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SMART PLAYERS NEED SMART CONTRACTS: HOW BLOCKCHAIN AND SMART CONTRACTS CAN REVOLUTIONIZE THE SPORTS INDUSTRY

❖ NOTE ❖

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I. INTRODUCTION

“Smart Contracts” are a critical component of many platforms and applications being built using blockchain or distributed ledger technology.¹ Simply put, smart contracts are lines of code that are stored on a blockchain and automatically execute when predetermined conditions are met.² The benefits of smart contracts are most apparent in business collaborations, in which they are typically used to enforce some type of agreement so that all participants can be certain of the outcome through speed, accuracy, security, and savings.³ Many multinational companies have already jumped onto the blockchain bandwagon and are working on their own projects to stay ahead of the competition.⁴ For instance, major technology providers like IBM and Microsoft are offering block chain solutions to enterprise clients.⁵ Tech start-ups too are aggressively capitalizing on the boom by building new products and services that depend on blockchain technology, which amassed to more than \$3.25 billion in funding through token sales in 2017.⁶ However, despite blockchain finding its adoption in several industries, for some reason, the sports industry has never been under

1. Stuart D. Levi & Alex B. Lipton, *An Introduction to Smart Contracts and Their Potential and Inherent Limitations*, Harvard Law School Forum on Corporate Governance, (May 26, 2018), <https://corpgov.law.harvard.edu/2018/05/26/an-introduction-to-smart-contracts-and-their-potential-and-inherent-limitations/>.

2. Nigel Gopie, *What are smart contracts on blockchain?*, IBM, (July 2, 2018), <https://www.ibm.com/blogs/blockchain/2018/07/what-are-smart-contracts-on-blockchain/>.

3. *Id.*

4. Roger Aitken, *Smart Contracts On The Blockchain: Can Businesses Reap The Benefits?*, Forbes, (Nov. 21, 2017), <https://www.forbes.com/sites/rogeraitken/2017/11/21/smart-contracts-on-the-blockchain-can-businesses-reap-the-benefits/#20a5cdaa1074>.

5. *Id.*

6. *Id.*

the paradigm of blockchain services.⁷ When it comes to applying blockchain to the sports industry, the most interesting applications include direct investment in athletes, clubs, and sports management practices; allowing for a more accessible and transparent reputation management for teams, leagues, and individual athletes; and a general reduction in middlemen through automation to make contract negotiation more efficient.⁸ It is time for the sports industry to “huddle up,” because industry leaders will be surprised to know that smart contracts can find usage and purpose through blockchain technology.⁹

This note will discuss the inexorable incorporation of the use of smart contracts into the trillion dollar-sports industry, specifically, athlete representation. By implementing smart contracts into an agent’s business practice, transactions will be processed digitally and automatically, allowing the player to focus on his or her athletic performance on the field, court, or ice while enabling the agent to provide a secure and streamlined process for his or her client. Part II of this Note will discuss the background and concept behind Bitcoin, Blockchain, smart contracts, and the traditional contract in the sports industry. Part III will analyze why implementing smart contracts in the sports industry will be advantageous to agents, teams, and third-party sponsors. Part IV recommends how to incorporate smart contracts into standard player contracts and third-party sponsorship deals, and the impact it will have on the industry. Finally, Part V will conclude.

II. BACKGROUND

A. *What is Bitcoin?*

Bitcoin can be understood as a “digital dollar” and is the first of a new kind of asset called “cryptocurrency,” a decentralized form of digital cash that eliminates the need for traditional intermediaries to make financial transactions.¹⁰ Bitcoin is powered through a combination of peer-to-peer technology (working on networks of individuals) and software-driven cryptography (the science of passing secret information between senders and receivers).¹¹ This creates a currency backed by code rather than tangible items or trust in central authorities.¹² Like traditional fiat currency, the price of Bitcoin fluctuates based on supply and demand, but to a much greater extent.¹³ People are now converting Bitcoin into “tokens,” which companies issue during an Initial Coin Offering (ICO).¹⁴ An ICO allows investment in a company by purchasing tokens with their Bitcoin.¹⁵ A “token” is a representation of any

7. Maria Garcia, *5 Best Use Cases Of Blockchain Application For The Sports Industry*, Medium, (May 19, 2019), https://medium.com/@garcia_maria/5-best-use-cases-of-blockchain-application-for-the-sports-industry-3b42c328dea1.

8. Sam Mire, *Blockchain For The Sports Industry: 11 Possible Use Cases*, Disruptor Daily, (Nov. 8, 2018), <https://www.disruptordaily.com/blockchain-use-cases-sports/>.

9. Garcia, *supra* note 7.

10. Kevin Voigt, *What Is Bitcoin, and How Does It Work?*, nerdwallet, (June 18, 2019), <https://www.nerdwallet.com/blog/investing/what-is-bitcoin/>.

11. *Id.*

12. *Id.*

13. Joshua Bernstein, *SMART CONTRACT INTEGRATION IN PROFESSIONAL SPORTS MANAGEMENT: THE IMMINENCE OF ATHLETE REPRESENTATION*, 14 DPLJSL 88, 90 (2018).

14. *Id.*

15. Samantha Radocchia, *How Is Ethereum Different From Bitcoin?*, Forbes, (September 14, 2017), <https://www.forbes.com/sites/quora/2017/09/14/how-is-ethereum-different-from-bitcoin/#5a94fbff502b>.

fungible tradable good such as currency or loyalty points.¹⁶ Just like shares of stock in an initial public offering, token prices go up and down based on their supply and demand.¹⁷ Therefore, a token is an abstraction representing ownership of an underlying tradable asset.¹⁸ As a result, due to the unique nature of virtual currencies, transacting through bitcoin over fiat currencies offer many inherent advantages including: user autonomy, discretion, peer-to-peer focus, elimination of banking fees, mobile payments, and accessibility.¹⁹

B. What is Blockchain?

Blockchain is the trading medium of cryptocurrency, the most popular being Bitcoin.²⁰ Blockchain technology commenced as a means of operating cryptocurrency transactions.²¹ A cryptocurrency blockchain encodes debits and credits to cryptocurrency accounts and stores them as transactions “in blocks.”²² Contrary to centralized record-keeping systems, each node in the system evaluates the transaction and maintains its own ledger of all transactions in a decentralized form.²³ The decentralized ledger system reduces the risk of hacking and altering information, since a majority of the nodes must verify a change in data for the ledger to legitimize the alteration.²⁴

Beyond cryptocurrency, dozens of industries use blockchain because of its potential to revolutionize day-to-day activities and record keeping. Shell, for example, is working with technology and finance partners on a platform for the trade and settlement of crude oil.²⁵ Walmart uses blockchain to create a food traceability system, and insurance giant AXA now offers flight insurance via blockchain technology.²⁶ Corporations are attracted to blockchain technology because the decentralized blockchain ledger allows multiple nodes to keep identical records of given transactions.²⁷ This decentralized record-keeping system creates a system of extreme transparency that eliminates the need for a third party, solves-double spending problems, and is more resistant to hackers.²⁸ Sports & entertainment companies, therefore, may benefit from blockchain ledgers to reduce traditional problems such as ticket fraud and the withholding of proper payments in a contract.²⁹

16. Bernstein, *supra* note 13, at 90-91.

17. Radocchia, *supra* note 15.

18. Bernstein, *supra* note 13, at 91.

19. Nathan Reiff, *What Are the Advantages of Paying With Bitcoin?*, Investopedia, (Jan. 12, 2020), <https://www.investopedia.com/ask/answers/100314/what-are-advantages-paying-bitcoin.asp>.

20. Tsui S. Ng, *Blockchain and Beyond: Smart Contracts*, A.B.A BUS. L. TODAY (Sept. 2017), https://www.americanbar.org/groups/business_law/publications/blt/2017/09/09_ng.html.

21. Max Raskin, *The Law and Legality of Smart Contracts*, 1 GEO. L. TECH. REV. 305, 317 (2017).

22. *Id.* at 318.

23. J. Travis Laster & Marcel T. Rosner, *Distributed Stock Ledgers and Delaware Law*, 73 BUS. L. 319, 321 (2018) (defining a node as a computer on the network which keeps its own copy of the ledger).

24. *Id.*

25. Justin Biel, *The Companies Using Blockchain Now, and What Yours Can Do to Stay Ahead*, Growwire, (Oct. 18, 2019), <https://www.growwire.com/companies-using-blockchain>.

26. *Id.*

27. Morgan N. Temte, *BLOCKCHAIN CHALLENGES TRADITIONAL CONTRACT LAW: JUST HOW SMART ARE SMART CONTRACTS*, 19 WY. L.R. 87, 90 (2019).

28. *Id.*

29. *Now Playing: Transparency in Media, Entertainment and Advertising with IBM Blockchain*, IBM, <https://www.ibm.com/blockchain/industries/advertising-media> (last visited Mar. 8, 2020).

C. An Illustrative Example: Winning payouts

Let's take a simple, yet pressing example that is affecting many athletes in sports today. Typically, tournament champions, or athletes entering into a new contract with their respective club or third-party sponsor, have to wait a couple of weeks or months before they get their winnings or payment. However, with the use of blockchain technology, athletes can be paid automatically and instantaneously. Major League Triathlon saw the benefit of blockchain technology and bitcoin in its October 2018 Triathlon in North Carolina.³⁰ The prize for the event was \$36,000 with a bonus pool of \$20,000 for teams placing first through third in the nine-team league.³¹ Once the winning teams were identified, Major League triathlon instructed winners on how to use mobile-to-mobile transfer with their smart phones.³² Through the use of blockchain technology and bitcoin, Major League Triathlon was able to put their winning teams on the podium, and pay the winners right then.

D. What Are Smart Contracts?

Coinciding with blockchain is the concept of smart contracts. Smart contracts are self-enforcing agreements that exchange promises or consideration between parties based on a transparent set of rules using predefined inputs.³³ In other words, a smart contract is a legal contract that is represented and executed, at least in part, by automated software.³⁴ Smart contracts are intended to work in concert with blockchain technology to enforce transactions and are a step beyond typical electronic contracts in that the actual agreement is embodied in computer code. Here, pieces of code, sometimes referred to as software agents, perform certain tasks when pre-defined and mutually agreed conditions embedded in the smart contract are met.³⁵ Parties "sign" the smart contract using cryptographic security and deploy it to a distributed ledger, or blockchain. Smart contracts' use of distributed ledger functionality together with automated contractual triggers ensure that transactions are completed in a secure and accurate manner, reducing the need for complex regulation oversight.³⁶ Smart contracts use blockchain to ensure that once the parties execute the contract, the transactions contemplated by that contract are accurate and cannot be avoided by any party without the other parties' consent.³⁷ This secure and instant contract execution is where smart contracts attract enormous popularity. For example, because smart contracts are self-executing based on predetermined conditions, smart contracts will stop execution if a predetermined condition

30. John Conroy, *How Blockchain is Changing Sports*, Sports Travel Magazine, (Dec. 10, 2019), <https://www.sportstravelmagazine.com/how-blockchain-is-changing-sports/>.

31. *Id.*

32. *Id.*

33. Scott A. McKinney, Rachel L. Landy & Rachel Wilka, *SMART CONTRACTS, BLOCKCHAIN, AND THE NEXT FRONTIER OF TRANSACTIONAL LAW*, 13 WA. J.L.T.A. 313, 321 (2018).

34. *Id.* at 322.

35. *Smart Contracts and Distributed Ledger--A Legal Perspective*, ISDA (Aug. 2017), <https://www.isda.org/a/6EKDE/smart>.

36. McKinney, *supra* note 33, at 321.

37. *Id.* at 323-324.

is not met.³⁸ On the contrary, if conditions are met, the smart contract will automatically execute.³⁹ The financial industry is an area where smart contracts are efficiently executed because of its data driven surroundings and quantitative measurable items.⁴⁰ The finance industry—just as the sports industry—is driven by data, and calculations are used to determine contract goal achievement.⁴¹ Thus, due to the close relationship between the sports industry and the financial industry, smart contracts can be extremely advantageous in executing professional athlete contracts.⁴²

E. The Traditional Contract in the Sports Industry

Professional athletes rely on sports agents to represent them in most business and legal aspects of their career.⁴³ Here, the use of traditional contracts play a vital role. Contracts in sports are subject to the same principles of contract formation as any other form of employment agreement.⁴⁴ To be legally enforceable, a contract—both traditional or smart—must have the following attributes: (1) offer, (2) acceptance, (3) consideration, (4) intent, (5) capacity, and (6) lawful subject matter.⁴⁵ Specifically, express contracts—where the agreement of the parties is evidenced by their words, whether spoken or written—represent the industry norm in sports.⁴⁶ Since smart contracts—like express contracts—work best when you can ask quantitative questions like amounts, date, time, and other measurable items, smart contracts have the capability to improve traditional standard player and third-party contracts in the sports industry.

III. ANALYSIS

The overarching interest in smart contracts results from its secure and instant contract execution. Therefore, implementing smart contracts into the sports industry, specifically standard player contracts and third-party sponsorship deals, will be extremely advantageous to all parties involved. Disputes between agents, general managers, sponsors, and coaches are typical in the industry. Not only will the implementation of smart contracts help solve these issues, but smart contracts will also simplify the contract drafting process, and eliminate contract disputes in the sports industry. For instance, disputes can be eliminated with the enforcement of the smart contracts depending on the predetermined conditions actually being met.⁴⁷ Since smart contracts are self-executing based on predetermined conditions, once

38. Bernstein, *supra* note 13, at 95.

39. *Id.*

40. *Id.* at 92.

41. *Id.*

42. *Id.*

43. James Masteralexis, Lisa Masteralexis, & Kevin Snyder, *Enough Is Enough: The Case For Federal Regulation Of Sport Agents*, 20 JEFFREY S. MORAD, SPORTS L.J. 69.

44. *Sports Contracts--Basic Principles*, U.S. Legal, <https://sportslaw.uslegal.com/sports-agents-and-contracts/sports-contracts-basic-principles/> (last visited Mar. 8, 2020).

45. *Id.*

46. *Id.*

47. Bernstein, *supra* note 13, at 101.

those conditions are met, payment is transferred automatically.⁴⁸ Conversely, if the pre-determined conditions are not met, the transaction will not be initiated or completed.⁴⁹ Instead of costly litigation to solve these problems, a smart contract stops execution—i.e. someone does not get paid if the pre-determined conditions are not met.⁵⁰ Thus, the automatic execution of smart contracts based on predetermined conditions will help prevent parties from withholding proper payments and will deter parties from demanding invalid payments.⁵¹ The use of smart contracts will streamline the athlete contract process, allowing for a secure way of transacting large amounts of money.⁵² Further, the decentralized ledger will allow athletes to have immediate access to their funds upon completion of the predetermined condition. Fraud can easily be detected because the open-source nature of the ledger provides a safety measure which enables every transaction to be recorded and uploaded to the blockchain.⁵³ Blockchain and smart contracts can decrease the chance of fraud, and players and agents can be assured that transactions are secure. Finally, since a smart contract can replace a traditional contract associated with a professional athlete in practically any situation of the business, smart contracts can assist with general contractual obligations that the agent handles including, player insurance agreements, player endorsement deals, marketing deals, and other additional terms. Thus, smart contracts will fast track the professional athlete contract process, allowing for a secure way of transacting large amounts of money in standard player contracts and third-party sponsorship deals.

IV. RECOMMENDATION

A. Incorporating the Infrastructure

A working blockchain system that incorporates the use of smart contracts cannot be successful without the correct infrastructure. Smart contracts need to confer with the data uploaded to the blockchain to inquire whether the predetermined conditions have been met; thus, it is imperative to ensure that the blockchain contains the data necessary to execute the smart contract. Although smart contracts are implemented on various blockchains, the most efficient use of smart contracts are on Ethereum's blockchain.⁵⁴ Ethereum is a decentralized platform, with its own blockchain and coin. Ethereum is a ledger technology that companies are using to build new programs. However, Ethereum is far more robust than Bitcoin, which allows for the use of smart contracts.⁵⁵ Therefore, once the data is encrypted on a blockchain such as Ethereum, the smart contract will be able to predetermine whether conditions are met.⁵⁶ Once this is accomplished, there are numerous potential opportunities for agents and

48. *Id.* at 95.

49. *Id.*

50. Terry Brock, *Business advantages of blockchain smart contracts*, bizjournals.com (2017), <https://www.bizjournals.com/bizjournals/how-to/technology/2017/09/business-advantages-of-blockchain-smartcontracts.html>.

51. Bernstein, *supra* note 13, at 95.

52. *Id.*

53. *Advantages and Disadvantages of Decentralized Blockchains*, World Crypto Index, <https://www.worldcryptoindex.com/advantages-disadvantages-decentralized-blockchains/> (last visited Mar. 8, 2020).

54. Radocchia, *supra* note 15.

55. *Id.*

56. *Id.*

teams to incorporate blockchain technology and the use of smart contracts into their business practices. First, through blockchain technology, the use of smart contracts can be used in both the standard player contract and player performance incentives. For example, imagine that a professional player and his team have a deal in place under a smart contract to sign a 2 year contract at \$1,000,000 Average Annual Value (AAV). Through the smart contract, the transaction will only occur when the predetermined conditions are met. Here, the smart contract will pull the data—in this case the AAV and 2 year term—from the blockchain. Once the predetermined condition is met—in this case signing and completing the deal—the transaction is fulfilled and the player will automatically and instantaneously receive funds during the regular season on specified dates according to each leagues' scheduled terms. Additionally, imagine that the same player will receive a \$200,000 bonus if he scores 30 goals per season. Once the player scores his 30th goal of the season, the transaction will automatically recognize the meeting of the predetermined condition of the smart contract. The smart contract will identify the 30th goal from the blockchain, and since the predetermined condition is met, the transaction is fulfilled, and the \$200,000 bonus is instantly transferred to the player. On the contrary, if the player only reached the 29-goal mark, then the transfer will not occur and the player will not receive the bonus. This example can be applied to any player incentive structure: such as a \$250,000 bonus for winning the Stanley Cup.

The same form of transaction can be implemented into player endorsement deals, sponsorships, and player appearances. Suppose that the same player described above enters into a player appearance deal with a large corporation. In this situation, assume that the corporation will pay the player \$100,000 if he signs autographs for customers and fans at 5 company signing events. Here, the smart contract will pull the amount of appearances the player attends from the blockchain, and once the predetermined condition is met—the five appearances—the transaction is fulfilled and the funds from the corporation will be transferred to the player instantaneously.

B. The Impact

By replacing the traditional contract with the use of smart contracts in standard player agreements, player incentive contracts, and sponsorship deals, the automatic transfer allows the athlete to have access to his or her funds instantaneously once the predetermined condition is met, rather than waiting weeks or months to receive payment. This process will also save owners, general managers, players, and agents, time and effort because of the guaranteed outcome by committing themselves to be bound by the rules and determinations of the underlying code. The automated contracts avoid the pitfalls of agents and general managers manually filling out heaps of forms, and the higher efficiency of smart contracts result in more value-generating transactions processed per unit of time. Smart contracts can drastically cut down on efficiency lost to gaps in communication between the agent and general manager; and the transparent, autonomous, and secure nature of the self-executing agreement removes any possibility of manipulation, bias, or error. Finally, smart contracts have the ability to offer protection to agents and sports management leaders who currently lack the time, financial resources or knowledge to access the traditional legal system for petty

issues.⁵⁷ By no means is this Note suggesting that smart contracts should replace agents and attorneys. Agents and attorneys will still be in high demand to help draft standard player and third-party contracts, and negotiate the terms with professional teams and sponsors on behalf of their clients. Additionally, each player contract that the agent handles may be dealing with millions of dollars with individualized contract terms depending the quality and projected valuation of the player. Thus, there will still be a need to personalize these smart contracts depending on the athlete's desired terms of the deal, and to negotiate these terms with the team's general manager and owner. However, by implementing smart contracts into the agents business practices, transactions will be processed digitally, instantaneously, and automatically, allowing for the player to focus on his or her athletic performance on the field, court, or ice; while enabling the agent to provide a secure and streamlined process for his or her client.

V. CONCLUSION

Players are constantly looking to improve their athletic performance, and the same can be said for leaders in the business of sport. Although traditional contracts have played a vital and historic role, if the sports industry wants to continue to grow, leaders should look to incorporate smart contracts. Smart contracts align with the goals of the sports industry: to increase profits, efficiency, and success. By incorporating smart contracts into the business of sport, players can continue to focus on their performance, while agents, organizations, and third-parties, can protect the players' assets, alleviate disputes, and revolutionize a trillion-dollar industry.

57. Jon Southurst, *Ex-Rugby Star: Smart Contracts Could Prevent Legal Disputes in Sport*, CoinDesk (2015), <https://www.coindesk.com/ex-rugby-star-smart-contracts-prevent-legal-disputes-sport/>.