player data and transcended it to increase its market traction and promotions[7]. In short, the Institution bargained their players without any foregoing assent or approval. In order to unbosom a way for athletes to protect their privacy we turn to federal law. Institutions that receive federal funding must receive approval from the Family Educational Rights and Privacy Act (FERPA) to access and publicize any relevant student records[8]. In addition to this companies engaging in commercial deals with the institutions, will exercise added obligations to safeguard to sensitive information. It is also imperative for institutions to be cognizant of what information can and cannot be shared.

WEARABLE TECHNOLOGY IN PROFESSIONAL SPORTS AND ITS LEGAL IMPLICATIONS

Contrary to college and amateur-level sports where widespread exploitation of athletes is not unheard of, the top flight of professional sports represents the brighter side of the sporting world. Infused with numerous players' organizations and associations, these entities strive to battle for the better interest of the players. In the United States the National Football League

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[5] Ncsasports.org, 'Everything You Need to Know About National Signing Day' (*NCSA Sports*, 2022) <https://www.ncsasports.org/recruiting/managing-recruiting-process/national-signing-day#:~:text=Starting%20the%20day%20that%20the%20NLI%20is%20issued%2C,to%20sign%20the%20document%20until%20National%20Signing%20Day.> accessed 05 September 2022

[6] *Ibid*

[7] Frank V, 'Michigan's Nike Contract Is The Richest In College Sports History' (*Forbes*, 2022) <https://www.forbes.com/sites/vincentfrank/2015/07/16/michigans-nike-contract-is-the-richest-in-college-sports-history/?sh=7204b2e1ce68> accessed 05 September 2022

[8] Workplace Privacy, Data Management & Security Report, 'As Wearable Technology Booms, Sports and Athletic Organizations at all Levels Face Privacy Concerns' (*Workplace Privacy Report*, 2019) <https://www.workplaceprivacyreport.com/2019/04/articles/health-information-technology/as-wearable-technology-booms-sports-and-athletic-organizations-at-all-levels-face-privacy-concerns/> accessed 05 September 2022

(NFL) and Major League Baseball, players disclose their medical data[9]. Additionally, their performance is monitored through wearable technology and on-field sensors. Bizarrely the NFL also monitors the player's activities off the field such as sleeping patterns and post-game recovery. This, however, has been subjected to major backlashes from the National Football League Players Association (NFLPA) who recited that the pre-agreed collective bargaining agreement does not allow for any off-the-field monitoring.[10] Currently, if the NFL wants to utilize any of the filed information, it is mandatory to seek the approval from NFLPA. Today the relationship between the NFL and NFLPA has proved to be at a standstill, but the NFLPA is optimistic that it fulfills the best interest of players regarding the utilization of collected data. As of 2017, NFLPA has reached an agreement with WHOOP, a human performance company, giving them the leeway to repress against the NFL[11]. The NFLPA not only seems buoyant about curbing issues regarding privacy but is devising strategies to bring large-scale benefits out of wearable technology.

In contrast to some of the major sports leagues in the United States, The National Basketball Association (NBA) is at the forefront when it comes to the adoption of wearable Technology. Of the five notable professional sporting leagues in the USA, The NBA’s collective bargaining agreement included a distinct clause that delved into the usage of wearable tech[12]. Some of the provisions included, the usage of wearable tech to be completely voluntary and the refrainment of negotiation pertaining to the athlete’s data. Additionally, in 2017, NBA and the National Basketball Players Association worked on a collective bargaining agreement to address the utilization of tracking devices.

These provisions were put forth to prevent any negatives effect of wearable tech on athletes. In line with the agreement wearable tech is not only merely defined as a device or equipment but

[9] McChrystal M, ‘No Hiding the Ball: Medical Privacy and Pro Sports’ (*Marquette Law Scholarly Commons*, 2022) <https://scholarship.law.marquette.edu/facpub/663/> accessed 05 September 2022

[10] *Ibid*

[11] Lachenmeier D & Diel P, ‘A Warning against the Negligent Use of Cannabidiol in Professional and Amateur’ (2019) 7(12) Athletes Sports 251

[12] Sports Illustrated, ‘New CBA limits NBA teams' use of data from wearable devices’ (*Sports Illustrated*, 2022) <https://www.si.com/media/2017/02/02/nba-data-analytics-new-cba-wearable-device> accessed 05 September 2022

its scope extends to software specialized for collecting data[13]. Furthermore, its provision extends to off the field activities concerning the player's mental health and readiness. Most importantly the agreement entails the usage of technology to be completely voluntary. The clubs should refrain from predisposing the players to use these smart technologies and players should not be induced to use them. The agreement further goes on the state the data is to be kept confidential even after the expiry of termination of the contract and should not be a part of the player's medical record. The players also exercise the right to delete the data congregated upon request. Moreover, the clubs would now require approval from MLBPA to share the biometric data apart from the written consent of the players[14]. The usage and scope of wearable technology are further limited, restricting its use during games or pregame warmups. In order to get approval to use the tech for the mentioned occasions, the club should seek assent from the Player Rules Committee (PRC) in consonance with the Official Base Ball Rule.

IMPACT OF WEARABLE TECHNOLOGY ON INDIVIDUAL SPORTS

Wearable technology has ponderously influenced the domain of Individual sports, the most popular ones being tennis, MMA, boxing, and golf. The Association of Tennis Players (ATP) in 2019 during their annual under 21 tournaments in Milan started the trial of wearable technology in the game[15]. The device employed was a GPS receiver and tracker which helped enumerate the players breathing and heart rate, velocity, acceleration, and body mobility[16]. Tennis Association director, Joleyn De Boyer seems optimistic about wearable technology and believes it is the element to propel tennis sports to another level[17]. Companies such as Sony and Zepp Labs are currently flooding the market with such revolutionary trackers[18]. Similarly in golf wearable devices are implanted in the players' bodies or the ball. These devices procure

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13 *Ibid*

14 *Ibid*

15 Sportspromedia. 'Next Gen ATP Finals to feature wearable technology for first time' (*Sports Media*, 2022) https://www.sportspromedia.com/news/next-gen-atp-finals-wearable-technology-tennis/> accessed 05 September 2022

16 *Ibid*

17 Association T, 'Tennis Pushes the Technology Limits' (*GlobeNewswire News Room*, 2022) <https://www.globenewswire.com/en/news-release/2016/06/02/845754/32396/en/Tennis-Pushes-the-Technology-Limits.html> accessed 05 September 2022

18 *Ibid*

information regarding the distance travelled by the ball and the accuracy of players. Golf elites such as Tiger Woods and Justin Thomas can be seen using wearable devices manufactured by WHOOP[19].

In professional boxing and MMA however comprehensive devices such as Healbe are extensively used by athletes to control and track their calorie intake and body fluid levels. Throughout the day the human body digests to synthesize glucose. This is then consumed by cells to release water. This Bodily mechanism aids Healbe in accurately tracking calorie consumption, essential for balancing between cutting weight and being prepared for fights.

CONCLUSION

The booming of wearable technology has been a groundbreaking invention in the field of sports. Not only it has enhanced an athlete's performance but also in some cases has made broadcasting more engaging and interesting which has been instrumental in popularizing sports. Professional sports and its related collective bargaining agreements are ahead of the curve compared to college sports and Amateur leagues. When it comes to the legal implication of these smart devices, professional sports are leading the way. However, these sports still haven't found a necessary medium to address a holistic formula for its privacy implications. But with renegotiations of the collective bargaining agreements, professional sports are set to imprint a standard for sports all around the world. By the year 2024, all the professional league in America and their collective bargaining agreements will have construed an agreement for the best interest of their athletes and mitigate a larger issue of the athletes and their privacy.

[19] Barrabi T, 'How Whoop wearable device could solve NBA's load management problem' (*Fox Business*, 2022) <https://www.foxbusiness.com/sports/whoop-sports-wearable-device-funding-nba-nfl> accessed 05 September 2022