

Live and Clicking: The Big Data Relationship Between Sport and Betting

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Abstract

This paper examines the relationship between the sport and betting industries and how the constant demand for policymakers to justify their collaboration is restricting their capacity to tackle the threats facing sport's integrity. The process starts by taking a brief look at the history of sport and betting, demonstrating a longstanding and symbiotic relationship between the two industries. By drawing on examples from the sport industry, it highlights the challenges faced by sport policymakers in trying to balance the stigma of gambling and threat of match-fixing, with attempts to capture a share of the profits from sports betting. An analysis of technology's role in the relationship between the two industries shows not only a shared need for data but, crucially, that the betting industry's reliance on a thriving sport industry as a source of credible data makes upholding sport's integrity a common goal. It concludes by postulating how this relationship will evolve and some of the future trends and policies we can expect.

Keywords: Big data, corruption, gambling, integrity, live scoring, match-fixing, sport data, sports betting, sport policy, technology.

1. Introduction

Sport and betting both predate modern history, but as new technologies increase access to sport's data, the prevalence of sports betting has brought the two industries closer than ever.

Estimates value the global sports betting industry at US\$1 trillion, and it seems only fair that the sport industry should stake claim to its share.¹ After all, the sports betting industry could not exist without a thriving sports industry within which to operate. However, the relationship between sport and gambling is a contentious one and has proved challenging for policymakers to navigate.

Sport relies on competition and value is derived from both the outcome and the athletes' performance. The principle of fair play is essential because without it both the outcome and the performance lack any real significance. Consequently, integrity is promoted as a fundamental value that federations, clubs and leagues strive to uphold.

Gambling is focussed on the outcome and many activities rely on chance as much as skill. Stories of addiction, bankruptcy, and a history of illegal betting practices, combined with its links to match-fixing, do not reflect the value of integrity.

Recent doping and corruption scandals in sport have not only shown the importance of fair play and integrity, but also highlighted the need for proactive policy implementation.

While some may argue sport's integrity would be best served by ending its relationship with betting altogether, there is value to be gained for both industries from collaborating and the dependence of sports betting on sport itself creates a shared responsibility for upholding its integrity. The International Olympic Committee ("IOC") defines what lies at the heart of the problem.

"Betting on sport is not inherently negative. [...] The problems occur only when athletes, their entourage or officials bet on their own sport or – in the worst case – this betting leads to the manipulation of competitions."²

Much has been written on the dangers of betting and its influence on the sport industry but this article will move the discussion away from whether or not the two industries should collaborate and focus on how sports can uphold their integrity in the face of a growing sports betting industry. The more resources policymakers from both industries spend on defending their relationship, the fewer are left to invest in responding to the concerns being raised.

This article will address the reputational challenge to sporting bodies posed by betting's negative stigma and the real threat caused by its role in incentivising and facilitating match-fixing. Through a series of examples, it will demonstrate policies and pitfalls and highlight the complexity and challenges policymakers face. An analysis of technology's role in the relationship between the

¹ Nick Campanelli, "Betting on the English Premier League," *Towards Data Science*, May 21, 2019, <https://towardsdatascience.com/betting-on-the-english-premier-league-making-money-with-machine-learning-fb6938760c64>.

² "Prevention of Competition Manipulation," The Context of Sports Betting, International Olympic Committee, accessed May 13, 2020, <https://www.olympic.org/prevention-competition-manipulation>.

two industries leads on to their shared dependence on the data it creates, the mutual benefits to be derived from it and, most significantly, how upholding the integrity of sporting competitions is fundamental for both industries' success and is best served by a collaborative approach. It concludes by postulating how this relationship will evolve and some of the new trends and policies we can expect in the future.

2. A Brief History of Sports Betting and its Stigma

Records of sports betting can be found as far back as the first Olympic Games over 2,000 years ago. This suggests that sport has long provided a source of betting and, in return, betting has been enhancing the spectator experience by creating a personal stake in the result.³

The strength and interdependency of this relationship is illustrated by the history of horse racing. Originally races, known as 'match races', involved just two or three horses with simple wagers between their owners.⁴ In the 18th Century however, "horse races involving several horses on which spectators placed bets took over from match racing".⁵ Betting was such an integral part of the sport's popularity and business model that the United Kingdom had to introduce the "Betting

Levy Act in 1961 to offset the decline in race day revenue (gate receipts) following the legalisation of bookmakers' off course operations".⁶ Simply put, the incentive to attend the races had been fuelled as much by the opportunity to bet, as the desire to spectate.

As the number of sports and sporting competitions increased over time, so too did the bookmakers' portfolio.⁷ The rise of the internet and data collection technologies may have sparked a boom in the sports betting industry but the relationship itself is a historic one.

The betting industry, however, is not without its controversy. Animal fights and so-called 'blood sports' have provided a source of betting, and opposition, since ancient times and only became outlawed with the appearance of animal rights movements in the 19th century.⁸ The attempts at prohibition of certain gambling activities did not result in their extinction but rather created an underground industry which was driven by their purpose as a source of betting.⁹ The absence of regulation also opened the door to foul play and increased the negative stigma around gambling as a whole. Betting has long been judged on moral grounds and as a cause of financial troubles, with an understanding of the science behind pathological gambling fuelling this reputation in

³ John Milton, "History of sports betting," *Big on Sports*, July 19, 2017, <https://www.bigonsports.com/history-of-sports-betting/>.

⁴ "Match Races," *Horse Racing*, Encyclopædia Britannica, accessed July 4, 2020, <https://www.britannica.com/sports/horse-racing>.

⁵ "Horse Racing History," *Equestrian sports*, Equine World UK, accessed July 5, 2020, <https://equine-world.co.uk/info/equestrian-sports/horse-racing/horse-racing-history>.

⁶ Department for Culture Media & Sport, "Extending the Horserace Betting Levy: A Consultation on

Implementation," (June, 2014): 2.2, <https://perma.cc/KA39-CEDF>.

⁷ Adam Hope, "The History of Sports Betting," *Guides, Expert Gambler*, updated May, 2020, <https://www.expertgambler.net/betting/guides/history/>.

⁸ "Cockfighting," *Encyclopaedia Britannica*, accessed May 18, 2020, <https://www.britannica.com/sports/cockfighting>.

⁹ *Ibid.*

more recent times.¹⁰ The industry is still commonly associated with this stigma and critics argue that the reputation of sports is marred by association.

The purpose of this article is not to review the history of betting but, in order to understand the dilemma faced by the sport industry when defining policy, it is important to acknowledge the longstanding relationship between them, as well as the traditions which have contributed to public opinion on the topic.

That said, it is not just the negative stigma and public opinion which presents an obstacle for policymakers. The emphasis on *outcome* over competition in betting creates an incentive towards match manipulation. This presents an entirely different challenge for policymakers as it threatens the very principles of fair play and competition on which sport is founded.

3. Match-fixing: The Real Threat to Integrity

Match-fixing is not a new phenomenon and is not limited to any specific sport. The motivation to fix the outcome of a bet before it has been realized is clear.¹¹ Removing the risk, guarantees a win. The more certain one is of a win, the greater the temptation to place a wager, the greater the value one would be willing to bet and the greater the return.

Unlike many traditional gambling games, to fix an outcome in sport, the match-fixer needs an accomplice - officials and athletes - and this is where the real threat to sport lies. The objective of competitive sport is to determine the best athletes, so match-fixing does not only cheat the bookmakers but destroys the element of competition.

“If the credibility of sports competitions suffers, then sooner or later the credibility of sports organisations will suffer. The same is true the other way around.”¹²

As the value of the sports betting industry has grown, the potential returns have grown with it and, consequently, so has the temptation to influence outcomes. As any investor knows, the best deal is one with low risk and high return. Match-fixing, as long as you do not get caught, offers negligible risk and almost limitless returns. This increases the amount match-fixers are willing to ‘invest’ in targeting and paying athletes to control outcomes. The more money becomes available to athletes for agreeing to deliver an outcome, the greater the temptation for players to succumb to match-fixing. The more outcomes that are successfully controlled, the lower the perceived risks of those bets and the greater the returns on bets placed.

¹⁰ Peter Ferentzy and Nigel Turner, “Morals, medicine, metaphors and the history of the disease model of problem gambling,” *Journal of Gambling Issues* No. 27 (October 2012): 2, <http://dx.doi.org/10.4309/jgi.2012.27.4>

¹¹ The use of the word ‘outcome’ rather than ‘result’ reflects the wide range of unique incidents available for

betting. For example, a serve in tennis or shot in football.

¹² “Integrity,” Integrity, International Olympic Committee, accessed May 13, 2020, <https://www.olympic.org/integrity>.

This cycle fuels more investment into match-fixing which in turn reduces the element of competition and ultimately the purpose of sport itself.

4. The Policy Conundrum

Upholding sport's principles is the responsibility of its administrators and they are accountable not just to their athletes but to their fans and wider public. Sports federations, governing bodies, clubs and leagues have been faced with a dilemma in regards to betting.

A non-collaboration policy may demonstrate a no-tolerance position towards its threat to integrity but would result in unregulated sports betting and fewer resources with which to fight corruption. Collaboration with the betting industry increases the betting industry's growth and consequently its threat to sport's integrity. However, it also creates additional revenue and partnerships which are essential in the fight against corruption. This has left sport bodies with the question of how to cooperate with the betting industry without the financial incentives appearing to undermine their principles of fair play and integrity. The complexity

of this dilemma is evidenced by the inconsistency and policy changes across the sport industry.

In 2015 the International Tennis Federation ("ITF") signed the betting company Betway as an international sponsor for the Davis and Fed Cup competitions.¹³ A policy change in 2017 to "cease having betting sponsors" however resulted in the ITF ending the contract early.¹⁴ A similar deal between betting company William Hill and the Australian Open was signed in 2015.¹⁵ However, at the 2017 event, public criticism resulted in onsite signage being removed, despite Tennis Australia defending the sponsorship.¹⁶

Prior to these incidents, the men's and ladies' professional tennis associations ("ATP" and "WTA" respectively) and the ITF had each entered commercial partnerships with data companies that included authorized collection and distribution of match data to the betting industry.¹⁷ ¹⁸ Whilst official data collection and analysis is an important tool in combating corruption, the rise in data provided to the betting industry does also increase opportunities for match-fixing.

Before all of these partnerships, the sport's governing bodies, including the ITF, WTA, ATP

¹³ International Tennis Federation, "Betway becomes international sponsor of Davis and Fed Cup," *Davis Cup*, November 25, 2015, <https://www.daviscup.com/en/news/219745.aspx>.

¹⁴ Sport Business Sponsorship, "International Tennis Federation ends Betway deal early," *Sport Business Sponsorship*, January 19 2017, <https://sponsorship.sportbusiness.com/news/international-tennis-federation-ends-betway-deal-early/>.

¹⁵ Sport Business Sponsorship, "William Hill claims landmark partnership with Australian Open," *Sport Business Sponsorship*, October 26, 2015, <https://sponsorship.sportbusiness.com/news/william-hill-claims-landmark-partnership-with-australian-open/>.

¹⁶ Courtney Walsh, "Tennis Australia defends relationships with wagering firms," *The Australian*, April

28, 2018, <https://www.theaustralian.com.au/sport/tennis/tennis-australia-defends-relationships-with-wagering-firms/news-story/63250e536039f84c31125e75d0dd3fed>.

¹⁷ Daniel Kaplan, "ATP, WTA renew Enetpulse live-scoring deal," *Sports Business Journal*, September 22, 2014, <https://www.sportsbusinessdaily.com/Journal/Issues/2014/09/22/Leagues-and-Governing-Bodies/ATP-WTA-data.aspx>.

¹⁸ "Current Sponsors," Commercial Partners, International Tennis Federation, accessed May 26, 2020, <https://www.itftennis.com/en/about-us/organisation/commercial-partners/>.

and Australian Open had created an independent anti-corruption body, the Tennis Integrity Unit, to define and apply a single code across the industry to combat match-fixing. All of the aforementioned agreements were in accordance with this code and adhered to International Olympic Committee guidelines.

Despite opting to prohibit sponsorship with sports betting companies, “it is permitted [for tennis tournaments] to appoint casinos or national, regional or state sports lotteries [...] provided they do not offer tennis betting as part of their business activity”.¹⁹ This suggests that tennis has no objection to gambling itself. Whilst removing a betting sponsor has little proven impact on combatting match-fixing, it demonstrates the importance of image in sport and consequently the influence of public opinion on policy. The data partnerships, on the other hand, have each been renewed and continue to stand up to public scrutiny. This could be due, at least in part, to such deals being less visible and therefore drawing less attention or to the role data-collection can play in identifying potentially fraudulent activity.

In football there is a different approach. Betting companies are the number one choice of title sponsor for European leagues, with twenty-six

percent of the Union of European Football Associations’ (‘UEFA’) members whose leagues have a title sponsor choosing this category.²⁰

In England, ten of the twenty Premier League teams have a betting company as a shirt sponsor for the 2019/2020 season.²¹ It is noteworthy that none of the traditional top six English clubs have a betting sponsor on their shirts, arguably because they are able to attract far more lucrative deals from other industries.²² The league’s highest shirt sponsorship from a betting company was West Ham’s £10 million deal with Betway, while the lowest grossing shirt sponsor from the top six was Tottenham Hotspur’s £35 million deal with insurance company AIA.²³ Shirt sponsorship from betting companies provides valuable revenue for the league’s lower ranking clubs. Any policy prohibiting betting sponsors could disadvantage clubs unable to replace them with similar deals.

For those who believe gambling itself is something to be discouraged, or at least not encouraged, football’s approach is in conflict with its message of integrity because advertising implies endorsement. However, the discrepancy between clubs’ spending capacity in English football has long been accused of creating an unfair playing field. Thus, a policy prohibiting betting company

¹⁹ International Tennis Federation, “2020 Men’s and Women’s ITF World Tennis Tour Regulations,” Appendix F, 3, <https://www.itftennis.com/media/2674/2020-mens-and-womens-itf-world-tennis-tour-rules-and-regulations-v1.pdf>.

²⁰ FIFA Professional Football Department and the International Centre for Sports Studies, “FIFA: Professional Football Report 2019,” 190, last modified December 12, 2019, <https://resources.fifa.com/image/upload/fifa-professional-football-report-2019.pdf?cloudid=jl5corccbsef4n4brde>.

²¹ Statista, “Value of jersey kit sponsorships in the Barclays Premier League in 2019/20, by club (in million GBP),” *Statista*, accessed May 24, 2020, <https://www.statista.com/statistics/254513/value-of-jersey-kit-sponsorships-in-the-barclays-premier-league-by-club/>.

²² Note that the top six clubs do have partnership agreements with betting/gaming companies but not as shirt sponsors.

²³ Statista, “Value of jersey kit sponsorships,” accessed May 24, 2020.

advertising could receive greater backlash than one which does not.

Advertising betting companies sends the message that the English Premier League, and at least ten of its clubs, has no ethical objection to gambling. However, while players can be obliged to display betting companies on behalf of their clubs, English Football Association rules state “an individual Participant, when acting in a personal capacity, shall not be permitted to advertise or promote any betting activity that the Participant is prohibited from engaging in by Rule E8(1) or E8(2) [any form of direct or indirect betting relating to any aspect of football].”²⁴ Thus, clubs are permitted to advertise sports betting companies but players are not.

Policy is not just determined by sport administrators and can vary widely between nations. With the exception of Las Vegas casinos, sports betting in the USA was illegal until 2018 when policy making was shifted onto individual States. As a result, twenty have since legalized the practice, seventeen of which already regulate the industry.²⁵ In Europe, there is no single policy or policymaker and each nation establishes its own system. Some do so at state level, others establish independent commissions while others have no

regulation at all.²⁶ In countries subject to Islamic law, sports betting is prohibited as all forms of gambling are illegal. Even within a given country, policy may not treat all sports equally. In the UK for example, horseracing remains the only sport to receive a levy on betting profits from its events, despite a proposal put forward to apply a levy across all sports.²⁷ As is the case with all national policies, politics, tradition and public opinion all play their role.

National policies also have an impact on sport’s policymakers, as was exemplified in golf in 2019. In February, the PGA Tour’s (“Tour”) Senior Vice President, Andy Levinson, directly referenced the USA’s shift towards legalizing sports betting when he announced the Tour’s policy revision to permit players and tournaments to be sponsored by gambling companies.²⁸ In October, the Tour took it a step further by announcing a move to permit on-site gambling at its events.²⁹

Governing bodies derive value from the betting industry in different ways, but to identify the fundamental policies across the sport industry we can turn to the IOC. Its Olympic Movement Code on the Prevention of the Manipulation of Competitions must be adopted by its affiliated

²⁴ The Football Association, “The FA Handbook, 2019/2020,” (version 1.0), chap. 10, rule E.8 (3), <http://www.thefa.com/football-rules-governance/policies/betting-rules>

²⁵ Dustin Gouker, “Legislative Tracker: Sports Betting,” *Legal Sports Report*, updated May 19, 2020, <https://www.legalsportsreport.com/sportsbetting-bill-tracker/>.

²⁶ European Central Securities Depositories Association, “The Regulation of Sport Betting in Europe,” *ECSDA: An Informative Website*, accessed May 22, 2020, <https://www.ecsda.com/the-regulation-of-sport-betting-in-europe/>.

²⁷ The Law Library of Congress, “Sports Betting and Integrity Agreements,” Great Britain, VII, Integrity Fees, July 2018, <https://www.loc.gov/law/help/sports-betting/sports-betting.pdf>

²⁸ Mike McAllister, “PGA TOUR revises sponsorship regulations with gambling entities,” *PGA Tour*, February 26, 2019, <https://www.pgatour.com/company/2019/02/26/pgatour-revises-sponsorship-regulations-with-gambling-entities.html>.

²⁹ Sports Business, “PGA Tour to allow on-site betting in 2020,” *Sports Business*, October 28, 2019, <https://www.sportbusiness.com/news/pgatour-to-allow-on-site-betting-in-2020/>.

associations.³⁰ This Code prohibits betting on any sport or competition in which they are involved, manipulating results, using or sharing any privileged information for the purposes of betting, and includes a requirement to report any breaches and cooperate with any investigations.³¹ There is no reference to sponsorship, and betting activities are only prohibited where they create a clear conflict of interest i.e. betting on a sport in which you are involved. Most notable is the requirement to report and cooperate. Educational programs on what constitutes corrupt activity and how to report it, particularly at lower tiers of competition, are relatively new initiatives, as are the reporting systems themselves. The proactive nature of this approach is indicative of how seriously policymakers are taking the threat of match-fixing and their willingness to invest in the solution.

In addition to the IOC's Integrity and Compliance Hotline, governing bodies have launched their own programs. From FIFA's 'Integrity Kits'³² to TIU's "Tennis Integrity Protection Program",³³ these are not only significant for the information they impart but the collaborative approach they instil. Similarly, the IOC's Integrity Betting Intelligence System

fosters a collaborative approach, working with the sport and betting industry and police forces.³⁴

Cooperation between the industries is an essential tool to combatting match-fixing but attempts to limit sport's capacity to generate revenue from the betting industry for this goal complicates the process. Extracting value from sports betting that is consistent with sport's message of integrity and stands up to public scrutiny continues to occupy valuable resources.

5. Technology: The Catalyst

Whilst sports betting and the existence of match-fixing far outdate modern technology, it is hard to deny the link between the betting industry boom and the threat from match-fixing.

The growth of the sports betting industry is a consequence of the digital revolution. Innovative technologies have created new sources of data as well as improved methods of collection, distribution and analysis. Online betting has increased access to sports betting. This has increased the number of people betting and the number of unique bets placed, resulting in today's lucrative sports betting industry.

³⁰ International Olympic Committee, "Ethics: 2020," Code of Ethics, Olympic Movement Code on the Prevention of the Manipulation of Competitions, Preamble e, https://stillmed.olympic.org/media/Document%20Library/OlympicOrg/Documents/Code-of-Ethics/Code-of-Ethics-ENG.pdf#_ga=2.104578179.223056294.1590588549-1406167687.1586454372.

³¹ Committee, "Ethics: 2020," Code of Ethics, Olympic Movement Code on the Prevention of the Manipulation of Competitions, Article 2,

³² Fédération Internationale de Football Association, circular no 1703 sent to member associations of FIFA,

January 16, 2020,

<https://resources.fifa.com/image/upload/1703-new-and-enhanced-fifa-integrity-material-and-support-for-associations-and-c.pdf?cloudid=r8eugl88iae5bw7eut55>

³³ "About the TIU," Education, The Tennis Integrity Unit, accessed May 17, 2020,

<https://www.tennisintegrityunit.com/about-tiu/>

³⁴ "Intelligence and Investigations," Integrity Betting Intelligence System (Ibis), International Olympic Committee, accessed May 14, 2020,

<https://www.olympic.org/prevention-competition-manipulation/intelligence-investigations>

However, online betting makes it harder to identify who is placing a bet, making it far more complex to impose restrictions. The perceived anonymity of online activities may even embolden people to behave in ways they otherwise would not. Furthermore, it reduces the barriers to entry for rogue and unregulated betting companies and introduces a new level of complexity for enforcing governmental regulation as gamblers and bookkeepers operate under different jurisdictions.

New technologies have also enabled betting companies to access a larger portfolio of sports. Simple hand-held devices facilitate cheap and instant data collection which has brought amateur sports and lower-tier events into the industry. This increase in betting opportunities, whilst driving up revenues for sports betting companies, brings additional challenges for governing bodies.

The sheer volume of competitions exposed to betting vastly increases the complexity of monitoring and regulating activities. Lower tiers and amateur sports tend to have less robust policies in place and are less equipped to enforce them, thereby making them easier targets for match-fixing. Players are less educated about restrictions and policies; lower player earnings increase the temptation for ‘easy money’; bribes are cheaper for the match-fixer; and there is less perceived risk of getting caught.

The range of wagers available within a given sport has also seen exponential growth as technologies accurately and instantly record and analyse matches in real time. In-play betting has driven up the value

of the sports betting industry and with it the regulatory challenge. In-play betting instances are often far easier to control for the athlete and much harder to prove as deliberate. Controlling a match result or final score still entails a certain amount of uncertainty, whereas missing a serve or conceding a foul, is almost entirely in the athlete’s control. This has two implications. First, the risk is reduced, increasing their appeal to match-fixers. Second, the impact on the overall result is often negligible, and as such, psychologically feels less like cheating, allowing match-fixers to instil a “missing one shot doesn’t hurt anyone” mentality.

However, technology has not only impacted the betting industry. The ability to monitor and analyse match data and betting trends means regulators can more readily identify irregularities and potential offenders. Indeed, many of the responses to match-fixing are a result of embracing new technologies and collaborating with those at the forefront. In golf, the PGA Tour refers to support from technology company Genius Sports as “essential” to its Integrity Program.³⁵

The technology that brought the less lucrative amateur sports and lower-tiers into the bookmakers’ portfolio also improves their finances and services. Live scoring, live streaming, and real time match data are no longer reserved for the top leagues. Reaching a wider audience and improving fan-engagement increases the value proposition for potential sponsors and opens up new revenue streams through data.

³⁵ PGA Tour, “PGA TOUR implementing new Integrity Program in 2018,” *PGA Tour*, September 18, 2017,

<https://www.pgatour.com/company/2017/09/18/pga-tour-implementing-new-integrity-program-in-2018.html>.

Rights holders and sponsors alike are looking towards new technologies to reach new audiences, improve and track engagement, and become integral parts of their fans' lives both in and out of match time. Resulting data can define marketing campaigns and enhance sponsorship deals.

Wearable technologies attached to a player's body or equipment have also seen significant advancements. These can provide feedback and analysis of physical and physiological performance which can be used for training and injury prevention purposes.³⁶ Many of the data-points offered by such technologies, such as heart rate, calories burnt, and oxygen saturation levels, are not captured by camera or sensor-based technology. They also provide simple data collection solutions outside mainstream competition.

Sophisticated analysis tools provide a new resource for coaches and tacticians, offering data on team and individual performance. This is not only useful as a coaching tool but can inform decisions on the most suitable player and price tag in transfer markets.

Up to the highest level, new technologies are increasing revenue streams through lucrative partnerships and growing sponsorship revenue. The real value, however, is not derived from the technology itself but from the data it generates.

6. Importance and Value of Data

The ever-growing volume of data provides a valuable tool for the sport and sports betting industries.

Betting companies can use this information to determine the most suitable odds. Leagues and federations provide live match updates and fantasy competitions. Commentators and media companies instantly generate relevant statistics in real time. In-play bets keep fans engaged and betting revenues flowing. Teams and coaches use it to improve performance and define tactics. The list of uses for this data goes on and the more uses it has, the more valuable it becomes.

It may have been technology that unlocked the value of data, but it is nonetheless reliant on sport for its creation. As the sport industry continues to uncover new ways for technology to create value, we start to see a shift from technologies driving policy, towards policy driving technology.

Most significantly in the battle against corruption is that this process is increasingly collaborative. Whilst their mission statements may have little in common, betting and sport policymakers have found common ground and mutual benefits in advancing technologies to protect sport's integrity.

7. Data Ownership

It is not surprising that with so much value in data, disputes over ownership have arisen. While it would be remiss to write about sports betting without acknowledging this issue, dealing with its

³⁶ Dhruv R. Seshadri, Ryan T. Li, James E. Voos, et al. "Wearable sensors for monitoring the internal and external workload of the athlete," *Nature Partner Journals*

Digital Medicine 2, 71 (2019),
<https://doi.org/10.1038/s41746-019-0149-2>.

intricacies is the topic for a separate study. For the purposes of this article, an overview of the key elements will suffice.

In most cases, competition owners have successfully held on to ownership and as such, the rights to collect, license or sell the data. Agreements on how this is subsequently distributed through the sport value chain are made in much the same way as media rights. That is, after long legal discussions, agreements are reached to share access to the data with certain stakeholders, and revenues generated are distributed through defined formulae, or factored into prize money or appearance fees. As stakeholders within a given sport share an incentive to grow the game, sharing access to the data creates shared value and mutual benefits.

Players generally surrender their rights to the club, league, or circuit as a condition of acceptance in the competition. Their role in the creation of the data being remunerated through salaries or prize money and by the investments in the sport or competition by its administrators.

When selling or licensing data rights, a distinction is made between live and non-live, with conditions attached to each. A rights holder could also license data collection for distribution for betting purposes to one operator, and for media-related purposes to another. Rights to data collection and distribution could be licensed as exclusive or non-exclusive, with license holders permitted to sublicense the rights to other operators.

Unauthorised data collection and distribution is a contentious issue. The use and volume of data has an impact on whether it falls into this category, which itself creates ambiguity. Unauthorised data could be collected in person at an event or by watching live coverage. When used for in-play betting purposes, the speed and accuracy of data distribution is fundamental to its value. A spectator in a stadium who publishes a single live score update on social media would not normally be deemed to be distributing unauthorised data. However, if the match in question were under contract with an exclusive official data collector, he could be breaching data rights, as an English Football League fan discovered in August 2019.³⁷

The complexity comes down to the question of who can claim to own a single outcome in a sporting event and how to enforce that ownership. This opens up a larger question regarding the meaning of ‘official data’ and whether, or at what point, data, or the collection thereof, can be treated as Intellectual Property.

8. Sport and Betting: A Long-term Relationship

The value generated through their collaboration has forged a tight bond between the sport and betting industries, but new technologies and increased public scrutiny will play a defining role in the future of their relationship.

The collaborative approach, although not without its challenges, offers shared value because combating match-manipulation and protecting the

³⁷ Ben Cronin, “Can data be classed as IP? Sportradar and Genius want to find out,” *Sport Business*, October 7, 2019, <https://www.sportbusiness.com/2019/10/can->

[data-be-classed-as-ip-sportradar-and-genius-want-to-find-out/](https://www.sportbusiness.com/2019/10/can-data-be-classed-as-ip-sportradar-and-genius-want-to-find-out/).

integrity and credibility of sport and the data it creates, are fundamental to each industry's success and there is a lot of money to be made in the process.

Regulation appears a more feasible and effective approach than prohibition. Not only has outlawing gambling previously proved a risky strategy, but removing the resources, regulations and protection offered by governments and governing bodies would put athletes and their sports at greater risk. Furthermore, in-match betting creates an element of personal buy-in with spectators, increasing engagement and attracting new fans. Both industries therefore have strong incentives to keep and develop this service.

In order to reduce objections to advertising sports betting, both parties will need to convince the world that match-fixing and corruption are being dealt with effectively. It can be expected that efforts and investment will continue to be focussed in this area and, furthermore, that both industries will ensure the public is informed accordingly. However, if match-fixing is as widespread as some critics speculate, effective combatting systems could initially result in an increase in scandals and fuel the arguments against the sport and betting relationship. This will no doubt do more damage to the sport than to the betting industry but it may just be an unavoidable storm they will have to weather to ensure integrity in the long run. Regardless of how this pans out, demonstrating that the industries' collaboration is an indispensable part of the solution will be vital.

The relationship is likely to demand increased accountability on the part of the betting industry. As an example of how this might look, the UK Gambling Commission currently requires licensed betting organisations to share information on suspected fraudulent activity with sporting bodies, to "familiarise themselves with the rules applied by that [sporting] body on betting" and to ensure that any person placing a bet is not in breach of that sport's rules on betting.^{38 39} We could see sport's governing bodies obliging their data distributors to enforce similar requirements on their betting industry clients.

To address the issue of accountability and transparency, we may also see a shift towards centralised regulation. At a global level this is unlikely in the near future, but at a European level it is not unthinkable that a unified approach may serve the European Union's mandate to strengthen the ties between its members and their dependence on the Union. Centralisation, however, requires compromise and this could take many forms; limits on the use of data; restrictions on betting advertising; or a move towards profit-based levies on sports betting.

As we have seen, many states in the USA have opened their doors to sports betting following the recent decentralisation. A nation home to numerous global sports, professional leagues and an extensive collegiate sport system, this huge new market will undoubtedly experience an upward trend in data and betting partnerships accompanied by fierce competition between providers. Case

³⁸ Gambling Commission, "Conditions and codes of practice," part II, 15.1,

<https://www.gamblingcommission.gov.uk/PDF/LCCP/LCCP-sector-summary-for-remote-betting.pdf>.

³⁹ Ibid., part III, 4.2.8.

studies from Europe should provide valuable insights to both sides on how to structure and communicate these collaborations but, nonetheless, expect to witness some familiar discussions on the benefits and risks of sports betting, especially at the amateur level.

Technology will continue to transform amateur sports as new innovations increase their visibility and extend their global reach. This will inevitably generate new data and fuel the wider debate over how to protect lower-tiers and amateur sports from corruption. Even if some sports successfully prevent data distribution at their lower levels, there will always be new targets for match-fixing. Less mainstream disciplines and events will see data deals as a new and valuable revenue source, exposing themselves to the threat of match-fixing in the process. It will take an extraordinary collaborative effort across the sport industry to combat, but education and removing the temptation will play an important role.

Wearable technologies could shake up the industry altogether. These systems are acknowledged but generally overlooked at present. It is only a matter of time before questions are raised as to who owns the rights to this data. Federations, clubs and leagues will no doubt all lay claim, but data unique to player-operated devices may become player property. If this were the case, we could see a whole new generation of data deals as players sell off their in-match data.

At first glance, the idea that players could be in a position to profit from data collected by themselves and based on their own performance raises the integrity red flag, especially if collected in

competition. However, such data (heart rate, calories burnt, etc.) is far harder to control; if players are not permitted to view it in-play, it seems hard to argue that it exposes the player or the sport to any greater risk of fixing outcomes than current in-play betting does. Indeed, at lower tiers this could help reduce the temptation to match-fix by providing players with an additional and alternative source of revenue. At present, the sport industry has a strict policy against athletes having any direct or indirect involvement in betting on their own sport, but every time they step on a track, score a goal, miss a shot or make a pass they are responsible for creating the data which fuels the lucrative sports betting industry. If such a trend were to occur, it would likely have a greater impact on individual, rather than team, sports where athletes' remuneration is reliant on success rather than participation contracts. Policymakers could then find their education programs including advice for athletes on how to negotiate data contracts of their own.

One trend that shows no sign of changing is that technology innovations will keep increasing the variety and volume of data captured from sport. The credibility of this data will impact its value for both the sport and the betting industries, meaning that whatever form their relationship takes, upholding the integrity of sport will remain a shared responsibility with mutual benefits.

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