Productive play: The shift from responsible consumption to responsible production

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Abstract
Regulatory approaches to games are organized by boundaries between game/not-game, game/gambling game, skilled/unskilled play, consumption/production. Perhaps more importantly, moral justifications for regulating gambling (and condemning digital games) are rooted in the idea that they consume our time and wages but give little in return. This article uses two case studies to show how these boundaries and justifications are now perforated and reconfigured by digital mediation. The case study of Daily Fantasy Sports (DFS) illustrates a contemporary challenge to rigid dichotomies between game/not game, skilled/unskilled play, and game/gambling game, demonstrating how regulation becomes deterritorialized as gambling moves out of state-regulated physical casinos and takes the form of networked, digital games. Our second case study of Pokémon Go approaches regulation from a different direction, complicating the rigid dichotomy between production/consumption in online networked play. We show how play is increasingly realized as productive in economic, social, physical, subjective and analytic registers, while at the same time, it is driven by gambling design imperatives, such as extending time-on-device. Pokémon Go exemplifies analytic productivity, a term we use to refer to the production of data flows that can be leveraged for a wide variety of purposes, including to predict, shape, and channel the behaviour of player populations, thereby generating multiple streams of revenue. Ultimately, both cases illustrate how digital games and gambling increasingly blur into each other, complicating the regulatory landscape.

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Introduction

This article examines the blurred boundaries between games and gambling, theorizing the implications of their interconnection for how both are regulated. Recent publicity surrounding loot boxes in digital games (Macey and Hamari, 2019; Perks, 2019; Zanescu et al., 2020) has fueled international calls to enfold and regulate digital games under the rubric of gambling legislation (see Blickensderfer and Brown, 2019; Gerken, 2018; Lobov and Moss, 2019). Related to gachapon game mechanics, which allow players to use in-game currency (purchased using actual currency) to “pull” the gacha in the hopes of winning a randomized character, card, or other item (Spiker, 2017), loot boxes are purchased in-game and reward digital game players with a randomized virtual item. Both loot boxes and gachapon are commonly compared to gambling via slot machines and roulette. Unlike gambling, the digital game industry has been largely self-regulating. For example, the Entertainment Software Rating Board (ESRB) voluntarily regulates content and ostensibly reduces harm by assigning age ratings and content descriptors to games, indicating which games include in-game purchases such as loot boxes (Hall, 2018).

Drawing from our backgrounds in both governance and game studies (Lynch et al., 2020; Reynolds et al., 2020; Whitson, 2010; Zanescu et al, forthcoming), in this article, we shift away from the contemporary loot box controversy to examine how the blurring boundaries between digital games and gambling create wider regulatory challenges for networked modes of play. To understand these blurred boundaries, we first introduce the historically muddied divides between game/not game, game/gambling game, and skilled/unskilled play using classic (analog) game theory. We then move to a digital register, using case studies of daily fantasy sports (DFS) betting and Pokémon Go to illustrate what Albarrán-Torres (2018) defines as “gamble-play,” wherein gambling situations are staged through digital means, and chance events are produced through algorithms. The first case study, DFS, demonstrates how gambling practices are increasingly staged as digital games, while the second shows how digital games incorporate digital dynamics of seduction and control developed from gambling media.

While the case of DFS illustrates how continually shifting definitions of games versus gambling selectively impact regulation efforts in New York State, the case of Pokémon Go illustrates an even muddier divide that complicates regulation: that between production and consumption. The moral impetus and rationale for regulating gambling is commonly rooted in discourses of consumption and potential losses of wages and productivity (Reith, 2018). While gambling scholars and regulators foreground discussions of consumption, the contribution of this article is to illustrate how online networked digital media are rooted in overlapping notions of productivity (e.g., social, economic, biophysical, and analytic) that ultimately destabilize regulatory pushes that only consider the consumption side of the equation.
Regulatory fantasies: Imagining the magic circle

In this section, we illustrate how “games” are defined and how their relationship to non-game activities sets the parameters for how they are later regulated. In short, the points where in-game activities begin to bleed into and impact one’s other realms of life become entry sites for regulatory intervention. Conversely, the concept of the magic circle, and asserting that “it is just a game,” acts to shield industry from both ethical and regulatory responsibility.

Before continuing, it is important to note that while our focus is on digital games, these definitions are rooted in early scholarship on pre-digital games and later applied (for better or worse) to forms of play enabled by computers and networked communication. In Juul’s (2005) overview of this work, the introduction of rules is what differentiates games from more free-form play. In analog games, these rules are applied by players who collectively interpret, negotiate, and uphold the agreed-upon rules. In the shift to digital games, these rules become embedded in code, which not only stipulates how the game is played, but also generates the fictional world of the gamespace. The potential depth of fictional worlds (i.e., narrative and aesthetics) is one differentiating element between digital and non-digital games. Embedding game rules within code is another as it allows for the tracking of input/output and player states and thus generates data, which becomes relevant for our discussion later in this article. As rules become automated, they require less social negotiation to uphold, are able to become more complex, and rules can even be hidden from players entirely. For Juul, digital games are “half-real” in that the rules are real, and winning/losing is a real event, but games carry a degree of separation from the rest of the world: winning or losing may or may not have “real-life” consequences (Juul, 2005: 36). This real/not-real dichotomy characterizes definitions of games and play.

Historically, play has been defined as “not serious,” standing outside of ordinary life, and with no connection to material interest and profit (Huizinga, 1949). Particularly formative of the division between play and everyday life is Huizinga’s concept of a magic circle, which denotes a permeable boundary between the “real world” and the artificial world of the game, allowing players to create new meanings and operate in a “safe” space (Salen and Zimmerman, 2003). Contemporary game scholars (both analog and digital) argue that this historical focus on the magic circle prioritizes the rules and designed elements of games, emphasizing an artificiality and separation from reality that fails to withstand both theoretical and empirical investigation. According to Calleja, the metaphor of the magic circle stands in for a particular ontology that places a distinct division between reality/seriousness/utility and play/non-seriousness/gratuitousness (Calleja, 2012). Malaby (2007) further argues that the lack of connection to broader social theory and attendant fetishization of rules draws attention away from the social problem of boundary maintenance that must be undertaken for each and every game, handicapping broader efforts to understand games. Consalvo’s (2009) studies of norms around cheating in games further shows how social contexts typically saturate game play.

However, as Albarrán-Torres and Goggin note, while both digital and analog game studies theorists have questioned the notion of the magic circle, academic and policy discussion around gambling “tends to be framed around the gamespace versus ordinary
life dichotomy” (2014: 100). We would add that game and gambling developers themselves reify this dichotomy. For example, Zimmerman (2012), writing from a game designer perspective, answers the game studies critique of the magic circle by arguing that the concept does not derive its value from its “scientific accuracy or proximity to truth,” but rather from its utility for problem solving. For designers, it becomes a shorthand for more complex and layered definitions of what play is, and for imagining the gamers inhabiting these spaces. Their assumption that play operates in a space (physical or mental) that is bounded from reality cordons off what designers have to consider when creating their games, but also changes behavior and ethics inside of games, as well as how these spaces are regulated. Following Goffman, play and the magic circle becomes a frame that organizes activity and structures experiences (see Calleja, 2015; Consalvo, 2009; Fine, 1983). The magic circle allows developers to continue framing their work as designing fantasy sites for escape and relaxation, separating out the “real-world” implications of their design choices, and insulating themselves from the larger ethical questions related to the production of violent, racist, and/or misogynist content (see Gray, 2014), exploitative design practices, misleading advertising, compulsive play patterns and links to addiction, as well as inducements to spend-in-game.

**Gambling versus non-gambling games and skill versus unskilled play**

This discussion of the magic circle allows us to segue into a discussion of the increasingly fuzzy boundary between gambling and non-gambling games. The distinction between games and gambling, and why one is heavily regulated while the other is not, lies in the perceived porosity of the magic circle and the “real-life” consequences associated with gambling: losing at a gambling game risks one’s actual financial standing. Intuitively, gambling is associated with the redistribution of wealth, whereas gaming and other forms of non-gambling play are not bound up with the exchange of money. Yet this binary distinction, which itself rests on other problematic distinctions—for example, between games of pure chance and games that require some skill—is fragile and does not hold up under close scrutiny. It seems fated to collapse, much as the magic circle.

Even in Huizinga’s work, where gambling games are dismissed as “unproductive” for “the development of culture” (Huizinga 1949: 48), we find an acknowledgment of the “hazy border-line between play and seriousness,” which, he argued, was exemplified in “the use of the words ‘playing’ or ‘gambling’ for the machinations on the Stock Exchange”: “The gambler at the roulette table will readily concede that he is playing; the stock-jobber will not. […] Nevertheless] the difference of mentality is exceedingly small” (Huizinga 1949: 52). What Huizinga had his finger on, here, is the role of “fortuitousness,” or chance, in blurring the line between play and seriousness, and, we might extrapolate, between gambling and non-gambling games.

Indeed, the role of chance in wagering of financial stakes has been classically recognized as an essential feature of (analog) gambling games. For Bloch, for instance:

> The essential basis for all gambling seems to inhere in the chance factor of success for its participants, irrespective of the type of device or game which is employed. The aleatory (or
chance) element, however, always varies. Gambling may call for skill, as in certain card games and athletic competitions, or it may simply depend upon the chance throw of a pair of dice or the draw of a card, as in stud poker. In any event, the element of chance is always present (Bloch, 1951: 216).

This emphasis on risk and the chance-determined redistribution of wealth as a fundamental characteristic of gambling has, thus, been used as a means to distinguish between gambling and non-gambling games (Young, 2010). In some scholarship, notably Huizinga’s work, this distinction has been furthermore used to suggest that gambling games ought to be outside the scope of social analyses of play and games. At an ontological level, they represent a different kind of play, one that is somehow less interesting to scholars of games.

Not all scholars, of course, accept these boundary-setting maneuvers. Indeed, Caillois classically advances a definition of play by drawing an explicit contrast between his work and Huizinga’s. For Caillois, it is important to add “new domains” to the concept of play, including “that of wagers and games of chance” (1961: 9). Similarly, Malaby (2007) argues that gambling should be viewed as a subset of games. And, from a different perspective, Nicoll argues that gambling “has become an integral part of everyday life” (Nicoll, 2019: 3). For these scholars, the question of what is in or out of the magic circle may be an ontological one, but it is also socially and culturally patterned in ways that cause the boundary to vary from time to time, and place to place, such as we see with contemporary loot box associations with gambling. The following case study of DFS in the United States demonstrates how the contested and shifting boundaries between games and gambling directly impact regulatory efforts.

**Muddied boundaries: A case study of daily fantasy sports**

Daily fantasy sports (DFS) represent an interesting case for thinking about the blurred lines between game/reality, gambling/non-gambling, and skilled/unskilled play. In DFS games (which can be analog or digital), players typically assemble and manage imaginary teams of real athletes. Players compete based on the actual statistical performance of these athletes (e.g., if your wide receiver scores a touchdown, you get four points; if your outside linebacker sacks the quarterback, you get one point). While betting on sports outcomes or the performance of individual professional athletes is considered illegal bookmaking in the United States, the loophole exploited by DFS is the skill and strategy involved in selecting and assembling players into fantasy teams combined with an arms-length separation from “real” teams and game outcomes.

Daily fantasy sports have quickly emerged as a multibillion industry in the United States, operating in a quasi-legal zone created by the Unlawful Internet Gambling Enforcement Act’s (UIGEA) exemption for fantasy sports (Edelman, 2017; Heitner, 2015; Kilgore, 2015). Passed by the United States Congress, the UIGEA exemption is premised upon the understanding that fantasy teams do not reflect actual teams, winning reflects the player’s accumulated statistical knowledge of individual performance, and winning is not dependent upon the performance of any single athlete nor real-world team. This element
of fiction separates DFS from sports betting, which is defined in the UIGEA as a person staking or risking something of value on the outcome of a sporting event, or a game subject to chance. Expressly marketing themselves to both fantasy league players and online gamblers, DFS operate on accelerated daily or weekly cycles, forgoing the management of season league play, such as drafts (selecting players for one’s fantasy team) and trading. Players enter into paid online competitions where winners receive a share of the predetermined pot. The lawfulness of DFS rests largely on courts’ differentiation between skilled and unskilled play, which differs from state to state (Edelman, 2017), as demonstrated by the following case of DFS in New York State.

In November 2015, New York’s Attorney General Eric Schneiderman filed lawsuits against fantasy sports companies, DraftKings, Inc. and FanDuel, arguing that DFS are a form of bookmaking based on chance, supporting his argument with investor presentations and targeted marketing framed in language of gambling and betting, poker, and online casinos (New York State Attorney General, 2015). The defendants’ cases centered on arguments of skilled play, supported by payout statistics showing 91% of fantasy league profit was won by a small number of professionalized players, “sharks” who relied on sophisticated data prediction tools (Rott, 2015). Before the case could be concluded, however, the State Legislature passed a bill legalizing and regulating DFS, signed into law August 2016. In October 2016, both cases were settled for US$12 million USD, citing damages due to false and deceptive advertising. The settlement found that both companies misled players about their actual chances of winning, the potential amount they could earn, and “marketed its contests as harmless fun, while failing to disclose the danger to populations at risk for compulsive gaming and addiction or provide responsible safeguards” (New York State Attorney General, 2016).

Social scientific work, particularly work initiated by gambling studies researchers, emphasizes the “structural characteristics” of DFS and other “gambling-themed” games, including the “requirement for monetary payment” as a condition of accessing gameplay, and the “role of chance and skill” in the determination of the game outcome (Gainsbury et al., 2014: 199). This work categorizes emergent forms of Internet-mediated play in relation to gambling in order to clarify for regulators “consumption risks” stemming from the convergence of gambling with other media (Lopez-Gonzalez and Griffiths, 2018: 809). Complicating consideration of consumption risks, studies of DFS consumers emphasize how “consumption measures” (e.g., frequency and time spent gaming) are “poor” indicators of the risks or harms experienced by consumers (Macey and Hamari, 2018: 349) and point to consumer agency as a key locus of inquiry (McLeod et al., 2019). This nascent work on DFS illustrates the need for more empirical study of an apparently highly mutable form of play.

The DFS example demonstrates how binary distinctions between gambling and non-gambling games, and between skilled and unskilled play, often fail. Definitions are contextual rather than intrinsically related to rules and structure of games and depend on the frame with which one engages the phenomena. The distinction between gambling and non-gambling games is often defined as a result of negotiation and litigation between industry and regulatory bodies, sometimes without much reference to the experience of players. Furthermore, what constitutes gambling and its resultant lawfulness is driven by the power and legitimacy of those who stand to profit, the relative lack of power of those
who stand to lose, and the state’s ability to regulate and thus extract profit from these new forms of playful interaction. In this case, the power resided in venture capitalists and major sports leagues partnered with the defendants who successfully lobbied state legislature. Tellingly, FanDuel raised over US$350 million in investment from media giants such as Comcast, NBC Sports, and Time Warner, in addition to an exclusive partnership with the NBA, while DraftKings raised over US$375 million from Major League Baseball, Major League Soccer, and the National Hockey League, including US$300 million from Fox Sports (Heitner, 2015). Notably, this new legislation gives preferential treatment to DraftKings, Inc. and FanDuel and hobbles any competition, requiring all fantasy leagues, whether DFS or not, digital or not, to apply for licenses and submit to regulation, including taxation and financial audits (Edelman, 2016).

Fantasy sports operators must now obtain licenses and pay a tax equivalent to 15% of their gross revenues generated within New York, plus a tax equal to 0.5% of global revenues up to US$50,000, thus generating US$4 million in direct revenue (Edelman, 2016; Office of the Governor of New York, 2016). Increased regulation and taxation, in turn, drives countermoves, such as the growth of what is called skin gambling, a direct progenitor of DFS betting. Skin Gambling is when virtual currency or goods (e.g., the “skin” of an avatar) are used to bet on the outcome of professional matches or on other games, from traditional sports betting to e-sports to online casino games (Macey and Hamari, 2019). The economic flows become difficult to trace (and thus regulate) because in-game goods and currency purchased and/or earned by playing “legitimate” games such as Counter Strike are simultaneously worthless and fungible depending on the player’s ability to move this virtual currency between game and betting sites and ultimately convert it into “real,” exportable money using Real Money Trading (RMT) sites. As argued by Owens (2008), the regulatory landscape becomes even more complex when taking into account that web servers hosting the games and individual players may be located in multiple states and countries, each with conflicting governing legislation. The pragmatic inability to track and govern these interjurisdictional flows in skin gambling leads to panicked media claims that these practices lure unsuspecting children from games into unregulated gambling spaces and generate billions of US dollars in revenue for companies operating in this or that “dark corner of the internet” (Assael, 2017).

To return to the magic circle, the urge to hold games and play apart from their social and political entanglements, to see them only within playful frames, exhibits a certain naivete with respect to the way that games and play are articulated within, and appropriated by, powerful actors today, particularly in online spaces. In spite of (or perhaps because of) this naivete, the claim that a game should remain a game works to shape regulatory approaches as well as the recruitment of players.

While economic productivity in the form of tax US dollars impacts how DFS in New York State is regulated, the case of Pokémon Go exemplifies how digital play is framed as productive, not just on an economic register but in terms of producing data/knowledge, spaces of socialization, and healthy bodies. The valorization of these intersecting forms of what we call “productive play” often elides discussions of how digital games incorporate gambling design imperatives and mechanics.
Catching productive play: Regulating augmented reality

Play, in general, is commonly framed as a consumer activity and largely unproductive, while gambling, in particular, has been framed as an individual and societal harm because it consumes wages and work hours while giving little in return. In terms of gambling, which has become the de facto model for regulating different forms of play, regulatory rationales are rooted in these consumption/production dichotomies. It is our contention that when the discursive register shifts toward consumption and emphasizes “lost” productivity, regulatory claims find footholds. When the discursive balance shifts, emphasizing productivity gains rather than loses, these footholds disappear. This leads to some forms of play being regulated while others are not, despite similarities in their design and mechanics. Pokémon Go is illustrative of this, sharing traits of gambling games, while receiving accolades for the social and health benefits of play. Before moving to the case study, we first unpack the consumption/production dichotomy and then outline the forms of productivity that are specific to online networked games.

Regulating consumption’s productivity

As Reith (2018) argues, consumption and addiction name powerful, and profoundly connected, narratives of modernity. Their interrelation has historically framed (and continues to frame) wide-ranging regulatory concerns. With respect to gambling, for example, ideas about what counts as so-called normal consumption are articulated in relation to what is considered to be deviant, “disordered,” or “irrational” behavior, especially insofar as these behaviors are understood as wastes of “time and money” (Reith 2018: 126). Thus, low-income gamblers have been framed as requiring intervention because losing risks their social and economic contributions as “productive” members of society, while similar behaviors exhibited by the wealthy escape problematization and are, at times, celebrated, such as in “playing the stock market” (Bloch 1951). Gambling becomes an object of moral panics because its excessive consumption threatens economic productivity. Accordingly, especially for those interested in regulation, it is vital to think critically about the construction of disordered consumption.

Equally vital, though much less studied to date, is the production side of the equation. A small body of scholarship has emphasized how analog play is (and has always been) productive. For example, structured play normalizes and institutionalizes social and cultural norms. As Flanagan (2009) notes, analog play produces subjects: training children for future societal roles, such as little girls playing house and little boys playing war games, while children push back through critical play. The rise of digital networked play, and more specifically, gamification has encouraged further consideration of the ways in which play can have lasting effects outside of the magic circles of gamespaces.

Gamification involves the use of game mechanics, narratives, and feedback mechanisms, such as auditory cues, rewards, and leveling systems, to drive productivity in other domains, such as energy efficiency (e.g., Nest Thermostats and car dashboards that reward “green” behavior with “leafs”), workplace productivity (e.g., call centers that set playful interfaces to track and make visible employee performance and software that tracks and
rewards users for staying on task), education (e.g., replacing grading with “quests” to earn experience points), health care (e.g., fitness tracking apps such as Fitbit), and beyond (see Walz and Deterding, 2014). The application of game mechanics and features to work and work-like tasks promote activities that are game-like, yet at the same time also serious and productive (Whitson, 2013).

In parallel to gamification, gameplay benefits can be exported out-of-game to other sites. For example, researchers argue that skills and aptitudes, such as time management, can be applied to the workforce and be used for job recruiting, training, and retention (Reeves and Read, 2009; Yee, 2006). More recently, the rise of e-sports and professional gaming has led to athletic scholarships, sponsorship deals, and professional careers for skilled gamers (Taylor, 2012, 2016). Yet another layer of economically productive play is generated by players broadcasting gameplay walk-throughs and commentaries on YouTube and live-streaming on services such as Twitch. In these cases, top personalities attract tens of millions of subscribers to their channels, earning millions of US dollars in advertising and sponsorship revenue each year. Thus, discourses of productivity and generating a “real job” through play abound (Taylor, 2018), regardless of their actual viability.

Quite obvious links can be made to prosumption (Ritzer and Jurgenson, 2010) wherein digital game players both produce and consume content, a relationship captured by scholarship on user-generated content and “free labor” (Terranova, 2000). Players create and “mod” existing digital game content such as in-game assets and levels, as well as generate paratextual elements such as walk-throughs, wikis, and fan sites that attract and bind communities of players, benefitting game developers. This “playbour” (Kücklich, 2005) can benefit players who are directly compensated and/or generate social and cultural capital (“gamer capital”) from their efforts (Consalvo, 2007).

In a Foucauldian sense, digital games can be read as a form of biopower, demonstrating the numerous and myriad techniques through which games shape individual bodies and control aggregated populations in ways oriented toward productivity. Productive play can take social and cultural forms, from reinscribing gender roles through doll houses, to promoting ecological citizenship via gamified energy-tracking dashboards. Productive play can take biophysical forms, for example, encouraging weight loss and physical activity through fitness trackers. It also takes economic forms, such as providing employment for skilled e-sports players, and generating tax revenues via DFS. It can also work to shape subjectivities, promoting forms of self-observation and the care of the self. And, as we highlight in the next section, productive play takes analytic forms, producing data that are used to predict, shape, and channel the behavior of player populations, both in-game and in physical spaces. This form of analytic productivity serves to further blur the boundaries between games and gambling, production and consumption.

Platform economics, networked play, and analytic forms of productive play

Returning to Juul’s (2005) definitions of digital games, above, Pokémon Go and other social mobile games break with classical game theories in terms of how they generate and leverage player data, and how mobile networks encourage players to carry the gamespace
in their pockets (Albarrán-Torres and Goggin, 2014; Nicoll, 2019). They further blur the magic circle and enable operations that are opaque to players and regulators.

Data economies are closely tied to free-to-play games such as Pokémon Go, cultivating specific forms of play and the larger cultures surrounding them. These economic conditions create historical path dependencies, leading to shared aesthetic influences and mechanics (Deterding, 2016). The most recent evolution in platform economics has been the shift from games as a retail product to games-as-a-service (Kerr, 2017). In short, always-on-connectivity, low-cost technology, digital distribution, and—most importantly—the growth of data analytics open new revenue models, allowing games to be offered for “free,” rather than as direct consumer purchases. Instead of a limited profit stream, such as with classic arcades, slot machines, and retail games, developers now are able to generate revenue in multiple ways. In-game purchases (sometimes called microtransactions) provide one source of revenue. These transactions, which may range in price from less than a US dollar to over one hundred US dollars, are often offered to players at difficult passage points in games—they may enable players to access new levels or make their playtime more efficient by bypassing tedious, repetitive play. However, most players spend no money at all. Because players do not pay for games overtly, because these games have the appearance of being “free,” critiques of games rooted in the consumption of players’ money miss important facets of the actual transactions taking place. While players may feel as though they are playing for free, their play generates both direct and indirect revenue streams for developers, which we refer to as analytic productivity. For instance, developers also run in-game advertisements, paid promotions and other incentives as an additional revenue stream, and use collected data to profile and channel player behavior toward consumption. Here, players’ connections to their social media profiles and larger social networks allow for targeted advertising and other interventions, such as predictions on how to alter the game to “convert” free players into paying players, leading to new revenue opportunities.

Analyzing players’ play, their network connections (i.e., contacts lists), and their online communications enables game companies to transform players and their social networks into commodities. This is a monetization strategy that involves selling (information about) players, their non-game activities on associated social networks, and those they are connected to on these social networks, to third parties. As Nieborg argues, the revenue-generation capacity of companies such as King (who created Candy Crush Saga) is “related to the company’s ability not only to commoditize digital play, but to repurpose ludic interactions by integrating them with the connective affordances and the business models of social media and mobile platforms” (Nieborg, 2015: 8). This connects to larger trends in platform economics and surveillance capitalism (Whitson, 2012; Zuboff, 2016).

Analytic productivity (revenue streams generated from player data) is directly linked to increasing a player’s time-on-device, and thus generating more data. This leads to new design pressures, exemplified by heated debate between designers in industry publications and at developer conferences, where designers discuss strategies to maximize player monetization using “dark patterns” like “play by appointment” forcing players to access the game a certain times or lose in-game resources (Zagal et al., 2013), and the boundaries of ethical monetization (Holmes et al., 2017). With free-to-play games, designers have an incentive to design for more compulsive play, applying perceived
manipulative psychological principles, and generating direct revenue from what are pejoratively known as “whale” players, who spend hundreds and thousands of US dollars in-game. They also have an incentive to design for indirect revenue from masses of other players and their social networks. Designers’ desire to offer games for free or low cost (or players’ demands for this), pressures them to focus on free-to-play, in-game purchases, player data gathering, and economies of scale (Whitson, 2019). As a result, mass market games are increasingly influenced by retention mechanics classically associated with gambling games such as slot machines.

As Natasha Dow Schüll evidences, increasing time-on-device is a much broader economic model driving the design of gambling, enabling the scalability and proliferation of specific forms of play (2014). From this perspective, gambling mechanics, particularly slot machine games predicated upon random chance, operate according to crude principles of behavioral psychology (commonly referred to as “Skinner boxes”). Rewards of varying value are doled out on a schedule designed to hook people into a zone that encourages them to keep trying. The advent of free-to-play games and the larger “casual revolution” reintroduced games of chance back into digital games in the sense that acquired hand-eye coordination skills and attention to nuanced narratives typically required to progress in console and PC games are no longer prerequisites. Instead, shorter, more accessible games premised on compelling feedback and shorter reward loops allow games to reach much wider audiences (see Juul, 2010).

As Albarrán-Torres notes, the influence between games and gambling goes both ways. We now carry casinos in our pockets in the form of social casino apps that simulate gambling and wagering activities but with little “real” money at stake (Albarrán-Torres, 2015; Albarrán-Torres and Goggin, 2014). These games are shifting and expanding to adapt to both consumer taste and regulation. Gambling games such as poker in online casinos and slot machine applications on mobile phones and sites such as Facebook are enmeshed with informational networks, patterning themselves after casual games in order to escape the limited technical and cultural confines of physical casinos. “Gamble-play is no longer separate from other spheres of everyday life. Recent cultural and technological developments, such as the networked infrastructures and ubiquitous devices through which digital gambling is carried out, allow wagering to infiltrate the everyday” (Albarrán-Torres, 2018: 5). The consumer exchange and calculation of risk are both blurred as gamblers are now paying with a mix of money, time, labor, personal information, and access to social networks. Furthermore, the expenditure of money, labor, time, and personal information is camouflaged via aesthetics and dynamics adapted from casual games, including social veneers affixed to online gambling such as sharing, giving gifts, and daily bonuses and challenges that encourage players to continually check-in to the gambling game. We see a form of camouflage operating with *Pokémon Go*.

**Productive Play in *Pokémon Go***

*Pokémon Go* is an augmented reality (AR) mobile game developed in collaboration between Niantic and Nintendo. AR games typically consist of overlaying digital markers, visualized via mobile devices, onto physical spaces. *Pokémon Go* taps into the mobile
device’s GPS location technology and camera to render a virtual version of the player’s physical surroundings on the mobile screen, merging the digital game world with the streetscape. “Gotta catch ‘em all” is the slogan for the Pokémon franchise. Gameplay centers around collecting each of the Pokémon species. Players are tasked with walking through their physical surroundings to collect virtual resources, locate, trap, and train creatures, as well as hatch new Pokémon eggs which are incubated as players walk.

Released in July 2016, the free-to-play game set five world records in its first month, including most downloaded mobile game in its first month (130 million) and most revenue grossed by a mobile game in its first month (US$206.5 million USD) (Swatman, 2016). By investing their time in the game, players generate in-game social and cultural capital: gamer status earned by exhibiting rare creatures, defending “gyms” (physical hot spots where players’ Pokémon battle for dominance), and contributing to prolific and meticulously detailed fan forums documenting game strategies, including the locations and spawning times for rare creatures. Media reports note the failures of the gameplay, including lack of functionality and shallow interactions (Brewster, 2016), but prioritize the out-of-game physical and social benefits, including the billions of kilometers walked (Sarkar, 2017), the serendipitous socialization generated between strangers, and players’ deeper engagement with outdoor urban spaces.

Scholarly work on Pokémon Go aligns with media discourse, generally concentrating on player motivations (see Zsila and Orosz, 2019; Alha et al., 2019), and the links between motivations, gameplay, and behavioral change (Kari et al., 2017), particularly in terms of health outcomes (Yang and Liu, 2017). Findings include positive correlations between play and physical activity (Althoff et al., 2016), increased social engagement in terms of forming new ties and strengthening existing ones (Vella et al., 2019), and accounts of how the mobilized intermingling of play and ordinary life leads to healthier bodies and social interactions (Evans and Saker, 2019). Hjorth and Richardson’s (2017) collection of short commentaries balances the pro-social and generative affordances of AR gameplay with a number of critical interventions, including how players use mobile interfaces to avoid social interaction (Humphreys, 2017); the corporate appropriation of public space (Sicart, de Souza e Silva, 2017), and locative inequalities in physical space (Salen Tekinbaş, 2017). Other critical work shows how marginalized populations do not experience the same freedom of mobility and positive interactions as non-marginalized players (Layland et al., 2018). For the most part, however, journalistic and scholarly writing on Pokémon Go is overwhelmingly positive, celebrating how the game produces healthy bodies and social ties. Less attention is paid to the data economies that undergird the game (Jin, 2017).

As argued in the preceding section, free-to-play games translate players’ labor, time, personal information, and sociality into new revenue streams, pleasures, and potentialities by increasing players’ time-on-device. Augmented-reality games such as Pokémon Go add a new dimension to this phenomenon. Pokémon Go is not radically dissimilar from an application like Google Maps, which overlays a user’s physical surroundings with a street map populated by businesses in the vicinity. Given that Niantic is a direct spin-off from Google’s parent company, Alphabet, it is not surprising their economic models are intertwined. In order to play, the app must be always open, signaling the player’s location
and continually generating and broadcasting other reams of profitable data. *Pokémon Go* locations are set by Niantic and players become nodes for gathering and plotting data used in the larger Google ecosystems.

Niantic conducts player surveillance in order to “maintain, optimize, and improve our products, services, operations, and the security of our services,” conduct “market research and perform statistical, demographic, and marketing analyses of users,” and personalize “content and experiences” as well as “notifications, communications, newsletters, advertisements, offers, and promotions” (The Pokémon Company International, Inc., 2018). The game, much like its predecessor *Ingress*, acts as a form of personalized advertising that can offer users information and deals based on their location and consumer proclivities. Retailers, such as Starbucks and McDonalds, pay Niantic to have portals located in, or near, their premises. Niantic and its corporate sponsors thus gamify appeals to consume this or that product by, for example, sending users to locations in search of desirable Pokémon characters that also happen to be located at places where they might purchase a product or service. Thus, designers now have the capacity to literally walk players to corporate sponsors, opening further revenue streams (Jin, 2017).

Because this data gathering and use is hidden in code, generally oblique to players, and enumerated only in privacy policies that few ever read, such AR games have been described as among “the most seductive and prolific data-mining tools to be introduced in the last decade” (Hulsey and Reeves, 2014: 389). According to Hulsey and Reeves, AR games put information to play in a very specific way: they invite players to “submit to pervasive datafication,” as an “experiment in the compulsory digital enclosure” where submission to pervasive surveillance is “the condition of sociality” (Hulsey and Reeves, 2014: 398). Thus, players, the data they create, and the social network data they share are the raw materials of the predictive products being produced and sold. While the intertwining data economics for Niantic and its advertising partners may raise concerns about privacy, *Pokémon Go* presents a regulatory challenge because the vast majority of players are not consumers in the traditional sense of the term—they do not pay to play. Conversely, players see time spent playing as productive in social and biophysical terms (Zsila and Orosz, 2019). However, the design mechanics of *Pokémon Go* are similar to gambling machines.

While addiction by design flows from and is perfected in gambling games (Schüll, 2014), it increasingly influences games like *Pokémon Go* that, at first, seem eons away from slot machines. The core game loop of *Pokémon Go* relies on catching and hatching rare and randomly generated Pokémon. Eggs provide users with a random Pokémon every time one hatches, in a manner similar to gachapon, loot boxes, and the slot machine mechanics described by Schüll. Game platforms such as Apple attempt to regulate gambling mechanics by stipulating that “Apps offering ‘loot boxes’ or other mechanisms that provide randomized virtual items for purchase must disclose the odds of receiving each type of item to customers prior to purchase” (Apple, 2019). However, Niantic sidesteps requirements for transparent “payout” ratios by not selling the randomized virtual item, for example, but the limited-use incubators that allow players to hatch more eggs simultaneously and thus increase the odds of hatching rare Pokémon.
Players are incentivized, moreover, to pay with data: increasing their time-on-device by walking to find and hatch creatures, and/or incentivized to pay with money: increasing their chance of “winning” by purchasing items, such as egg incubators, to add new “betting lines” and speed up the rate of play. The (re)introduction of chance and wagering into games of all kinds has been smoothed by informational infrastructures where time-on-device = data = profit, allowing players to disassociate from spending “real” currency. Players who have not directly spent money in-game may feel they have escaped this overt extraction, distilling the pleasures of these unskilled games of chance and risking nothing but their time. They may be less aware of the personal and social network information they are exchanging.

From a regulatory perspective, games such as Pokémon Go present new challenges. Increasing time-on-device (i.e., compulsive play) can be viewed as important for generating social and cultural capital, as well as for building healthy, more efficient bodies, thus providing further incentives to “invest” in productive play. These dynamics do not comfortably fit with common understandings of prosumption and playbor. Unlike modders, content creators, or even wiki and fan communities who knowingly create distinct, individual artifacts, Pokémon Go players—particularly nonpaying players—are likely unaware of how their social interactions and movements in both the gamespace and physical landscape generate profit for Niantic at an aggregated level. Because the lines of economic exchange are blurred and much less visible, so too are clear lines of accountability.

Discussion

The blurred lines between gambling and non-gambling games, the complex circuits of productivity and profit in networked digital games, and the relative invisibility of the rules and algorithms shaping player behaviors in digital games and gambling sites present clear regulatory challenges that are worth unpacking further. Online gambling spaces are arguably drawing from digital game design strategies because the frames surrounding games and play are simply more alluring and socially acceptable than those associated with gambling. As demonstrated with the DFS case study, players, designers, and regulators are encouraged to approach these games with playful frames, rather than frames generally associated with gambling. Operators situating themselves on the fuzzy borders between gambling and non-gambling games are thus poised to attract more players, broadening their demographic appeal beyond traditional gamblers, and potentially opening up routes to escape regulatory oversight.

The differential regulation that distinguishes gambling from non-gambling games is important to emphasize as all kinds of play become “gamlified” and online gambling spaces are increasingly operated by corporate, rather than state, actors. For example, if a game is not classified by regulators as a gambling game, odds of winning can be obscured, unreported, and altered on a player-by-player basis to increase player spending and their time-on-device. These practices are encapsulated by Niantic’s manipulation of rare egg “payout” ratios in Pokémon Go, obscuring players’ reduced chances of success and contradicting regulations set by the Apple platform, for example (Moyer, 2019). This resonates with the “pity algorithms” or “pity timers” used by other games to compel increased spending and time-on-device (Hearthstone: Heroes of Warcraft Wiki, n.d.).

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When reclassified as gambling these rules change. Thus, once DFS became regulated in New York, companies were required to disclose players’ “expected winnings [...][...] as well as maintain a website that provides information about the rate of success of users in its contests, including the percentage of winnings captured by the top 1%, 5%, and 10% of players” (i.e., New York State Attorney General, 2016).

Following from the example of Pokémon Go, it is difficult to track how profit is generated and where it flows particularly in cases where the player is the product. Player data are collected in order to individually target and design for increased time-on-device or spending on the individualized level. Without the equation of players risking and wagering currency directly, governments and platforms alike commonly struggle to export gambling’s regulatory oversight to these new and little understood online spaces.

**Conclusion**

Games have become increasingly persuasive, with tightly channeled affordances that extract profit from players’ pleasures, promising player productivity in return. At the same time, the twin integration of game-like and gambling-like features into our daily lives to structure or augment our realities and engagements with activities that are boring or unpleasant have made it more difficult to draw clear boundaries between game and nongame. Rather than understanding game as a static category, the line separating game from nongame, and game from gambling, is best conceptualized as a moving margin.

In this article, we critiqued rigid dichotomies distinguishing games from gambling, skilled play from play determined by chance, and production from consumption. We presented two case studies—DFS and Pokémon Go—to help unpack why some games are celebrated by wider society and some games are demonized. When online activities are framed as games and framed as productive, in opposition to consuming both time and wages, this removes commonly relied upon grounds for critique and regulation. Under the rubric of productive play, responsibilized players may justify spending more time in games and gambling rather than less.

With a view to the theme of this special issue, we conclude by noting that, in light of these changing consumption and production dynamics, the logic of regulating the harmful effects of (gambling) games by responsibilizing individualized consumption ought to shift to a new logic, one that attends to responsibilized production. This includes decentering individually focused responsibilization initiatives, which are deeply problematic due to their medicolegal framing of addiction as a disease, and instead retooling responsibilizing initiatives to focus on persuasive design in software development, particularly accountability and transparency. Ultimately, responsible production calls for corporate transparency, holding accountable the larger online systems that structure social action, and thereby frame our sites of play, pleasurable consumption, and production.

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**Notes**

1. One genealogy can be traced through Hubdub, a “web-based prediction market in which players used virtual money to trade predictions on future events.” The company closed in 2010, and Nigel Eccles spun out and founded FanDuel, inspired, he claims, by the fantasy sports “loopholes” in the UIGEA and ability to wager currency directly rather than requiring virtual conversions (Kilgore, 2015).

2. For example, in Hearthstone, an online collectable card game created by Blizzard, as players open more packs, the actual probability of opening cards of a higher quality increases in tandem, inspiring applications such as https://pitytracker.com/ to keep track of, and make visible, these otherwise opaque and designer-manipulated odds of “winning.”

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