



Spinning is winning: Social casino apps and the platformization of gamble-play

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Abstract

Social casino apps are an emergent genre in the app economy that sits at the intersection of three different industries: casino gambling, freemium mobile games, and social media platforms. This institutional position has implications for the social casino app's political economy and culture of consumption. We argue that social casino apps are representative of a broader casualization of risk that has taken hold in a platform society. By combining the uncertainty and chance associated with gambling with the interruptibility, informality, and modularity of free-to-play mobile games, social casino apps offer complete contingency in how they are designed and played. Game progression and social networking features are used to normalize the relationship between the consumer of social casino apps and the contingency of their desired form of play. As a result, the experience of risk is no longer restricted to the casino floor and in fact becomes a part of one's daily routine. This casualization of risk marks the next adaptation of the contingent cultural commodity, where nothing is guaranteed and everything is subject to chance.

Keywords

Social casino games, free-to-play, social networking, gambling, casual games

Introduction

In 2011, after only being in business for eight months and with a catalog of only two Facebook games—*Slotomania* and *Farkle*—the Israel-based social casino developer Playtika was acquired. Rather than a game publisher, it was Caesars Interactive Entertainment, the online entertainment branch of Nevada's Caesars casino chain, which bought the developer for between US\$80 and 90 million (Schechter, 2014). The acquisition was seen as a strategic investment to expand Caesars' entertainment options.

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While gambling online is only legal in a handful of countries, social casino games such as *Slotomania* mimic casino play but without real-money payouts. The capital from Caesars provided Playtika with the opportunity to expand its market share. In 2016, a consortium of Chinese companies led by Alpha Frontier (associated with Giant Network Group) acquired Playtika from Caesars in a deal worth US\$4.4 billion (Mozur, 2016). This led to further growth as Playtika bought several large game studios: Jelly Bean, Pacific Interactive, Wooga, Supertreat, and Seriously. Playtika's rise however has not been without controversy. The studio was sued in the state of Washington for operating an illegal casino (Harris, 2018). A subsequent US\$6.09 billion buyout by Giant Network Group did not materialize following the concerns of Chinese regulators that social casino games are a form of illegal gambling. Then, in January 2020 Playtika went public and is now listed at the Nasdaq.

We point to Playtika's ascendance because it contains all of the salient features of the social casino industry: its origins on Facebook, the strategic investment by an established incumbent (in this case a Las Vegas-based casino chain), rapid global expansion, and the fine line between games and digital gambling. Social casino games have become a burgeoning sector of the app economy positioned at the intersection of three different industries: social media platforms, casino gambling, and the game industry. As such, the genre is rooted in both existing institutional and player practices. To understand the latter, we build on work by Albarrán-Torres (2018), who introduced the notion of "gamble-play." The genealogy of this form of play can be traced back to Japanese toy machines, the training sections of real-money online casinos, and "social" games on Facebook, such as *Farmville* (Albarrán-Torres and Goggin, 2014). Known in Australia as "pokie apps," the genre provides players with gambling-like play experiences, allowing them to wager virtual credits in traditional casino games, such as slots, roulette, and poker. Unlike real-money gambling apps, in social casino games, players never receive a payout of their winnings. Instead, they are rewarded with new in-app experiences, like unlocking new slot machines, bonus games, and competing against rival players. This lack of monetary winnings has thus far allowed developers to avoid the strict regulation that comes with both online betting and electronic slot machines. Then again, the collapse of the Playtika's deal in China and recent lawsuits in U.S. civil courts demonstrate the continued controversy over chance-based leisure.

To better understand the culture of consumption afforded by social casino apps, we propose a mixed-methods approach that combines a political economic analysis of social casino game production and circulation, followed by deploying the app walkthrough method (Light et al., 2018). Our walkthrough includes three popular titles: *Slotomania* developed by Playtika, *Zynga Poker* from Zynga, and *DoubleDown Casino* developed by DoubleU Games. As these apps pull casino-style play into the app economy, we argue that they serve as an example of the platformization of gamble-play. Drawing on the framework by Nieborg and Poell (2018), social casino games are indicative of a broader institutional shift in markets, governance frameworks, and infrastructure. This shift makes incumbent industries, in this case the casino business, become increasingly "platform-dependent" as developers align their business models and design strategies with those of platforms such as Apple, Google, and Facebook. This institutional alignment not only has political economic implications for players, incumbent industries, and regulators but also

allows developers to leverage the “contingent” nature of apps as platform-dependent cultural commodities (Nieborg and Poell, 2018). Apps are not only contingent on platforms (i.e. platform-dependent) but contingent in the sense that they are modular in design, constantly altered, updated, and (re)distributed. As such, they remediate the unpredictability and volatility of real-money casino games, such as slots. More so than that, features like dynamic game balancing, which change the odds and rate of payout depending on a player’s (lack of) success (Rose, 2014), mark a radical break with the rigidity of the heavily regulated real-money casino industry.

We contend that social casino apps might very well be the ultimate instance of contingent cultural commodities as they *casualize risk* and *normalize uncertainty* when mixing casino expertise, iterative design strategies, and the retention-driven business models of platforms and freemium or “free-to-play” games. In other words, the current experience of risk is a culmination of the cultural normalization of gambling through mobile technology and the increased presence of in-game gambling mechanics. This shift takes place against the background of the continuous modification of digital commodities to meet the perceived needs of the audience. In critiquing discourses of addictive consumption, cultural theorist (Reith, 2018, 54) positions risk as being part of a move toward “responsible consumption in which individuals are expected to navigate the freedoms and choices of the marketplace.” From this perspective, with their much lower stakes, social casino apps have emerged as a mediator for a more casualized, playful experience of risk. Albarrán-Torres (2018, 49) understands gamble-play as “controlled risk.” Instead of a disempowering or anxiety-inducing phenomenon, risk in the social casino app is mediated as fun, entertaining, and potentially, a source of empowerment. As suggested by the sizable investments in companies such as Playtika, this casualization of risk is seen as a viable opportunity for incumbent casino industries.

Proliferation of chance-based leisure

Over the last two decades, real-money gambling has moved increasingly away from its association with “sin” and “social deviance” and has become normalized as being one among many consumption and leisure options (Raymen and Smith, 2017; Young, 2010). Historically, gambling has been seen as an affront to norms of thrift and financial balance, a type of wasteful spending that could only lead to financial ruin (Reith, 2018). Changing contexts in terms of how and where gambling takes place has decisively shifted this point of view, leading to an increased acceptance of gambling and gambling-like products. As Raymen and Smith (2017, 3) argue, “gambling, a traditionally isolated and individualised practice, has become both normalised and socialised. It has become embedded within—and tailored to—individual lifestyles, modes of consumption and existing leisure markets.” This process of normalization feeds into a “global commodification of chance” (Young, 2010, 255) where wagering, with little to no guarantee of reward, has become an increasingly desirable form of entertainment. Chance-based leisure obfuscates the “structural differences between games and gambling” as games replicate “gambling’s focus on wins and money, but without monetary payout” (Teichert et al., 2017, 757).

Over the last decade, a number of new entertainment genres have emerged that blur the boundaries between the physical and virtual, gaming and gambling, and chance-based and skill-based instances of play. Think of the global popularity of fantasy sports (Ploeg, 2017), the emergence of competitive gaming and the gambling culture that is evolving alongside it (Johnson, 2017) and the inclusion of chance-based design mechanics in games, particularly “loot boxes” (Macey and Hamari, 2018). Depending on their implementation, loot boxes can be structurally similar to gambling—if the rewards from such random mechanisms can be traded back into real-world currency (Nielsen and Grabarczyk, 2018). To be sure, chance-based mechanics are rooted in longer cultural histories, such as “gacha,” a design practice that emerged in Japan in the 1960s where street vending machines randomly dispense children’s toys (Shibuya et al., 2016), some of which have high monetary value if they are of a rare variant. Increasingly, such design strategies are finding their way into non-game environments, such as digital distribution platforms. Think of the introduction of chance-based wagering mechanics on Steam or the pluriform revenue strategies on the streaming platform Twitch (Johnson and Woodcock, 2019).

In North America and western Europe, while rooted in different regulatory and cultural traditions (Cassidy, 2013), gambling’s normalization and its reconceptualization as “gaming” has unfolded in the midst of massive deregulation—and implicit encouragement to gamble—by the state (Young, 2010). Case in point is state-sanctioned lotteries such as the “postcode lotteries” in Sweden, Germany, the United Kingdom, and the Netherlands, which derive their legitimacy and popularity by donating part of their proceedings to charities. The physical ubiquity of gambling is particularly visible in the United Kingdom and Australia. Strolling along any major High Street, one will be faced with a number of chance-based entertainment options, including sports betting, slot machines, and lotteries (Casey, 2003; Raymen and Smith, 2017). This trend of normalization and ubiquity is further enhanced by the increased penetration of mobile media, which has allowed for new forms and opportunities for wagering, betting, and playing (Albarrán-Torres and Goggin, 2014).

Amid these shifting philosophies of leisure and consumption associated with gambling, a new content genre emerged connecting digital distribution platforms, free-to-play mobile games, and real-money casino play: the social casino app. These apps use a microtransaction or “freemium” business model, where players can purchase optional virtual credits if they want to acquire additional play money, digital goods, or customize their in-game avatars (Nieborg, 2015). Among policymakers, there has been a great deal of controversy about whether or not loot boxes and social casino apps constitute a form of gambling. For example, in the United States, three elements are needed to qualify as gambling: consideration (whether or not there is a form of payment), chance, and prize. Although social casino apps offer a form of payment, this is optional, and prizes—digital goods—are typically considered to have no monetary value (Rose, 2014). What complicates this picture are recent controversies over loot boxes in games such as *Star Wars Battlefront II* and *Overwatch*. Here, players are allowed to purchase randomized items that are mostly cosmetic but may also enhance gameplay. Despite the U.S.-based Entertainment Software Ratings Board concluding this does not constitute gambling, (Rester,

2019, 227) argues that in practice, these mechanics are more complicated: “The items contained within the loot box have inherent value for someone who is already invested in the game to which those contents will later be applied.” Demonstrating that digital goods do have value complicates the argument that loot boxes are not gambling, especially when consideration and chance thresholds are already met.

Social casino apps have recently come under more scrutiny. In 2018, in Washington state, the virtual chips used in social casino games were ruled to be things of value, opening developers such as Playtika and Double Down Interactive up to lawsuits (Harris, 2018). In early 2019, *Big Fish Casino* became the subject of a lawsuit in Washington state as well (Halverson, 2019). Each lawsuit argues that social casino apps constitute a form of illegal gambling. A study commissioned by the Dutch government concluded that four of the 10 loot boxes constituted illegal gambling (De Kansspelautoriteit, 2018). The government of Belgium has gone further and outright banned loot box mechanics, whereas in France, they were deemed lawful (Rester, 2019; Zendle and Cairns, 2019). In the United Kingdom, where online betting is legal, some gambling industry executives see social casinos as an interloper that distracts from the bigger profits of real-money gambling (Cassidy, 2013). In Australia, the gambling industry has lobbied the government for more restrictions on social casino apps, arguing that they are harmful to children and detrimental to efforts that ensure responsible gambling (Albarrán-Torres, 2018).

As noted earlier, a number of lawmakers adopted the “gateway drug” line of reasoning that sees gamble-play as a precursor for gambling addiction (Zendle and Cairns, 2019). Some of these concerns are backed by recent research such as King et al. (2016), who found that for adolescents, spending real money in social casino games can be a risk factor. The same group of scholars observed that easy access to social casino games and the intensity and frequency with which they are played may increase problematic use, putting compulsive gamblers in particular at risk (Gainsbury et al., 2017). Wohl et al. (2017) express similar concerns about the as-of-yet unregulated features in social casino apps, such as dynamic game balancing, which gives players an unrealistic view of their chances when wagering on real-money slot machines. There is evidence that some individuals who spend money in social casino apps may do so for similar reasons as problem gamblers, such as a lack of impulse control, high “reward sensitivity” (more likely to respond to positive reinforcement), or “chasing losses” (Kim et al., 2017, 535). It should be noted that in these studies, the authors focus specifically on problem gambling behavior, which is not the default for the majority of players. In some cases, as noted by Wohl et al. (2017), there is the potential for social casino apps to be a replacement for those managing a gambling addiction. Furthermore, Gainsbury, 2019 argues for sensible legislation to target predatory mechanics while not sensationalizing or overstating the spread of problem gambling through games.

Despite potential legal interventions, criticisms and the impossibility for players of any monetary winnings, the social casino genre constitutes a US\$5 billion industry (Business, 2019). As a result, the genre has become a major investment opportunity among casino industry heavyweights, such as slot machine makers International Game Technology (IGT) and Aristocrat Leisure, the betting corporation Churchill Downs, or the

aforementioned casino chain Caesars Entertainment Corporation (Cassidy, 2013). Their interest is understandable as barriers for consumers have been lowered and new technologies such as social media platforms and app stores have emerged as fresh venues to commodify chance-based leisure.

From time-on-device to invest/express

In her influential monograph discussing slot machine play in Las Vegas, Natasha Dow Schüll (2012, 5) describes the moment electronic slot machines overtook table games as the primary attraction at casinos: “By the late 1990s...they had moved into key positions on the casino floor and were generating twice as much revenue as all “live games” put together. In the aisles and meeting rooms of the [Global Gaming Expo], it became common to hear gambling machines referred to as the “cash cows,” the “golden geese,” and the “workhorses” of the industry. Similar to tabletop and roleplaying games becoming platform-dependent when played on dedicated consoles and PCs, real-money gambling became platform-dependent with the diffusion of video slot machines. Every bet became instantly trackable and datified. As a result, “time-on-device” has become a key metric for casino operators. The multiline slot machine, with its intricate graphic and sound design, allowed gamblers to place small bets on multiple pay lines, resulting in small wins. The combination of less intimidating initial bets, positive reinforcement through (more) frequent wins, and the confusing tangle of dozens or hundreds of potential ways to win meant that gamblers could play longer and thus spend more (Schüll, 2012, 119–121).

In Schüll’s research, with its particular focus on problem gamblers, the pleasure of slot play derives from a “being in the zone” state, where, according to one participant: “nothing else matters” (2012: 12). Her fieldwork in Las Vegas casinos concerns a more extreme version of the phenomenon noted earlier in which risk is mediated through the use of electronic gambling machines. Similar to those who spend heavily on free-to-play games do not represent the vast majority of players, Schüll’s participants do not represent the full experience of casino play. That said, Schüll’s work is helpful to locate the slot machine’s history, from mechanical to multiline video slots, as well as the ways in which the casino industry is constantly looking to create more intensive forms of chance-based leisure. For this reason, Ritzer and Stillman (2001) characterize the modern casino as a “cathedral of consumption,” a place that combines state-of-the-art surveillance technology with well-timed free gifts (known as “comping”) to keep gamblers, particularly those addicted to gambling, fixed in a singular experience, an endless loop of consumption.

Drawing on theories of play as well as Beck’s concept of the risk society (1992), Young (2010: 259) understands these practices as “aleatory consumption,” which aids the modern state in smoothing out the contradictions of its distribution of risk and at the same time helping individuals mediate those risks whether in the form of an electronic gambling machines or table games. In a similar vein, (Reith, 2018: 126) argues that casinos are “aleatory environments” that act as a way to govern the experience of risk and “distracts attention from the wider structural conditions that promote aleatory environments in the

first place.” In this context, “aleatory” derives from the term “*alea*,” introduced by play theorist Caillois (2001), which denotes a chance-based form of play, where one has very little control of the outcome. Reith’s “aleatory environment” and Young’s “enchanted ideology of *alea*” both communicate how gambling has been reconceptualized as a form of entertainment where players can more safely engage with risk as a purchasable commodity. Their work points to how gambling has moved away from its association with pathology and ruin and closer to being thought of as just one of many different entertainment options.

It is against this background that social casino games have emerged. Before migrating to the burgeoning mobile market, social casino games were a popular genre on Facebook, hence their “social” descriptor. Being embedded in social networks, social game designers seek to take advantage of new distribution, circulation, and consumption practices afforded by connective media (Nieborg, 2017). Another historical lineage are the virtual play money training sections of online poker sites, such as *Full Tilt Poker* or *PokerStars*, where, as Albarrán-Torres (2018) argues, players were encouraged to hone their skills so that they would be adequately prepared for real-money tournaments. Although if one goes even further back, we can see the particular strategies of risk minimization deployed by social casino app developers being prefigured by the introduction of smaller stake slot machines. For example, Schüll (2012, 125–126) discusses the introduction of the US\$1 slot machines, which eventually led to smaller denominations that went down to quarters, then nickels and dimes, followed by pennies, and managed to entice gamblers to play and spend more. In the game app economy, we witnessed a similar trajectory. Games on mobile devices began as premium-priced products, which, after the mobile platform’s sanctioning of in-app purchases and in-app advertising, moved toward optional payments. In all these instances, we see a lowering of the barriers to play, creating a more frictionless experience for both gaming and gambling where payment is presented as being voluntary and desired, rather than strictly enforced.

Compared to video slots, freemium games complicate the traditional dynamics of gambling as they remove the high risk of real-money stakes, while still promising the same thrill of chance-based casino play. Albarrán-Torres (2018, 49) refers to this lower stakes form of gambling as “gamble-play,” which “disrupts the temporal, spatial, and socialization regimes associated with gambling.” Whereas gambling was previously posited as a definitive break from the everyday, with its disruption of life often located within the labyrinthine enclosure of the casino floor (Ritzer and Stillman, 2001), mobile media platforms afford new forms of affect, access, and ubiquity that shift consumption practices surrounding chance-based leisure. In the app economy, the barriers to play, be they time or money, are lowered, and everyone is invited to experience the fun of casualized risk. We say “everybody” because unlike the strictly regulated casino floors of, for example, Las Vegas, where minors cannot move freely unchaperoned, social casino apps are accessible to all those who can access and operate a mobile device.

Next to a spatial shift, freemium games structure time differently. Rather than keeping players hooked in endless play sessions—the primary design strategy for premium-priced games such as shooters and online multiplayer games—freemium games are designed to fit in the interstitial moments of a person’s day. Game scholar Juul (2010) discusses how

“casual” games are defined by their informality and interruptibility, allowing anyone to experience short bursts of play. While not all freemium game apps are necessarily casual games, mobile play is widely experienced as such. Chess (2018) points to the “push/pull dynamics” of freemium games as they frequently pull the player into the game world before purposely pushing them out again. In-game timers are a common design mechanic to provide game play with a particular cadence. For example, players have to wait four or eight hours before they can construct a building, such as in *The Simpsons Tapped Out!*, or they have to wait a couple of minutes for their crops to grow in *Farmville*. Burroughs (2014) argues that this “time delay” creates a habitual, ritualistic engagement with the game world, structured around the dynamics of social networking platforms. These temporal design mechanics are tied to monetization mechanics constituting the freemium business model. Impatient players are nudged to pay for virtual items or currency that can speed up the building or crop-growing process (Evans, 2016). Chess (2018) points to the industry term “invest/express,” which represents the investment of time, and potentially money, which is then expressed in changes to the game world. In this sense, freemium games offer contingent experiences, unlike more static cultural commodities such as novels, movies, or songs. Whether it is climbing the ladder of fame in *Kim Kardashian: Hollywood* or growing crops, the virtual environments of freemium games are designed to change slowly but surely in order for players to remain invested.

Ultimately, these push/pull dynamics are an important part of ensuring player retention. Instead of the casino floor metric “time-on-device,” an important performance indicator for freemium designers is standardized in app designers’ analytics dashboards, under categories such as “day 1,” “day 7,” and “day 30 retention,” indicating how many players keep coming back. For an industry in which less than five percent of players are monetized—that is, converted into paying users—improving player retention is considered crucial. By making players wait to finish particular in-game tasks or by creating new points of interest (e.g. new objectives, new modes, and new events), players are conditioned to keep returning to the app at regular intervals. In-game timers are set in such a way to fit into the everyday lives of players, picking a game up early in the morning, a quick break during lunch, followed by a longer play session after dinner. Because of this sustained mode of play, especially of hit titles such as *Candy Crush Saga* and *Kim Kardashian*, the casual label is misleading. Casual games are generally accessible and easy to learn, but they are played quite extensively, maybe not hours on end, but often, and with a passion similar to any other form of play. As casual has become a loaded term tied to gendered notions of play, Chess and Paul (2019) suggest we consider these “noncore” games instead.

Methodological note

As a social casino app is simultaneously a noncore gaming experience that remediates and recontextualizes casino gambling and is embedded in social networks, there is a blurring of boundaries where players connect and compete against each other. Therefore, we draw on a methodology that is aware of and able to unpack the complex material, technological,

and economic entanglements apps have with their audiences, as well as with the platforms they rely on for distribution, promotion, and monetization. We use Light et al. (2018) “app walkthrough method” to analyze how social casino apps structure the experience of consumption and how they translate the real-money gambling industry’s strategies into the mobile game ecosystem. The walkthrough method studies both “technological mechanisms and embedded cultural references to understand how it guides users and shapes their experiences” (Light et al., 2018, 882). More specifically, it aims to capture the “environment of expected use” by explicating the processes, techniques, and symbolic content that designers use to communicate who they envision their ideal users to be (2018, 883). To that end, analysis encompasses two levels. First, a sociocultural level that explores an app’s vision, operating model, and governance structure. Second, a technical level, which discusses features such as an app’s user interface, registration and entry, and finally, app closure and exit. In our analysis, we focused on vision, the particular type of experience each app communicates through its aesthetics, as well as registration and entry, and how these entry points into the app draw on particular freemium monetization strategies. In our walkthrough, our focus is less on connecting specific features to specific actions and more on the environment that has been created to facilitate a particular culture of consumption.

We chose three popular apps—*Slotomania*, *Zynga Poker*, and *DoubleDown Casino*—to determine how they translate the casino experience of playing slots, poker, blackjack, and roulette into a mobile experience that foregrounds monetization and game design strategies such as engagement, retention, informality, and the interruptible push/pull of noncore gaming sessions. While each app follows certain genre traits and common monetization strategies—particularly strategies aimed at player retention, they exhibit enough variation that suggests they cater to different audiences. Our analysis probes the technical, economic, and cultural features of social casino app design. Therefore, even though the walkthrough method reveals a great deal about design intentions, we suggest that future research could connect these insights with player experiences.

Social casino games’ culture of consumption

We start with *Slotomania* (2012), a slot machine emulator that is increasingly popular. As noted in our introduction, its developer Playtika has the largest market share (28%) in the segment. In its marketing material, *Slotomania* highlights its popularity by positioning it as the “world’s #1 slot machine game” that pulls in US\$22 million a month in revenue (Takahashi, 2018). Its direct competitor is *DoubleDown Casino* (2011), which was originally owned by IGT and was sold to the South Korean company DoubleU Games in 2017 for US\$500 million. Part of the acquisition is a “strategic partnership”; IGT still has branding in *DoubleDown Casino*. Compared to the two slot games, *Zynga Poker* (2007) followed a different trajectory (Cassidy, 2013). Once a hit game surpassing online poker sites such as *Full Tilt Poker* in terms of popularity, *Zynga Poker* has been on a downward path in terms of revenue (Business, 2019). Its owner and operator Zynga recently entered into a strategic partnership with the *World Poker Tour*, introducing a faster, more high-

risk/high-reward game mode to the app. Despite the company's relative decline, Zynga still generated US\$316 million in revenue in 2018 (Takahashi, 2019).

Below, we begin with a discussion of the environment of expected use: what a user will likely see or experience when they open up the app and begin to play. We set the scene of a *Slotomania* play session before contrasting it with *DoubleDown* and *Zynga Poker*. We then move on to the technical walkthrough and how each app handles app registration and entry, demonstrating their complete integration into social networks and digital app stores. Then, we consider design features aimed at informality, interruptibility, and competitiveness, which are foundations for how these apps combine the aesthetics of gambling with free-to-play mechanics to create a lower risk casino experience.

Environment of expected use

Before going to bed, there is a light buzz from your phone. It is a push notification from *Slotomania* that says, "Moon is Shining...Your Bonus Is Sweet!" with an offer of 6000 free coins. Accepting the offer, one can play a few extra minutes before going to sleep. When opening the app again, the player is bombarded by splash screens advertising "daily deals" to purchase virtual credits, a reminder to collect more VIP credits, and to enter the "Slotoclub." Pushing past these offers, the player sees hundreds of slot machines, many of which still need unlocking by leveling up. An easy option is to start with "Civiltreasures," a game with the "Age of Discovery" theme, complete with a cartoon Columbus. The symbols on the reels, the music, and overall aesthetics reinforce the idea that the player is an explorer on an epic quest of discovery. Players can place bets for 250, 500, 1000, or even 2500 coins, and then tap to spin. If tapping is too much, one can take advantage of the "auto bet" feature and have the reels spin 25 times. *Slotomania* is not a skill-based game. Spinning is winning: after 10 tries the player hits a major win—5000 credits—and an in-game pop-up appears asking if to share one's win on Facebook.

As the above scenario of *Slotomania*'s aesthetic vision illustrates, social casino apps offer players a specific virtual casino experience, using familiar sights and sounds, as well as innovative in-app features (like sharing jackpots) to ensure continual play. Often these elements directly mimic, or even parody, features found in physical slot machines. Ultimately, the symbolic and affective content of each app offers users a different vision of how they should be played and by whom. *Slotomania* promotes itself as an investment in leisure and entertainment. When launching the app, the opening splash screen prominently features the game's mascot Lucy, who is dressed like a croupier at a high-end casino mixed with a cartoon pastiche of the Las Vegas strip. The app confidently declares "It's definitely THE time for some me time." Bubbly letters promise players "boosted benefits" if you play select bonus games. The emphasis on "me time" furthers the connection with noncore games, which, as argued by Chess (2018), are designed to target a predominantly female, professional demographic presumed to have little personal leisure time. *Slotomania*'s aesthetic emphasizes what Juul (2010, 45) calls "juiciness," a colorful and optimistic art style defined by cute characters, rounded edges, and fun bits of ephemeral animation. *Slotomania* features quick burst of slots play, with an emphasis on exotic adventure themes (Albarrán-Torres, 2018). This is most clearly demonstrated in

themed in-game slots such as *Xin-Fu!*, *Panda Chi*, *Rainforest King*, and *Pharaoh Cash*, whose reel symbols, music, and overall aesthetics celebrate the pulpy, Orientalist aesthetics of physical video slots.

Zynga Poker also draws its inspiration from well-known gambling experiences as its design follows that of online poker sites such as *Full Tilt Poker* and *PokerStars*. Instead of the multitude of slots in *Slotomania*, *Zynga Poker* is much more restrained. The key here is speed and the ability for players to get in and out of poker tables as quickly as possible. The app has three different game modes: event games, Texas hold 'em, and a new "Spin and Win" mode that is a result of Zynga's partnership with the *World Poker Tour*. Signing in with one's Facebook account gives players more benefits, such as access to a daily bonus wheel that increases the number of free chips based on the number of Facebook friends a player connects to the game. *Zynga Poker* has a number of typical game design elements, such as a status bar that communicates the statistical strength of one's hands. These features and the deep integration with Facebook are evidence of its developer's history as one of the first major developers of Facebook-based social games.

DoubleDown Casino tries to emulate the full spectrum of casino experiences all in one app. Like a modern casino, slots play is the main attraction. However, *DoubleDown* also offers players the chance to try their luck at other casino games such as Blackjack, roulette, and even video poker. The logo of *DoubleDown's* initial investor and parent company (as well as one of the world's largest slot machine manufacturers) IGT is displayed prominently throughout the app. The app's broad scope combined with its branding points toward a very explicit connection with the incumbent casino industry.

App registration and entry

App registration and entry into all three apps is straightforward. Despite statements in their collective Terms of Service that their games are meant for those 21 years or older, there are no gatekeeping mechanisms when downloading the apps from the iOS or Google Play app stores or when registering (i.e. to log in) via Facebook. When loading each app for the first time, Facebook registration is optional, but highly encouraged. For example, if a player in *Slotomania* plays without registering with Facebook, a reminder pops up after each win reminding the player they can share their jackpots on their Facebook profile if they choose to log in. Not registering with Facebook means missing out on each of the game's multiplayer features, such as leaderboards. *Zynga Poker* and *DoubleDown Casino* are the most aggressive in the commodification of social media connectivity. The amount of free virtual currency increases with each Facebook friend a player connects with, turning this into one of the most effective ways for players to receive free currency without spending real money. Albarrán-Torres (2018, 6) argues that digital gamblers "pay with a mixture of money, labour, time, and access to digital social networks." Facebook's integration thus serves two purposes. First, to ensure player engagement and player retention, two industry metrics that are imperative to all freemium designers. Second, social media connectivity allows for network effects to kick in, which signals the perceived increase in value for users when others join the app (Nieborg, 2015). These effects

can act as a significant promotional tool for the game, especially when it rewards players who promote their winnings or connect with their friends to receive free currency.

Interruptibility, informality, and competitive play

Whereas electronic gambling machines are designed to ensure intensive play as well as continual consumption, social casino apps use different strategies derived from casual games and social networking. Interruptibility is closely built into the design of each app and manifests itself in different ways. *Slotomania* frequently interrupts players during jackpots and winning streaks to encourage the player to share their good fortune. When booting up *Slotomania* and *DoubleDown Casino*, the player must navigate multiple splash screens promoting new slot machines, special deals on virtual currency, and event announcements. A player is introduced to that day's daily events and deals, which are emphasized and even placed ahead of accessing the main slot machines, with large icons that take up most of the play screen. In *Slotomania*, for example, after a period of inactivity, the "Welcome Back" bonus may pop up, which rewards the player with 100,000 new coins. After collecting this bonus, another splash screen will appear promoting a "Once in a Lifetime Pack!" that contains 4 million chips and 3 in-game boosters for US\$7.99. If it is Friday, this set of promotions is followed by a splash screen for "casual Friday x3 chips sale" and a reminder to play during the "Jackpot Happy Hour." The latter feature is an example of the appointment-based gameplay offered by freemium apps. In a short period of time, a player has to navigate four different screens before being able to get to the slots, signaling a clear break with casino machine strategies, which seek to avoid barriers between gamblers and bets.

This more informal approach to slots play continues in how a fundamental part of the casino experience, "comping," is remediated in the app. While in casinos, comping is often a reward for high spenders, also referred to as "whales," this practice takes a slightly different form in social casino apps. Whereas in the physical casino, comps are tied to high spending (Ritzer and Stillman, 2001), in the social casino, every player is hailed as a winner. Above all, it is the frequency of play that is rewarded. One mechanic borrowed from freemium games is the "daily streak" in which more rewards are unlocked when a user plays consecutive days, with the biggest rewards (such as a major dispensation of virtual coins) reserved for the seventh day. Another key retention strategy is the use of a mobile phone's push notifications. When enabled, app notifications will let players know about new events, new features, or other enticing offers to return to the app. *Slotomania* uses graphically elaborate push notifications, with full illustrations and bubbly text to dispense free virtual currency throughout the day. For example, the player might be informed of a "Lazy Monday Bonus" that comes with a cartoonish picture of the *Slotomania*'s in-game host Lucy, holding a cup of coffee and offering 4000 free coins. The message is clear: *Slotomania* is the cure for the Monday blues. The *DoubleDown Casino* approach is slightly more subdued, using only emojis and text that promote play with notifications such as "Surprise! Enjoy 200,000 free chips for some hot casino action!" To accept a notification's offer, a player must then tap the notification and enter the app to receive these bonuses.

Another way in which casino comping strategies are remediated is through each of the app's loyalty programs that offer the promise of "VIP" experiences. *Slotomania*'s version is the "Slotoclub," which a player can only enter after achieving a certain number of points. *DoubleDown Casino* has the "Diamond Club," which you can enter from earning Loyalty Points. *Zynga Poker* has a VIP program with a similar points-based system. Points are earned either from frequent play or making in-app purchases, with different tiers (often based on rare metals or gems) offering benefits such as bigger wins, exclusive in-game content, faster progression, and better deals for in-app purchases.

Finally, most social casino apps compensate for the lack of monetary payouts by having other reward mechanisms. All three apps feature elaborate progression mechanics that allow players to level up and receive rewards accordingly. These include unlocking new content, being able to bet higher sums of play currency in slot machines, or in the case of *Zynga Poker*, to buy into higher stakes poker games. *Zynga Poker* has one of the most robust progression schemes. While playing poker, players are given a series of objectives that they can complete for reward tickets. These tickets can then be applied to different "vaults" with the "gold vault" holding more rewards, but also requiring more tickets to unlock. *Zynga Poker* features a competitive ranking system where one's place in different leagues is based on weekly winnings. Player retention is directly tied to level progression as one must continue to play (and win virtual currency) on a daily basis to maintain one's rank or move up in a league rank. A second way in which *Zynga Poker* is different is that it provides players a "strength analyzer" for each hand that is dealt, to aid players in judging the odds. This dynamic status bar aids player strategy, which makes *Zynga Poker* a somewhat more strategic, skill-based experience than the chance-based slots play found in *Slotomania* and *DoubleDown Casino*.

Exiting the social casino is easy. If one wants to leave forever, an app is deleted in a single tap. All three apps explain in their Terms of Service that they reserve the right to delete a user's account at any time, for any reason. One reason could be 180 days of inactivity, as in *Slotomania*'s Terms of Service, though there are very few specifics related to cancellations outside of general provisions that punish users who cheat or who modify the app without permission. In the Privacy Policy for each of the three apps, it is stated that users can request full deletion of their accounts by sending a request to customer service. Yet, if one decides to keep the app installed, a player may well be confronted by push notifications, emails, Facebook notifications, and other marketing messages (Alter, 2017). As we have seen, special deals and rewards are par for the course in physical casinos. In the unregulated mobile media environment, however, developers face far fewer barriers in enticing players to come back and spend (more).

Conclusion

If social casino games require so little effort and virtually no skill, why have they become so popular? A critical reading of noncore gameplay is offered by Mejia and Bulut, who argue that the game genre needs to be seen in "a global, political economic, and cultural context where governments across the world have withdrawn from redistributing hope

and instead towards maximizing exploitation” (2019, 166). They argue that even as electronic leisure increasingly becomes a form of work, the optimistic realities presented in casual mobile games—their “juiciness”—offers the affective experience of hope by building in specific daily habits and rituals for play. This perspective echoes Young (2010, 261), who posits that the increased ubiquity of gambling has occurred at the same time as the focus of the state has shifted from the “maximization of goods to the minimization of bads.” As a result, controlled risk has become a popular and desirable form of digital play.

Although each app offers a different emphasis—noncore games (*Slotomania*), social networking (*Zynga Poker*), and casino expertise (*DoubleDown Casino*)—all three are fundamentally gambling games. On the production side, game developers like Zynga compete with major electronic gambling machine manufacturers like Aristocrat Leisure and IGT, and real-money casino interests like Caesars Entertainment Corporation for studio ownership, market share, and portfolio depth. On the consumer side, social casino apps combine the expertise of the mobile game and gambling industries to attract players. These apps use the same technical features and strategies of multiline video slots, but then add freemium retention mechanics such as “daily deals,” new objectives, and the ability to instantly share winnings with Facebook friends. “Time-on-device” as a performance metric in the electronic gambling world is replaced by “lifetime value.” In terms of revenue, the average value of social casino players is much lower than real-money gamblers, but developers can compensate for this by the sizable volume of casual players.

Although playing with and for virtual play money, social casino games seek to instantiate a similar thrill as that of betting on real-money slot machines or table games. *Slotomania* and *DoubleDown*’s slot machines operate and function exactly like multiline video slots, with dozens and sometimes hundreds of winning lines. Like multiline video slots, these games have complicated payout schemes, and it can be difficult to track how much currency one has won versus what one has lost. A further complication to this is the presence of the aforementioned design strategy of “dynamic game balancing,” which adjusts odds and the amount of winnings based on player performance (Rose, 2014). *DoubleDown Casino* does not hide this feature as its Terms of Service state, “The game credits awarded may also be variable over time, and we reserve the right to change them from time to time in our sole discretion. DoubleDown may change the award percentages without notification to you.” Players are encouraged to make bigger bets as these not only increase the total “winnings” for each game but also ensure that a player can level up their account faster. This is part of the push/pull dynamic translated into these gambling experiences as they create the opportunity for players to lose all of their virtual credits, only to pull them back in. Don’t be surprised when playing *Slotomania* to lose all of your virtual coins, only to be quickly gifted 50,000 new virtual coins in order to keep playing. Here, we see the social casino’s version of risk management. Like real-money gambling, play is a negotiation between making bigger or smaller bets, with the added awareness that eventually one will be rewarded by receiving free play money. Do you risk it all on your morning commute knowing that you’ll be offered a new pack of play money by lunchtime? Or do you hedge your bets and try to maintain your winnings? The app never forces you to choose, offering instead gentle reminders to bet bigger so that you can win more and level up faster (Alter, 2017;

King et al., 2019). Ultimately, where the real-money gambler and social app player converge is in the fact that what they are buying is more playtime—either through direct purchase, or as is often the case in social casino apps, by promoting the app via personal social networks. The age-old casino adage “the house always wins” is inverted in platform-based instances of gamble-play. If, as Juul notes, “the sun always shines in casual games” (2010, 31), it also holds true that the player always wins in social casino games.

The platformization of gamble-play points toward the wider trend of chance-based mechanics that increasingly find their way into products and services outside of casinos and games. If the game and monetization mechanics of freemium games are inspired by the language and strategies constituting the business models of physical casinos, then the designers and operators of platforms and apps follow suit, increasingly looking toward games for inspiration (Alter, 2017). The gamification of monetization strategies for popular platforms such as Twitch serves as just one of many examples of this trend (Johnson and Woodcock, 2019). This casualization of risk is complemented by the normalization of uncertainty. Social casino apps are embedded in platform infrastructures, which allow for a high level of contingency that is prohibited in the case of electronic gambling machines found in casinos and bars. While gambling is an inherently contingent activity in and of itself, social casino developers can alter a game in real-time by balancing play dynamics in a player’s favor. Combined with aggressive retention campaigns, social casino game developers can do (almost) everything a physical casino operator cannot to make the experience consistently tempting and rewarding to players.

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