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Financialization x Gamblification: Key Concepts for the Critique of Cryptocurrency Exchanges

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Abstract: The blurring of gambling and crypto-finance reflects a wider set of complex social transformations. To help parse these transformations, we discuss two key concepts: *financialization* and *gamblification*. On their own, these concepts are useful—if insufficient—for the critical theorization of cryptocurrency exchanges. Taken together, they help highlight the deep interrelationship of cryptocurrency exchanges and gambling in our contemporary moment. Reflecting on the example of BitMEX, a centralized cryptocurrency exchange notable for its gamified interface, we argue that cryptocurrency discourse may operate to obscure the structural mechanisms that transfer wealth from users to platform operators while further embedding speculative risk-taking deep within everyday life. Our article first notes some of the resonances in the ways that cryptocurrency exchanges and gambling markets are organized. We also indicate that cryptocurrency exchange—like gambling—draws some of its appeal from a backdrop of uncertainty and vast inequity in contemporary capitalism. Then, taking advantage of the 'analytic multiplier effects' that come from holding the concepts of financialization and gamblification together, we work to decrypt some of the obfuscating elements of cryptocurrency discourse.

Keywords: Cryptocurrency exchanges, financialization, gamblification, investing, betting

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Introduction

Cryptocurrency is driving a seismic shift in online gambling (e.g. Steinmetz 2023; Andrade and Newell 2023). Similarly, gambling—its risks, affordances, design mechanics, and so on—has influenced the development of online cryptocurrency trading. This convergence is shaped by cultural and economic factors as well as regulatory environments that both industries strategically navigate. For instance, both cryptocurrency exchanges, and online gambling platforms, engage in jurisdictional arbitrage to minimise regulatory oversight in ways that enable the proliferation of speculative and high-risk products.

This blurring of gambling and crypto-finance has significant implications for individuals, as well as for financial systems and society as a whole. For instance, as with gambling (in both legal and illegal markets), cryptocurrency trading platforms expose users to potentially devastating financial losses. At a larger scale, this can even contribute to systemic financial instability insofar as collective speculative practices amplify market volatility. This blurring represents, therefore, an important site at which to investigate how

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transformations of individuated subjectivity "are filtered" by the structural dynamics of capitalism, and how these transformations in turn come to collectively shape capitalist practices (Albarrán-Torres 2018: 223; see also Johnson 2022).

How can we make sense of the complexities created by the blurring of gambling and crypto-finance? To answer this question, we critically analyze discourse about cryptocurrency speculation, and cryptocurrency exchanges. Through this analysis, we argue that cryptocurrency discourse—much like gambling industry discourses—may operate to obscure the structural mechanisms that transfer wealth from users to platform operators while further embedding speculative risk-taking deep within everyday life.

Our analysis works in theoretical and empirical registers. In the theoretical register, this article contributes to "the extension of social-theoretical perspectives into the field of gambling studies," which has chronically "underutilized" social theory (Cosgrave 2022: 13). We do this by drawing on scholarly literature on financialization, gamification, and gamblification. In the empirical register, we recognize the "rich texture" of speculative practices "as they are found in diverse environments" (Cassidy et al. 2013: 11); we sought to contribute an account of this texture by examining the BitMEX cryptocurrency exchange. In our view, this exchange and its discourses have exemplified the obfuscation of structural wealth transfer mechanisms. Using Foucauldian discourse analytic tools (e.g. Nicoll 2010; Palmer du Preez et al. 2021), we illustrate this with reference to publicly-available documents from the exchange (e.g. the BitMEX blog, social media statements), as well as news stories and scholarly research on BitMEX. To expand our understanding, we also gathered information from other sources (e.g. comments of users from public social media accounts; discourse from organizations using the BitMEX exchange).

In what follows, we first note some resonances in the ways that cryptocurrency exchanges and gambling markets are organized and distributed globally. Next, we zoom in on the reflections of a 'bitcoin billionaire' (cf Ciralsky 2021), using this focused look to illustrate how cryptocurrency discourse operates against the backdrop of the uncertainties and vast inequities of contemporary capitalism. From here, we argue that two key concepts—*financialization* and *gamblification*—are especially important for making sense of the current convergence of gambling and crypto-finance. We use these concepts to show how—taken together—they can help decrypt some of the obfuscating elements of cryptocurrency discourse. As we will illustrate, trading on cryptocurrency exchanges is like gambling in many respects; but we also need to go beyond this observation, recognizing how gambling has been increasingly naturalized as a response to the manifold crises of contemporary capitalist life.

Resonating Regulatory Ambiguities

At the outset, cryptocurrency exchanges were often established in jurisdictions with minimal oversight to avoid compliance with strict consumer protection, anti-money laundering (AML), and know-your-customer (KYC) regulations (Alekseenko 2023; Paesano 2019).[2] Similarly, online gambling platforms have historically taken advantage of offshore licensing to avoid more restrictive national frameworks (Beem and Mikler 2011). Such bypassing of regulation fosters environments where high-risk behaviour is structurally encouraged and users largely unprotected. Both industries also design gamified and speculative products that blur the lines between investment, gambling and gaming. This blurring encourages the normalization of

[2] Today, this situation largely prevails, due perhaps as much to the surveillant regulatory approach driven by major markets, like the United States and the European Union, as to the desire—on the part of cryptocurrency exchanges—to avoid regulation (cf Paesano 2019).

speculative behaviour as a possible strategy for financial advancement. Regulatory challenges hamper effective user protection and may allow potentially predatory products to multiply unchecked. In both industries this leads to conditions that encourage risk-taking and obscure the structural mechanisms that transfer wealth from users to platform operators.

The main reason for the regulatory ambiguity around cryptocurrencies and their exchanges, which initially even resulted in a regulatory vacuum, is that cryptocurrencies do not meet the legal definition of securities. Otherwise, they would fall under the many strict regulations that govern securities and their exchanges. This is akin to gaming products that closely resemble gambling products, but by a very small margin do not meet the legal definition and thus can operate outside of regulatory scrutiny. This ambiguity was and is still used by cryptocurrency projects and exchanges to promote their tokens and services with a much larger degree of freedom compared to issuers of traditional financial products.[3]

Cryptocurrency Exchange as a Way Out of the Perils of 'Traditional Finance'

To ground our discussion, it is instructive to consider BitMEX, one of the most influential cryptocurrency exchanges. BitMEX provides a clear example of how speculative financial products and platform design strategies blur the lines between investment and gambling. The public statements of its co-founder and former CEO, Arthur Hayes, offer insight into how industry leaders rationalize and promote high-risk products.

In 2018 when, when Hayes was still the CEO of BitMEX, he offered the following description of the early days of the exchange:

> …we went live in November 2014 with this very professional bitcoin product. And no one came, for the first six months. So we're sitting there with an exchange that makes no money; we make no money, and so we said, "well, we need to re-evaluate what we're doing here". "There are people who offer similar types of products, but are focusing on degenerate gamblers, aka retail traders in bitcoin. So, why don't we do the same?" But we can do it better. So we said, "ok, we're going to create the word's highest leverage US dollar bitcoin product, and we want to enable anyone who has bitcoin to trade financial derivatives". […] So, today, we have the world's most leveraged product […]. You can trade bitcoin, with 100x leverage, on the most volatile asset in the history of the world. It's a lot of fun (Hayes 2018).

As Hayes describes, BitMEX did not start making money until it began to seek the business of "degenerate gamblers" with a particular derivative instrument called an inverse perpetual futures contract.[4] This type of contract is

[3] We should also distinguish, here, between two different types of exchanges: centralized and decentralized. Centralized exchanges are managed by a central organization or company, like traditional stock trading platforms. Users deposit their funds from private wallets onto the exchange and place trades while the centralized exchange handles the direct buying and selling of cryptocurrencies. Nearly all sizable centralized exchanges also require users to go through—depending on the specific exchange—quite strict or rather lax KYC and AML processes. In contrast, decentralized exchanges operate without a central authority and typically involve trading cryptocurrencies directly through smart contracts on blockchains. Thus, users maintain control of their funds. DEXs usually do not require KYC and AML processes. However, users are more responsible for their security, which can be challenging for those who are less familiar with blockchain wallets or less savvy regarding potential scams. In this article, our key exemplar, BitMEX, is a centralized exchange. Nevertheless, some of what we say can also apply to decentralized exchanges. Though decentralized exchanges are largely outside the scope of this article, they merit further attention through the analytic lens we develop here.

[4] In cryptocurrency discourse, a 'degenerate gambler', or 'degen', refers to an individual who engages in highly speculative, risky, and often impulsive trading or investment behaviours within crypto markets. Borrowed from the

essentially "a financial arrangement that requires the seller to pay the buyer the difference between the agreed-upon price and the current price [of the cryptocurrency]" (Patairya 2024) at any given time. Compared with a regular futures contract, it has no expiry date; hence its name "perpetual". The BitMEX contract allowed exchange users to purchase up to 100 times the amount of their investment. For example, a user of the exchange could purchase a 100x long position of $10,000 worth of Bitcoin (a long position is a bet that the price of Bitcoin will increase; a short position is a bet that the price of Bitcoin will decrease). For the sake of simplicity, let's bracket out platform fees and observe that a user purchases this position by depositing $100 in their margin account. An increase in the price of Bitcoin would be amplified 100 times in this position. However, a more than 1% decrease in the price of Bitcoin would cause the user's account to be liquidated (e.g. they would lose their $100 deposit). This example is derived from Soska and colleagues, who conducted an analysis of 425,000 liquidation events on 205 BitMEX instruments (including the perpetual contracts described above), "totalling 60 billion [US] dollars in value" (Soska et al. 2021: 48). This suggests, perhaps, why Hayes and colleagues viewed that post-perpetual contract period of BitMEX's operation as "a lot of fun": BitMEX and its founders made their fortunes in large measure by liquidating highly leveraged margin accounts on the exchange.

Hayes stepped down as CEO of BitMEX in 2020. He was subsequently convicted in 2022 in the United States for violating the Bank Secrecy Act (implicated because Americans were allowed to trade on the exchange) (Bloomberg News 2022). But he is still very much a cryptocurrency advocate. In 2024, he provided another rationale, beyond his own enrichment, for investing in cryptocurrency:

> …if we believe that traditional financial system has too much debt, and thus it must inflate away the problems, and if you're left in this system your capital is going to get destroyed over time, but the cost of energy is the cost of energy, then this portion of crypto needs to at least preserve the cost of energy. And, everybody has a different standard of living that they'd like to maintain. That standard of living costs energy: the food you'd like to eat, the places you'd like to travel; where you'd like to live. All that requires a certain amount of energy. […]. So my whole goal, with all of my investing, is to preserve capital so that I can consume the same amount of energy, or whatever energy amount that I would like, from now and into the future. Now if you hold all your assets in the fiat world, you're almost guaranteed not to keep up with the pace of energy. At the macro level there's so much debt in the world that unless we find a completely new source of energy […], there is no way to pay back this debt. And so, the point is to find assets outside of the traditional financial system that are going to at least maintain purchasing power, you know, in hydrocarbon terms. The average person will get completely destroyed by this inflation. If you want to be the average person, be the average person. If you want to have above-average results, then you're going to have to put above average effort into thinking about your financial future (Hayes 2024).

Describing cryptocurrency as a hedge against the "the fiat world," where "you're almost guaranteed not to keep up," Hayes emphasizes inflation and the erosion of purchasing power within "the traditional financial system".[5] As he

traditional gambling lexicon, the term describes someone who recklessly bets without strategy or self-control.

[5] Stepping beyond our reflection on Hayes' words, we could say that the conditions of contemporary capitalism naturalize

notes, the "average person will get completely destroyed by this inflation". And so, he argues, one must be "above average".

In holding these two quotations together, we want to illustrate how the conditions of contemporary capitalism seem, in the words of Hayes, to naturalize cryptocurrency speculation as a response to the faults of the "traditional financial system". And we want to illustrate the role of the "degenerate gamblers" in both making the fortunes of 'bitcoin billionaires' (cf Ciralsky 2021), and in representing an emergent class of subjects whose risk-taking 'degeneracy' is discursively positioned as a resource for becoming an above average elite, even as the default outcome for many—and perhaps most—investors is to lose money.

Our interest, here, is not so much in the philosophy of Hayes and his colleagues, nor in the rise and fall of the exchanges that they have developed; rather, we want to draw attention to the wider discourse—and to the subject-positions that it calls into being—that understands cryptocurrency as a way out of the manifold problems of the fiat currency system. This wider discourse says something about the convergence of cryptocurrency and gambling, though its multiple contradictions make it somewhat difficult to discern exactly what is being said. In order to help 'decrypt' this wider discourse, we think critical analysts can make use of two key concepts—*gamblification* and *financialization*—that help to focus on how the discursive-material conditions of our contemporary moment drive the convergence of online gambling and online cryptocurrency exchanges.

Financialization

Financialization has been defined in different ways, as we shall discuss below. For the moment, however, it will be sufficient to understand the term as signifying the increasing prominence of finance—and the idea of using money to make money—in daily life. Financialization can be thought of as a key environmental characteristic that nourishes markets of all kinds in our contemporary capitalist moment. It is a useful, if insufficient, key concept for critically scrutinizing the emergence and operation of cryptocurrency exchanges.

Financialization has been described as "a pattern of accumulation in which profits accrue primarily through financial channels rather than through trade and commodity production" (Krippner 2005: 174). As Davis and Kim observe, the term attempts to capture how, over the past three decades, "financial markets became increasingly central to the daily activities of households, corporations, and states" (2015: 204). A definition of financialization, proposed by Gerald Epstein, is "the increasing role of financial motives, financial markets, financial actors and financial institutions in the operation of the domestic and international economies" (2005: 3). Scholars have considered the impacts of financialization across several different sectors. Most interesting to us, for the purposes of our analysis, is work that considers the financialization of daily life in conjunction with the mainstreaming of legal gambling, which has occurred globally since the latter third of the 20th century (see, for instance, Cassidy 2020; Cosgrave and Klassen 2009; Nicoll 2019). Alongside the mainstreaming of legal gambling, we have seen in recent years a mainstreaming of cryptocurrency discourse (think of FTX Superbowl ads), which emphasizes how cryptocurrency could open up accessibility to financial markets (and financial freedom) for those (e.g. youth, the unbanked) who are otherwise excluded.

Financialization of Daily Life

From a sociological perspective, financialization can be understood as both a

many kinds of speculation (see, for instance, Komporozos-Athanasiou 2022).

subject and object of analysis, in other words, "something to be explained and a way of making sense of what is going on around us" (Martin 2002: 8). Here, it is not just finance that is at issue, but also "subjectivity," namely how "individuals come to think about themselves to be moving forward through the measured paces of finance" (Martin 2002: 9). The financialization of daily life therefore implies rules for living:

> Finance is not only the question of what to do with the money one has worked for, but a way of working that money over, and ultimately, a way of working over oneself. With the [...] model of financial self-management, making money does not stop with wages garnered from employment. Money must be spent to live, certainly, but now daily life embraces an aspiration to make money as well. These are opportunities that quickly have obligations to invest wisely, speculate sagely, and deploy resources strategically. The market is not only a source of necessary consumables; it must be beaten. To play at life one must win over the economy (Martin 2002: 16-17).

The imperative to take risks in order to play and win at life, evocatively and presciently suggested in the quotation of Randy Martin's work above, is a hallmark of the financialization of daily life. The phenomenon extends beyond high-stakes financial decision-making into the minutiae of everyday activities. From subscription-based services and credit systems embedded in mobile applications to the gamified reward structures of consumer loyalty programs, financial logic increasingly governs routine consumption and daily practices. The rise of micro-investment apps, such as Acorns or Robinhood, further exemplifies how investment logics have become integrated into everyday life, even among users without much financial knowledge. This general diffusion of financial logic into everyday practices fosters the idea that individuals should constantly engage in financial self-optimisation, whether through cryptocurrency speculation or daily consumer choices.

The idea of self-management is particularly prevalent in the cryptocurrency space. This is largely due to the reliance on private wallets where individuals control their private keys and reject the role of third parties (e.g. banks) as intermediaries in economic exchange. This ethos of self-management helps to shape trader subjectivities. In cryptocurrency trading, users are expected to take full responsibility for the management of their financial assets. Such responsibilization obscures the structural advantages of platform operators and frames financial losses as personal failings rather than systemic outcomes. Users are interpellated as entrepreneurial risk-takers who are solely responsible for their own success or failure. Some users might be misled by the structure of the markets and do not understand the asymmetrical game they are playing where the odds are stacked against them. Others, however, might fully understand it, but are still happy to engage, since it provides them with a hope that they do not find in the "real world" that might be stacked against them even more.

For Martin, the financialization of daily life also involves a profound turn towards practices of self-surveillance and risk management, implying a routinization of risk-taking. With the routinization of risk-taking in daily life also comes the habituation of self-surveillance (and of surveillance more generally) as a form of risk management that ostensibly copes with the uncertainties triggered by financialization. In the context of cryptocurrency exchanges, these practices of self-surveillance and risk management are enabled, enhanced and stylised by the designs of various platforms and integrated devices.

Considering Links Between Finance and Gambling Through the Prism of Investment

Researchers studying gambling have considered "the historically carefully articulated boundary between investment and gambling" (Randalls 2013: 187). Arthur and colleagues, for example, argue that, while the practice of investment should be seen as conceptually distinct from gambling, there is "conceptual overlap between speculation and gambling" (2016: 584).[6]

Putting research in this area in economic-historical perspective, we can observe an expansion of financialization starting with large corporations and state debt, growing into more and more tangible assets like resources, real estate and then most recently, in the last two decades, into derivatives, which are second and third layer products that are built on top of the existing products. Arguably, the early stages of financialization were a catalyst for business life and productivity, creating enormous wealth (though not the equitable distribution of it). The more contemporary developments of financialization—especially derivatives—however, seem to have more and more in common with gambling: betting against each other at the expense of uninvolved third parties (e.g. coffee futures) and at the benefit of the financial industry (e.g. the house) that sells these products. Unlike with stocks, or even state debt, the expected outcomes of the bettors against each other add up to zero – a zero from which the fees of the financial industry must be deducted. Obviously, these later stages of financialization have been highly criticized, since the added value to society remains debated with negative effects on society becoming more and more evident (Fiedler 2008).

Some have taken the linkages between gambling and finance to suggest that markets and casinos have essentially the same characteristics. For example, a number of commentators have mobilized the idea of casino capitalism to capture these similarities (Strange 2016), especially after the Global Financial Crisis that propagated in 2008.[7] Of course, the full picture is somewhat more complex.[8] Accordingly, it is important to understand that there are many differences between gambling and finance. Nevertheless, the notion of casino capitalism may evoke the idea that what finance and gambling have in common is that "their customers and professionals do not behave according to naïve economic principles," nor act as "atomized" individuals rationally pursuing "accumulation" (Cassidy 2009: 13).

Citing Cosgrave and Klassen's arguments about "the monetization of social relations in late capitalist societies," (Cosgrave and Klassen 2001:

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[6] The authors note that, despite the relatively sizable literature on this conceptual relationship, there is a dearth of work investigating "the empirical relationship between speculation and gambling, or between gambling and stock market activity more generally" (Arthur et al. 2016: 584).

[7] This perspective is supported by Packin et al. (2025), who demonstrate that gamified trading platforms leverage gambling-adjacent mechanics to encourage repeated speculative engagement, such as streak rewards, celebratory animations, and competitive ranking systems.

[8] While the notion of casino capitalism is useful for suggesting the many contemporary linkages between finance and gambling, we are also mindful of Cassidy's critique. She argues that casino capitalism "is a conflation of a particularly unhelpful kind. It offers no insight into how either international finance or casinos work in practice, as evidenced by anthropological work in both settings" (Cassidy 2009: 10). Citing studies that have challenged the use of this concept, she argues that empirical research into exchanges and banks "provide rich evidence that international finance is an internally diverse and complex assemblage" (Cassidy 2009: 11). Similarly, gambling spaces like casinos exhibit vastly different cultural textures from place to place. And, with respect to risk and uncertainty, Cassidy points out that while financial markets trading complex financial instruments like derivatives trade on uncertainty (incalculable outcomes), casinos trade primarily on the production of risk (calculable outcomes), in the sense that, in "many jurisdictions, a player must be informed of the exact rate of return over time offered by each game" (Cassidy 2009: 13). In highlighting the links between gambling and finance by appealing to the high-level concept of casino capitalism, therefore, we need to avoid simplistic comparisons while attending, carefully and empirically, to the specificity of each domain.

6), Fiona Nicoll notes that gambling and finance can be theorized as "related forms of cultural and economic exchange with material and symbolic implications for the businesses which deliver services, the individuals who consume gambling and financial products and experiences, and the governments who regulate them and benefit from their taxation" (Nicoll 2013: 388). For Nicoll, "the introduction of gambling to existing discussions of financialisation promises to highlight the broader role of cultural games of luck, skill, and chance for financial and other disciplines": this would allow for a higher-level theorization of "the intersections of finance and gambling as a form of governmentality" (Nicoll 2013: 388). At stake in this observation is the theoretical proposition that the financialization of daily life has turned everyone into gamblers, in some fashion. People gamble with their money (even if they stash it in a mattress!) because states have been thoroughly financialized, and the values of their fiat currencies not only fluctuate in relation to international currency exchanges but are also guaranteed to go down over time due to an ever-increasing money supply. People also gamble with their personal information, offering it up for occluded uses by powerful organizations in a game that gives access to 'free' or personalized services. These gambles are implicated in the regulation of everyday life, for example in how much money a person has to live on, or in their exposure to scams and other forms of ostensibly more legitimate extraction that leverage detailed files about them so as to best manipulate them into spending.

Summing up, we can understand financialization as a trend in contemporary capitalism whereby everyday life is increasingly lived according to the logics of finance. Sociologists have used the term financialization as a conceptual prism for understanding a wide array of social transformations at micro-, messo-, and macro-level scales, which relate to the growing centrality of financial considerations in day-to-day life. Alongside this trend of financialization, we have seen over the past 5 decades the mainstreaming of gambling on a global scale.

Cryptocurrency exchanges should be viewed against this backdrop. As financialization has evolved, cryptocurrency trading has emerged as a new frontier. Cryptocurrency exchanges facilitate the trading of often highly volatile and speculative digital assets in ways that resemble the gambling-like dynamics described in the broader context of financial markets. The rapid and unpredictable fluctuations in cryptocurrency prices, combined with the poorly regulated nature of many exchanges, intensifies the risk-reward equation and makes participation akin to placing bets in a casino (Andrade and Newell, 2023). This parallels the argument that financial practices—especially in their speculative forms—increasingly share characteristics with gambling. In this sense, the dynamics of cryptocurrency trading reflects the broader trend of financialization where everyday life is infused with elements of risk and chance.

Given this situation, the present moment arguably exceeds what is captured for analytic attention by the concept of financialization. We thus need to supplement our conceptual repertoire, work that the next section of our article begins to undertake.

Gamblification

In order to make sense of the specificities of the current convergence of finance and gambling, we want to augment our account of financialization with reference to a relatively new concept, *gamblification*. As the development of this concept has happened in conversation with scholarship on an adjacent concept—*gamification*—it will be useful to briefly discuss that term before turning our attention in more depth to gamblification.

Gamification can be defined as the use of "game-thinking and game mechanics to engage users and solve problems" (Zicherman and Cunningham 2011: xiv). Whitson gives the concept of gamification a critical social scientific edge, suggesting that it describes "the imposition of play onto the rules of [what are ostensibly] non-game activities, *in order to elicit a desired behaviour*"—she argues that gamification is best understood as a form of surveillance-mediated governance (2012: 51).[9] Similarly, Schrape emphasizes that gamification, together with choice architecture and big data techniques, takes "liberal governmentality to the extreme" in the sense that it uses a "set of methods that aim to regulate individuals and society [...] via positive feedback," where the "price to pay is total surveillance" (2014: 21). Hulsey also emphasizes the regulatory dimension of gamification and adds that, in the contemporary era, a "key focus of gamified applications is promoting, regulating and tracking engagement with products, services, spaces, institutions and ideas through motivational tactics embedded within seemingly simple aspects of game design" (2020: 6).

Building on research on gamification, researchers working in the domain of gambling studies have proposed the concept of *gamblification*. This term characterizes "the digitally mediated diffusion of gambling game mechanics and principles beyond the traditional magic circles that were supposed to contain them" (Zanescu et al. 2020: 2883; see also Brock and Johnson 2021). The concept of gamblification has been defined as "the (increased) presence of gambling (or gambling-related content) in non-gambling contexts in order to realise desired outcomes" (Macey and Hamari 2022: 2055). Gamblification suggests: 1) the imposition of play onto non-game activities in order to govern behavior, 2) the imposition of the mechanics of gambling games, including the randomized distribution of rewards, losses disguised as wins, and other techniques designed to habituate gambling and game-like activities in everyday life, 3) the increasing difficulty of disentangling gamification from gamblification, and 4) the link between surveillance and governance that both these concepts capture.

The Gamblification of Financial Markets

The TMX Group, the Canadian financial services company that owns and operates the Toronto Stock Exchange and other Canadian exchanges, allows consumers to create accounts called Web Portfolios via TMXmoney.com. These Web Portfolios enable consumers to "see graphical representations" of their "holdings by symbol, asset class and sector" (TMX Group 2019a). Not unlike video games that allow players to save and oversee different loadouts, personalized Web Portfolios offer several features, including a subscription service, starting at $15.95 a month, called TMX PowerStream, which "features tick-by-tick lightning fast market data, research information and extensive customization in a trade terminal style interface," and which is advertised as the "same platform [...] used extensively by investment industry professionals" (TMX Group 2019b).[10] Users who subscribe to the advanced version of TMX PowerStream (for $32.95 a month) can access a feature called the Heatmap Module, which sorts stocks in a portfolio along a colour-coded spectrum where blue "indicates up movement with the color changing to white for neutral and eventually red to indicate down movements" (TMX Group and Quote Media 2019). Through such gamified interfaces, users are incentivized to pay for access

[9] With a focus on data analytics practices used by game industry actors, Whitson observes that data collected on players in the course of gameplay is sometimes used "to encourage changes in real-world behaviour and a playful care of the self based on quantitative metrics and automated feedback practices" (2012: 18). Gamification, from this perspective, is about incentivizing a self-monitoring subjectivity that is connected with data produced through the monitoring of their playful activity. See also Whitson (2013).

[10] Information overload could be viewed as a gamified characteristic of this interface; this might contribute to what gambling researchers have called the "illusion of control" (cf. Clark and Wohl 2022).

to more elaborate tools that are accompanied by the promise of being like industry professionals.

Of particular interest to us is the way the features of these digital interfaces integrate and amplify the gamblification experience in everyday life. For instance, the Web Portfolio's personalized alert feature is available to all users. Using this feature, users can subscribe to "a comprehensive array of advanced investment alerts" in order to keep track of, for example, "when stocks reach a certain price, volume, bid, ask, price change, or when they hit their 52 week high or low" (TMX Group 2019c). Alerts, which can be configured to contact users through their mobile devices, may be experienced as little different from other push messages sent from mobile applications. Like the alerts sent from free-to-play mobile social games (think of *Candy Crush Saga*, for example), they may hail users at different points throughout the day, calling them back to the field of play (in this case, the play of the market). Alerts thus overlay and integrate the randomized ups and downs of market volatility into the interstitial spaces of users' everyday lives. With the click of a mouse, users can track and sort the biggest winners and losers in their portfolios over different time periods (e.g. 7 day, 3 month, 1 year, 5 year, and so on), and with this information they may hope they can advantageously place their bets.

Summing up, the digitally mediated gamification and gamblification of traditional financial markets like the Toronto Stock Exchange show the need for increased, critical scholarly attention to this space. To facilitate this critical analysis, the concepts of financialization + gamblification focus our attention on how financial markets come to have meaning in our everyday lives, and on how these everyday experiences may not be dissimilar from gambling.

Cryptocurrency exchanges—in their centralized and decentralized forms—are prime examples of the gamblification of financial markets. These platforms, much like the digitalized and gamified interfaces of traditional financial markets, amplify the experience of market volatility through features that encourage continuous engagement. Zaucha and Agur (2023) argue that cryptocurrencies are simultaneously speculative financial instruments and gamified digital assets. Indeed, cryptocurrency trading often involves game-like elements. For example, the extreme price volatility of digital assets mirrors the randomized reward schedules that are found in some video games. The 24/7 nature of cryptocurrency markets, combined with exchange interfaces that allow for instant transactions, also mirror the characteristics of gamified platforms where users are constantly invited to play. Thus, when users trade on cryptocurrency exchanges, they operate in a system where the boundaries between investment and gambling are unclear, and the mechanics of trading increasingly resemble those of a game. This convergence of finance and gambling in the context of cryptocurrency exchanges highlights the broader trend of gamblification, where financial activities are shaped by the logic of games, making it more challenging to distinguish between speculative investment and outright gambling in everyday financial practices.

Cryptocurrency Exchanges: Gamblification x Financialization

The previous section of our article suggested the utility of holding the concepts of gamblification + financialization together to critically theorize the digitalization of traditional financial markets. With cryptocurrency exchanges, however, the additive effect of holding these two concepts together (financialization + gamblification) seems insufficient. Metaphorically speaking, we seem to need a formula that multiplies, rather than simply adds: since cryptocurrencies are not regulated as securities unlike traditional financial products cryptocurrency exchanges are, to date, also much less regulated than traditional financial markets. And since the pace of transformation seems more rapid and far-reaching, we need to think about the multiplier effects of financialization and gamblification as they converge on cryptocurrency exchanges.[11] Gamblification incentivizes continuous engagement through reward systems and competitive features, while financialization normalizes (high-risk) speculative behaviour as a necessary strategy. Together, these dynamics create a feedback loop where users are driven to take escalating risks with diminishing safeguards.[12] We are talking, here, about the intensification and amplification of risk of financial harm, mediated by a gamified experience of gambling: for many users of cryptocurrency exchanges, this may be risk taking with an even more threadbare safety net than is in place with traditional financial institutions.

Unlike traditional stock exchanges, which operate firmly within the purview of financial regulators, cryptocurrency exchanges operate (as noted) in a regulatory grey zone. Part of the ambiguity of this regulatory 'greyness' surely comes from early questions about what—ontologically speaking—cryptocurrencies and their exchanges were. Were the exchanges facilitating the trade of items of 'real' material value; or were they rather facilitating the trade of items that, while valuable in a virtual world, were not really all that useful/valuable in the real world? Of course, this kind of question—in mobilizing binary distinctions between real and virtual for instance—is too simplistic. It elides the multiple meanings of, and sources of, value.[13] Nevertheless, such elisions were suggested in the very name of one of the most infamous exchanges, Mt. Gox. According to McMillan, Mt. Gox was originally created by American entrepreneur Jed McCaleb, who had registered the Mtgox.com domain in 2007 with a view to setting up "a trading site for the wildly popular *Magic: The Gathering*," a trading/collectable card game (McMillan 2019). McCaleb started using the site to allow people to exchange bitcoins in 2010.[14] Mt. Gox filed for bankruptcy in 2014, citing a massive loss of money due to a technical issue that permitted fraudulent withdrawals. Perhaps, because it began as a game card trading platform and then shifted to a cryptocurrency trading platform, the Mt. Gox exchange eluded the kind of regulatory scrutiny that might have forced it to take appropriate security measures; certainly, after the collapse of Mt. Gox, regulators started paying more attention to cryptocurrency exchanges.

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[11] In highlighting the risk of harm on cryptocurrency exchanges, we need to be careful about a couple of points.

First, we must recognize differences between cryptocurrency exchanges. There are, as we have noted, at least two different types of cryptocurrency exchanges: centralized and decentralized. Moreover, there are also significant within-type differences that should be accounted for, which reflect, for instance, the social, cultural, technical, regulatory, etc., particularities of a given exchange. The risk of harm may differ, depending on any or all of these differences.

Second, although we are suggesting an analytic perspective that attends to the risks of financial harms, it would be a mistake to equate the exchange of cryptocurrency with harm. Indeed, some cryptocurrency communities are performing "a digital renaissance of creative governance possibilities" for coordinating common interest (Bordeleau 2023: 202). Although not the focus of our analysis in this article, we need to leave room for these types of innovations and avoid a default pathologization stance, which has been a characteristic of some streams of gambling studies research.

[12] This cycle is compounded by user behaviours that mirror gambling-related harms. Andrade and Newell (2023) note that frequent cryptocurrency traders may display psychological traits shared by those who gamble, such as sensation-seeking.

[13] This analysis acknowledges the mainstreaming of cryptocurrencies but does not address the broader range of activity within the blockchain community that has contributed to this normalization. Beyond cryptocurrencies, general blockchain applications and more specific developments—such as non-fungible tokens (NFTs)—sometimes support the goals of decentralized finance advocates by offering forms of utility beyond speculative investment.

[14] McCaleb then sold the company to the Japan-based Mark Karpelès. Karpelès grew the Mt. Gox exchange into one of the largest bitcoin exchanges. By April 2013, Mt. Gox was handling about 70% of bitcoin trades (McMillan and Metz 2013). However, by the following year, customers of the Mt. Gox exchange started to complain that, in spite of requesting withdrawals, they were not receiving their money. As Jeffries notes, behind the scenes, the exchange was in the process of discovering that "an attacker had slowly been draining all of Mt. Gox's bitcoins without being noticed" (Jeffries 2018; see also Popper 2015). Shortly thereafter, Mt. Gox filed for bankruptcy protection, shattering whatever elements of the magic circle users may have been enjoying.

Indeed, we want to suggest that it is not only the novelty of cryptocurrency exchanges that has mediated their insulation from regulation; it is also their 'game-y-ness'. We should understand this situation as stemming from the huge competition that is present in the 'wild west' of crypto currency exchanges compared to the more regulated environment of traditional exchanges. This huge competition leads to intense fights over users/traders and much innovation with respect to gamified and gamblified elements, including leaderboards, affiliate programs, bonus and bounty programs, airdrops, trading competitions, social media integration, "trollboxes" (e.g. chatboxes), interactive elements in the graphical user interface, highly leveraged products (margin trading, derivatives, and options), and so on.

To illustrate the multiplier effects of how such innovations compound with the background environment of financialization, let us consider the BitMEX cryptocurrency exchange.

BitMEX

Soska and colleagues, in their case study of BitMEX, note that the exchange has endeavoured to "appeal to the entertainment side of trading by implementing public leader-boards that track the most successful traders on the platform" (2021: 45), as well as other measures to incentivize trades on the platform. This strategy mirrors the techniques used in gamified trading apps, where competitive ranking systems are also designed to sustain user engagement and encourage risk-taking behaviour (Packin et al. 2025). BitMEX's leaderboard feature exemplifies how gamification works on the platform to foster competition and motivate participation. The board publicly ranks users based on their trading performance, similar to leaderboards in online games. By turning trading into a game-like competition, it also taps into users' desire for achievement and social validation. This approach became a blueprint for many other exchanges (Soska et al. 2021: 45). Complementing the leaderboard system, BitMEX has established a system of Guilds. Just as in a massively-multiplayer online role-playing game, users of BitMEX can form groups, the creators of which can "control who can join & see your guild and how you distribute rewards" (BitMEX 2024a). The formation of Guilds is incentivized by the exchange in various ways, including through access to a "Dedicated Support Team" on the exchange, and rewards (e.g. a "Guild Pot") (BitMEX 2024a). These gamified dynamics are designed to encourage users to engage more frequently with the platform, increase trading volume, and reinforce patterns of behaviour designed to enhance user retention.

These affordances clearly gamify cryptocurrency trading by incentivizing high-risk, competitive behaviour. But beyond gamification, how does BitMEX actively gamblify its platform to further encourage speculative trading with up to 100x leverage? Beyond the speculative aspects of trading in cryptocurrency and of betting on long or short positions via the inverse perpetual futures derivative contract (and other types of contracts), gamblification occurs in a variety of ways. One example of this is in the way that users of the exchange may access different fee structures, depending on their trading volume (e.g. the more volume, the more advantageous the fee structure) (see, for instance, the fee structure for trading derivatives: BitMEX 2024b). These incentives are designed to increase the use of the exchange by increasing users' speculative activity. Another example of gamblification is the Guild Pot. Guilds are described by BitMEX as delivering "the social trading experience you might already know (but better)" (BitMEX 2023a):

> Within Guilds, traders can customize and define their visual identity, connect with other members of the same Guild via an internal Guild chat, and collaborate to conquer the weekly BitMEX leaderboard, all while reaping rewards. The result? A chance for BitMEX users to trade competitively against others, share strategies with fellow members of the

> Guild, and work towards winning their share of the Guild Pot – a weekly prize pool available to the top three performing Guilds of the week.
>
> When it comes to the Guild Pot, it is the leader of the Guild who chooses how to distribute the rewards amongst members. Guild leaders can choose to save the Guild Pot for reinvestment or, select a percentage they would like to allocate to members versus keep for themselves. The Leader could distribute the rewards as follows:
>
> - Equally distributed to the top three traders of the Guild.
> - 10% of the total Guild Pot distributed to the top 10 traders in the Guild
> - Given all to one Guild member (randomly selected by an algorithm).
>
> Alternatively, no payout might occur, with the cash reward saved for the following competition (BitMEX 2023a).

This type of reward structure incentivizes trading by promising potential access to a weekly pot.

It is not just the BitMEX exchange that is involved in the gamblification process. Consider, for instance, how guilds themselves may help to gamblify the experience. The Traderlands Guild on BitMEX, which, as of the time of writing, is ranked close to the bottom of the BitMEX Guild leaderboard on the trading volume metric, advertises its algorithmic software on its BitMEX guild page (Traderlands 2024), a discourse reminiscent of the idea of a 'system' for winning against the 'house'. Moreover, on its X (formerly Twitter) page, a post announces "the commencement of the exhilarating Traderlands & @BitMEX campaigns packed with rewarding surprises"—"Experience an intensified thrill with Traderlands QuestBox Events! Introducing the exhilarating BitMEX Trading Competition for Strategy Creators, and the action-packed $BMEX Drive Quest for all traders. Join forces, rally your team, and achieve victory together" (Traderlands 2023a). We can understand such statements as advertisements, of course, not just for the guild, but also for the BitMEX exchange and for Traderlands.[15] But we also want to attend to the discursive conditions that make such statements possible, as well as to the types of subject-positions that they envision.

The Traderlands BitMEX competition was described on the company's website in the following terms:

> The BitMEX Trading Competition presents a splendid platform for traders to showcase their trading prowess while affording each Strategy Creator the chance to snag up to 15,000 BMEX tokens from an infinite prize pool. 🏆
>
> The reward quantum is computed by tallying the total volume of the BitMEX strategies you post on the Marketplace. Seize this opportunity to edge closer to the grand prize by multiplying your volume with the help of your followers who employ your strategy! 💥
>
> But that's not all! Through the "BMEX Drive Quest" campaign, your followers who use your strategy also stand a chance to win up to 500 BMEX tokens.
>
> In addition to the excitement of the competition, BitMEX is offering a substantial discount on trading fees. This incentive means that not only do participants get to engage in a thrilling competition, but they also benefit from reduced trading fee costs. This makes the

[15] Traderlands appears to be an algorithmic trading software development company based in Seychelles (the same location where the BitMEX exchange is registered) (Traderlands 2024b).

> entire experience more lucrative and appealing (Traderlands 2023b).

And elsewhere, Traderlands describes the competition in the following terms:

> [...] the BitMEX Trade Competition is where the adrenaline rush of competition meets favorable trading conditions. Don't let this opportunity slip away! Join us now and let's create a Marketplace filled with winning strategies! (Traderlands 2023c).

These descriptors reflect the competition elements of the gamblification process, as well as how it implicates not just the exchange, but also a wider, gamblified ecosystem (Zanescu et al. 2021). To the extent that exchanges face some regulatory oversight, they may play around the edges of this by supporting configurations of community that can do the things they cannot. They may, in other words, offload some of the work of exercising gamblified retention mechanics to third parties who are more inaccessible to regulatory capture. In addition, by empowering guilds and affiliated groups to organize competitions, distribute trading tools, and create socially driven incentives, BitMEX cultivates an environment where high-risk trading practices are normalized and encouraged under the appearance of community engagement.

BitMEX, Gamblification x Financialization

It is at this juncture—where we must consider not only the activities on the exchange itself but also how it functions within a wider ecosystem—that the multiplier effects of gamblification x financialization become particularly important to consider. Here, we want to invite critical analysts to think not only about the gamblification of finance, but the financialization of gambling in everyday life. This bi-directional relationship—and its multiplier effects—are important for thinking about the types of subject positions available to people under casino capitalism.

Nicoll and Albarrán-Torres recently examined the diffusion of gambling iconography through various social media platforms, noting that "gambling spaces and products are increasingly shaped through processes of camouflage" (2022: 160). Discussing the Robinhood trading platform and the suicide of one of its users after he was led to believe by the interface that he owed $730,000 dollars, they note that the "camouflage of finance as play can have devastating consequences" (Nicoll and Albarrán-Torres 2022: 169). Indeed, so entrenched is this camouflage that gamblified finance appears as a game, but not a childhood game where there is very little truly at stake. Rather, as the numerous liquidation events on the BitMEX exchange attest (Soska et al. 2021), this is a game where—quite literally—billions are at stake.

Meanwhile, if gamblification helps to camouflage finance, making it seem like a game, we should also understand that financialization pressures players to treat their gameplay as though it were materially consequential. One interesting site where we can see a reflection of these pressures is in the 'educational' discourse promoted by cryptocurrency exchanges. This is a discourse that communicates to users that, if they have the correct knowledge, they can succeed at making money on cryptocurrency exchanges. As with financialization discourse more generally, it makes users responsible—it 'responsibilizes' users—for the structural risks they face. But, because this discourse is also a part of the exchange's marketing, it significantly underplays the nature of the risks being assumed by users. Consider, for instance, BitMEX's "How to trade Crypto Guides" (BitMEX 2024c), and particularly its trading guide on perpetual swaps. In this guide, trading cryptocurrency perpetual swap contracts is made to sound as easy as renting a car:

> To explain what crypto perpetual contracts are and how they work, we will use the purchase of a car as an example.

> Introducing Jack. Jack loves Ferraris, and would really like to experience driving one. However, he does not have the funds to purchase one himself, nor does he wish to own it outright. In contrast, those who own a Ferrari but don't drive it themselves, may want to earn some income by loaning out their car to someone like Jack. Jack would be willing to pay a rate of interest, to drive a stranger's Ferrari for a short period of time. Simply put, he is willing to swap an interest payment, for the use of the stranger's Ferrari. Just like Jack, crypto traders are able to swap interest payments for the performance of a crypto token, with perpetual swaps (BitMEX 2023b).

Sounds straightforward enough. But, reading on, we learn about the liquidation risk of perpetual swaps: "As its name suggests, perpetual swaps do not have a settlement date. As long as a trader can afford to pay the daily funding rate and the spot price does not reach the liquidation price, the position can be maintained" (BitMEX 2023b). This post then links to another page where the exchange's liquidation algorithm is explained. Liquidation risks are gestured to, in other words, but not really described, in the post about perpetual swaps. Reading this discourse, one understands that a perpetual position is possible, as long as you can "afford to pay". What is much less clear is that, depending on whether or not the price fluctuates in the direction you've bet, the degree of fluctuation, and how leveraged your position is, the structural conditions set up users—particularly those who do not have deep pockets—for liquidation.

Liquidation risks are evident not only in the quantitative analyses of liquidation events performed by Soska and colleagues (2021), for example, but also in the public discourse of users of BitMEX who have experienced liquidation. Search the internet for "BitMEX rekt" and you see several posts on sites like Reddit where people describe having lost money on the BitMEX exchange. A Reddit discussion from some years ago, entitled "How BitMEX liquidated my profitable position – and can do it again" highlights how users and the community adopt risk-managing subject-positions in light of the risks and uncertainties they faced on the BitMEX exchange. Below are some excerpts from this discussion:

> I'm writing this post about an experience I recently had with BitMex [...] BitMex liquidated my position that was over 100% ROE in profit. [...] I didn't understand when it happened. A high leverage position I was about to close on their futures contracts was well in profit. But then I got a liquidation notice [...] After lengthy discussions with BitMex support, they will only say this is what they intend and the system works as it's meant to. That gives me the opinion that BitMex have designed a system to allow them to liquidate profitable positions if one of their two indexes goes down, because their spike protection in this sort of situation is inadequate. [...] (bemethods 2016).
>
> * * *
>
> Honestly sounds like just another day to me. Trading margin futures is the wild west dude. [...] Anyways the point is there are a lot of moving parts and they all effect each other, and you. If you are going to margin trade futures during times of volatility, expect things to get exciting and plan accordingly. Smaller positions, wider stops keeps me sane when volume picks up enough that guarantees exchange downtime. All the jokes about margin trading being degenerate gambling are funny because they are true, right (pesantwizard 2016)?

* * *

> Bitmex is rock solid and i have been using it as of late to hedge 6 figures USD positions. [...] Their liquidation engine is good and its aim is to protect those who manage their positions better. Stop blaming other people for your mistakes (cryptobaseline 2016).

The posts go on, and with other parties involved. But what these excerpts suggest is that liquidations are a natural part of this type of financial contract. The first poster holds that liquidation occurred unfairly. Nevertheless, others in the discussion stress that liquidations are natural, "just another day," for instance, and that the person who lost their money should stop "blaming other people" for their "mistakes".

Here—in these instances of educational discourse from the exchange, and in users descriptions of their liquidation experiences on the BitMEX exchange—we see financializaiton acting on gamblification to multiply 1) the perceived value (and reasonableness) of betting on perpetual future contracts, and 2) the norm of individual responsibility for losses that stem from structural arrangements. Financialization has functioned to naturalize gambling of all kinds as a necessary response to the crises of contemporary life. And, like too much carbon in the atmosphere, gamblification operates to accelerate this process. Under such conditions, people have little recourse, other than making jokes about being financially "rekt".

Conclusion

In closing, let's return to our presentation of the discourse of cryptocurrency exchange BitMEX co-founder, Arthur Hayes. We suggested that Hayes' statements are linked to a wider set of discursive conditions that help structure the convergence of gambling and cryptocurrency exchanges. To make sense of these conditions, we introduced the concept of financialization. Next, we introduced the concept of gamblification. These concepts, while necessary, are on their own insufficient for fully comprehending contemporary discourses revolving around cryptocurrency exchanges. The two concepts need to be taken together to see the compounding and multiplicative effects of the processes that they describe. The gamblified financialization of cryptocurrency trading has impacts on individual financial harm—including, as we know, related harms to a person's entourage and community—while also amplifying speculation and market volatility, which can have ripple effects across financial systems and society. This volatility is not merely incidental but structurally incentivized by platform design.

In the words of many cryptocurrency exchange users, certain types of cryptocurrency trading are indeed basically gambling; but it is insufficient to stop with this observation. We rather need to also understand how financialization has worked to naturalize gambling of all kinds as a necessary response to contemporary life under the (metaphorically-speaking) conditions of casino capitalism. This process is facilitated by the regulatory gaps in which many cryptocurrency exchanges operate and implement gamified and speculative financial products. Such regulatory ambiguity, therefore, also enables high-risk behaviours and helps shift responsibility onto users by suggesting financial losses are personal failures rather than outcomes of structurally incentivized risk-taking. This shift is furthered by the use of social engagement features, like the Guilds and leaderboards on BitMEX. Such features foster competition and normalize speculative engagement as socially rewarding. These dynamics illustrate how cryptocurrency exchanges leverage both gamblification and financialization to obscure the structural mechanisms that transfer wealth from users to platform operators while embedding speculative risk-taking deep within everyday financial practices.

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