

THE COSTS OF LEGALIZED ONLINE SPORTS BETTING: IS YOUR SOCIAL SECURITY NUMBER WORTH SACRIFICING?

By Asia Lawson

INTRODUCTION

In 2017, *The Economist* published an article informing the world that oil was replaced by data as the most valuable resource in the world.¹ While much discussion has centered on the negatives of data being the “new oil,” there are legitimate positives in how data can improve the world.² From advanced imaging technology in aircrafts to machine learning systems able to detect various cancers in the human body, the benefits of this renewable resource seem almost endless.³ However, not all data is created equal.⁴

As data usage continues to explode and leads society to the increased awareness of how their data is being stored, it begs the question of how consumer information data can be used, and what rights consumers have regarding the use of their data.⁵ Data privacy refers to the idea that people should have control over their personal data, including the ability in deciding how businesses collect, store, and use their data.⁶ Today, twenty states have passed comprehensive data privacy laws in the United States.⁷



Leading experts in both the data privacy industry and the gaming industry have commented on the impact and cost of data privacy laws on sports betting (“betting” or “wagering”).⁸ With the increase of state-level data privacy laws to protect consumers’ data, corporations must maintain a compliant framework to carefully collect and process consumer data.⁹ However, the United States does not have a single comprehensive federal law to regulate how corporations can collect, store, or share customer data.¹⁰ Why is this important? Unless a state has its own extensive data privacy law, notwithstanding industry standards, companies (1) can use, share, and sell any collected data without notifying the individual, (2) are not required to notify if data is breached or exposed to unauthorized parties, and (3) that share personally identifiable information to third parties are not required to provide notification when that third party further sells or shares that data.¹¹ With the absence of a federal national standard for data protection, the regulatory landscape surrounding data privacy in sports betting is complex and multifaceted. In turn, operators usually adopt the strictest standard across all of its businesses.



Interestingly, various state gaming regulators (“regulators”) that approve and implement data privacy rules imposed on wagering operators (“operators”) do so by following some guidelines set by data privacy acts including the California Privacy Rights Act (“CPRA”) and the Colorado Privacy Act (“CPA”).¹² When it comes to betting, inputting personally identifiable information (“PII”) and other forms of data including financial and banking information is unavoidable. For a variety of purposes from identity verification (to prevent fraud and money laundering) to age and location verification (to confirm legality), there are valid reasons why personal data is obtained during the registration process.¹³ However, the data collected does not stop there. Beyond an athlete’s performance data,¹⁴ wagering data including a bettor’s habits, preferences, and even frequency of placing bets is collected by the casino or online mobile betting site.¹⁵ Due to the valuable nature of the data collected, protection and security are a top concern for operators and regulators.



Data security in the gaming industry is especially important due to its vulnerability to cyber-attacks.¹⁶ One of the most prominent cyber security attacks was in 2014.¹⁷ Las Vegas Sands Corporation was the victim of a cyber security attack where consumers’ credit card information, driver’s license numbers, and social security numbers were stolen.¹⁸ More recently, in September 2023, MGM Resorts International was the victim of a nearly two-week-long cyber-attack, which has resulted in a negative impact on the corporation of roughly \$100 million.¹⁹ During this attack, MGM Resorts determined that a hacking group obtained PII of up to 200 million guests including names, gender, dates of birth, contact information, social security numbers, and driver’s license numbers.²⁰

Ironically, CSO Online published an article one week before this cyber-attack detailing how data thefts caused by weak security, cover-ups, and avoidable mistakes have cost corporations nearly \$4.4 billion and counting.²¹ Betting involves data security risks to

not only wagerers' data, but also to official sports data, most commonly associated with player performance and live-game results to collect, process, monitor, and deliver data to operators, which, due to the sheer volume and diversity of data sources has seen nearly 70% of sporting organizations hit by at least one cyberattack annually.²² In light of the pressing issue of data privacy and protection, specifically in betting, I will advocate for the utilization of artificial intelligence ("AI") as an effective solution to address the underlying challenges faced by both regulators and operators. Through a comprehensive analysis of protection models, I will demonstrate that AI offers a viable approach in addressing data privacy regulation concerns while upholding the principles of fairness and integrity within the legal framework. Furthermore, I will outline key steps for the successful use of AI in betting and while addressing certain risks, ultimately supporting the conclusion that its use is necessary to advance the interests of regulators and improve the overall effectiveness of data protection.

THE REGULATION OF SPORTS BETTING DATA IN THE UNITED STATES

As mentioned above, in the United States, data privacy and security regulation is governed by a cluster of data protection laws addressing privacy and security needs of specific types of data.²³ Since it is currently up to state laws to provide data protection legislation, protection measures, data governance, and reach varies from one law to the next.²⁴ The lack of a comprehensive federal framework on the collection of personal data by organizations has created some difficult data privacy challenges, because of its outdated "notice and consent" framework, increased scrutiny and compliance requirements, and the narrow reach of state privacy laws effect on organizations that operate across state lines.²⁵ One of the biggest challenges of data privacy and security is the mass volume of data being collected in the sports betting industry.²⁶ In maintaining trust and integrity, operators have prioritized the protection of bettors' data in the following three categories: (1) customer data, (2) banking and financial data, and (3) wagering data.

1 Customer Data

In the sports betting industry, customer or bettor data includes PII, account information. It may also include other personal information, including browsing history, spending, demographic data, and behavioral information.²⁷ PII is any information that identifies, links, relates, or is unique to or

describes an individual.²⁸ Examples of PII include age, Social Security numbers, personal phone numbers, and other demographics.²⁹ On the flip side, non-PII is data that, on its own, cannot be used to identify or trace a particular person.³⁰ Examples of non-PII include device IDs, IP addresses, and cookies. Whereas, gender and job titles are linkable information, which "on its own may not be able to identify a person, but when combined with another piece of information could identify, trace, or locate a person."³¹ If information considered non-PII, when paired with other information already in the public domain, may be used to identify a specific person, that non-PII turns into PII.³²

A bettor's account information refers to the information used to set up their online wagering account.³³ Account information includes personal details including full name, gender, date of birth, social security number, full address, mobile number, and email address.³⁴ Currently, Nevada remains the only state with legalized wagering to require bettors to manually verify their identity at a physical sportsbook.³⁵ Outside Nevada, most operators are able to verify a bettor's identity automatically using the provided account information combined with software matching technology to ensure public records match.³⁶ Regardless if a bettor's account information is e-verified or manually verified, a bettor cannot begin betting until their account information is verified by the operator.³⁷





2 Banking and Financial Data

Once a bettor sets up their wagering account with their personal data, the next step is choosing a banking option to fund their account. Deposit options typically accepted by the majority of online betting sites include credit/debit cards, e-wallets, prepaid cards, online bank transfers, and bank wire/checks.³⁸ While deposits via credit cards are allowed in some states, nearly half a dozen states have banned the use of credit cards for betting.³⁹ Lawmakers’ reasoning for the ban is simple: they believe the use of credit cards to wager ties to problem gambling and credit card debt.⁴⁰ Additionally, some major credit card issuers do not allow the use of credit cards for wagering because of worries of illegal gambling operators.⁴¹ Because of the worries over banking and deposit methods in the growing betting market, AI can be particularly useful in promoting the creation and execution of standardized procedures and systems to recognize and reduce safety and security threats.⁴²

3 Wagering Data

Operators offer wagers on the outcome of a sporting event game (*i.e.*, win or money line), the score (*i.e.*, over/under and point spread), and special events (*i.e.*, proposition bets).⁴³ Additionally, in-play or live betting allows wagerers to place bets after a sporting event has started and before its conclusion.⁴⁴ The odds on all of these bets are driven by sports data on all aspects of the players, teams, contests, and leagues.⁴⁵ Traditional types of sports data, including live in-game statistics combined with newer technologies such as the

advent of player wearables to measure player biometric data creates even more data.⁴⁶ Because leagues argue their ownership interest in official league data, operators and regulators should consider carefully implementing guidelines to protect data. Today, wagering data operates on a “closed-loop” system, which allows the gaming providers to be privy to the bettor’s gambling habits.⁴⁷

THE USE OF PERSONALLY IDENTIFIABLE INFORMATION IN SPORTS BETTING

As referenced above, PII is information that can be used on its own or with other information to identify, contact, or locate a person.⁴⁸ There are two types of PII: direct identifiers and indirect identifiers.⁴⁹ Direct identifiers typically determine a specific person’s identity and include information such as a passport number or driver’s license number.⁵⁰ Indirect identifiers are not unique and cannot on their own identify a particular person, but a combination of indirect identifiers can.⁵¹ Examples of indirect identifiers include more general personal details such as gender, race, and place of birth.⁵²

There are two distinctions within PII: (1) sensitive PII and (2) non-sensitive PII.⁵³ Sensitive PII is “sensitive information that directly identifies an individual and



could cause significant harm if leaked or stolen.”⁵⁴ Some examples of sensitive PII include social security numbers, biometric data, financial information such as bank account numbers and credit card numbers, and medical records.⁵⁵ Non-sensitive PII is “personal data that, in isolation, would not cause significant harm to a person if leaked or stolen.”⁵⁶ Non-sensitive PII are indirect identifiers including geographic details, employment information, religion, IP addresses, telephone numbers, and date of birth.⁵⁷



CURRENT PROTECTION MODELS IN THE GAMING INDUSTRY

In the betting industry, most operators are required to protect their users with two-factor or multi-factor authentication.⁵⁸ Two-Factor or Multi-Factor Authentication (“2FA” or “MFA”) is “an authentication framework that typically involves combining a user’s username/password combination with an additional authentication method.”⁵⁹ In most states, 2FA is a regulatory requirement for operators, but it is the recommended best practice at a minimum.⁶⁰ Currently, phone-centric identity is the leading MFA choice for operators because of the highly regulated nature of the betting industry and the complexity of the use cases.⁶¹

Beyond 2FA and MFA authentication, to the extent they are not already doing so, operators can consider following four key data privacy principles when utilizing AI technologies: (1) inform consumers how

their data will be used and stored, (2) obtain consent from consumers for the use and storage of their data, (3) implement and follow a data retention policy, and (4) adopt measures for data security.⁶² First, informing bettors on what information is being collected and how it will be used ensures a fair environment for operators and bettors alike.⁶³ Second, in order to best create this fair environment, operators should ensure that bettors consent to the collection and use, disclosure, or sale of their data.⁶⁴ Third, establishing comprehensive data retention policies is necessary to secure the data being collected from bettors.⁶⁵ Lastly, implementing measures designed to secure customer data and prevent the loss or unauthorized access to such data is essential to protect bettors’ PII, cultivate security awareness, and evolve security practices as the operation grows.⁶⁶

RECOMMENDATIONS FOR THE FUTURE OF SPORTS BETTING AND DATA

Similarly to the future of almost everything else connected to the internet and technology, operators and regulators have identified AI as the future of betting and data.⁶⁷ The betting industry is constantly evolving as new technologies, regulations, and trends emerge that have a substantial impact on the way patrons bet on sports.⁶⁸ With technological advancements such as virtual and augmented reality, combined with the rise of e-sports and mobile betting, the integration of AI into the industry could assist with these expansions.⁶⁹ AI can identify trends, patterns, and anomalies in sports data at unmatched speeds and levels of accuracy by utilizing algorithms and predictive modeling.⁷⁰ As far as the use of AI as a protection model for data, AI algorithms can protect personal information, maintain the integrity of personal data, ensure compliance with privacy laws and betting regulations, and safeguard IP related to sports data.⁷¹

With the increased use of AI to assist the industry in various ways, the question is to what extent is PII inputted into AI systems and how secure is it? For one, operators need to understand the legal obligations related to data privacy.⁷² With regulations promulgated by regulators and new privacy laws being proposed such as the American Privacy Rights Act (“APRA”), the biggest risk related to the use of personal data in AI models is determining what data may be protected by legal rights, contractual agreements, or privacy policies.⁷³ In order to mitigate these considerations and risks in data and AI, regulators and operators should assess the possibility of infringing third-party IP rights, implement a well-defined open-source policy—a common practice for AI developers—and monitor software usage within algorithms.⁷⁴ With regard to privacy and IP considerations, depending on

the type and context of the AI used, the methods for training and inferring the AI algorithms may be eligible for protection under IP laws.⁷⁵ For example, AI techniques used to generate live sports betting odds or similar recommendations could potentially be patentable.⁷⁶ Additionally, open-source software could be subject to the terms of the associated open-source license, which may include restrictions or obligations to make all modified source code publicly available.⁷⁷

Because of these privacy and regulatory compliance considerations, the responsible use of AI and robust data privacy measures are imperative to upholding individual privacy rights and protecting PII.⁷⁸ PII detection is the process of identifying, categorizing, and redacting PII in unstructured text such as phone numbers, email addresses, and forms of identification.⁷⁹ Building on the capabilities of PII detection in identifying and redacting sensitive information, companies can leverage a variety of AI and data privacy measures to ensure compliance with data privacy laws.⁸⁰ For example, companies can utilize a variety of AI-powered technologies, such as secure PII extraction, information delivery matching, information retrieval, and data availability, to comply with privacy regulations.⁸¹ Secure PII extraction is the process of identifying and extracting PII using AI.⁸² Secure PII extraction searches for confidential information and extracts it, thus shortening the process from information input to secure server storage and enhancing data privacy.⁸³ This process allows an operator to protect bettors' PII by automatically redacting and marking PII in available data records to prevent unauthorized access, identify and respond to potential security threats, and anonymize data, which in turn enhances data privacy and security measures.⁸⁴

When it comes to intersecting AI with sports betting, the technology can take many forms from generative AI and analytical AI to open and closed options.⁸⁵ Generative AI refers to deep-learning models that produce outputs by anonymizing data, utilizing differential privacy to protect PII from being identifiable, encrypting data, and assessing data to comply with privacy regulations.⁸⁶

Differential privacy refers to the process of protecting data points from being identifiable or connected to an individual by adding 'noise' to obscure personal details.⁸⁷ Analytical AI uses existing data to identify correlations, patterns, and anomalies to calculate odds, analyze bettors' performance, and predict future game results based on historical data.⁸⁸ As AI becomes more prevalent in betting, operators should consider ethical concerns and the effects on responsible gaming when deciding which AI model is most effective.⁸⁹ For example, operators may prefer closed AI models because the technology's algorithm is private, ensuring the privacy of all data that operators aggregate and manage.⁹⁰ On the other hand, an open AI model is more adaptable and cost-effective; however, the algorithm is open source, which means that the model can be accessed by anyone on the internet.⁹¹ Regardless, with AI-powered systems, the future of betting is not just smarter and a more personalized experience for the bettor but also effectively protects bettors' PII.⁹²

CONCLUSION

To recapitulate, the utilization of AI in sports betting is an effective solution to addressing data privacy and protection concerns faced by not only the regulators and operators, but bettors themselves. From bettors' PII to athletes' performance data, it is imperative that this sensitive information is safeguarded. AI in betting represents a fascinating convergence of technology, data analytics, privacy, and gaming. In data protection, AI algorithms can protect personal information and maintain the integrity of personal data, while ensuring compliance with privacy laws and betting regulations. By harnessing AI in betting, operators can use cutting-edge technologies for data encryption, anonymization, and identity verification, helping to safeguard sensitive information and ensure compliance with data protection regulations. Lastly, with the recently proposed APRA, which establishes national consumer privacy rights and sets standards for data security, operators are even more incentivized to begin implementing AI protectionist models to ensure compliance and security of bettors' PII. ■





Asia Lawson is a first-generation, rising third year law student attending the UNLV William S. Boyd School of Law. Asia is the daughter of two Air Force Veterans and sister to two younger brothers. Her military upbringing allowed her to not only

see different cultures and groups of people, but understand the complexities life has to offer. This upbringing pushed her into the direction of the law. At the Boyd School of Law, Asia has emersed herself on campus from being Staff Editor for UNLV Gaming Law Journal to being on the editorial board for many organizations including Black Law Student Association, Organization of Women Law Students, and Environmental Law Society. Moreover, Asia is open and interested in various areas of law including Sports, Intellectual Property, Cyber and Data Privacy, Gaming and Corporate. With her final year on the horizon, Asia would like to start her career off at a law firm to truly gain “real-world” experience, with the long-term goal of becoming in-house counsel for a corporation or sports team.

¹ *The World's Most Valuable Resource Is No Longer Oil, but Data*, THE ECONOMIST (May 6, 2017), <https://www.economist.com/leaders/2017/05/06/the-worlds-most-valuable-resource-is-no-longer-oil-but-data>.

² Kiran Bhageshpur, *Data is the New Oil -- and That's a Good Thing*, FORBES (Nov. 15, 2019, 8:15 a.m.), <https://www.forbes.com/sites/forbestechcouncil/2019/11/15/data-is-the-new-oil-and-thats-a-good-thing/?sh=6a2c0a527304>.

³ *Id.*

⁴ See Nisha Talagala, *Data as the New Oil is Not Enough: Four Principles for Avoiding Data Fires*, FORBES (Mar. 2, 2022, 5:48 PM), <https://www.forbes.com/sites/nishatalagala/2022/03/02/data-as-the-new-oil-is-not-enough-four-principles-for-avoiding-data-fires/?sh=748817bec208>.

⁵ *Id.*

⁶ Matthew Kosinski and Amber Forrest, *What is Data Privacy?*, IBM (Dec. 9, 2023), <https://www.ibm.com/topics/data-privacy>.

⁷ Paul Pittman, et al., *U.S. Data Privacy Guide*, WHITE & CASE LLP (July 4, 2024), <https://www.whitecase.com/insight-our-thinking/us-data-privacy-guide> (Twenty states: California, Virginia, Colorado, Connecticut, Utah, Iowa, Indiana, Tennessee, Texas, Florida, Montana, Oregon, Delaware, New Hampshire, New Jersey, Kentucky, Nebraska, Maryland, Minnesota, and Rhode Island).

⁸ *The Impact and Cost of Biometric Data Privacy Laws on Online Gaming and Sports Betting*, DUANE MORRIS LLP (Mar. 7, 2023), https://www.duanemorris.com/alerts/impact_cost_biometric_data_privacy_laws_online_gaming_sports_betting_0323.html.

⁹ *Id.*

¹⁰ Thorin Klosowski, *The State of Consumer Data Privacy Laws in the US (And Why it Matters)*, N.Y. TIMES (Sept. 6, 2021), <https://www.nytimes.com/wirecutter/blog/state-of-privacy-laws-in-us/>.

¹¹ *Id.*

¹² See, e.g., Odia Kagan, *Massachusetts Imposes Data Privacy Rules on Sports Betting Operators: What You Need to Know*, FOX ROTHSCCHILD LLP (Sept. 12, 2023), <https://www.foxrothschild.com/publications/massachusetts-imposes-data-privacy-rules-on-sports-betting-operators-what-you-need-to-know>.

¹³ See, e.g., *Why do I Need to Give Personal Information to BetMGM?*, BETTING HERO, <https://bettinghero.com/help/betmgm/registration-verification/why-do-i-need-to-provide-personal-information-to-register-for-betmgm/> (last updated Nov. 14, 2023).

¹⁴ Ray Walia, *The Untapped Potential of Athletes' Data*, FORBES (Sept. 22, 2023, 7:15 AM), <https://www.forbes.com/sites/forbesbusinesscouncil/2023/09/22/the-untapped-potential-of-athletes-data/?sh=76b5c6057195> (Performance data can be taken from training sessions, practices, and games to analyze an athlete's strengths and weaknesses, and identify areas for improvement).

¹⁵ See Kathryn Rand and Steven Andrew Light, *Sports Betting and Data Security: Cybersecurity, Data Protection, and Privacy Rights in Gaming Law Practice*, AM. BAR ASS'N (Feb. 10, 2021), https://www.americanbar.org/groups/business_law/resources/business-law-today/2021-february/sports-betting-and-data-security/.

¹⁶ *Id.*

¹⁷ *Id.*

¹⁸ *Id.*

¹⁹ Zeba Siddiqui, *Casino Giant MGM Expects \$100 Million Hit from Hack that Led to Data Breach*, REUTERS (Oct. 5, 2023, 7:35 PM), <https://www.reuters.com/business/mgm-expects-cybersecurity-issue-negatively-impact-third-quarter-earnings-2023-10-05/>.

²⁰ Brian Ahern, *MGM Resorts Update on Recent Cybersecurity Issue*, MGM RESORTS INT'L (Oct. 5, 2023), <https://investors.mgmresorts.com/investors/news-releases/press-release-details/2023/MGM-RESORTS-UPDATE-ON-RECENT-CYBERSECURITY-ISSUE/default.aspx#:~:text=Promptly%20after%20learning%20of%20this,is%20coordinating%20with%20law%20enforcement>.

²¹ Michael Hill, *The Biggest Data Breach Fines, Penalties, and Settlements So Far*, CSO ONLINE (Sept. 18, 2023), <https://www.csoonline.com/article/567531/the-biggest-data-breach-fines-penalties-and-settlements-so-far.html>.

²² *Supra* note 15; See Karen M. Lent et al., *Cyber Threat Outlook for the Sports Industry*, REUTERS (last updated May 15, 2024 6:51 am), [https://www.reuters.com/legal/legalindustry/cyber-threat-outlook-sports-industry-2024-05-15/#:~:text=The%20digital%20transformation%20of%20sporting,payment%20data%20to%20such%20attacks;See%20also%20Marc%20Edelman%20and%20John%20T.%20Holden,%20Monopolizing%20Sports%20Data,%2063%20Wm.%20&%20Mary%20L.%20Rev.%2069,%2097-8%20\(2021\),https://scholarship.law.wm.edu/cgi/viewcontent.cgi?article=3913&context=wmlr](https://www.reuters.com/legal/legalindustry/cyber-threat-outlook-sports-industry-2024-05-15/#:~:text=The%20digital%20transformation%20of%20sporting,payment%20data%20to%20such%20attacks;See%20also%20Marc%20Edelman%20and%20John%20T.%20Holden,%20Monopolizing%20Sports%20Data,%2063%20Wm.%20&%20Mary%20L.%20Rev.%2069,%2097-8%20(2021),https://scholarship.law.wm.edu/cgi/viewcontent.cgi?article=3913&context=wmlr).

²³ *Data Protection Laws*, YALE UNIV., <https://world-toolkit.yale.edu/regulated-activity/data-protection-laws> (last visited July 26, 2024) (The most notable federal laws governing data protection include HIPAA, the Family Educational Rights and Privacy Act, the Fair Credit

Reporting Act, and the Federal Information Security Management Act. While these protect certain types of data, it does not include a comprehensive data privacy and security framework).

²⁴ See *id.*; See also David Harrington, *U.S. Privacy Laws: The Complete Guide*, VARONIS (Mar. 10, 2023), <https://www.varonis.com/blog/us-privacy-laws>.

²⁵ See David Manek and Jonny Gray, *Monetizing Sports Data and Protecting Athlete Privacy: Where is the Balance?*, ANKURA (Feb. 9, 2023), https://angle.ankura.com/post/102175w/monetizing-sports-data-and-protecting-athlete-privacy-where-is-the-balance?utm_source=mondaq&utm_medium=syndication&utm_term=Media-Telecoms-IT-Entertainment&utm_content=articleoriginal&utm_campaign=article; See also Eric Reicin, *Data Privacy Advances, Despite Lack of Federal Privacy Law*, FORBES (May 3, 2023 7:30 am), <https://www.forbes.com/sites/forbesnonprofitcouncil/2023/05/03/data-privacy-advances-despite-lack-of-federal-privacy-law/#:~:text=In%20the%20absence%20of%20a,read%20to%20access%20online%20activities>.

²⁶ David Manek and Jonny Gray, *Monetizing Sports Data and Protecting Athlete Privacy: Where is the Balance?*, ANKURA (Feb. 9, 2023), https://angle.ankura.com/post/102175w/monetizing-sports-data-and-protecting-athlete-privacy-where-is-the-balance?utm_source=mondaq&utm_medium=syndication&utm_term=Media-Telecoms-IT-Entertainment&utm_content=articleoriginal&utm_campaign=article.

²⁷ See Adam Satariano, *What a Gambling App Knows About You*, DENV. POST (Mar. 28, 2021, 6:00 AM), <https://www.denverpost.com/2021/03/28/what-a-gambling-app-knows-about-you/>.

²⁸ See *Guidance on the Protection of Personal Identifiable Information*, U.S. DEPT OF LABOR, <https://www.dol.gov/general/ppii> (last visited Mar. 26, 2024).

²⁹ *Introduction to the Privacy Act*, DEF. PRIVACY AND CIVIL LIBERTIES OFF. (2011), https://dpcld.defense.gov/Portals/49/Documents/Privacy/2011%20DPCLO_Intro_Privacy_Act.pdf.

³⁰ Maciej Zawadzinski, *What is PII, Non-PII, and Personal Data?*, LINKEDIN (Jan. 10, 2018), <https://www.linkedin.com/pulse/what-pii-non-pii-personal-data-maciej-zawadzinski-1/>.

³¹ *Id.*

³² John Fruhlinger, *What is PII? Examples, Laws, and Standards*, CSO ONLINE (Jan. 10, 2022), <https://www.csoonline.com/article/571817/what-is-pii-examples-laws-and-standards.html>.

³³ See *How to Create an Online Betting Account*, UNITED GAMBLERS, <https://unitedgamblers.com/beginners-guide-to-us-sports-betting/creating-a-betting-account> (last visited Feb. 15, 2024).

³⁴ *Id.*

³⁵ See *As U.S. Casinos Embrace Cashless Gaming, Regulators More Cautious*, VIXIO REGUL. INTELLIGENCE (Oct. 6, 2021), <https://www.vixio.com/insights/gc-us-gaming-industry-embraces-cashless-gaming-regulators-more-cautious#:~:text=The%20Nevada%20Gaming%20Commission%20in,at%20slot%20machines%20remins%20prohibited>.

³⁶ Mitchell South, *Verifying Your Sportsbook Account for Withdrawals*, SPORTS BETTING DIME, <https://www.sportsbettingdime.com/guides/deposits-withdrawals/verifying-your-sportsbook-account> (last updated May 6, 2024, 9:12 AM).

³⁷ *Id.*

³⁸ *How to Create an Online Betting Account*, UNITED GAMBLERS, <https://unitedgamblers.com/beginners-guide-to-us-sports-betting/creating-a-betting-account> (last visited Feb. 15, 2024).

³⁹ Justin Byers, *Lawmaker in PA to Introduce Bill that Prohibits Credit Card Use for Gambling*, SBC AMERICAS (Mar. 12, 2024), <https://sbcamericas.com/2024/03/12/pennsylvania-bill-prohibit-credit-cards/#:~:text=Tennessee%20has%20banned%20credit%20cards,with%20the%20state's%20gaming%20rules>. (Currently, Tennessee, Iowa, and Massachusetts have prohibited the use of credit cards to fund gaming activities. In March 2024, a Pennsylvania lawmaker introduced legislation that would ban the use of credit cards to fund sports betting, daily fantasy contests, iLottery, and online casino activities.)

⁴⁰ *Id.*

⁴¹ Evan Coleman, *Why You Shouldn't Use a Credit Card for Sports Betting*, FORBES ADVISOR, <https://www.forbes.com/advisor/credit-cards/sports-betting/> (last updated Jan. 24, 2024, 2:05 PM).

⁴² David Elkins, Laury Durham, & Nicole Brenner, *How Artificial Intelligence is Changing the Game of Professional Sports*, SQUIRE PATTON BOGGS (Dec. 12, 2023), <https://www.iptechblog.com/2023/12/how-artificial-intelligence-is-changing-the-game-of-professional-sports/>.

⁴³ *Supra* note 15.

⁴⁴ *Id.*

⁴⁵ *Id.*

⁴⁶ Ethan Sanders and Aalok Sharma, *Who's on First? – The Fight Over Official Sports Data After Murphy*, STINSON LLP (Mar. 12, 2019), <https://www.jdsupra.com/legalnews/who-s-on-first-the-fight-over-official-81726/>.

⁴⁷ The closed-loop system is a regulated procedure that online gaming and gambling companies have to follow. Under this subscriber-based system, wagering is circumvented from the "open nature" of the Internet. The goal of this type of system is to prevent fraudulent activity and money laundering. However, as evidenced by the infamous 2013 Target data breach, closed-loop systems are still subject to vulnerability and hacking by cybercriminals. See *supra* note 15.

⁴⁸ *Supra* note 28.

⁴⁹ *Id.*

⁵⁰ *Id.*

⁵¹ *Id.*

⁵² *Id.*

⁵³ *Id.*

⁵⁴ *Supra* note 28.

⁵⁵ *Id.*

⁵⁶ *Id.*

⁵⁷ *Id.*

⁵⁸ *Two-Factor Authentication for Online Gaming and Sports Betting*, PROTECTIMUS, <https://www.protectimus.com/online-gaming-2fa/> (last visited Jan. 26, 2023).

⁵⁹ See *As U.S. Casinos Embrace Cashless Gaming, Regulators More Cautious*, VIXIO REGUL. INTELLIGENCE (Oct. 6, 2021), <https://www.vixio.com/insights/gc-us-gaming-industry-embraces-cashless-gaming-regulators->

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⁶⁰ See *id.*

⁶¹ *Id.*

⁶² IGB Editorial Team, *Taking Cover: How to Handle Bettors' Sensitive Data*, IGAMING BUS. (Nov. 3, 2022), <https://igamingbusiness.com/legal-compliance/compliance/taking-cover-how-to-handle-bettors-sensitive-data/>.

⁶³ *Id.*

⁶⁴ *Id.*

⁶⁵ *Id.*

⁶⁶ *Id.*

⁶⁷ *The Future of Sports Betting: Innovative and Exciting Trends Ahead!*, MEDIUM (Oct. 10, 2023), <https://medium.com/@commercial-business-news/the-future-of-sports-betting-innovative-and-exciting-trends-ahead-5447c47baff9#:~:text=One%20of%20the%20most%20important,that%20humans%20simply%20cannot%20match>.

⁶⁸ See *As U.S. Casinos Embrace Cashless Gaming, Regulators More Cautious*, VIXIO REGUL. INTELLIGENCE (Oct. 6, 2021), <https://www.vixio.com/insights/gc-us-gaming-industry-embraces-cashless-gaming-regulators-more-cautious#:~:text=The%20Nevada%20Gaming%20Commission%20in,at%20slot%20machines%20re mains%20prohibited>.

⁶⁹ See *id.*

⁷⁰ *Id.*

⁷¹ See Baird Fogel, et al., *AI in Sports Betting: How to Identify and Mitigate Legal Risks*, SPORTS BUS. J. (Mar. 27, 2024), <https://www.sportsbusinessjournal.com/Articles/2024/03/27/oped-27-fogel-reid-branson#:~:text=Uses%20of%20AI%20in%20sports%20betting&text=AI%20algorithms%20can%20analyze%20massive,to%20predict%20and%20match%20outcomes>.

⁷² *Id.*

⁷³ *Id.*; See also *The American Privacy Rights Act*, CONG. RSCH. SERV. (last updated May 31, 2024), <https://crsreports.congress.gov/product/pdf/LSB/LSB11161#:~:text=The%20APRA%20would%20establish%20rights,by%20a%20particular%20covered%20entity>.

⁷⁴ Baird Fogel, et al., *AI in Sports Betting: How to Identify and Mitigate Legal Risks*, SPORTS BUS. J. (Mar. 27, 2024), <https://www.sportsbusinessjournal.com/Articles/2024/03/27/oped-27-fogel-reid-branson#:~:text=Uses%20of%20AI%20in%20sports%20betting&text=AI%20algorithms%20can%20analyze%20massive,to%20predict%20and%20match%20outcoms>.

⁷⁵ *Id.*

⁷⁶ *Id.*

⁷⁷ *Id.*

⁷⁸ Fernanda Galvan, *Preserving PII: Safeguarding Sensitive Data in the AI-driven World*, GAT LABS (July 17, 2023), <https://gatlabs.com/blogpost/preserving-pii-safeguarding-sensitive-data-in-the-ai-driven-world/>.

⁷⁹ *Id.*

⁸⁰ *How AI Improves PII Compliance & Data Privacy*, DFIN SOL. (Oct. 10, 2023), <https://www.dfinolutions.com/knowledge-hub/thought-leadership/knowledge-resources/protecting-pii-with-ai-and-chatgpt>.

⁸¹ *Id.*

⁸² *Id.*

⁸³ *Id.*

⁸⁴ *10 Ways to Use PII Data Extractor to Protect Your Customers' Privacy*, DEEPOBE (April 25, 2023), <https://deeplobe.ai/10-ways-to-use-pii-data-extractor-to-protect-your-customers-privacy/>.

⁸⁵ IGB Editorial Team, *Exploring the Potential and Pitfalls of AI in Sports Betting*, IGAMING BUS. (Oct. 30, 2023), <https://igamingbusiness.com/tech-innovation/artificial-intelligence/exploring-the-potential-and-pitfalls-of-ai-in-sports-betting/>.

⁸⁶ Alexis Porter, *Generative AI for Data Privacy: 5 AI Data Protection Abilities*, BIGID (May 4, 2024), <https://bigid.com/blog/5-ways-generative-ai-improves-data-privacy/>.

⁸⁷ *Id.* ('Noise' is "redundant data that obscures the identity and personal details of the individuals whose information has been stored—without affecting the analysis and output of your system. Differential privacy allows the AI model to extract valuable insights from aggregated data while preserving the anonymity of individual contributors.").

⁸⁸ *Supra* note 80.

⁸⁹ *Id.*

⁹⁰ *Id.*

⁹¹ *Id.*

⁹² Neil Sahota, *The Game Changer: How AI is Transforming the World of Sports Gambling*, FORBES (Feb. 11, 2024, 10:00 AM), <https://www.forbes.com/sites/neilsahota/2024/02/11/the-game-changer-how-ai-is-transforming-the-world-of-sports-gambling/?sh=6878612ff57d>.

