U.S. Fantasy Sports Law: Fifteen Years After UIGEA

MARC EDELMAN, * JOHN T. HOLDEN† & ADAM SCOTT WANDT‡

This Article explains how the United States regulates the fantasy sports industry, fifteen years after the passing of the Unlawful Internet Gambling Enforcement Act of 2006. In particular, this Article delves into the subtle but important shift in the connotation of the term "fantasy sports," which has come to subsume, and arguably be engulfed by, "daily fantasy sports." In addition, this Article explores new state laws for licensing and taxing fantasy sports operators, the Internal Revenue Service's recent efforts to apply a federal wagering tax to daily fantasy sports transactions, concerns about market consolidation and antitrust risk within the industry, and emerging industry concerns about cybersecurity, customer identification, and consumer privacy protection.

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^{*}Marc Edelman is a tenured Professor of Law at the Zicklin School of Business, Baruch College, City University of New York, and an adjunct faculty member at Fordham Law School. He may be reached by email at Marc@MarcEdelman.com or MarcEdelman@aol.com.

[†] John T. Holden is an Assistant Professor in the Spears School of Business at Oklahoma State University.

[‡] Adam Scott Wandt is an Assistant Professor of Public Policy in the Department of Public Management at John Jay College of Criminal Justice, City University of New York. He may be reached by email at awandt@jjay.cuny.edu.

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I. Introduction

On October 13, 2006, U.S. President George W. Bush signed into law the Unlawful Internet Gambling Enforcement Act ("UIGEA"), which sought to hold both gambling businesses and payment processors responsible for knowingly accepting funds in connection with online bets or wagers that violated state gambling laws. Congress's primary goal in passing UIGEA was to cut off payment processing to foreign companies that operated online sportsbooks, poker rooms, and casino websites in U.S. markets. But, in many ways, it was not the underlying bill itself, but rather a fantasy sports carveout included within the bill, that has garnered the most attention. The fantasy sports carveout to UIGEA, in pertinent part, allows payment processors to continue to accept and pay out money, without the risk of liability, for contests associated with a "fantasy or simulation sports game," as long as a series of additional defining conditions are met. A

At the time Congress passed UIGEA, the fantasy sports carveout was presumed to relate to fantasy sports as it was known at that time, which included primarily full-season contests played among friends for bragging rights and

¹ See Unlawful Internet Gambling Enforcement Act of 2006 § 802, 31 U.S.C. §§ 5361–67; see also Bush Signs Port Security, Online Gambling Bill, NBC NEWS (Oct. 13, 2006), https://www.nbcnews.com/id/wbna15247549 [https://perma.cc/3PRS-3X57] (explaining that the Unlawful Internet Gambling Enforcement Act was tacked onto the end of a port security bill, which was primarily about "prevent[ing] terrorists from sneaking a nuclear, chemical or germ weapon into the United States").

² See Fantasy Football Business Is No Gamble to NFL, L.A. TIMES (Dec. 17, 2006), https://www.latimes.com/archives/la-xpm-2006-dec-17-sp-fantasyfbndog17-story.html [https://perma.cc/WLU7-KDMB] (describing the Unlawful Internet Gambling Enforcement Act as "seek[ing] to ban most online gambling, specifically targeting online poker"); 31 U.S.C. § 5361(a)(4) ("New mechanisms for enforcing gambling laws on the Internet are necessary because traditional law enforcement mechanisms are often inadequate for enforcing gambling prohibitions or regulations on the Internet, especially where such gambling crosses State or national borders.").

³ See Fantasy Football Business Is No Gamble to NFL, supra note 2 (discussing the National Football League's lobbying on behalf of the Unlawful Internet Gambling Enforcement Act and the likely role that lobbying played in the fantasy sports carveout that appeared in the bill's final version).

⁴31 U.S.C. § 5362(1)(E)(ix).

perhaps small sums of money.⁵ With efforts to capitalize on this payment processor safe haven, aggressive entrepreneurs, however, attempted to reshape the conceptualization of fantasy sports to include "daily fantasy sports," a new category of games that were intended to "appeal to aggressive fantasy sports players looking for more instant gratification than traditional fantasy leagues can offer."⁶

Within only a few years, the definition of fantasy sports was subsumed by "daily fantasy sports," with the daily fantasy sports variety of contests becoming the financially dominant form of fantasy sports. In addition, some companies that offered daily fantasy sports contests continued to adopt increasingly questionable formats of their games—further separating these contests from those that Congress had reasonably intended to protect when they passed UIGEA.8

By the time the U.S. Supreme Court issued its landmark ruling in *Murphy v. National Collegiate Athletic Ass'n*, which opened the door for states throughout the United States to legalize and regulate sports gambling, much of what was called daily fantasy sports evolved to the point of being fundamentally different from traditional fantasy sports. To a legal outsider, it had become quite difficult to tell where the outer contours of daily fantasy sports ended and that of sports gambling began. In this vein, the two largest U.S. daily fantasy sports operators, DraftKings and FanDuel, had even come to simultaneously offer and market products under both the labels of fantasy sports and "sports

⁵ See discussion infra Part II.C; see also Marc Edelman, A Short Treatise on Fantasy Sports and the Law: How America Regulates Its New National Pastime, 3 HARV. J. SPORTS & ENT. L. 1, 6–11 (2012) (describing the gravamen of the fantasy sports industry, even as recently as 2012, being primarily about social entertainment among friends).

⁶ Edelman, supra note 5, at 16 (quoting Left Tackle LLC Subsidiary Announces Business Gains, Expansion, DAILY PAK BANKER, Jan. 24, 2011, 2011 WLNR 1483977); see Marc Edelman, Navigating the Legal Risks of Daily Fantasy Sports: A Detailed Primer in Federal and State Gambling Law, 2016 U. ILL. L. REV. 117, 127–29.

⁷ See Scott Nover, The Rise of Daily Fantasy and Sports Betting Has Created an Economy of Its Own, Vox (Jan. 29, 2020), https://www.vox.com/2020/1/29/21112491/daily-fantasy-sports-betting-dfs-merch-analysis-weatherman (on file with the Ohio State Law Journal) (projecting the daily fantasy sports industry currently produces upwards of \$350 million in annual revenue for gaming operators).

⁸ See, e.g., Joe Lemire, FanDuel Launches NASCAR DFS Game in Murky Legal Waters, SportTechie (Apr. 23, 2018), https://www.sporttechie.com/fanduel-daily-fantasynascar-marc-edelman-legal-expert/ [https://perma.cc/QUT4-AKG7].

⁹ Murphy v. NCAA, 138 S. Ct. 1461, 1485 (2018).

¹⁰ See Marc Edelman, Regulating Sports Gambling in the Aftermath of Murphy v. National Collegiate Athletic Association, 26 GEO. MASON L. REV. 313, 331–32 (2018) (describing the relationship between daily fantasy sports and sports gambling).

¹¹ See Joshua Brustein, Fantasy Sports and Gambling: Line Is Blurred, N.Y. TIMES (Mar. 11, 2013), https://www.nytimes.com/2013/03/12/sports/web-sites-blur-line-between-fantasy-sports-and-gambling.html [https://perma.cc/5KJD-TMBF].

gambling."¹² And at least twenty-two states had passed new laws to regulate interactive fantasy sports as a standalone activity, which mimicked traditional state regulations pertaining to other forms of gambling.¹³

This Article explains how the United States regulates fantasy sports today—fifteen years after the passing of the Unlawful Internet Gambling Enforcement Act. Part II of this Article delves into the history of fantasy sports in the United States, including the subtle but important shift in the connotation of the term "fantasy sports," which has come to subsume, and arguably be engulfed by, "daily fantasy sports." Part III discusses the change in regulatory governance of fantasy sports in the United States that has overlapped with the massive growth of the daily fantasy sports industry in the aftermath of Congress's passing of UIGEA. Part IV investigates the growing cybersecurity concerns that emanate from the rise of daily fantasy sports as big business in the United States, including concerns related to both customer identification and consumer privacy.

II. THE HISTORY AND CHANGING DEFINITION OF FANTASY SPORTS SINCE UIGEA

The definition of fantasy sports has never been static.¹⁴ In fact, the emergence of daily fantasy sports has shown that the definition of fantasy sports is quite malleable when necessary or convenient.¹⁵ Despite the evolution of the definitions, or conceptualizations, assigned to fantasy sports, there has been a historical effort to differentiate the activity as distinct from other forms of gambling.¹⁶ While some variation of fantasy sports is likely traceable to the 1920s, the most recent catalyst for change in conceptualization of fantasy sports likely originated with the passage of a port security bill on the last day of Congress's session in 2006.¹⁷ The attachment of UIGEA as a legislative rider to

¹⁷ *Id.* at 101–02, 101 n.20.

¹² See Wayne Duggan, 7 Stocks to Bet on Sports Gambling, U.S. NEWS & WORLD REP. (Feb. 20, 2020), https://web.archive.org/web/20200221041332/https://money.usnews.com/investing/stock-market-news/slideshows/stocks-to-bet-on-sports-gambling (on file with the Ohio State Law Journal) (projecting that FanDuel and DraftKings combine for eighty-three percent of U.S. sports betting market).

¹³ See What Are the States Where You Can Plan Daily Fantasy Sports?, LEGAL SPORTS REP., https://www.legalsportsreport.com/daily-fantasy-sports-blocked-allowed-states/ [https://perma.cc/X4FV-XJV7].

¹⁴ See Edelman, supra note 5, at 4–9 (describing the early iterations of fantasy sports).

¹⁵ See John T. Holden, Christopher M. McLeod & Marc Edelman, Regulatory Categorization and Arbitrage: How Daily Fantasy Sports Companies Navigated Regulatory Categories Before and After Legalized Gambling, 57 Am. Bus. L.J. 113, 115 (2020).

¹⁶ John T. Holden, *The Unlawful Internet Gambling Enforcement Act and the Exemption for Fantasy Sports*, 28 J. LEGAL ASPECTS SPORT 97, 103–12 (2018) (describing congressional testimony differentiating fantasy sports from other forms of sports gambling).

the SAFE Port Act¹⁸ would create an opportunity for entrepreneurs to reshape the definition of fantasy sports.¹⁹

A. The Early Days of Fantasy Sports

Before fantasy sports were what they are today, they existed in the form of tabletop games.²⁰ The Ethan Allen company was amongst the first to launch a tabletop game, which was sold as "All-Star Baseball."²¹ The game was based on the past real-world performances of professional baseball players.²² All-Star Baseball would establish the groundwork for Strat-O-Matic Baseball, a game created by Hal Richman in 1961, which had cards associated with real-world baseball players and used dice to simulate a game of baseball.²³ Strat-O-Matic would eventually make not only baseball games, but also games for basketball, hockey, and American football.²⁴

The tabletop games and their successors would eventually give way to a more social version of fantasy sports.²⁵ In the 1960s, University of Michigan Professor Bill Gamson would launch what he titled "The Baseball Seminar."²⁶ Seminar attendees would pay ten dollars to participate and draft a team of real-world baseball players to compete against other attendees, with the winner being determined by the best performing team across a series of predetermined statistical categories.²⁷ In California, around the same time as Bill Gamson's seminar, a small group of individuals formed the Greater Oakland Professional Pigskin Prognosticators League (GOPPPL), which effectively served as the predecessor to modern fantasy football, much as Gamson's game served as the predecessor to modern fantasy baseball.²⁸ The GOPPPL would eventually spread beyond Oakland.²⁹ But it was the mentee of one of Gamson's seminar

¹⁸ Security and Accountability for Every Port Act of 2006, Pub. L. No. 109-347, §§ 801–803, 120 Stat. 1884, 1952–62; Brandon P. Rainey, *The Unlawful Internet Gambling Enforcement Act of 2006: Legislative Problems and Solutions*, 35 J. LEGIS. 147, 147 (2009) (describing the attachment of UIGEA to the SAFE Port Act); *see also* Holden, *supra* note 16, at 102.

¹⁹ See Edelman, supra note 6, at 124–29 (describing both how an entrepreneur utilized the so-called fantasy sports exemption in UIGEA to launch a daily version of fantasy sports and the continued evolution of this category).

²⁰ Edelman, *supra* note 5, at 4.

²¹ *Id*.

²² *Id*.

 $^{^{23}}$ Id. at 4–5.

²⁴E.g., Football: New Football Products, STRAT-O-MATIC, https://www.strat-o-matic.com/football-new-products/ [https://perma.cc/RTP7-AGLH].

²⁵ See Edelman, supra note 5, at 5–6.

²⁶ *Id*.

²⁷ I.a

²⁸ Patrick Hruby, *The Forgotten Fathers of Fantasy Football*, PATRICK HRUBY (Dec. 2013), https://www.patrickhruby.net/2013/12/the-forgotten-fathers-of-fantasy.html [https://perma.cc/GN8U-47MV].

²⁹ *Id*.

attendees that would become most associated with the rise of fantasy sports as the industry it is today—Daniel Okrent.³⁰ Okrent proposed a game to his friends based on the Gamson seminar, as told to him by his mentor Robert Sklar.³¹ Okrent's version of fantasy baseball raised the stakes to an entry fee of \$260 and he and his friends would meet annually to draft their teams at the La Rotisserie Française restaurant in New York.³² The game Okrent pitched to his friends in 1979 became known as "Rotisserie Baseball" and it would gain a cult following.³³

B. The Boom Times

Widespread accessibility to the internet enabled fantasy sports to spread beyond statistically minded individuals to sports fans more broadly.³⁴ In 1995, ESPN launched an internet-based fantasy baseball game.³⁵ By 1997, online fantasy sports had gained popularity and CBS Sports had launched a fantasy football site in an effort to remain competitive with an expanding line up of fantasy options from ESPN.³⁶ By 2000, Yahoo had entered the market and there were fantasy sports leagues for most major sports.³⁷ By 2012, approximately ten percent of the American population was participating in fantasy sports.³⁸ Fantasy sports had become so ubiquitous by the 2010s that a television show called *The League* was created and centered on a group of friends who played in a fantasy football league together.³⁹ In 2019, it was estimated that as many as

³⁰ Edelman, *supra* note 5, at 6–7.

³¹ *Id*

³² *Id.* at 7.

³³Ben McGrath, *Dream Teams*, NEW YORKER (Apr. 6, 2015), https://www.newyorker.com/magazine/2015/04/13/dream-teams [https://perma.cc/5X3L-XKVL] (noting that Okrent felt conflicted with what fantasy sports had become, likening himself to J. Robert Oppenheimer after inventing the atomic bomb).

³⁴ John T. Holden & Simon A. Brandon-Lai, *Advertised Incentives for Participation in Daily Fantasy Sports Contests in 2015 and 2016: Legal Classification and Consumer Implications*, 15 ENT. & SPORTS L.J. 1, 2, 7 (2017).

³⁵ Edelman, *supra* note 5, at 10.

³⁶ See Chris Towers, Fantasy Football: The History of Fantasy Football, the Biggest Seasons and the Future, CBS SPORTS (May 11, 2020), https://www.cbssports.com/fantasy/football/news/fantasy-football-the-history-of-fantasy-football-the-biggest-seasons-and-the-future/ [https://perma.cc/KV5X-5VRW].

³⁷ Marc Edelman, Regulating Fantasy Sports: A Practical Guide to State Gambling Laws, and a Proposed Framework for Future State Legislation, 92 IND. L.J. 653, 658 (2017); see also Edelman, supra note 5, at 10–11.

³⁸ Nathaniel J. Ehrman, *Out of Bounds?: A Legal Analysis of Pay-to-Play Daily Fantasy Sports*, 22 Sports Laws. J. 79, 81 (2015).

³⁹ See Pras Subramanian, 5 Surprising Stats About Fantasy Sports, YAHOO! FIN. (Sept. 4, 2013), https://finance.yahoo.com/blogs/breakout/5-surprising-stats-fantasy-sports-15435 6461.html [https://perma.cc/G238-EW9K].

45.9 million Americans were playing fantasy sports.⁴⁰ As fantasy sports were continuing to grow in popularity, so too was a desire amongst the American public for a form of legalized sports betting,⁴¹ and these two desires would eventually collide because of an exemption in a federal banking statute.⁴²

C. The Passage of the Unlawful Internet Gambling Enforcement Act

Beginning around 1997, Congress began to express concerns about online gambling and its impact on young people, in particular.⁴³ In 1998, a representative for the Major League Baseball Players' Association was amongst the first to distinguish fantasy sports from sports gambling in a legislative setting.⁴⁴ The representative, lawyer Marianne McGettigan, would argue that fantasy sports participants were the most ardent baseball fans that the league had, and, unlike sports gambling, fantasy sports posed little threat to the integrity of the game.⁴⁵ The argument was that the stakes of fantasy sports were too small for a player to fix a game.⁴⁶ Following McGettigan's 1998 appearance before Congress, little progress was made on legislation to ban wagering over the internet for several years.⁴⁷ Despite the lack of traction for the passage of a bill generally, Nevada Senator Richard Bryan would introduce an amendment to legislation exempting certain fantasy sports games from the definition of the implicated gambling offenses—the UIGEA.⁴⁸

The fantasy sports language that was included in UIGEA created an exemption for fantasy sports contests that met several criteria:

- (ix) participation in any fantasy or simulation sports game or educational game or contest in which (if the game or contest involves a team or teams) no fantasy or simulation sports team is based on the current membership of an actual team that is a member of an amateur or professional sports organization (as those terms are defined in section 3701 of title 28) and that meets the following conditions:
 - (I) All prizes and awards offered to winning participants are established and made known to the participants in advance of the game or contest and

⁴⁰ S. Lock, *Number of Fantasy Sports Players in the United States from 2009 to 2019*, STATISTA (June 25, 2021), https://www.statista.com/statistics/820976/fantasy-sports-players-usa/ [https://perma.cc/CN62-EBWJ].

⁴¹ A 1999 government report estimated that Americans were betting between \$80 and \$380 billion illegally on an annual basis. NAT'L GAMBLING IMPACT STUDY COMM'N, NATIONAL GAMBLING IMPACT STUDY COMMISSION FINAL REPORT 2–14 (June 1999), https://govinfo.library.unt.edu/ngisc/reports/2.pdf [https://perma.cc/YD7M-4ELB].

⁴² John T. Holden, Regulating Sports Wagering, 105 IOWA L. REV. 575, 584–85 (2020).

⁴³ Holden, *supra* note 16, at 103.

⁴⁴ See id. at 103–04.

⁴⁵ *Id.* at 104–05.

⁴⁶ See id. at 105.

⁴⁷ See id. at 105–08.

⁴⁸ *Id.* at 109.

their value is not determined by the number of participants or the amount of any fees paid by those participants.

(II) All winning outcomes reflect the relative knowledge and skill of the participants and are determined predominantly by accumulated statistical results of the performance of individuals (athletes in the case of sports events) in multiple real-world sporting or other events.

(III) No winning outcome is based—

(aa) on the score, point-spread, or any performance or performances of any single real-world team or any combination of such teams; or (bb) solely on any single performance of an individual athlete in any single real-world sporting or other event.⁴⁹

This exemption appears to have been largely perceived as being inclusive enough to cover the fantasy sports games like those which existed at the time, but not so broad as to allow any type of contest to qualify.⁵⁰ The exemptions within UIGEA, however, would not as intended⁵¹ limit fantasy sports to the activity described in congressional testimony in the lead up to UIGEA's passage.⁵²

D. The Emergence of Daily Fantasy Sports

Daily fantasy sports were the brainchild of a poker blogger named Kevin Bonnet.⁵³ UIGEA, which did not target fantasy sports, had in fact targeted payment processors who supplied poker sites,⁵⁴ and effectively shut down many of the online poker operators serving U.S.-based customers.⁵⁵ The law that had shutdown poker sites gave Bonnet the idea to create a fantasy sports website that looked similar to a sportsbook (which was prohibited), but arguably complied

⁴⁹Unlawful Internet Gambling Enforcement Act of 2006 § 802, 31 U.S.C. § 5362(1)(E)(ix).

⁵⁰ See Holden, supra note 16, at 104–05 (summarizing Marianne McGettigan's testimony before Congress).

⁵¹ See Sacha Feinman & Josh Israel, *The Hot New Form of Fantasy Sports Is Probably Addictive, Potentially Illegal and Completely Unregulated*, THINKPROGRESS (May 7, 2015), https://archive.thinkprogress.org/the-hot-new-form-of-fantasy-sports-is-probably-addictive-potentially-illegal-and-completely-4c90c89db63b/ [https://perma.cc/P2WC-ZUBA] (quoting one of UIGEA's authors, Jim Leach, as stating "[t]he assumption was that while unconstrained Internet gambling could change the nature of America's savings and investment patterns, fantasy sports would be a 'de minimus' footnote. No one ever conceived of it becoming a large scale activity or that it could transition into one-day contests").

⁵² See Marc Edelman, A Sure Bet? The Legal Status of Daily Fantasy Sports, 5 PACE INTEL. PROP. SPORTS & ENT. L.F. 1, 2–8 (2016) (describing the origins of daily fantasy sports).

⁵³ *Id.* at 6–7.

⁵⁴ *UIGEA Explained*, BETTINGUSA.COM, https://www.bettingusa.com/laws/uigea/[https://perma.cc/JG8U-33KW].

⁵⁵ Edelman, *supra* note 52, at 5.

with UIGEA's exemption for fantasy sports.⁵⁶ While Bonnet never garnered commercial success with his website, others had more success with a similar concept, notably FanDuel and DraftKings.⁵⁷

The success of the daily fantasy industry was based on three primary types of contests.⁵⁸ The first type of contest is the head-to-head competition, where two competitors face off against each other with one winner claiming the prize, minus a stipulated fee to the operator.⁵⁹ The second type of contest has a variety of names, but these are often called 50/50s.⁶⁰ They have multiple entrants, with those scoring above the fiftieth percentile receiving a prize.⁶¹ The final category that gave rise to the popularity of the daily fantasy industry is the guaranteed prize pool contests, which would occasionally boast seven-figure prize pools and often have thousands of entrants.⁶² These contests would generate millions of dollars in entry fees collectively, and they would eventually propel both major companies to billion-dollar valuations.⁶³ In the wake of legalized sports gambling in the United States, FanDuel and DraftKings were conveniently positioned as known brands to Americans, and they were able to adapt traditional sports betting products to go alongside their daily fantasy offerings.⁶⁴

E. Publicly Traded Behemoths

The daily fantasy sports industry has been one of the fastest growing industries in the United States since its conceptualization in 2007.⁶⁵ The industry is led by now publicly traded companies, with market capitalizations worth tens of billions of dollars.⁶⁶ The path for FanDuel and DraftKings from small-time startups to publicly traded companies was one that was filled with risk.⁶⁷ Both companies faced a number of challenges, which, most prominently, were touched off by internal policies that allowed employees to compete on

⁵⁶ *Id.* at 6–7.

⁵⁷ *Id.* at 7–8.

⁵⁸ See John T. Holden, Will F. Green & Ryan M. Rodenberg, *Daily Fantasy, Tipping, and Wire Fraud*, 21 GAMING L. REV. & ECON. 8, 9 (2017).

⁵⁹ *Id*.

⁶⁰ *Id*.

⁶¹ *Id*.

⁶² *Id*.

⁶³ See Julia Greenberg, FanDuel and DraftKings Head to Court as Unicorn Fantasies Falter, WIRED (Nov. 24, 2015), https://www.wired.com/2015/11/fanduel-and-draftkings-head-to-court-as-unicorn-fantasies-falter/ [https://perma.cc/4KV7-JKYD] (noting that both major companies reached billion-dollar valuations).

⁶⁴ See Holden, McLeod & Edelman, supra note 15, at 131–32.

⁶⁵ See Edelman, supra note 52, at 6–8.

⁶⁶ See Draftkings Inc., GOOGLE FIN., https://www.google.com/finance/quote/DKNG: NASDAQ?sa=X&ved=2ahUKEwjv3oa8-N_tAhUS2qwKHYSwCN8Q3ecFMAB6BAgBEBk [https://perma.cc/NV8U-QQXJ]; see also Flutter Entertainment PLC, GOOGLE FIN., https://www.google.com/finance/quote/FLTR:LON [https://perma.cc/THS3-7M4M].

⁶⁷ See generally Holden, McLeod & Edelman, supra note 15.

competitors' sites,⁶⁸ as well as revelations that the likelihood of winning the big money—the focus of incessant advertising campaigns—was incredibly low.⁶⁹ Daily fantasy sports saw tremendous growth, even as the New York attorney general launched a very public lawsuit against the companies accusing them of misleading players and violating state consumer protection laws.⁷⁰

In 2019, the industry reportedly brought in \$350 million in revenue and two companies emerged as the clear leaders—FanDuel and DraftKings; the latter of the two held a sixty percent market share. The DraftKings's and FanDuel's daily fantasy market positions left the two companies uniquely positioned for the emergence of legal sports betting in 2018, when the U.S. Supreme Court struck down a federal law that had effectively confined sports betting to the state of Nevada. In the aftermath of the Supreme Court's decision, both FanDuel and DraftKings moved quickly and expanded their offerings beyond daily fantasy offerings into traditional sports betting style offerings. In the first year of widespread legal sports betting in the United States, FanDuel and DraftKings controlled eighty-three percent of the market in New Jersey, the biggest market at the time outside of Nevada.

As legal sports betting was in its infancy in the United States, Flutter, a European-based gaming company, began acquiring an ownership stake in FanDuel.⁷⁵ In December 2020, that process was completed with Flutter owning ninety-five percent of the company.⁷⁶ Meanwhile, DraftKings announced in

⁶⁸ Holden, Green & Rodenberg, *supra* note 58, at 9–12.

⁶⁹ See Ed Miller & Daniel Singer, For Daily Fantasy Sports Operators, the Curse of Too Much Skill, Sports Bus. J. (July 27, 2015), https://www.sportsbusinessdaily.com/Journal/Issues/2015/07/27/Opinion/From-the-Field-of-Fantasy-Sports.aspx [https://perma.cc/FTJ4-2OT8].

⁷⁰ Nover, *supra* note 7.

⁷¹ Id

⁷² See Murphy v. NCAA, 138 S. Ct. 1461, 1469, 1471, 1485 (2018) (striking down the Professional and Amateur Sports Protection Act).

⁷³ Alex Sherman, *Legal Gambling from Your Phone Could Be a \$150 Billion Market, but Making It Happen Will Be Tough*, CNBC (Apr. 27, 2019), https://www.cnbc.com/2019/04/27/fanduel-draftkings-race-to-win-150-billion-sports-betting-market.html [https://perma.cc/2GHK-6BTP].

⁷⁴ *Id.*; see also Bob Woods, *Making a Wager? Half of Americans Live in States Soon to Offer Sports Gambling*, CNBC (July 10, 2019), https://www.cnbc.com/2019/07/10/half-of-americans-live-in-states-soon-to-offer-sports-gambling.html [https://perma.cc/C6E6-R2C2].

⁷⁵ See Luis Sanchez, *This Acquisition by FanDuel's Parent Company Is Creating an Online Gambling Monster*, MOTLEY FOOL (June 16, 2020), https://www.fool.com/investing/2020/06/16/acquisition-fanduel-parent-online-gambling-flutter.aspx [https://perma.cc/DC2F-4RXR].

⁷⁶ Chris Murphy, Flutter to Acquire Entire 37.2% Interest in FanDuel for \$4.175bn, SBC AMS. (Dec. 3, 2020), https://sbcamericas.com/2020/12/03/flutter-to-acquire-entire-37-2-interest-in-fanduel-for-4-175bn/ [https://perma.cc/L7LL-ZKS9]; Pratibha Alagh, Flutter Raises FanDuel Stake to 95%, S&P GLOB. (Dec. 30, 2020), https://www.spglobal.com/marketintelligence/en/news-insights/latest-news-headlines/flutter-raises-fanduel-stake-to-95-61922640 [https://perma.cc/QT5Y-GE35].

December 2019 that it would be merging with a special purpose acquisition company, or SPAC, and gaming technology company SBTech to become a publicly traded entity.⁷⁷ The launch of DraftKings on the NASDAQ saw the company listed with a market capitalization of \$3.3 billion.⁷⁸ This has since grown to a valuation over \$20 billion as the company became a darling of several Wall Street pundits like CNBC's Jim Cramer.⁷⁹ The growth of the two major companies is astounding considering that at one point they were considering attempting to merge with one another (despite blatant antitrust concerns with such a merger) after facing multiple investigations that had become costly and an uncertain future regulatory environment.⁸⁰ The two companies' survival and emergence as dominant market players is nothing short of remarkable given the obstacles they faced along the way.⁸¹

III. CHANGING REGULATORY GOVERNANCE OF FANTASY SPORTS

Prior to the passing of UIGEA and the emergence of daily fantasy sports, the fantasy sports industry was governed primarily under general common law,⁸² and fantasy sports games received the same general tax treatment as nongambling businesses.⁸³ While companies such as ESPN, CBS Sports, and Yahoo! all offered some version of fantasy sports, the market for hosting higher

⁷⁷ Jesse Pound, *Fantasy Sports Company and Bookmaker DraftKings to Become Public Company*, CNBC (Dec. 23, 2019), https://www.cnbc.com/2019/12/23/draftkings-to-become-public-company-forgoing-traditional-ipo.html [https://perma.cc/TQ8F-FBZB].

⁷⁸ Michael Brown, *DraftKings Hits Public Market with SPAC Merger*, DEAL (June 22, 2020), https://www.thedeal.com/mergers-acquisitions/draftkings-hits-public-market-with-spac-merger/ [https://perma.cc/RQJ4-KKAM].

⁷⁹ See DraftKings Inc., supra note 66; see, e.g., Craig Jones, Jim Cramer Shares His Thoughts on New Relic, DraftKings and More, MKTS. INSIDER (Nov. 16, 2021), https://markets.businessinsider.com/news/stocks/jim-cramer-shares-his-thoughts-on-new-relic-draftkings-and-more-1030981294 [https://perma.cc/7KLA-B326].

⁸⁰ See Associated Press, DraftKings and FanDuel Call Off Merger, N.Y. TIMES (July 13, 2017), https://www.nytimes.com/2017/07/13/sports/draftkings-and-fanduel-call-off-merger.html [https://perma.cc/695T-WFLP] (noting that the Federal Trade Commission and the Attorneys General of California and the District of Columbia opposed the proposed merger); Merrit Kennedy, Daily Fantasy Sports Sites DraftKings and FanDuel Agree to Merge, NPR (Nov. 18, 2016), https://www.npr.org/sections/thetwo-way/2016/11/18/50256 3390/daily-fantasy-sports-sites-draftkings-and-fanduel-agree-to-merge [https://perma.cc/9SZB-65XL] (discussing the legal challenges and the decision to merge); Marc Edelman, Why a Merger of FanDuel And DraftKings Would Not Survive Antitrust Review, FORBES (June 13, 2016), https://www.forbes.com/sites/marcedelman/2016/06/13/why-a-merger-of-fanduel-and-draftkings-would-not-survive-antitrust-review/?sh=6a85ad435965 [https://perma.cc/KED7-4UZU].

⁸¹ See generally Holden, McLeod & Edelman, supra note 15.

⁸² See, e.g., Humphrey v. Viacom, Inc., No. 06-2768, 2007 WL 1797648, at *7–8 (D.N.J. June 20, 2007) (applying the common law from various states in addition to a New Jersey statute to assess the legal status of a full-season fantasy sports contest).

⁸³ Cf. Edelman, supra note 5, at 4–9 (describing the beginning of fantasy sports).

stakes fantasy sports tournaments was rather fragmented, with a number of different companies operating in this area as lifestyle businesses.⁸⁴ However, with the massive explosion of gambling-like companies operating under the moniker of daily fantasy sports pushing the envelope of legality under both federal and state law, the United States has moved toward regulating daily fantasy sports in a manner more similar to gambling than entertainment.⁸⁵ This has meant the emergence of special regulatory schemes, efforts to impose a federal wagering tax, and the fostering of an oligopoly market that freezes out many new market entrants in favor of the collection of high licensing fees.⁸⁶ Whether this transition in fantasy sports' regulatory framework is a good thing for society overall remains to be seen.

A. The Transition from General Common Law Rules to Special Fantasy Sports Statutes

Until the emergence of daily fantasy sports as a major U.S. enterprise, there was no such thing as "fantasy sports law" in the United States, other than perhaps the UIGEA carveout language.⁸⁷ As such, fantasy sports contests were governed in the same manner as any other form of contests under state and federal law.⁸⁸ Thus, fantasy sports contests were deemed illegal if they contained three elements—"consideration" (generally an entry fee), "chance," and "reward." While there were few legal challenges involving fantasy sports during this early time period, the more sophisticated companies in the fantasy sports marketplace understood that there were several different tests states could adopt to determine whether their contest constituted a game of "chance." The most favorable test, known as the "predominant purpose test," or sometimes called the "dominant factor test," deems a contest to be game of skill rather than chance if the game mathematically includes a greater degree of skill than chance. In these states, it was relatively safe to operate fantasy sports

⁸⁴ See id. at 19–21 (discussing the market for providing host site services).

⁸⁵ See infra notes 87–112 and accompanying text (discussing emerging state regulatory framework for operating daily fantasy sports); *infra* notes 113–20 (discussing changing interpretation of treatment of daily fantasy sports under federal tax law).

⁸⁶ See infra notes 91–115 and accompanying text (discussing emerging state regulatory framework for operating daily fantasy sports); see also infra notes 115–24 (discussing changing interpretation of treatment of daily fantasy sports under federal tax law).

⁸⁷ Unlawful Internet Gambling Enforcement Act of 2006 § 802, 31 U.S.C. § 5362(1)(E)(ix).

⁸⁸ See generally Edelman, supra note 5 (discussing the way in which fantasy sports were regulated in the United States roughly ten years ago).

⁸⁹ Edelman, *supra* note 37, at 662.

⁹⁰ See id. at 663–65.

⁹¹ See id. at 663; Holden, McLeod & Edelman, supra note 15, at 130.

contests. ⁹² On the other end of the spectrum, in a number of other states contests are deemed illegal "if they involve any chance whatsoever, even a modicum of chance." There, companies, absent special legislation, simply cannot operate pay-to-play fantasy sports contests. ⁹⁴ Meanwhile, in between these two standards were a series of middle ground tests such as the "material element test," ⁹⁵ "gambling instinct test," or "future contingent event test." In these states, the legal status of fantasy sports was always seen as somewhat ambiguous.

While attorneys general in states such as Florida and Louisiana had issued negative legal opinions pertaining to the presumed illegality of fantasy sports that date back to the early 1990s, for many years few other states directly addressed the legal issues pertaining to fantasy sports. This changed rapidly, however, in the fall of 2015 when FanDuel and DraftKings began to spend large sums of money advertising their daily fantasy sports contests in a manner that seemed akin to sports gambling. In response, the Nevada Gaming Control Board in October 2015 issued a legal memorandum that deemed "daily fantasy sports constitute sports pools and gambling games," and thus "pay-to-play daily

⁹² See Edelman, supra note 37, at 663 (including California, Massachusetts, and Kansas among the list of states that historically have applied the predominant purpose test to fantasy sports).

 $^{^{93}}$ Id. at 664 (including Arizona, Arkansas, Iowa, and Tennessee, among others, within this category of states).

⁹⁴ Edelman, *supra* note 6, at 134–35.

⁹⁵ See Edelman, supra note 37, at 664 (explaining that the material element test, which has been adopted by states such as New York and Missouri, "considers not only skill-to-chance ratios, but also 'whether the contest is entered into among novices or experts and whether the amount of information provided to the contestants negates the skill-based advantages that true experts have obtained'" (quoting Edelman, supra note 6, at 134)).

⁹⁶ Holden, McLeod & Edelman, *supra* note 15, at 131 ("The gambling instinct test prohibits gambling activities that appeal to a player's desire to engage in gambling behaviors without regard for skill or chance."); *see, e.g.*, City of Milwaukee v. Burns, 274 N.W. 273, 275 (Wis. 1937) (applying the gambling instinct test in the state of Wisconsin regarding the legality of a pinball machine).

⁹⁷N.Y. PENAL LAW § 225.00(2) (McKinney 2015) (recognizing "future contingent event" language in addition to New York's material element test).

⁹⁸ See Fla. Op. Att'y Gen. No. 91-3, 1991 WL 528146 (Jan. 8, 1991); La. Op. Att'y Gen. No. 91-14, 1991 WL 575105 (Apr. 23, 1991).

⁹⁹ See Joe Drape & Ken Belson, An Ad Blitz for Fantasy Sports Games, but Some See Plain Old Gambling, N.Y. TIMES (Sept. 16, 2015), https://www.nytimes.com/2015/09/17/sports/football/draftkings-fanduel-fantasy-sports-games.html [https://perma.cc/US9M-7F8P] (describing the media advertising blitz for daily fantasy sports contests that emerged at the start of the 2015 football season).

fantasy sports cannot be offered in Nevada without licensure."¹⁰⁰ This decision expedited other states to conduct their own earnest review.¹⁰¹

The State of New York moved next in addressing the legality of daily fantasy sports when it issued a cease and desist letter in November 2015 that ordered the two dominant daily fantasy sports operators, FanDuel and DraftKings, to cease operation in the state. ¹⁰² Meanwhile, by the first quarter 2016, the attorneys general of Illinois, Texas, Hawaii, Maryland, Mississippi, and Tennessee, among others, had all issued similar rulings that FanDuel and DraftKings's daily fantasy sports contests violated state law. ¹⁰³

The rapid response by state attorneys general in late 2015 and early 2016 led the daily fantasy sports industry to hire lobbyists and attempt to convince state legislatures in non-predominant purpose test states to allow them to legally reenter the market. 104 Within a few years after daily fantasy sports companies began their lobbying efforts, at least twenty-two states passed new laws to regulate daily fantasy sports. 105 In many of these states, the new regulations also became binding on full-season fantasy sports operators. 106 Thus, while the new laws of many states were a panacea to the two large daily fantasy sports companies that sought an avenue to continue their operations, they created additional regulatory inconvenience for the traditional operators that once had done business without any special taxation or oversight. 107

¹⁰⁰ Memorandum from J. Brin Gibson, Bureau Chief, Gaming & Gov't Affs. & Ketan D. Bhirud, Head Complex Litig., Nev. Off. of the Att'y Gen., to A.G. Burnett, Chairman, Terry Johnson, Member & Shawn Reid, Member, Nev. Gaming Control Bd. 2 (Oct. 16, 2015), http://www.legalsportsreport.com/wp-content/uploads/2015/10/Nevada-AG-DFS.pdf [https://perma.cc/DVY4-4W4H].

¹⁰¹ See infra notes 102–12 and accompanying text.

¹⁰² Letter from Kathleen McGee, Chief, Internet Bureau, N.Y. Off. of the Att'y Gen., to Nigel Eccles, CEO, FanDuel 1 (Nov. 10, 2015), http://ag.ny.gov/pdfs/Final_NYAG_FanDuel_Letter_11_10_2015_signed.pdf [https://perma.cc/AXA3-RBC8]; Letter from Kathleen McGee, Chief, Internet Bureau, N.Y. Off. of the Att'y Gen., to Jason Robins, CEO, DraftKings 1 (Nov. 10, 2015), http://ag.ny.gov/pdfs/Final_NYAG_DraftKings_Letter_11_10_2015.pdf [https://perma.cc/M35L-CJJL].

¹⁰³ See Edelman, supra note 37, at 670–71.

¹⁰⁴ See David McCabe, Fantasy Sports Site Makes First Lobbying Hire as Scrutiny Grows, HILL (Oct. 12, 2015), https://thehill.com/policy/technology/256665-fantasy-sports-site-makes-first-lobbying-hire-as-congressional-scrutiny [https://perma.cc/8628-WWJE]; see also Orrick's Role in Legalization of Daily Fantasy Sports Praised in Interview with DraftKings CEO, ORRICK (Sept. 12, 2016), https://www.orrick.com/en/News/2016/09/Orrick-Role-in-Legalization-of-Daily-Fantasy-Sports-Praised-in-Interview-with-DraftKings-CEO [https://perma.cc/PC25-ACBJ] (discussing the role of Jeremy Kudon, a partner in Orrick's Public Policy group, who was a leader in organizing the daily fantasy sports industry's lobbying efforts).

¹⁰⁵ See What Are the States Where You Can Play Daily Fantasy Sports?, supra note 13. 106 See, e.g., S. 8153, 201st Legis., Reg. Sess. § 1401 (N.Y. 2016) (enacted) (describing the contests brought under the scope of this statute as "interactive fantasy sports contests" and thus including both daily and traditional full-season fantasy sports).

¹⁰⁷ See Geoff Mulvihill, State Bills to Allow Fantasy Sports Could Hurt Smaller Firms, SEATTLE TIMES (Mar. 27, 2016), https://www.seattletimes.com/business/state-bills-to-allow-

While a number of large states, including California and Illinois, continue to allow for all formats of fantasy sports contests to operate in their states without special legislation, a number of other large-market states including New York, Pennsylvania, and Ohio have entirely preempted their general rules for determining the legality of fantasy sports contests with new statutory schemes that require the licensing of companies to operate in the fantasy sports marketplace and, at least arguably, provide a safe harbor to those companies that receive a license. 108 Although there are distinctions among the various states' fantasy sports laws, there is a large amount of similarity and overlap. In addition to the requirement that states pay a licensing fee or a share of the revenue (or both) derived from their fantasy sports contests in exchange for a license, most states require companies that seek to operate in this marketplace to mark the identities of highly experienced fantasy sports players, publish self-exclusion mechanisms and information about help for problem gamblers, ensure that all contest participants have reached the age of majority in the specific state, and segregate player funds from other company assets to ensure fantasy sports businesses have adequate funds to payout winners. 109 Additionally, certain states have implemented monthly caps on how much money participants can deposit onto a given daily fantasy sports site as a means to ensure participants do not become insolvent based on their participation in fantasy sports. 110

In addition to these seemingly innocuous provisions, some states also have established grandfather clauses to give most favored company status to the companies that had gun-jumped and operated in the state before the new legislation was implemented—perhaps a feature of the fact that these arguable gun-jumpers such as FanDuel and DraftKings hired the lobbyists that helped to craft these bills. Most bizarrely, in New York State, companies that had entered the fantasy sports and daily fantasy sports marketplace prior to the November 2015 cease and desist letters were granted temporary permits to reenter the marketplace alongside the signing into law of new fantasy sports

fantasy-sports-could-hurt-smaller-firms/ [https://perma.cc/7S8U-VFY2] (discussing how the high licensing fees included in many new fantasy sports legislative bills hurt the ability of smaller companies to compete in the marketplace).

¹⁰⁸ See S. 8153, 201st Legis., Reg. Sess. § 1402 (N.Y. 2016) (enacted); 58 PA. CODE §§ 1201a.1–1209a.5 (2021); OHIO ADMIN. CODE 3772–3774 (2019).

¹⁰⁹ See Edelman, supra note 37, at 671–82 (discussing numerous state legislative schemes related to fantasy sports).

¹¹⁰ See, e.g., 940 MASS. CODE REGS. 34.10(6) (2016) (limiting daily fantasy sports operators from accepting more than \$1,000 per month in deposits from Massachusetts participants unless the fantasy sports operator, upon investigation, concludes that a given daily fantasy sports contestant has the financial ability to afford greater losses).

¹¹¹ See Marc Edelman, New York's Fantasy Sports Law Keeps Away Earnest Competition, Rewards Gun-Jumpers, FORBES (May 31, 2018), https://www.forbes.com/sites/marcedelman/2018/05/31/new-yorks-fantasy-sports-law-keeps-out-earnest-competition/#332 dcc6d67a [https://perma.cc/9N9G-HASB]; Mulvihill, supra note 107 (explaining the role of large companies like FanDuel and DraftKings in lobbying for the new state fantasy sports laws).

legislation in August 2016; meanwhile, more than five years later, the New York State Gaming Commission still has not created an application process to enter the market for companies that did not jump the gun, but rather waited for legal certainty. 112

B. Potentially Changing Tax Treatment

Not only has the legal treatment of fantasy sports changed in the twenty-two states that in recent years have implemented fantasy sports laws, but so too has the Internal Revenue Service's interpretation of tax liability for daily fantasy sports companies. 113 On July 23, 2020, the Internal Revenue Service adopted for the first time the position that daily fantasy sports operators must pay an excise tax that would range between 0.25% for legal gaming and 2.0% for illegal gaming on contest entry fees as a form of "wager" under the Internal Revenue Code. 114 In determining that daily fantasy sports, for tax purposes, more closely resembles sports wagering than a traditional fantasy sports activity, the IRS noted, in pertinent part, that "DFS contests typically occur daily, and the participants tend to be a much larger group of strangers," as well as that, unlike traditional fantasy sports, "in DFS, a portion of the fees collected is not paid out to the winner or winners, but is retained by the DFS operator." 115

The IRS's ruling that daily fantasy sports companies must pay this excise tax, even though traditional fantasy sports businesses do not need to do so, marks a sharp distinction in the treatment of these two business models as a matter of tax law. 116 It also distinguishes the IRS approach of analyzing daily fantasy sports contests based on their substance rather than based on their adopted nomenclature. 117

¹¹² See Edelman, supra note 111; see also Marc Edelman, New York Is Ready for Online Sports Betting, but First the State Gaming Commission Needs an Overhaul, FORBES (Jan. 8, 2021), https://www.forbes.com/sites/marcedelman/2021/01/08/new-york-is-ready-for-online-sports-betting-but-first-the-state-gaming-commission-needs-an-overhaul/?sh=991e9472dd48 [https://perma.cc/488J-NKZN].

¹¹³ See Memorandum from Holly Porter, Assoc. Chief Couns., IRS, to Ruth Spadaro, Acting Area Couns., IRS 7–10 (July 23, 2020), https://www.irs.gov/pub/lanoa/am-2020-009.pdf [https://perma.cc/32GF-Y69Q] [hereinafter Porter Memorandum]; see also Memorandum from Amy S. Wei, Senior Couns., IRS, to Erin K. Neugebauer, Att'y, IRS 1–3 (Sept. 14, 2020), https://www.irs.gov/pub/irs-wd/202042015.pdf [https://perma.cc/G5WY-PCU7] [hereinafter Wei Memorandum].

¹¹⁴See Porter Memorandum, supra note 113, at 10; see also Joshua Rosenberg, IRS' Fantasy Sports Ruling Could Force Small Cos.' Exit, LAW360 (Nov. 9, 2020), https://www.law360.com/articles/1326735/irs-fantasy-sports-ruling-could-force-small-cos-exit (on file with the Ohio State Law Journal) (explaining the amount of this excise tax).

¹¹⁵ Porter Memorandum, *supra* note 113, at 2–3; *see also* Wei Memorandum, *supra* note 113, at 2.

¹¹⁶ See Porter Memorandum, supra note 113, at 10; Wei Memorandum, supra note 113, at 2–3.

¹¹⁷ See Porter Memorandum, supra note 113, at 2–3 (recognizing distinctions between fantasy sports and daily fantasy sports in terms of form and function).

At present, at least one of the large daily fantasy sports operators, DraftKings, has indicated an intent to legally challenge the IRS ruling in tax court rather than pay the excise tax on its DFS handle. In addition, an anonymous source quoted by gambling industry reporter Brett Smiley in *Sports Handle* has suggested that the large daily fantasy sports companies are already attempting to lobby for a change to this recent interpretation. Nevertheless, one could make a reasonable argument that imposing a 0.25% to 2.0% excise tax on daily fantasy sports handle could have a far more deleterious effect on smaller and mid-size DFS companies than already well-levered public companies such as DraftKings. Programment of the large daily fantasy sports handle could have a far more deleterious effect on smaller and mid-size DFS companies than already well-levered public companies such as DraftKings.

C. From Free Market Competition to an Oligopolistic Industry

These recent legal changes to the treatment of certain fantasy sports businesses have also played a major role in changing the competitive structure of the fantasy sports marketplace. 121 The new legislative hurdles have created expenses for fantasy sports operators in a number of different ways including the need for a substantial amount of legal work to secure licenses, and the need to pay ongoing licensing fees, special taxes, or both to states to maintain their licenses. 122 Meanwhile, the IRS's proposed interpretation of daily fantasy sports entries as "wagers" increases the federal tax burden on operating businesses of this nature. 123 The result of these changes is that the fantasy sports marketplace, which was once largely fragmented, has seen consolidation and the transition into an oligopoly. 124

The emerging daily fantasy sports oligopoly is notable for a lot of different reasons. First, oligopoly markets are generally undesirable from a consumer welfare perspective because the fewer the number of companies in a marketplace, the greater the likelihood that prices will rise and innovation will

¹¹⁸ See Rosenberg, supra note 114 ("[O]ne of the biggest outfits in the marketplace, DraftKings, plans to challenge the legality of the IRS' position, which the agency outlined in a memorandum.").

¹¹⁹ Brett Smiley, *The IRS Is Coming for Federal Tax on DFS Entries, Just Like Sports Betting*, Sports Handle (Oct. 28, 2020), https://sportshandle.com/irs-dfs-taxation [https://perma.cc/98DK-QE5Q].

¹²⁰ See Rosenberg, supra note 114 (quoting co-author Marc Edelman expressing concerns about imposing the excise tax on smaller DFS operators).

¹²¹ See infra notes 122–28 and accompanying text.

¹²² See Brian Baxter, FanDuel, DraftKings Bet on Big Law Amid Sports Gambling Surge, BLOOMBERG L. (Feb. 24, 2021), https://news.bloomberglaw.com/business-and-practice/fanduel-draftkings-bet-on-big-law-amid-sports-gambling-surge [https://perma.cc/B8SU-R3CG]; Edelman, supra note 37, at 679.

¹²³ See Porter Memorandum, supra note 113, at 10; Wei Memorandum, supra note 113, at 3

¹²⁴ See, e.g., Diamond Eagle Acquisition Corp., Current Report (Form 8-K) (Dec. 22, 2019) (disclosing merger between DraftKings and SBTech and noting that DraftKings alone has 60% market share in the daily fantasy sports category).

stymie. 125 But, beyond that, with fewer companies remaining in the marketplace, most, if not all, of the surviving fantasy sports operators today have a relationship with at least some professional sports leagues, teams or players unions. 126 This is noteworthy because it marks the compete transition of fantasy sports from what began as a somewhat irreverent, counterculture take on sports fandom into an activity that has become part and parcel to the underlying games themselves. 127 In addition, not only do professional sports properties now benefit from the fantasy sports market driving more fans to watch their games, but they have also come to profit by enjoying a direct share of the revenues derived from operating the underlying fantasy contests. 128

If there is any positive for society to come from the consolidation of the daily fantasy sports industry and its intertwining with sports leagues themselves, it is that having a deep-pocketed companies operating the fantasy sports industry makes it more feasible to demand that all market competitors implement the highest levels of data protection and cybersecurity. Nevertheless, even as the fantasy sports marketplace consolidates down to a few large and deep-pocketed competitors, it is not clear that even these few, large companies are meeting best practices in this area. The next Part of this Article discusses the topic of cybersecurity within the modern fantasy sports industry.

IV. CYBERSECURITY CONCERNS IN MODERN FANTASY SPORTS

As most daily fantasy sports companies continue to become more knowledgeable about compliance with state and federal gambling laws (especially within a statutorily implemented license and regulate system), cybersecurity concerns have begun to emerge as the new, major challenge

¹²⁶ See DFS Partnership / Sponsorship Tracker, LEGAL SPORTS REP., https://www.legal sportsreport.com/dfs-sponsorship-tracker/ [https://perma.cc/D2U9-EWU3] (listing daily fantasy company partnerships with leagues and teams).

¹²⁵ See generally PHILLIP AREEDA, LOUIS KAPLOW & AARON EDLIN, ANTITRUST ANALYSIS: PROBLEMS, TEXT, AND CASES 202–13 (7th ed. 2013) (explaining the harm of marketplace oligopolies and oligopoly pricing theory); see also Edelman, supra note 37, at 684 (discussing concern of oligopoly specifically in the market for daily fantasy sports).

¹²⁷ Compare Childs Walker, Dream Teams; Tired of Second-Guessing How Your Favorite Sports Clubs Are Managed? Fantasy Leagues Let You Take Charge of the Action, BALT. SUN, Mar. 4, 2006, at 1D (describing early fantasy sports leagues as "almost as a tongue-in-cheek exercise"), with DFS Partnership / Sponsorship Tracker, supra note 126 (showing the relationships between large daily fantasy sports contests and the actual underlying sports properties).

¹²⁸ See, e.g., Andrew O'Malley, DraftKings Partner with MLB in Baseball Data Feed Deal, VEGASSLOTSONLINE.COM (July 26, 2019), https://www.vegasslotsonline.com/news/2019/07/26/draftkings-partner-with-mlb-in-baseball-data-feed-deal/ [https://perma.cc/X2P2-M88R] (explaining that Major League Baseball used to economically benefit from being a shareholder in DraftKings, and, even after selling its stake, it continues to profit from selling statistical live fees to DraftKings).

facing daily fantasy sports operators.¹²⁹ These cybersecurity concerns include knowing the customer, consumer privacy, anti-money laundering practices, platform and server security, and preventing the use of bots and scripts.

A. Knowing Your Customer in the Face of Age and Location Requirements

"Knowing your customer" means being able to identify the relevant characteristics of the people using a website. 130 As an entirely online activity that has faced a significant amount of scrutiny and regulation, the security measures employed in daily fantasy sports to ensure eligibility of the players rival that of traditional in-person casinos and gambling establishments. 131 It is estimated that daily fantasy sports players "tend to be younger and wealthier than typical casino players."132 They also skew towards being male at a rate higher than average. 133 In most states, a traditional casino or gambling establishment has significant latitude in how they enforce age verification requirements. 134 If the gambler is suspected to be below the minimum age required for gambling in that jurisdiction, the gambler is usually asked to show a single form of a state issued identification. 135 The casino or gambling establishment official then relies on their own experience or simple technology to verify that the identification presented is genuine and belongs to the individual presenting it. While many casinos and gambling establishments have player loyalty cards that obtain additional information from participants, these cards are usually optional. ¹³⁶ The laws and regulations for casinos and gambling

130 Cf. James Chen, Know Your Client (KYC), INVESTOPEDIA (Apr. 17, 2021), https://www.investopedia.com/terms/k/knowyourclient.asp [https://perma.cc/E8MR-C8BR] (discussing the role of "know your client" within the financial industry).

131 See David Gzesh, Next Up for Daily Fantasy Sports: Clarification of Anti-Money Laundering Compliance, LEGAL SPORTS REP. (Oct. 30, 2015), https://www.legalsportsreport.com/5717/dfs-anti-money-laundering-compliance/[https://perma.cc/R3NK-UCKK].

132 SPECTRUM GAMING GRP., ECONOMIC MARKET STUDY: CASINOS, CARDROOMS AND OTHER FORMS OF GAMBLING IN WASHINGTON STATE, at viii (Sept. 2016), https://www.wsgc.wa.gov/sites/default/files/public/reports-publications/spectrum-report-09-28-16_0.pdf [https://perma.cc/GZ65-T966].

¹³³ *Id*.

¹³⁴ See, e.g., OHIO ADMIN. CODE 3772-20-01(C)(10) (2017) (requiring casinos to "[e]stablish and maintain procedures for . . . [e]nforcement of the minimum wagering age").

¹³⁵ See, e.g., Atlantic City Gambling, Casino & Hotel Age Requirements, BORGATA HOTEL CASINO & SPA, https://www.theborgata.com/underage-policy [https://perma.cc/XFM7-367R].

367R]. 136 See Shelly Schiff, Do Casinos Use Reward Programs to Track Everything You Do?, BETTORS INSIDER (Feb. 6, 2021), https://www.bettorsinsider.com/casino/2021/02/06/docasinos-use-reward-programs-to-track-everything-you-do [https://perma.cc/FGL3-R5KA].

¹²⁹ See, e.g., Loaded Dice? No Checks in Fantasy Sports, TELEGRAM & GAZETTE (Jan. 18, 2017), https://www.telegram.com/opinion/20170118/editorial-loaded-dice-no-one-is-checking-in-fantasy-sports-games-in-massachusetts [https://perma.cc/V36W-X37N] (describing apparent gaps in Massachusetts fantasy sports legislation).

establishments have developed over time, and federal regulation has remained mostly static. 137

By contrast, daily fantasy sports is an industry that is fairly new, is under constant scrutiny, has increasing state regulation, and can be a platform used to launder money with a greater amount of anonymity than a casino or traditional gambling establishment. Players access daily fantasy sports operators over the internet and do not physically enter brick and mortar establishments. Daily fantasy sports operators employ a host of sophisticated technologies and auditing techniques aimed at trying to ensure that its players are of age, located in an area where it is legal for them to enter, and are participating for legitimate purposes. Most states that allow daily fantasy sports require operators to employ Know Your Customer (KYC) techniques to help ensure players meet the statutory age and additional requirements set by states. However, in most cases, the amount of information obtained during KYC and the process of verifying the information provided by the player is often at the discretion of the daily fantasy sports operators, forcing these companies to weigh the security and legitimate use of their platforms against profit. 141

In the United States, daily fantasy sports operators do not have the resources or ability to conduct KYC on their own, as there is no centralized official database to verify clients. Daily fantasy sports operators thus form partnerships or purchase KYC services from established providers that conduct KYC on their behalf. These KYC providers either return a binary true/false

¹³⁷ See generally James G. Gatto & Mark A. Patrick, How the Evolution of Games Has Led to a Rise in Gambling Concerns: All Bets Are On! Gambling and Video Games, NAT'L L. REV. (Sept. 16, 2018), https://www.natlawreview.com/article/how-evolution-games-has-led-to-rise-gambling-concerns-all-bets-are-gambling-and [https://perma.cc/58WP-FEPG].

¹³⁸ See id.; Leonardo Real, Fantasy Sports or Money Laundering?, ACAMS TODAY (Mar. 7, 2016), https://www.acamstoday.org/fantasy-sports-or-money-laundering/ [https://perma.cc/47RF-QUAX].

¹³⁹ See An Introduction to Know Your Customer (KYC) Rules in Sports Betting: Explained, BETTINGUSA.COM, https://www.bettingusa.com/kyc/ [https://perma.cc/EW5J-VAMM]; Socure to Provide DraftKings with Additional Compliance Tools, SOCURE (Apr. 7, 2021), https://www.socure.com/about/press-release/socure-to-provide-draftkings-with-additional-compliance-tools [https://perma.cc/297M-XJBN].

¹⁴⁰ See, e.g., Fantasy—Why Am I Being Asked to Verify My Identity?, FANDUEL, https://support.fanduel.com/s/article/Why-am-I-being-asked-to-verify-my-identity-fantasy (on file with the *Ohio State Law Journal*) ("State regulations require that we verify your identity.").

¹⁴İ See Real, supra note 138 (noting that daily fantasy sports operators are not subject to the same stringent anti-money laundering regulations, including KYC requirements, as financial institutions).

¹⁴² See, e.g., Socure to Provide DraftKings with Additional Compliance Tools, supra note 139; Martin Gill & Geoff Taylor, Preventing Money Laundering or Obstructing Business?: Financial Companies' Perspectives on 'Know Your Customer' Procedures, 44 Brit. J. Criminology 582, 591 (2004).

¹⁴³ See, e.g., Socure to Provide DraftKings with Additional Compliance Tools, supra note 139.

result to the daily fantasy sports operator or a score breakdown that represents how successful the KYC provider was in being able to determine the identity of the registering daily fantasy sports player. ¹⁴⁴ If the score breakdown is used, it would be up to the daily fantasy sports operator to set a threshold limit to accept the player. ¹⁴⁵ If the threshold limit is not met, additional information would be requested to verify the player. ¹⁴⁶

As of December 2020, the process of registering for a DraftKings account requires players to provide their full name, address, date of birth, email address, and telephone number. 147 This information is then checked by the KYC provider against data warehouse information for accuracy and if there is a positive result, the player is able to open an account. 148 If a negative result is issued by the KYC provider, or the registrant does not pass a given score breakdown threshold, they are asked to submit additional information or a photograph of a document, such as a state-issued ID. 149 Once the player is granted access to the system, they may be asked to submit additional verification documents if their use of the system meets certain threshold limits. 150 In the event players withdraw a net profit above a threshold amount from the platform, they may be asked to input their social security number and complete an IRS W9 form. 151 An IRS 1099-MISC form may be issued at the end of the year for the net winnings exceeding \$600.152

The result is a technological KYC solution that is far superior to anything that is currently being done at traditional in-person casinos and gambling establishments. However, due to the increased potential for underage or legally ineligible daily fantasy sports players to use another person's registration information to open an account, a slight modification of the registration and verification process would provide an additional layer of security, especially in

¹⁴⁴ See Dennis Cox, Handbook of Anti Money Laundering 192–93 (2014).

¹⁴⁵ See Genci Bilali, Know Your Customer—or Not, 43 U. Tol. L. Rev. 319, 324 (2012).

¹⁴⁶ See Cox, supra note 144, at 190–92.

¹⁴⁷ See How Do I Create an Account?, DRAFTKINGS, https://help.draftkings.com/hc/en-us/articles/4405236825363-How-do-I-create-an-account- (on file with the *Ohio State Law Journal*).

¹⁴⁸ See Cox, supra note 144, at 192–93.

¹⁴⁹ See How Do I Create an Account?, supra note 147; see also, e.g., Why Am I Being Asked to Provide My ID?, FANDUEL, https://support.fanduel.com/s/article/Why-am-I-being-asked-to-provide-my-ID (on file with the Ohio State Law Journal).

¹⁵⁰ See Bilali, supra note 145, at 324.

¹⁵¹ See Why Am I Being Asked to Fill Out Form W-9 for DraftKings?, DRAFTKINGS, https://help.draftkings.com/hc/en-us/articles/4405232427667-Why-am-I-being-asked-to-fill-out-Form-W-9- (on file with the Ohio State Law Journal) [hereinafter Why Am I, DRAFTKINGS]; see also, e.g., Why Am I Being Asked to Provide My SSN and Complete a W9 Form?, FANDUEL, https://support.fanduel.com/s/article/Why-am-I-being-asked-to-provide-my-SSN-and-complete-a-W9-Form (on file with the Ohio State Law Journal).

¹⁵² See 2020 Instructions for Forms 1099-MISC and 1099-NEC, IRS 1 (Dec. 6, 2019), https://www.irs.gov/instructions/i1099msc [https://perma.cc/ARA6-PLP7].

¹⁵³ See, e.g., Bilali, supra note 145, at 324.

order to prevent players who approach the platform with the specific intent to launder money.

There are several regulatory models that could be employed to improve this system. At a minimum, daily fantasy sports players should be asked to upload two forms of government issued identification and input a social security number for verification during the initial registration process. This is specifically important in that players using the system for the purpose of money laundering may be using the system with the sole intent of losing money and may never make a withdrawal. This technique is discussed in greater depth below.

Determining the physical location of users that are accessing an internet service is a technique known as geolocation. ¹⁵⁵ Geolocation is a common technique used for regulatory compliance and combating fraud. ¹⁵⁶ Geolocation mechanisms generally fall into three categories: (1) information volunteered by the web browser or device (where the user receives a popup alert in their browser asking the user to share their location), (2) information derived from communication and transmission protocol attributes, and (3) Internet Provider Address (IP) based geolocation (which locates the user based on the Internet Provider address assigned by the user's Internet Service Provider). ¹⁵⁷ In addition, mobile platforms on Android devices may have additional techniques that can be used to geolocate users based on information received by the smartphone's other processes or utilizing Android's "high accuracy mode." ¹⁵⁸ A further complication is that smartphone users may be difficult to precisely geolocate when close to a state border. ¹⁵⁹ In the near future, the adoption of 5G

¹⁵⁴ See Lawrence Uebel, How I Would Launder Money with DraftKings, TECHCRUNCH (Oct. 25, 2015), https://techcrunch.com/2015/10/25/how-i-would-launder-money-with-draftkings/ [https://perma.cc/K2P5-FHBX].

¹⁵⁵ See generally James A. Muir & Paul C. Van Oorschot, Internet Geolocation: Evasion and Counterevasion, ACM COMPUTING SURV., Dec. 2009, at 1, 1.

¹⁵⁶ See Guangyu Zhu, Guoming Ren, Xiang Li, Xiaoye Li & Yongpeng Ti, IP Geolocation Accuracy Evaluation Based on Crowdsourcing, J. Physics: Conf. Series, Nov. 2020, at 1, 1.

¹⁵⁷ See Masood Mansoori & Ian Welch, How Do They Find Us? A Study of Geolocation Tracking Techniques of Malicious Web Sites, COMPUT. & SEC., Oct. 2020, at 1, 2.

¹⁵⁸ See Find & Improve Your Location's Accuracy, GOOGLE MAPS, https://support.google.com/maps/answer/2839911?hl=en&co=GENIE.Platform%3DAndroid [https://perma.cc/9RFP-PNW7].

¹⁵⁹ See Jill R. Dorson, *The Total Dummy's Guide to Sports Betting Geolocation Technology*, SPORTSHANDLE (Apr. 1, 2019), https://sportshandle.com/geolocation-mobile-sports-betting/ [https://perma.cc/BDR3-78VS].

technology¹⁶⁰ and IPv6 infrastructure should lead to significant improvements in the ability to geolocate end users.¹⁶¹

There are, however, significant deficiencies in both web browser-based geolocation and IP based geolocation. Web browser-based geolocation can be easily circumvented by accessing the developer tool kit in Google's Chrome browser and manually entering any location the user wishes. ¹⁶² Such browser-based circumvention is extremely simple to execute and can be learned in the matter of minutes with a simple YouTube search. IP-based geolocation can also be circumvented using a web proxy or Virtual Private Network (VPN). ¹⁶³ Such proxies are commercially available for only a few dollars a month and would allow a user to use an IP address from a proxy computer in any state or in any country. ¹⁶⁴ Daily fantasy sports operators can conduct simple geolocation on their own or hire external geolocation providers to conduct more accurate analysis of a user's location. ¹⁶⁵

While it might seem that proxy or VPN services are a sure way to bypass the geolocation restrictions and allow daily fantasy sports users from any state (or country) to circumvent geolocation controls, there is a catch. Dedicated geolocation providers have reasonably accurate lists of the IP addresses utilized by the most popular proxy/VPN services—and block them. 166

This puts daily fantasy sports operators in an interesting position as to the level of accuracy they want utilize to geolocate their users. This issue is well

¹⁶⁰ See Julien Happich, 3D Geolocation for 5G Networks, EENEWS EUROPE (June 23, 2020), https://www.eenewseurope.com/news/3d-geolocation-5g-networks [https://perma.cc/B9G7_GH77]

¹⁶¹ See Miguel Atienza, IP Geolocation in the IPv6 World, MAXMIND (Jan. 22, 2020), https://blog.maxmind.com/2020/01/22/ip-geolocation-in-the-ipv6-world/ [https://perma.cc/L7CU-AN9T].

¹⁶² Kayce Basques, *Override Geolocation*, CHROME DEVS. (Dec. 18, 2018), https://developer.chrome.com/docs/devtools/device-mode/geolocation/ [https://perma.cc/2MF5-F7TP].
¹⁶³ Muir & Van Oorschot, *supra* note 155, at 14.

¹⁶⁴ See James Glanz & Jacqueline Williams, *DraftKings Leaves Door Unlocked for Barred Fantasy Sports Players*, N.Y. TIMES (Nov. 13, 2015), https://www.nytimes.com/2015/11/14/sports/draftkings-leaves-door-ajar-for-barred-fantasy-sports-players.html [https://perma.cc/Y3NR-8PTT].

¹⁶⁵ DraftKings and FanDuel are currently partnered with GeoComply to provide geolocation information on users of their sites. See Using DraftKings with GeoComply Location Services—Overview, DRAFTKINGS, https://help.draftkings.com/hc/en-us/articles/4405236822931-GeoComply-location-services-installing-enabling-and-troubleshooting (on file with the Ohio State Law Journal) [hereinafter GeoComply Location Services]; Where Can I Download the GeoComply Plugin?, FANDUEL, https://support.fanduel.com/s/article/Where-Can-I-Download-the-GeoComply-Plugin (on file with the Ohio State Law Journal) [hereinafter Where Can I Dowload].

¹⁶⁶ See How to Protect Your Streaming Content from VPN & Proxy Traffic, MAXMIND (Oct. 29, 2015), https://blog.maxmind.com/2015/10/29/how-to-protect-your-streaming-content-from-vpn-proxy-traffic/ [https://perma.cc/D77Y-NHFN].

known to DraftKings and FanDuel. ¹⁶⁷ In 2015, after the New York State attorney general ordered both companies to stop taking bets from users in New York State, FanDuel used reasonable measures to prevent users from accessing their site using a proxy/VPN; DraftKings did not. ¹⁶⁸ A November 2015 investigative report in the *New York Times* showed that their reporters were able to access DraftKings from banned states by using simple proxy/VPN services. ¹⁶⁹ However, the investigative reporters were blocked from accessing FanDuel using the same technique. ¹⁷⁰

Many states that have authorized daily fantasy sports require some type of active geolocation of users.¹⁷¹ For example, the New Jersey Administrative Code provides that "[t]he Internet or mobile gaming system shall employ a mechanism to detect the physical location of a patron upon logging into the gaming system and as frequently as specified in the Internet gaming permit holder's approved submission."¹⁷²

While it is clear that some form of geolocation is used by all licensed daily fantasy sports operators, it is also clear that there is a "sliding scale" of accuracy in this information. ¹⁷³ This issue involving geolocation accuracy is ripe for additional legislative and regulatory scrutiny.

B. Consumer Privacy Issues

Another area of importance to daily fantasy sports operators in the areas of cybersecurity is related to consumer privacy. Privacy concerns involving internet-based commerce are well documented and quite complex. Driving this complication is the lack of a single federal privacy statute that would allow U.S.-based corporations to treat individuals the same, independent of where they live within the fifty U.S. states or adjoining territories.¹⁷⁴

 $^{^{167}\}mbox{See}$ GeoComply Location Services, supra note 165; Where Can I Download, supra note 165.

¹⁶⁸ See Glanz & Williams, supra note 164.

¹⁶⁹ Id.

¹⁷⁰ Id.

¹⁷¹ See, e.g., N.J. ADMIN. CODE § 13:69O-1.2(e) (2022).

¹⁷² Id.

¹⁷³ Christopher Luna, *How Accurate Is IP Geolocation?*, MAXMIND (July 1, 2021), https://blog.maxmind.com/2021/07/how-accurate-is-ip-geolocation [https://perma.cc/LDS2-7P5Wl.

¹⁷⁴ See Marie-Helen Maras & Adam Scott Wandt, Enabling Mass Surveillance: Data Aggregation in the Age of Big Data and the Internet of Things, 4 J. CYBER POL'Y 160, 167 (2019) ("There is no US federal law equivalent to the GDPR."); see also Anupam Chander, Margot E. Kaminski & William McGeveran, Catalyzing Privacy Law, 105 MINN. L. REV. 1733, 1777–80 (2021) (describing proposed federal legislation in response to California and EU privacy laws).

An example of a single unifying legislation is the General Data Protection Regulation (GDPR) of the European Union.¹⁷⁵ The GDPR was passed in 2016 to simplify and unify online data protection and privacy laws for European citizens, no matter where they live or are located.¹⁷⁶ Since the United States has not succeeded in passing such unifying legislation,¹⁷⁷ each state has the option to pass their own privacy legislation. The lack of federal guidance and supervision has created broad disparities and varying protection depending on the state.¹⁷⁸

By and large, the strictest privacy legislation in the United States is the California Consumer Privacy Act of 2018 (CCPA).¹⁷⁹ Since this piece of legislation is the most comprehensive in the country and protects California citizens no matter where in the United States they are located, many internet based corporations default to providing CCPA protections to every user located in the United States.¹⁸⁰ This has resulted in the CCPA becoming the de facto privacy law for the entire country, with only slight modification required when dealing with citizens of certain states.¹⁸¹

While there are many different privacy concerns involving daily fantasy sports operators, for the purposes of this Article, we will only explore two relevant issues: (1) account security; and (2) user information relating to lineup selection.

Account security is paramount on any internet-based system that involves financial transactions or private data. Even the most legitimate and careful user of daily fantasy sports can experience significant financial damage in the event a hostile party compromises their account and engages in unauthorized deposits, withdrawals, or daily fantasy sport competitions. A fraudulent user that compromises a legitimate account can quickly deposit additional funds into the compromised account from the account owner's credit card or PayPal account,

¹⁷⁵ See generally Regulation 2016/679, of the European Parliament and of the Council of 27 Apr. 2016 on the Protection of Natural Persons with Regard to the Processing of Personal Data and on the Free Movement of Such Data and Repealing Directive 95/46/EC (General Data Protection Regulation), 2016 O.J. (L 119) 1.

¹⁷⁶ See Data Protection in the EU, EUR. COMM'N, https://ec.europa.eu/info/law/law-topic/data-protection/data-protection-eu_en [https://perma.cc/DD27-RAVZ]; Matt Burgess, What Is GDPR? The Summary Guide to GDPR Compliance in the UK, WIRED (Mar. 24, 2020), https://www.wired.co.uk/article/what-is-gdpr-uk-eu-legislation-compliance-summary-fines-2018 [https://perma.cc/XN8J-KU9N].

¹⁷⁷ See Sahara Williams, CCPA Tipping the Scales: Balancing Individual Privacy with Corporate Innovation for a Comprehensive Federal Data Protection Law, 53 IND. L. REV. 217, 221–23 (2020); Maras & Wandt, supra note 174, at 167.

¹⁷⁸ See Williams, supra note 177, at 221–23.

¹⁷⁹ CAL. CIV. CODE § 1798.100 (West, Westlaw through Ch. 14 of 2022 Reg. Sess.); *see* Williams, *supra* note 177, at 223, 226; Chander, Kaminski & McGeveran, *supra* note 174, at 1734.

¹⁸⁰ See David Alpert, Note, Beyond Request-and-Respond: Why Data Access Will Be Insufficient to Tame Big Tech, 120 COLUM. L. REV. 1215, 1220–21 n.32 (2020).
¹⁸¹ See id.

then utilize those funds, plus any pre-existing account balance to engage in Head-to-Head (H2H) competitions that would transfer the winnings to the fraudulent user or co-conspirator's account. Since daily fantasy sports operators do not have anti-fraud guarantees, the owner of the compromised account would be left to cover the damages or attempt to work with their credit card companies to be awarded a charge-back. 182

When it comes to account security, DraftKings offers the following guidance to its users on methods to keep accounts secure:

- [C]hange your password every few months
- Never share your password with anyone
- Don't use the same password on multiple sites
- Create strong passwords that can't be easily guessed
- Sign out of your account if you are using a shared computer
- Keep your antivirus software up to date¹⁸³

While this advice seems comprehensive, it places the entire burden on the user to keep their own account secure. With the rise and increased prevalence of phishing and spear-phishing attempts in the United States, especially during the COVID-19 pandemic, keeping a user account secure is not an easy task. ¹⁸⁴ Multifactor Authentication (MFA) or Two-Factor Authentication (2FA) are standard security methods for any online system that contain financial or private information. ¹⁸⁵ FanDuel has supported 2FA for some time now and even provides its users with a support page to help them understand its utility and

¹⁸² See, e.g., Terms of Use, DraftKings (Aug. 28, 2021), https://myaccount.draftkings.com/documents/us-terms-of-use [https://perma.cc/759L-GXY9] [hereinafter Terms of Use, DraftKings] ("DraftKings is not responsible for incomplete, illegible, misdirected or stolen entries."); see Daniel R. Stoller, Fantasy Sports Must Tackle Cybersecurity Threats, BLOOMBERG L. (Sept. 13, 2016), https://news.bloomberglaw.com/tech-and-telecom-law/fantasy-sports-must-tackle-cybersecurity-threats [https://perma.cc/347F-QZ92].

¹⁸³ Account Security, DRAFTKINGS, https://help.draftkings.com/hc/en-us/articles/44052 32258963-Account-Security (on file with the *Ohio State Law Journal*).

¹⁸⁴ See New Research Shows Significant Increase in Phishing Attacks Since the Pandemic Began Straining Corporate IT Security Teams, SEC. MAG. (Sept. 1, 2020), https://www.securitymagazine.com/articles/93194-new-research-shows-significant-increase-in-phishing-attacks-since-the-pandemic-began-straining-corporate-it-security-teams [https://perma.cc/Q8G6-MGLH].

¹⁸⁵ The National Institute of Standards and Technology of the United States Department of Commerce (NIST) recommends using MFA/2FA whenever possible, especially involving accounts that contain financial data. *Back to Basics: What's Multi-Factor Authentication—and Why Should I Care?*, NAT'L INST. STANDARDS & TECH. (June 16, 2016), https://www.nist.gov/blogs/cybersecurity-insights/back-basics-whats-multi-factor-authentication-and-why-should-i-care [https://perma.cc/HK4N-AERY]. MFA/2FA are recommended by ISO 27001/27002 as a method of protection to ensure secure access to systems that contain financial records or private data. *See id*.

activation procedures.¹⁸⁶ DraftKings, on the other hand, only started offering its customers 2FA support during the last quarter of 2021.¹⁸⁷

When it comes to information relating to fantasy sports lineup selections, one significant concern is that an insider at the company could obtain the trading information of users on their platform and then use that information to gain an advantage or profit by playing those lineups on the platform or derivatives elsewhere. While this is not insider trading in the traditional sense, ¹⁸⁸ it is a valid concern, nonetheless.

"Insider trading" of this nature is not speculative. A 2015 scandal involving a DraftKings employee highlighted this risk and brought national attention to the need for state or federal regulation in this area. The employee had access to data of DraftKings users and utilized that data to place bets at rival company FanDuel, where he thereafter won a \$350,000 prize. As explained in a *New York Times* article, "The episode has raised questions about who at daily fantasy companies has access to valuable data, such as which players a majority of the money is being bet on; how it is protected; and whether the industry can—or wants—to police itself." 191

To combat this issue, many states have passed legislation preventing their employees from engaging in fantasy sports.¹⁹² An example is the state of Maryland, which passed regulations to mitigate the insider threat by prohibiting "an employee, principal, officer, director, or contractor of a fantasy competition operator, or a member of that individual's immediate family... from participating in a fantasy competition offered by any fantasy competition operator."¹⁹³ Nevertheless, one can reasonably debate whether the burden of

¹⁸⁶ What Is 2-Factor Authentication?, FANDUEL, https://support.fanduel.com/s/article/What-is-2-factor-authentication (on file with the *Ohio State Law Journal*).

¹⁸⁷ How Do I Enable or Disable Two-Factor Authentication (2FA)?, DRAFTKINGS, https://help.draftkings.com/hc/en-us/articles/4409699580691-How-do-I-enable-or-disable-two-factor-authentication-2FA- (on file with the *Ohio State Law Journal*).

¹⁸⁸ As generally defined by the United States Securities and Exchange Commission, "insider trading refers generally to buying or selling a security, in breach of a fiduciary duty or other relationship of trust and confidence," while in possession "of material, nonpublic information about the security." *Insider Trading*, INVESTOR.GOV, https://www.investor.gov/introduction-investing/investing-basics/glossary/insider-trading [https://perma.cc/EUS9-JADY]. "Insider trading violations may also include 'tipping' such information, securities trading by the person 'tipped,' and securities trading by those who misappropriate such information." *Id.*

¹⁸⁹ Joe Drape & Jacqueline Williams, *Scandal Erupts in Unregulated World of Fantasy Sports*, N.Y. TIMES (Oct. 5, 2015), https://www.nytimes.com/2015/10/06/sports/fanduel-draftkings-fantasy-employees-bet-rivals.html [https://perma.cc/SR2N-AXB6].

¹⁹⁰ *Id*.

¹⁹¹ *Id*.

¹⁹² Jake Lestock, *Tackling Daily Fantasy Sports in the States*, NAT'L CONF. ST. LEGISLATURES (Jan. 2018), https://www.ncsl.org/research/civil-and-criminal-justice/tackling-daily-fantasy-sports-in-the-states.aspx [https://perma.cc/8A8V-TKYC]; *see, e.g.*, MD. CODE REGS. 36.09.01.04 (2021).

¹⁹³ MD. CODE REGS. 36.09.01.04.

enforcement should fall on the states enforcing legislation or on the industry itself to impose such norms within their terms of service.

C. Anti-Money Laundering

Daily fantasy sports operators are also ripe for targeting by those looking to launder money. ¹⁹⁴ Because of this, daily fantasy sports operators must employ anti-money laundering (AML) security measures so that (1) operators comply with federal and state regulators and gaming commission rules; ¹⁹⁵ (2) not to worry players who will invest money in the platform; and (3) their business model is seen as legitimate.

The foundation of AML measures lies roughly in five different areas: (1) compliance with federal and state laws and regulations; ¹⁹⁶ (2) KYC systems; ¹⁹⁷ (3) the creation of robust transaction and audit records; (4) checking DFS players and bank accounts against The Consolidated Screening List of the United States Department of Commerce; ¹⁹⁸ and (5) players are checked against the actual players and their family members to ensure that the actual athletes (or their immediate family members) are not playing daily fantasy sports. ¹⁹⁹

Intentionally losing in a sports game or competition for profit is nothing new.²⁰⁰ "The 1919 Chicago White Sox embody the unethical nature of throwing a game. In short, eight players were banned for life from baseball for their role

¹⁹⁴ See Ian McKendry, Are Fantasy Sports Sites a Money Laundering Haven?, AM. BANKER (Oct. 9, 2015), https://www.americanbanker.com/news/are-fantasy-sports-sites-amoney-laundering-haven [https://perma.cc/PR8F-RE35].

¹⁹⁵ See Samantha Mucha, Daily Fantasy Sports: A Headache for Compliance Professionals, AML RIGHTSOURCE (Feb. 20, 2016), https://www.amlrightsource.com/news/posts/daily-fantasy-sports [https://perma.cc/GM3U-SSPM]; Mark A. Rush, Benjamin J. Risacher & Joseph A. Valenti, Is Money Being Laundered Through Your Financial Institution Using Daily Fantasy Sports Sites?, K&L GATES (Oct. 29, 2015), http://www.klgates.com/is-money-being-laundered-through-your-financial-institution-using-daily-fantasy-sports-sites-10-29-2015/ [https://perma.cc/98UG-M8HE].

¹⁹⁶ Mucha, *supra* note 195.

¹⁹⁷ See Rush, Risacher & Valenti, supra note 195.

¹⁹⁸ It is currently unknown if DraftKings or FanDuel cross-check users against Consolidated Screening List of the United States Department of Commerce. However, this is a proven method employed by banking institutions and should be required by regulatory agencies. *Consolidated Screening List*, INT'L TRADE ADMIN., https://www.trade.gov/consolidated-screening-list [https://perma.cc/NEY3-UK9M].

¹⁹⁹ See, e.g., MD. CODE REGS. 36.09.01.05 (2021); MintDice, Can a Professional Athlete Bet on Themselves?, MEDIUM (Aug. 8, 2021), https://medium.com/bitcoin-news-today-gambling-news/can-a-professional-athlete-bet-on-themselves-593223b597c3 [https://perma.cc/95KX-XR8G].

²⁰⁰ Jack Bowen, *Intentionally Losing: Part I of III—Ethical Considerations*, SANTA CLARA UNIV. SCH. OF L.: INST. OF SPORTS L. & ETHICS (Mar. 27, 2014), https://law.scu.edu/sports-law/intentionally-losing-part-i-of-iii-ethical-considerations/ [https://perma.cc/LRH8-XA8D].

in intentionally losing World Series games in order to profit monetarily from gambling."201

While it may appear that daily fantasy sports operators hold the primary burden to execute AML procedures, banks are also a critical element of compliance and AML protections.²⁰² Operators use banks to transfer money in and out of daily fantasy sports sites.²⁰³ These banks must not only have staff that are aware of the constantly developing regulatory framework involved with daily fantasy sports, but also have procedures to identify proceeds from daily fantasy sports sites so they can be properly vetted.²⁰⁴

Many states have provided regulations dedicated to curtailing the ability of money laundering from occurring on internet or mobile gaming such as daily fantasy sports websites. New Jersey, for example, requires that all internet-based gambling operations "have an Internet gaming manager responsible for the operation and integrity of Internet gaming and reviewing all reports of suspicious behavior." These duties include attempting to identify any individual "[e]ngaging in or attempting to engage in, or who is reasonably suspected of cheating, theft, embezzlement, collusion, money laundering, or any other illegal activities" and requires the internet-based operation to notify the state if it suspects a gambler is involved in such activities.

The Consolidated Screening List (CSL) provided by the United States Department of Commerce is a publicly available Application Programing Interface (API) that allows third parties (such as daily fantasy sports operators) to programmatically screen potential individuals, corporations and financial accounts against several critical government lists to help ensure there are no legal restrictions to doing business with the individual or known entity. The API provides the consolidated screening lists of the Department of Commerce, Department of State, and United States Treasury. Included in this list are individuals identified as being part of international organized crime and terrorist watchlists. It is currently unknown if daily fantasy sports operators follow this best practice.

One identified risk for money laundering involves daily fantasy sports' Head-to-Head (H2H) contests.²¹¹ H2H contests involve two players entering a single custom chosen lineup in a one-on-one competition directly against each

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<sup>201</sup> Id.
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²⁰² Real, supra note 138.

²⁰³ *Id.* at 5.

²⁰⁴ See Rush, Risacher & Valenti, supra note 195.

²⁰⁵ Mucha, *supra* note 195.

²⁰⁶ N.J. ADMIN. CODE § 13:69O-1.2(i) (2022).

²⁰⁷ *Id*.

²⁰⁸ Consolidated Screening List, supra note 198.

²⁰⁹ Id

²¹⁰ Id

²¹¹ Real, *supra* note 138.

other.²¹² H2H contest players can choose with whom they enter into a contest.²¹³ The winner of the H2H competition takes the entire pot minus a 6.5 to 10% service fee (also known as a vig or rake).²¹⁴ This type of competition would allow two parties to launder potentially thousands of dollars at a time though daily fantasy sports operators by entering a H2H competition with a "coconspirator" and intentionally entering a poorly chosen lineup, throwing the competition in favor of a specific winner.²¹⁵ The 6.5 to 10% service fee is significantly less than the service fees charged in other forms of money laundering which can range from 10 to 20% or higher.²¹⁶ A similar scheme could be conducted by a single party during an account takeover to empty money from one account and place it in an account over which the hacker or their co-conspirator has legitimate access.²¹⁷

An area ripe for future research would be to explore the overall number of account takeovers reported on each platform. This type of research could lead to recommendations that would improve future legislation and regulations in the daily fantasy sports industry.

Many jurisdictions are still trying to develop regulatory best practices to thwart money laundering in daily fantasy sports and H2H competitions. HXYC and crosschecking participants against watchlists are a good first step. However, more regulation is required as the daily fantasy sports industry matures. The states of Massachusetts, Maryland, and Tennessee have specific regulations that limit the amount of money daily fantasy sports players can deposit into a platform in a given calendar month. However, it appears that the intent of these states is to prevent participants from betting more than they can afford, and players can be temporarily exempt from the limit in Massachusetts and Maryland by showing "evidence of income or assets, sufficient to confirm the financial ability of a fantasy competition player to afford losses which may result from fantasy competition play at the deposit level requested by the fantasy competition player." With minor adjustments, these regulations can provide AML functions as well as protect players from gambling more assets then they can afford.

²¹² See id.

 $^{^{213}}$ *Id*.

²¹⁴ Why You Should Play Head-to-Head Contests on FanDuel & DraftKings, OCCUPY FANTASY, https://occupyfantasy.com/why-you-should-play-head-to-head-contests-on-fanduel-draftkings/ [https://perma.cc/87BD-NWV4].

²¹⁵ See Rush, Risacher & Valenti, supra note 195.

²¹⁶ U.S. DEP'T TREASURY, 2007 NATIONAL MONEY LAUNDERING STRATEGY 48 (2007), https://www.fincen.gov/sites/default/files/shared/nmls_2007.pdf [https://perma.cc/76KJ-5N79].

²¹⁷ See Real, supra note 138.

²¹⁸ Id

²¹⁹Maryland has established a monthly deposit limit at \$5,000, Massachusetts has established a monthly deposit limit at \$1,000, and Tennessee has an established monthly deposit limit of \$2,500. Md. Code Regs. 36.09.01.07 (2022); 940 Mass. Code Regs. 34.10(6) (2021); Tenn. Comp. R. & Regs. 1360-03-05-.07(1) (2021).

²²⁰ Md. Code Regs. 36.09.01.07(c)(2); 940 Mass. Code Regs. 34.10(6).

D. Platform and Server Security

In today's ever evolving world of hacking and cybercrime, platform and sever security has never been as important. All internet-based companies, especially those that handle financial information, gambling, and social media are under constant threat from international and domestic threat actors, and those looking to facilitate financial crimes.²²¹

Global standards for information security have been established by the International Organization for Standardization (ISO).²²² The ISO has adopted a series of standards for Information Technology (IT) that govern IT security and IT management systems.²²³ Conformity to these standards are not legally required in the United States.²²⁴ ISO 27000:2018 was published in February 2018 and provides an "overview of information security management systems (ISMS)."225 This twenty-seven page standard (and related subparts ISO 27001, and ISO 27002) published by ISO's Information security, cybersecurity, and privacy protection technical committee aims to "a) define requirements for an ISMS and for those certifying such systems; b) provide direct support, detailed guidance and/or interpretation for the overall process to establish, implement, maintain, and improve an ISMS; c) address sector-specific guidelines for ISMS; and d) address conformity assessment for ISMS."226 This standard provides guidance on (1) identifying information security requirements; (2) assessing information security risks; (3) treating information security risks; (4) selecting and implementing controls; (5) monitoring, maintaining, and improving the

²²¹ See Salim Hasham, Shoan Joshi & Daniel Mikkelsen, McKinsey & Co., Financial Crime and Fraud in the Age of Cybersecurity 3 (Oct. 2019), https://www.mckinsey.com/~/media/McKinsey/Business%20Functions/Risk/Our%20Insights/Fin ancial%20crime%20and%20fraud%20in%20the%20age%20of%20cybersecurity/Financial-crime-and-fraud-in-the-age-of-cybersecurity.pdf [https://perma.cc/7XYD-DARH]. See generally Marie-Helen Maras, Social Media Platforms: Targeting the 'Found Space' of Terrorists, J. Int. Law, Aug. 2017, at 3.

²²² "ISO (The International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees." *ISO/IEC 27000:2018: Information Technology—Security Techniques—Information Security Management Systems—Overview and Vocabulary*, INT'L ORG. FOR STANDARDIZATION, https://www.iso.org/obp/ui/#iso:std:iso-iec:27000:ed-5:v1:en (on file with the *Ohio State Law Journal*) [hereinafter INT'L ORG. FOR STANDARDIZATION] (choose Foreword from Table of Contents). "International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work." *Id.*

²²³ See Jason Miller, What Is the ISO 27000 Series of Standards?, BITLYFT (May 8, 2019), https://www.bitlyft.com/resources/what-is-iso-27000 [https://perma.cc/96AQ-CP9M].

²²⁴ Foreword—Supplementary Information, INT'L ORG. FOR STANDARDIZATION, https://www.iso.org/foreword-supplementary-information.html [https://perma.cc/QG78-D4M4].

²²⁵ INT'L ORG. FOR STANDARDIZATION, *supra* note 222.

²²⁶ *Id.* (choose introduction).

effectives of ISMS controls; and (6) standards for the continual improvement of ISMS systems.²²⁷

The ISO standards outlined in the 27000 standard and its corresponding counterparts are critical to protect companies, corporate partners, and users from today's ever evolving cyberthreats. It is a well-established fact that criminals, terrorists, and those associated with organized crime use online businesses and social media platforms to facilitate or organize criminal activity.²²⁸ It has long been understood that while ISO 27001 compliance and certification is a critical step in protecting the IT systems of a corporation, many senior managers may not see the cost/benefit value to invest in the personnel, systems, and processes required for certification.²²⁹ Conformance with the standards is "perceived to require huge amounts of time, effort and money."230 A global database of ISO 27001 certified entities does not exist.²³¹ As there are over a dozen accredited certification bodies that can issue ISO 27001 certification, it can be very difficult to see if a specific corporation has obtained certification. ²³² Neither DraftKings or FanDuel publicly disclose on their websites or in their publicly available technical documentation whether they have obtained certification under ISO 27001.²³³ However, sportsbook technology provider SBTech, which merged with DraftKings in April 2020,²³⁴ announced in January 2019 that they had secured ISO 27001 certification.²³⁵ In addition, DraftKings sportsbook partner Kambi also boasts ISO 27001 certification. ²³⁶ As of August 2021, FanDuel was actively advertising an open position for a Cyber Security Analyst.²³⁷ Working

²²⁷ See generally id.

²²⁸ Maras, *supra* note 221, at 3.

²²⁹Cath Everett, *Is ISO 27001 Worth It?*, COMPUT. FRAUD & SEC., Jan. 2011, at 5, 5–6.

²³⁰ Id. at 5.

²³¹ See Camden Woollven, List of US Accredited Certification Bodies for ISO 27001, IT GOVERNANCE USA BLOG (July 15, 2020), https://www.itgovernanceusa.com/blog/list-of-us-accredited-certification-bodies-for-iso-27001 [https://perma.cc/99QK-T5J6].

²³² Id

²³³ See Senior Project Manager, HUNTR (Sept. 1, 2021), https://www.huntr.co/jobpost/612f307d69da710156411337 [https://perma.cc/4PL3-AUPV]. See generally Draftkings Inc., Registration Statement (Form S-1) (June 16, 2020), https://docoh.com/filing/1772757/0001104659-20-073829/DKNG-S1-2020Q1?highlight=ransomware [https://perma.cc/F8U8-EPYH] [hereinafter DraftKings Form S-1].

²³⁴ DraftKings Completes Merge with SBTech, FINSMEs (May 1, 2020), https://www.finsmes.com/2020/05/draftkings-completes-merge-with-sbtech.html [https://perma.cc/HZ5U-EH53].

²³⁵ Erin-Marie Gallagher, *SBTech Awarded Prestigious ISO 27001 Certification*, SBC NEWS (Jan 29, 2019), https://sbcnews.co.uk/sportsbook/2019/01/29/sbtech-iso-27001-certification/ (on file with the *Ohio State Law Journal*).

²³⁶ Kambi Group Plc: Statement on Today's News Re. DraftKings, KAMBI (Dec. 23, 2019), https://www.kambi.com/press_release/kambi-group-plc-statement-todays-news-re-draftkings/ [https://perma.cc/5QF9-2J4K].

²³⁷ Open Positions: Cyber Security Analyst at FanDuel, FANDUEL, https://account.ne.sportsbook.fanduel.com/open-positions?gh jid=3326922 [https://perma.cc/EW3Q-BB5A].

knowledge of ISO 27001 was listed as a skill they were looking for in the new hire.²³⁸

Focus on information security infrastructure is critical for large corporations that retain Personally Identifiable Information (PII) on their clients or users. Information security breaches are frequent, becoming more frequent, and can cause serious complications for a large corporation.²³⁹ For example, in August of 2021, it was disclosed that cellular carrier T-Mobile had suffered a significant data breach at the hands of a 21-year old threat actor living in Turkey. 240 The threat actor accessed T-Mobile's databases through a router that was not properly secured according to ISO 27000 standards.²⁴¹ The hack compromised the personal information of over fifty million people, with millions of the records put up for sale on Darknet forums. 242 The records included names, social security numbers, dates of birth, addresses, account security information, and security codes used to protect access to cellular phones.²⁴³ The threat actor who took credit for the hack reported to the Wall Street Journal that the breach was not financially motivated and was done to damage U.S. infrastructure²⁴⁴ out of retaliation of his alleged treatment by the U.S. Central Intelligence Agency.²⁴⁵ The threat actor, a U.S. citizen who moved to Turkey, claims that he was abducted by the CIA in Germany and put into a fake mental hospital.²⁴⁶ While T-Mobile has nothing to do with the threat actor's claims against the CIA, T-Mobile and its customers will suffer the primary damage associated with this

 $^{^{238}}Id$

²³⁹ See Maochao Xu, Kristin M. Schweitzer, Raymond M. Bateman & Shouhuai Xu, *Modeling and Predicting Cyber Hacking Breaches*, 13 IEEE TRANSACTIONS ON INFO. FORENSICS & Sec. 2856, 2856–71 (2018).

²⁴⁰ Drew FitzGerald & Robert McMillan, *T-Mobile Hacker Who Stole Data on 50 Million Customers: 'Their Security Is Awful*,' WALL ST. J. (Aug. 27, 2021), https://www.wsj.com/articles/t-mobile-hacker-who-stole-data-on-50-million-customers-their-security-is-awful-11629985105?st=1alqntx26n9y7k7&reflink=article_whatsapp_share (on file with the *Ohio State Law Journal*).

²⁴¹ Id

²⁴² Drew FitzGerald, *T-Mobile Says 6 Million More Customer Files Accessed in Data Breach*, WALL ST. J. (Aug. 20, 2021), https://www.wsj.com/articles/t-mobile-says-6-million-more-customer-files-accessed-in-data-breach-11629468163 (on file with the *Ohio State Law Journal*).

²⁴³ Cristiano Lima, *The Technology 202: A T-Mobile Hack Exposed the Data of Millions. Policymakers Want Answers.*, WASH. Post (Aug. 19, 2021), https://www.washingtonpost.com/politics/2021/08/19/technology-202-t-mobile-hack-exposed-data-millions-policymakers-want-answers/ [https://perma.cc/24JS-XUTT].

²⁴⁴ Rachel Lerman, *T-Mobile Hack Is a Return to the Roots of Cybercrime*, WASH. POST (Aug. 19, 2021), https://www.washingtonpost.com/technology/2021/08/19/tmobile-breachdata-hacks/ [https://perma.cc/A72S-ZPTK].

²⁴⁵ Lisa Vaas, *100m T-Mobile Customer Records Purportedly Up for Sale*, THREATPOST (Aug. 16, 2021), https://threatpost.com/t-mobile-investigates-100m-records/168689/ [https://perma.cc/TX5D-QBT7]; First Amended Complaint at 2–7, Binns v. CIA, No. 1:20-cv-01896 (D.D.C. July 27, 2020).

²⁴⁶ See First Amended Complaint, supra note 245, at 6–7.

hack.²⁴⁷ Not only do they face a significant public relations nightmare having been hacked multiple times in the past several years, but also face possible large fines from the Federal Communications Commission (FCC).²⁴⁸ In response to the hack and after widespread criticism, T-Mobile announced that they entered into a long-term partnership the cybersecurity consulting firm Mandiant, and with consulting firm KPMG.²⁴⁹ T-Mobile outwardly stated that they understand they "need additional expertise to take [their] cybersecurity efforts to the next level."²⁵⁰ The T-Mobile incident is one of thousands that occur each month that highlight the significant importance of prioritizing information security infrastructure and management.²⁵¹

Corporate data breaches immediately are becoming regular occurrences that often are engineered to target consumer PII and financial data.²⁵² Much of this PII would be collected by DFS companies for their KYC process and include information such as (1) name; (2) date of birth; (3) home address; (4) telephone number; and (5) social security number.²⁵³ In addition, banking and credit card information may also be obtained and stored by DFS providers on the platform subscribers.²⁵⁴ This type of PII and financial information is regularly targeted by threat actors and sold in Darknet markets²⁵⁵ to criminals around the world.²⁵⁶

Another significant cybersecurity concern for DFS providers is being targeted by a Denial-of-Service attack (DoS).²⁵⁷

In general, DoS attacks are implemented by either forcing a victim computer to reset, or consuming its resources, e.g., CPU cycles, memory or network bandwidth. As a result, the targeted computer can no longer provide its

²⁴⁷ See id. at 1. See generally FitzGerald, supra note 242.

²⁴⁸ Lima, *supra* note 243.

²⁴⁹ Anusuya Lahiri, *T-Mobile's Damage Control After Hacking Revelations*, YAHOO! NEWS (Aug. 27, 2021), https://www.yahoo.com/news/t-mobiles-damage-control-hacking-190843766.html [https://perma.cc/H3M5-2DM7].

²⁵⁰Mike Sievert, *The Cyberattack Against T-Mobile and Our Customers: What Happened, and What We Are Doing About It.*, T-Mobile (Aug. 27, 2021), https://www.t-mobile.com/news/network/cyberattack-against-tmobile-and-our-customers [https://perma.cc/MDE4-8HLK].

²⁵¹ See, e.g., Clay Posey, Uzma Raja, Robert E. Crossler & A.J. Burns, *Taking Stock of Organisations' Protection of Privacy: Categorising and Assessing Threats to Personally Identifiable Information in the USA*, 26 Eur. J. Info. Sys. 585, 585–86 (2017); *FBI Releases Ransomware Alert, Annual Report on Internet Crime*, AM. Hosp. Ass'n (Mar. 26, 2021), https://www.aha.org/news/headline/2021-03-26-fbi-releases-ransomware-alert-annual-report-internet-crime [https://perma.cc/A3FF-68DH].

²⁵² Posey, Raja, Crossler & Burns, *supra* note 251, at 585–86.

²⁵³ See generally Rush, Risacher & Valenti, supra note 195.

²⁵⁴ See Why Am I, DRAFTKINGS, supra note 151.

²⁵⁵ See generally Won Kim, Ok-Ran Jeong, Chulyun Kim & Jungmin So, The Dark Side of the Internet: Attacks, Costs and Responses, 36 INFO. SYS. 675 (2011).

²⁵⁶ See Posey, Raja, Crossler & Burns, supra note 251, at 586–87.

 $^{^{257}}$ See Shui Yu, Distributed Denial of Service Attack and Defense 1–2 (Stan Zdonik et al. eds., 2014).

intended services to its legitimate users. When the DoS attacks are organized by multiple distributed computers, it is called distributed denial of service attack [(DDoS)], which is a popular attack method in the cyberspace. 258

Initiating a DDoS attack in the United States is illegal and a violation of federal²⁵⁹ and state law.²⁶⁰

Focusing a DDoS attack on a DFS provider in the minutes leading up to a competition may prevent many of its players from making last minute adjustments to lineups. The result would be an unfair advantage to players who were able to adjust their lineup before the DDOS starts. Such attacks are not hypothetical.²⁶¹ In August 2018, just one day after DraftKings launched the first mobile sportsbook in the New Jersey sports betting market, ²⁶² DraftKings announced that they were a victim of a DDoS attack that made their website unavailable to players for one hour and four minutes right before the start of a major competition.²⁶³ The DDoS threat actors routed their attack through servers in Romania, Venezuela, and Saudi Arabia making attribution of the attack very unlikely, even with advanced techniques.²⁶⁴ According to a complaint filed in the United States District Court in Massachusetts, aimed at unmasking the DDoS attackers through Internet Service Provider subpoenas, DraftKings pleading reveals that during the attack, "[DraftKings'] Website faced a three-fold increase of requests per second."265 DraftKings further disclosed that "the Attack prevented legitimate DraftKings users from actively engaging with the DraftKings Website."266

DDoS attacks are inexpensive and relatively simple for threat actors to execute.²⁶⁷ However, victim corporations can respond to mitigate the threat quickly with well-trained cybersecurity personnel who are experienced in identifying the attackers' IP addresses and blocking them from connecting to corporate servers.²⁶⁸

²⁵⁸ Id.

²⁵⁹ See 18 U.S.C. § 1030(a)(5)(A).

²⁶⁰ See, e.g., N.Y. PENAL LAW § 156.20 (McKinney 2006); N.J. STAT. ANN. § 2C:20-25(b) (West 2013); CAL. PENAL CODE § 502(b)(12), (c)(8) (West 2020).

²⁶¹Naveen Goud, *DraftKings Becomes a Victim of DDoS Cyber Attack*, CYBERSECURITY INSIDERS, https://www.cybersecurity-insiders.com/draftkings-becomes-avictim-of-ddos-cyber-attack/ [https://perma.cc/777W-5PJM].

²⁶² Sam Carp, *DraftKings Launces New Jersey's First Sports Betting Offering*, SPORTSPRO MEDIA (Aug. 7, 2018), https://www.sportspromedia.com/news/new-jersey-sports-betting-draftkings-sportsbook-launch/ [https://perma.cc/3BZ6-H62R].

²⁶³ Goud, *supra* note 261.

²⁶⁴Kelly J. O'Brien, *DraftKings Sues Unknown Hackers Over Cyberattack that Took Down Site*, Bos. Bus. J. (Aug. 31, 2018), https://www.bizjournals.com/boston/news/2018/08/31/draftkings-sues-unknown-hackers-over-cyberattack.html [https://perma.cc/ZUJ4-ATRZ].

²⁶⁵ Complaint at 6, DraftKings Inc. v. John Does #1–10, No. 1:18-cv-11869 (D. Mass. Aug. 30, 2018).

²⁶⁶ *Id.* at 1.

²⁶⁷ See YU, supra note 257, at 3.

²⁶⁸ See id. at 77–91.

One last cybersecurity concern worth mentioning that needs to be a priority for DFS providers is the threat of a ransomware attack. During a ransomware attack, a threat actor penetrates the network of a victim corporation to remotely install software that prevents legitimate access to data or services by the victim corporation.²⁶⁹ In most cases, the ransomware encrypts server information and then offers the decryption key to the victim corporation if they are willing to pay a fee (usually paid in Bitcoin).²⁷⁰ ransomware is a significant information security threat facing U.S. corporations, with ransomware attacks up over sixtynine percent between 2019 and 2020.²⁷¹ "In 2020, the IC3 received 2,474 complaints identified as ransomware with adjusted losses of over \$29.1 million."²⁷² On June 16, 2020 DraftKings disclosed in an S-1 filing with the Securities and Exchange Commission that DraftKings partner SBTech was affected by a ransomware attack in March 2020.²⁷³ This attack on SBTech forced the company to shut down their servers, causing a 72-hour outage.²⁷⁴ In a Securities and Exchange Commission Filing on April 7, 2020 by Diamond Eagle Acquisition Corp., it was disclosed that the company in conjunction with DraftKings entered into a Business Combination Agreement that required both companies to deposit a total of \$30 million into an escrow account for insurance protection²⁷⁵ related to future ransomware attacks and cybersecurity incidents.²⁷⁶

E. Automated Bots and Scripting Programs

One last cybersecurity issue that deserves mention is the use of automated bots or users utilizing scripting programs to participate in programmatically enhanced trading. Both DraftKings²⁷⁷ and FanDuel²⁷⁸ expressly prohibit the use

²⁶⁹Ronny Richardson & Max M. North, *Ransomware: Evolution, Mitigation and Prevention*, 13 INT'L MGMT. REV. 10, 10–15 (2017).

²⁷⁰ Id. at 10.

²⁷¹ FBI Releases Ransomware Alert, Annual Report on Internet Crime, supra note 251.

²⁷² Internet Crime Complaint Ctr., Fed. Bureau of Investigation, Internet Crime Report 2020, at 14 (2020), https://www.ic3.gov/Media/PDF/AnnualReport/2020_IC3Report.pdf [https://perma.cc/AA79-3L6E].

²⁷³ DraftKings Form S-1, *supra* note 233, at 131.

²⁷⁴ Jake Evans, *SBTech Partners Experience 72-Hour Downtime After Cyber-Security Breach*, EGR INTEL (Mar. 31, 2020), https://egr.global/intel/news/sbtech-partners-experience-72-hour-downtime-after-cybersecurity-attack/ [https://perma.cc/SDM3-96U4].

²⁷⁵ Catalin Cimpanu, Gambling Company to Set Aside \$30 Million to Deal with Cyber-Attack Fallout, ZDNET (Apr. 10, 2020), https://www.zdnet.com/article/gambling-company-to-set-aside-30-million-to-deal-with-cyber-attack-fallout/ [https://perma.cc/KR3V-97VE]; Diamond Eagle Acquisition Corp., Current Report (Form 8-K) (Apr. 7, 2020) [hereinafter Diamond Eagle Form 8-K].

²⁷⁶ See Diamond Eagle Form 8-K, supra note 275, at 1.01.

²⁷⁷ Terms of Use, DRAFTKINGS, supra note 182.

²⁷⁸ Terms of Use, FANDUEL (Oct. 9, 2020), https://www.fanduel.com/terms [https://perma.cc/8BBQ-4MKC] [hereinafter Terms of Use, FANDUEL] (prohibiting the use of bots in § 6.0).

of bots and scripting programs in their Terms of Use agreements. However, questions exist as to whether the companies employ technologies and techniques to prevent these methods from being used. Both methods are easy to employ and require a programmer to write code that either (1) interacts with a website's Application Programing Interface (API)²⁷⁹ to exchange information; or (2) designs code that scans a website (using a programming language such as JavaScript) and allows that code to interact directly with that website in ways that the website's owners do not allow via an officially published API.²⁸⁰ Another factor that makes bots and scripts successful is the fact that third-party companies such as FantasyLabs provide fantasy sports statistical data in formats that can be easily uploaded into a bot to be algorithmically utilized to provide a daily fantasy sports player an extraordinary advantage over other players by accounting for unusual factors and improving entry of lineup and modification.²⁸¹

Code written to develop automated bots and scripts is often published in online code repositories that allow any public user to download the code for their own benefit.²⁸² Code repositories such as GitHub²⁸³ allow for free hosting of code that can be downloaded, utilized and even updated by anyone free of charge.²⁸⁴ In fact, searching GitHub for code repositories relating to DraftKings bots and automated scripts results in 230 results.²⁸⁵ Similarly, searching GitHub for code repositories relating to FanDuel bots and automated scripts results in 196 results.²⁸⁶ These results include bots and scripts with descriptions such as:

²⁷⁹ See Lusiana Citra Dewi, Meiliana & Alvin Chandra, Social Media Web Scraping Using Social Media Developers API and Regex, 157 PROCEDIA COMPUT. Sci. 444, 445–46 (2019).

²⁸⁰ Brett Massimino, Accessing Online Data: Web-Crawling and Information-Scraping Techniques to Automate the Assembly of Research Data, 37 J. Bus. Logistics 34, 34–40 (2016).

²⁸¹ See One Platform: An Integrated System that Improves Your DFS Decision-Making Power, FANTASYLABS, https://www.fantasylabs.com/tools/ [https://perma.cc/Z4BF-2UWS].

²⁸² See generally How to Choose Code Repository for Your Project, HUSPI (Dec. 3, 2021), https://huspi.com/blog-open/software-code-repositories/ [https://perma.cc/E45N-CR2S].

²⁸³ GitHub, Inc., a subsidiary of Microsoft, is the world's largest provider of Internet hosting for software code using Git. Where the World Builds Software, GITHUB, https://github.com/ [https://perma.cc/3WM5-V6LT]; Meredith Courtemanche, Definition: GitHub, TECHTARGET, https://searchitoperations.techtarget.com/definition/GitHub [https://perma.cc/R76A-78WY]. GitHub provides the ability to host and download software code, along with collaboration features such as bug tracking and feature requests. Where the World Builds Software, supra. GitHub is headquartered in San Francisco, California. Github, Inc., DUN & BRADSTREET, https://www.dnb.com/business-directory/company-profiles.github_inc. 012262545639898e7cbc142929432782.html (on file with the Ohio State Law Journal).

²⁸⁴ Courtemanche, *supra* note 283.

²⁸⁵ Search Results for DraftKings, GITHUB, https://github.com/search?q=DraftKings [https://perma.cc/H6S6-AWLK].

²⁸⁶ Search Results for FanDuel, GITHUB, https://github.com/search?q=FanDuel [https://perma.cc/843A-376K].

(1) "A tool to automate and optimize DraftKings and FanDuel lineup construction";²⁸⁷ (2) "This is a TypeScript library which allows you to access the REST endpoints that Fanduel.com itself uses";²⁸⁸ (3) "An optimizer for Fan[D]uel lineups that uses a modified knapsack algorithm";²⁸⁹ (4) "NBA Daily Fantasy Lineup Optimizer for FanDuel Using Python";²⁹⁰ and (5) "an excel sheet that generates optimized fantasy football lineups for DraftKings."²⁹¹ As noted above, using any of these free tools is expressly prohibited by both DraftKings and FanDuel's Terms of Use agreements.²⁹² However, the prohibition clearly does not stop the development and use of these tools.²⁹³ Code posted on GitHub within this category is frequently updated, with some projects being updated on a regular and ongoing basis.²⁹⁴

The use of bots and automatic scripting can provide several advantages to users of DFS including: (1) overcoming limitations and site deficiencies of DFS platform user interfaces; (2) automated editing of lineups using methods that the DFS platform user interface does not support; (3) automatedly selecting preferred Head-to-Head (H2H) games; and (4) making efficient or automated batch updates to multiple contests at one time.²⁹⁵

²⁸⁷ @BenBrosoff, *draftfast*, GITHUB, https://github.com/BenBrostoff/draftfast [https://perma.cc/Z7AJ-MVEN].

²⁸⁸ @Setfive, *fanduel-api*, GITHUB, https://github.com/Setfive/fanduel-api [https://perma.cc/3SVP-BFQ7].

²⁸⁹ @davehensley, *fanduel-nba-optimizer*, GITHUB, https://github.com/davehensley/fanduel-nba-optimizer [https://perma.cc/5V6W-GSQU].

²⁹⁰ @owenauch, *NBA-Fantasy-Optimizer*, GITHUB, https://github.com/owenauch/NBA-Fantasy-Optimizer [https://perma.cc/YU5D-WGME].

²⁹İ @Scipio314, *draftKnight*, GITHUB, https://github.com/scipio314/draftKnight [https://perma.cc/7YWY-VX6H].

²⁹² Terms of Use, DraftKings, supra note 182; Terms of Use, FanDuel, supra note 278.

^{278.} 293 See Terms of Use, DraftKings, supra note 182; see also Terms of Use, Fanduel, supra note 278.

²⁹⁴ See, e.g., @BenBrostoff, supra note 287. The GitHub project "draftfast," managed by the user @BenBrostoff was first posted in 2016. See id. A total of ten developers have contributed to the code base, making a total of 622 code contributions since it was first published. Id. The project manager has merged these contributions into a total of 57 incremental version release updates. Id. The last update was made on December 26, 2021. Id. As of February 1, 2022, a total of 214 GitHub users were subscribed to receive updates on this project. Id. The project is hosted on GitHub at https://github.com/BenBrostoff/draftfast. Id.

²⁹⁵ See Nate Harner, Creating a Fully Automated Daily Fantasy Sports Strategy, TOWARDS DATA SCI. (Jan. 19, 2020), https://towardsdatascience.com/creating-a-fully-automated-daily-fantasy-sports-strategy-6842d2e1ccb6 [https://perma.cc/F5MW-HZT5]; Matt Marzillo, Tackling Daily Fantasy Football with Data Science, DATA ROBOT (Jan. 6, 2020), https://www.datarobot.com/blog/tackling-daily-fantasy-football-with-data-science/ [https://perma.cc/7UFT-TBK3].

Most of these advantages are used to overcome site inefficiencies²⁹⁶ and provide DFS players that utilize them a competitive advantage over players that do not utilize them.²⁹⁷ However, as DFS sites develop more robust user interfaces and provide new and improved features to their users, it is possible that automated bots and scripts will provide less of an advantage. For example, the final example listed above—"making efficient and/or automated batch updates to multiple contests at one time"—had bots and scripts that were heavily relied upon by heavy users of DFS sites.²⁹⁸ However, over the past few years, DraftKings²⁹⁹ and FanDuel³⁰⁰ have made changes to their user experience to allow better batch management directly within their own user interface.³⁰¹ These updates made the use of third-party automated scripts for batch management less advantageous to use. FanDuel, for example, released an "advanced entry" feature that allows users to enter one lineup into multiple contests or to enter one lineup into the same contest multiple times.³⁰² Prior to FanDuel's release of the advanced entry feature, users could have used a thirdparty automated script to perform the same function.³⁰³ This issue is ripe for both future research and regulatory review.

V. CONCLUSION

When Congress passed UIGEA in 2006, the fantasy sports carveout that allowed payment processors to accept and pay out money associated with a "fantasy or simulation sports game" was seen as an afterthought concession to a small but entertaining activity with limited nexus to traditional internet gambling.³⁰⁴ Yet, it was through this creative manipulation of this carveout that the daily fantasy sports industry emerged and transformed fantasy sports into big business, featuring multi-billion dollar, publicly traded companies that

²⁹⁶ See Sam Shefrin, Daily Fantasy Sports Scripting, DAILY FANTASY CAFE (Mar. 29, 2016), https://www.dailyfantasycafe.com/daily-fantasy-scripting-draftkings-fanduel [https://perma.cc/F7TK-4CQ5].

²⁹⁷ See id.

²⁹⁸ See David Purdum, Are Computer Scripts Bad for Daily Fantasy Sports?, ESPN (July 15, 2015), https://www.espn.com/fantasy/baseball/story/_/id/13261582/are-computer-scripts-bad-daily-fantasy-sports [https://perma.cc/JZC8-RLUF].

²⁹⁹ See New DraftKings Bulk Lineup Edit Feature, ROTOGRINDERS, https://rotogrinders.com/threads/new-draftkings-bulk-lineup-edit-feature-1230750 [https://perma.cc/32QN-S4UU].

³⁰⁰ What's New: Advanced Entry, FANDUEL, https://www.fanduel.com/advanced-entry [https://perma.cc/VSP4-6U9J].

³⁰¹ See, e.g., id.

³⁰² Id.

³⁰³ See id.; see also supra note 295 and accompanying text.

³⁰⁴ See Unlawful Internet Gambling Enforcement Act of 2006, 31 U.S.C. § 5362(1)(E)(ix); see also Robert Crawford & Andrew Kim, "Surviving" the Madness: Are Paid-Entry Survivor Contests Legal?, CASE TEXT (Mar. 19, 2015), https://casetext.com/analysis/surviving-the-madness-are-paid-entry-survivor-contests-legal?sort=relevance&results Nav=false&q=[https://perma.cc/U3S7-SS67].

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engage in activities more akin to traditional gambling.³⁰⁵ While U.S. state governments were slow to recognize the changing nature of contests operating under the moniker of fantasy sports and ultimately fell prey to the lobbying efforts of large, daily fantasy sports operators, the United States is alas in the process of transitioning its regulation of daily fantasy sports from non-gambling entertainment to something more akin to legal and regulated online gambling.³⁰⁶ This transition is notable in terms of a growing number of states passing laws to legalize and regulate "daily fantasy sports," newfound efforts to federally tax daily fantasy sports on par with sports gambling, and an increased legal focus on cybersecurity matters.³⁰⁷

Nevertheless, the reimagining of legal governance of daily fantasy sports in the United States is not without its defects. Most notably, some states have engulfed traditional fantasy sports operators into the regulation of daily fantasy sports—thus leaving these often smaller, entertainment businesses subject to improper regulation, as well as to overregulation.³⁰⁸ In addition, the legal transformation of fantasy sports has created a category oligopoly with two behemoth companies that had gun-jumped and entered certain markets prior to legal permissibility, which today enjoy a financial windfall.³⁰⁹ Finally, even with the daily fantasy sports industry today featuring a few mega-companies, one of which is now publicly traded on the NASDAQ exchange, there is still some evidence that these companies are taking a degree of creative license with legal compliance and do not always implement best practice pertaining to cybersecurity—especially where such legal practices are costly, time intensive, or not consistently enforced.³¹⁰ In the years that lie ahead, it is reasonable to anticipate that data privacy and cybersecurity concerns will emerge at the forefront of legal risk in the fantasy sports industry, and daily fantasy sports companies will face many of the same questions about online privacy and safety that have already begun to emerge within the broader social media industry.

³⁰⁵ Nover, *supra* note 7.

³⁰⁶ See generally Edelman, supra note 10.

³⁰⁷ See discussion supra Part III.

³⁰⁸ See discussion supra Part III.

³⁰⁹ See discussion supra Part III(c).

³¹⁰ See discussion supra Part III–IV.