Dispute Resolution Across Platforms: Offshore Gambling Industry & EVE Online

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ABSTRACT
Contemporary online environments suffer from a regulatory gap; that is there are few options for participants between customer service departments and potentially expensive court cases in foreign jurisdictions. Whatever form of regulation ultimately fills that gap will be charged with determining whether specific behavior, within a specific environment, is fair or foul; whether it's cheating or not. However, cheating is a term that, despite substantial academic study, remains problematic. Is anything the developer doesn't want you to do cheating? Is it only if your actions breach the formal terms of service? What about the community norms, do they matter at all? All of these remain largely unresolved questions, due to the lack of public determination of cases in such environments, which have mostly been settled prior to legal action.

In this paper, I propose a re-branding of participant activity in such environments into developer-sanctioned, advantage play, and cheating. Advantage play, ultimately, is activity within the environment in which the player is able to turn the mechanics of the environment to their advantage without breaching the rules of the environment. Such a definition, and the term itself, is based on the usage of the term within the gambling industry, in which advantage play is considered betting with the advantage in the players' favor rather than that of the house.

Through examples from both the gambling industry and the Massively Multiplayer Role-Playing Game *Eve Online*, I consider the problems in defining cheating, suggest how the term 'advantage play' may be useful in understanding participants behavior in contemporary environments, and ultimately consider the use of such terminology in dispute resolution models which may overcome this regulatory gap.

Categories and Subject Descriptors
K.4.2 [Computers and Society] social issues, K.4.m [Computers and Society] miscellaneous, K.8.0 [Personal Computing] games.

General Terms
Management, Design, Human Factors.

Keywords
Virtual Worlds, Games, Design, Regulation, Dispute Resolution, Gambling.

1. INTRODUCTION
A constant challenge in gaming generally, but one with significant application to virtual worlds, is the attempt to define cheating. Whilst the subject of much study, in practice it can often be difficult to differentiate those cheating from those seeking to optimize their participation in an environment. Given that developer sanctioned play is of little interest in the context of regulation or dispute resolution, it does remain important to distinguish between 'cheating' and merely players pushing the boundaries of accepted behavior. Whether the use of artificial player aids, utilizing a software exploit, or defrauding other players, it can often be difficult to define the boundary at which an activity becomes cheating. A software overlay may be 'fair', whilst utilizing a bot is 'foul', an exploit may be fair game until such time as it is sufficiently exploited for the developer to put forth a notice, and scamming other players may be perfectly acceptable until you gain access to their account. In each case, until a precedent is set, and perhaps even subsequently, some may consider the activity 'cheating' whilst others merely consider it smart use of the tools afforded to the player.

As Myers [24] exposed in his play of the avatar 'Twixt', in many cases this results from an unclear definition as to exactly what constitutes cheating in any given aspect of a game experience and, in some cases, differences in opinion amongst participants and between participants and platform operators, ultimately leading to disputes which customer service departments or game-masters have to arbitrate. In this paper, I argue that such disputes centre on a difference between what participants may perceive as 'cheating', and activity which could instead be termed – to borrow

a phrase from the gambling industry – advantage play, and that such a definition aids us both in differentiating between the two activities, and in resolving disputes which centre upon them. As authors such as Koster [18] have noted, participants naturally look for ways to optimize their behavior in gaming environments. This, in turn leads to players blurring the boundary between optimizing within the rules, and operating outside of those rules, a significant factor for both companies and regulators in deciding how to design and implement regulations.

There is a long history of disputes of a similar nature in the offshore gambling industry, which did not stem merely from the refusal of particular operators to pay owed funds, though this was a frequent cause, but also from ambiguity around formal terms of service, community norms and player behavior. Those serving as mediators throughout the history of the offshore gambling industry have frequently been asked to differentiate between advantage play and cheating, and a significant number of these disputes; particularly in the casino and poker industries, but also in sports betting are centered on participants using automated methods to maximize the amount bet on positive expectation (i.e. profitable) bets. These disputes are remarkably similar to the type of disputes increasingly observed in contemporary online environments, and I will describe examples from both industries in the sections that follow, as well as consider an example from Eve Online in which participants have developed software to automate actions within the environment to maximize collection of resources.

2. THEORETICAL PERSPECTIVE

Cheating remains a difficult term to define, and particularly so in contemporary gaming environments. It is a term frequently used to represent a range of situations including where players do not understand the reason they are losing to a (supposedly) less skilled opponent, and where players are exploiting a bug. Caillois [3], Huizinga [16] and more recent work by Consalvo [8] have all contributed to the literature on cheating, however, I believe a distinction between cheating and advantage play, based on observations of the offshore gambling industry, is more suitable for contemporary online environments.

Essentially, such a definition returns to the work of play theorists such as Huizinga [16] and Caillois [3], as well as the more recent work of Crawford [9] and Koster [2] to understand that players are by nature competitive, and will try to find the optimal solution for any given problem; many of those solutions are within all known rules (advantage play), however, some transgress them (cheating). This border is constantly in flux as operators revise their rules, and communities revise their norms, in response to past actions.

Huizinga [16, p11] argues that "[a]s soon as the rules are transgressed the whole play-world collapses", but differentiates between those who overtly ignore the rules and those who appear to be honoring them whilst subverting the game, stating that the "player who trespasses against the rules or ignores them is a 'spoil-sport'. The spoil-sport is not the same as the false player, the cheat, for the latter pretends to be playing the game and, on the face of it, still acknowledges the magic circle".

As in my distinction between cheating and advantage play, Huizinga notes that cheating may itself be a form of competition, noting that "[a]rchaic culture, however, gives the lie to our moral judgment in this respect, as does the spirit of popular lore" [16, p52], citing the case of the hare and the hedgehog in which the hedgehog, seen as the good-guy, wins by what we might refer to as cheating. This seems to provide substance to an argument that there has always been a degree of uncertainty as to how to describe utilizing loopholes in the games structure, and external aids, to attempt to win a game.

Caillois [3, p45] defines both cheats and professional players as corruptors of the game, arguing that those who are not satisfied by the games mechanics turn to alternative means to find an outlet for their play: "The cheat is still inside the universe of play. If he violates the rules of the game, he at least pretends to respect them... he safeguards and proclaims the validity of the conventions he violates, because he is dependent upon others obeying the rules. If he is caught, he is thrown out. The universe of play remains intact. Neither does the professional player change the nature of the game in any way. To be sure, he himself does not play, but merely practices a profession" [3, p45].

A number of the more difficult issues in online environments are essentially attempting to form a definition of cheating. Whilst developers may argue that "anything we tell you not to do" is cheating, the emergent nature of such environments results in players continually seeking new ways to gain an advantage. Whilst a portion of the player base often sees real money trading as cheating, that is generally a binary determination: a player either participated in real money trading or they did not, which was either a breach of the terms of service or was not. Often though, cheating is harder to define, and companies are unable to create terms of service that reacts to each of the possible ways in which participants could interact with the environment. Taylor [7, p136] refers to this as '(il)legitimate play', and highlights the difficulty with identifying such behavior by noting that once developers "put a product out there the players will do with it what they will, often playing in ways the designers never anticipated". Similarly, Mulligan & Patrovsky [23, p217] note "Developers spend years focused on making a game. If they're not careful, this will breed certain assumptions, such as the world they created will remain their world and the players will play the game the way the creators want it played. That will not happen. Players have their own motivations and objectives".

Koster [19] in a list of "laws of online world design", collected from a range of authors on the MUD-Dev mailing list, offers two contributions from Caliban Tiresias Darklock. Darklock's First Law states (abridged) "Cheating is an apparently advantageous violation of player assumptions about the game. When those assumptions are satisfied, all apparently advantageous methods are fair. When they are violated, no apparently advantageous methods are fair". Defining 'player assumptions' here requires an understanding of the norms developed within the environment, most likely as a result of negotiation between and among users and developers. In doing so it serves to highlight the limitations of a 'one size fits all' approach to regulation which may result from formalized, top-down, regulatory and dispute resolution mechanisms; what one player community considers 'fair' may be 'foul' in another.

Darklock's second law argues, "Any violation of player assumptions is bad. "This follows from the first law because allowing violation of player assumptions is — pathologically — a unilateral 'license to cheat'. When you license any player to violate the assumptions of others, you imply a right for ALL players to violate the assumptions of others, and they will attempt

to do so in an apparently advantageous fashion. This turns your player base into a society of cheaters, under the umbrella of truths we hold to be self-evident". This law contains a problematic conclusion, for it is likely that any environment will have different groups of players with different norms. Almost certainly some norms from one group will violate those of another, and it is within these tensions that disputes are most likely to arise.

Finally, it is important to note that rules are constantly in flux. They change when we, as players, find a game unbalanced, they change when companies find a software tool that is giving players an unfair advantage, they change when software developers discover a loophole that is giving one faction an advantage or when the operator of a multiplayer game discovers something is unbalancing the economy. All of these rule changes are brought about by players manipulating systems in a way that some would consider cheating, but it is worth considering whether they are simply an evolution of the environment itself.

More recently, a range of authors have tackled governance in Online Games. Reynolds & de Zwart [30, p. 6] argue "that a number of things are likely to occur in the short term: Increased theft of virtual items; Increased third party sales of virtual items and related crimes e.g. credit card fraud; More players will seek legal remedies for publisher acts that they do not agree with; More judgments will be found in favour of players overturning EULA and copyright primacy; and, Policy makers and regulators will increasingly focus on the virtual items and currency – probably creating regulations that inadvertently harm at least one sector of the industry, thereby also harming citizens that enjoy participating in that sector".

The solution they propose is one which would mirror the governance of sport, based on the model of the Court for Arbitration in Sport, noting that "when cases do go to court they are judged contextually i.e. a court does not ask – did the rugby player hit the other player (as of course they did, they do all the time) but rather did they do so with intent and in a manner that is outside what would be reasonably expected given the context and rules of the sport" In this, it is possible to see strong parallels to the 'magic circle' concept. Reynolds and de Zwart note that what is key "is that all parties recognize both the centrality of game derived meaning, value and harms; and, recognize how the limits of those values are negotiated" [31, p. 7].

Through considering a range of in-world activities, Humphreys and de Zwart [17, p. 518] identify and describe a number of areas where community and codified norms may differ. The first of these is in 'griefing' activity; that is, behavior designed to be "malicious and damaging to the experience of other players" through a range of motivations. Such behavior, they argue, breaks the norms of the community rather than codified terms of service or interferes with the software itself, and this behavior may often be permitted under real-world law.

They note that "sometimes there is a clear case for the consensual suspension of these rules, as when a game like EVE Online makes piracy and theft part of the gameplay" [p. 521], and argue that a number of different stakeholders within the environment each play a role in the governance process, with players governing community norms, game providers designating representatives to manage the players, publishers responsible for managing intellectual property infringements and governments with the authority to regulate the content of the game. In many ways, this mirrors the system described by Bartle [2], however Humphreys & de Zwart place greater emphasis on the "blurring of boundaries" between these stakeholders, and highlight the important role that ever changing participant behaviour has on managing the process, noting that such behaviour is "both hard to control and hard to predict" [p. 521-522].

Lemley [21] draws comparisons between Virtual Worlds and early internet subculture, allowing comparisons to be made between contemporary gaming environments and other cultures developed online, as I do here with the offshore gambling industry. Specifically, he argues that the early internet was "a place inhabited by a small and relatively insular subculture that created its own set of norms [...] largely outside the view of the world at large" and that "it didn't really matter what we did on the Internet because it was just the Internet. Bits – ones and zeros – didn't have any real significance" [p. 576].

Lemley argues that such an approach still persists in Virtual Worlds, and recounts a discussion with a federal judge he considers one of the more advanced in such topics, who stated that one could not defame an avatar "because it's not real. It doesn't actually mean anything". Lemley argues that this is false and that "false and malicious" claims about the reputation of an avatar, or other online alias, would have the same reputational and psychological impact as if the claims were made about a real world identity.

Finally, Lemley argues that the architecture, or design, of a virtual world shapes the behaviour of participants as least as much as the legal rules or social norms of the platform, whilst highlighting the difference between Virtual Worlds and other internet-based platforms. In the comparison of norms and governance in the offshore gambling industry and the MMOG EVE Online that follows, I highlight a number of these differences.

Hickman & Hickman [15] consider the merits of alternative governance approaches for Virtual Worlds. They argue that there is a "perceived separation" between the real and the virtual, which they justify by comparing the behavioural norms in the real world to virtual world experiences. They argue that by opting into particular environments, and thus the norms of that environment, users "[signal] their otherness from the real world" [p. 549].

The authors continue to discuss the significance of norms. They dismiss EULAs as "at heart, boilerplate rhetoric that may well be unenforceable under the actual law of the land" [p. 553], while noting that the costs of challenging EULAs in courts is likely to be greater than any proceeds from the challenge, making it unlikely for participants to challenge the document, and thus leaving the only remedy as choosing another platform with a less restrictive EULA. At the same time, they argue for the importance of community norms, noting that while new participants to the environment are likely to have their behaviour influenced by the interface and the EULA, eventually the community norms come to dominate. [p. 554]

Hickman & Hickman suggest identifying the rules of each platform by combining formal agreements with community norms, arguing that users of the platform are likely to give equal weight to both the general social practices that they witness and the rules set by the publisher for the environment [p. 568]. Whilst both are significant, I would question whether they are equal, as the design of the environment, and the means through which the explicit rules are communicated to the user, would seem to alter the extent

to which the two parts of the equation contribute to the users experience.

They also discuss a community's structure as a significant factor in the mode of governance under which it could successfully operate, noting that a hierarchical community, in which the users have specific roles and there are higher authorities to aspire to and consult, would seem "more amenable to self-governance through shared norms than one ruled by fiat of the publishers" [p. 569]. In many ways, this reflects the situation in both Eve Online and the offshore gambling industry in which a group of users, through the creation and management of external news sources, blogs and/or forums, are able to influence a range of participants.

As these approaches highlight, discussing Virtual Worlds in terms of community norms is by no means a unique approach. However, the case studies herein both confirm and contradict a number of the principles set out above, and in doing so highlight how we may identify norms and their value both to understanding the relevance of a particular governance approach and for establishing the precedents under which dispute resolution may apply in such spaces.

3. METHODOLOGY

The research draws specific case studies from both a gaming environment, Eve Online, and from the offshore gambling industry, with those cases selected through theoretical sampling, representing times when rules, norms, or a combination of the two were in dispute due to the actions of participants within the environment. Within each case, data was drawn from a number of sources; my own experiences, community blogs, forums and Twitter conversations in the public domain, official statements from company representatives and, on occasion, other academic accounts of events, archived, and, later, analysed and further explored iteratively as I established both common factors and differentials. One aspect of working with online gaming environments such as EVE Online is that access to areas of space is significantly restricted [34], and so an approach combining direct in-world experience with meta-analysis allowed more areas of the environment to be considered.

My approach to selecting the environments to focus my research on, as well as the specific data within each environment to collect, was heavily influenced by readings in Grounded [7] and theory building from case studies [11,12,13]. Another significant influence was the work of Ostrom [25,26,27], and while the governance material was inspiring as a starting point for significant factors and challenges to self-regulation, a key take away from this approach was the importance of multiple case studies, both for initially forming and subsequently testing approaches to self-regulation in particular spaces.

4. CONTEMPORARY ENVIRONMENTS

The approach of authors such as Caillois [3] does not seem to extend well to the type of contemporary online environment in which the majority of players are found, and in which the majority of material disputes currently arise. Firstly, the definition seems overly broad, as we could construe 'alternative means' to be anything from forums to wikis, add-ons to interface overlays, keyboard macros to fully automated bots. Secondly, as with Bartle [1], such an approach is problematic; it is not the case in contemporary environments that professional players do not change the environment (or, as Bartle phrases it, exist in a different magic circle). Gold farmers have a direct effect on the economy by increasing the supply of resources, and in a game with legitimized real money trading it is hard to say that they are breaking the 'conventions' of the game, so long as they operate within the same rules as other players.

Crawford [9, p39-40] notes "It's easy to ruin a good challenge by exploiting loopholes in the rules. No matter how carefully you set up the challenge, somebody will think of a way to subvert your system. One solution to this problem is to write reams of rules to prevent every imaginable form of cheating", arguing "players rely on simple rules and reject clever tricks that subvert the challenge of the game. "No fair!" is a cry that makes up for a lot of complicated rule-mongering". In contemporary online environments of course, there are two problems with such an approach: the players may not know each other and are likely so geographically diverse that the social implications of Crawford's "no fair" cry are unlikely to have impact upon their participants. Further, whilst developers and publishers can certainly "write reams of rules", technical limitations may prevent their implementation; it is, for example, often hard to differentiate between sophisticated automated play and that of a human participant.

Koster [18, p112] argues that cheating is a form of competition, noting that the human mind naturally seeks shortcuts, and that "once a player looks at a game and ascertains the pattern and the ultimate goal, they'll try to find the optimal path to getting there […] players often have little compunction about violating the theoretical 'magic circle'", or, more simply, "many players are willing to cheat". His overall perspective – that this is natural and a sign of lateral thinking rather than a problem – is supported, he claims, by warfare, "where it [cheating] is acknowledged as one of the most powerful and brilliant of all military techniques", concluding that by cheating, the player is "choosing a battlefield that is broader in context than the game itself ... From a strict evolutionary point of view, cheating is a winning strategy. Duelists who shoot first while their opponent is still pacing off are far more likely to reproduce.

Koster [18, p114] also notes that designers and players struggle with defining cheating, but for him "it boils down to whether or not the extraneous action is one that resides within the magic circle", noting the issue with players attempting to enforce rules which are not enforced by the technological system. He argues the preconception with gaming environments is "if the game permits it, then it's legal" and that those attempting to solve this are "fighting a losing battle against a natural human tendency: to get better at things". Dekoven [10] highlights other examples of this, noting that there are cases where players bend the rules to create a fairer environment.

In online environments, where you have a multitude of human actors, these problems are only amplified. In the gambling industry, players and providers normally accept that players will attempt to do whatever they can to gain an advantage within the rules. Here the term rules actually refers to some form of composite between the written terms of service and industry norms, so as to prevent rules stating "If you deposit on a Tuesday, 25% of your balance will be transferred to our Christmas party fund" (a hypothetical and extreme example).

During my research period with *Eve Online*, two notable groups of issues proved problematic for CCP and participants alike. The first of these is exploits – i.e. the game software allowing a player

to perform an activity not intended by the developers, and the second is the use of external products or macros to automate actions of the in-game experience.

The use of such external aids is not new, and indeed Taylor [33, p137] describes the development of a product, EQ Macros, "that allowed players to record and play back keystrokes. According to its developers, the intended use was not to create unfair advantages but instead that 'EQ Macros takes the grunt work out of playing EverQuest, and makes it more fun.'" Taylor also describes a tool by the same developers called Xylobot, which was a more generic tool that "included on-screen maps, waypoints, and auto-start options", and notes that these applications were not free, though did provide trial versions. At the same time, players using "EQWindows or, more often, had second computers attached to the Internet, were able to use map sites and the vast helper databases available".

Players "found a range of functionality not proscribed by the game's designers", and that "with an abstract notion of "fair play" such helpers certainly could constitute cheating in the minds of some, though I think they are better seen as pointers to underlying design insufficiencies within the game itself or alternative play models deemed illegitimate or not fully accounted for" [33, p138]. One example of this was ShowEQ that, Taylor notes, was "deeply contested by both fellow players who do not use the program and EQ's designers". This software was a source of much debate, and Taylor noted, "Its existence prompts discussions about not only what fair play is, but what the legitimate bounds of the game are".

Sony did crack down on the use of automated scripts in the same way CCP subsequently have; issuing bans to those found using the scripts. However, the debate within gaming communities surrounding whether such action is cheating continues, and it would appear that amongst operators some use of artificial aids is considered fair game, akin to players optimizing their performance or advantage play, whilst others are seen as crossing the boundary to cheating – frequently when the artificial aid takes action for you. However, both exploits and the use of artificial aids are equally difficult to delineate – where is a player using their skills (in or out of game) to gain an advantage, and when are they cheating? If we acknowledge the use of Wiki's and other tools, but ban automation, is the act of scripting what we are actually prohibiting.

5. GAMBLING INDUSTRY

The term 'advantage play' is used in the gambling industry to represent actions taken by participants who attempt to gain an advantage; that is, to make their bets profitable by overcoming the inherent house or bookmaker advantage on bets, whether casino, poker or sports. Participants are able to do this through the use of weaknesses in the gambling operators; be they technical (such as allowing related bets to be bet in a parlay) or mathematical (such as offering lines which are so out of line with the market consensus that they are subject to arbitrage). Importantly, however, they are able do this without breaching the codified terms and enforced guidelines.

One application of the advantage play vs. cheating distinction in the gambling industry is the betting of correlated parlays (a form of multiple bet in which the payout is the product of the odds) on sporting events. In American Football, there is a clear and obvious link between the handicap spread on a particular match (e.g. USC -38) and the total (USC vs. Louisiana Tech over 42). Individually, each of these may be approximately 50/50 propositions, however if USC were to score enough points to cover the 38 point spread (that is, score 39 or more), then the chances of there being over 42 total points in the match are significantly higher than 50%. Accordingly, in such cases it is possible to quantify the advantage that the player is obtaining by betting such a parlay; the advantage in the example given being much higher than if USC were 3-point favorites and the total was 60. This has allowed operators to, over time, draw up boundaries (often specific to each operation) at which they are willing to accept such parlays, defining those they allow as 'advantage plays' (which may result in the player eventually being limited or banned), and others as 'cheating', which they ideally refuse to accept, or, where software does not support such an option, subsequently void.

However, there are also other examples that bear a closer resemblance to the types of issues that exist in contemporary online environments. Below, I highlight two software-based solutions which, for a number of years, allowed players to gain an advantage on platform operators; the first of which could be reasonably termed advantage play, whilst the latter would be considered cheating – however, until relatively recently, was largely undetectable.

For a period in the early 2000s, customers at Matchbook betting exchange were able to take advantage of delayed lines to obtain no-lose positions on sporting events. Matchbook, similar to Betfair in the European and Australian markets, allows players to bet on either side of a market and place bets that may be matched by another player in the future. Whilst the source of the original offers is a subject of some uncertainty, Matchbook have always had offers on both sides of popular markets during the hours before an event, which appear to be generated and updated automatically. In fact, it was evident that the offers were being generated using the XML feed of Pinnacle Sportsbook – a market leader for US-facing sports. Essentially, the XML feed provided a text feed of the current odds at Pinnacle, which player developed tools could then automatically place as offers on betting exchanges such as Matchbook.

The weakness, and the opportunity for players, existed because Pinnacle only allowed periodic calls to their XML feed and – in any case – the XML feed itself appeared frequently delayed by some seconds. This, together with an existing market for live information filled by services such as G&J Update, Don Best and SportsOptions, meant that a relatively small number of participants had pricing information ahead of the Matchbook market. This allowed participants to place a bet on one side of the market when the prices changed, wait some seconds for the market to update once the change was reflected on the Pinnacle XML feed, and subsequently bet the other side for an immediate profit. This opportunity existed for a number of years until a change in the Matchbook commission structure resulted in players being charged a fee on each bet made; negating the advantage. Nonetheless, Matchbook paid all players without complaint.

'Casibot', whose website still offers such tools, is representative of tools that were used for some years to automatically play blackjack and other games offered at a large range of online casinos. Blackjack, depending on the precise rules offered, can result in a loss of less than 1% of volume on average, and on specific games as low as 0.28% [31]. As a result, over any significant number of hands, the platform operators were still

expected to make a profit, and thus at first glance it would seem odd that players would wish to automate this and generate higher turnover.

However, from the late 1990s, online casinos were part of a rapidly growing and incredibly profitable online sector. To obtain and keep customers, casino operators were offering 100% or greater bonuses on deposits, with a relatively small turnover requirement – often 5 times or less. This meant that a player could deposit $100, receive $100 in bonus funds (for a total account of $200), play blackjack hands equivalent to $1000, and cash out the account. On $1000 of blackjack, at a 1% house advantage the average player would lose $10, giving them a profit of $90 on the endeavor, which given the number of operators could be repeated almost infinitely, providing a steady income. Many did this manually, even playing $1 hands to lower the variance, and whilst occasionally attempting retrospective action, in general casinos did pay out with no or minimal intervention.

However, some players saw a further opportunity. To make a consistent income, minimizing variance was important, and playing 1000 $1 hands could often take even an experienced player over 2 hours; whilst playing perfect strategy (to keep the house advantage under 1%) required significant concentration, resulting in this being an extremely tedious activity. Instead, players wrote applications to automate the process, an example of which is the Casibot software, however a number of private and semi-private solutions were developed. These tools evolved to become quite advanced, including random mouse movement and 'toilet breaks', could be relied on to play uniformly perfect strategy, and required minimal human intervention or effort.

This, in time, led to an arms race with casinos attempting to detect the use of the application, similar to that in recent years between CCP and a small number of *Eve Online* participants, who developed and used bots to accrue environmental resources whilst the developer, CCP, and player community attempted to detect and sanction them.

The reason I consider this cheating, as opposed to advantage play, is that such applications were a clear contravention of the terms of service – and one that the community felt reasonable to enforce. Thus, the players had gone from advantage play – profitable and legal, to cheating – profitable but illegal, however enforcement remained problematic. It is this type of distinction that is important to consider when evaluating behavior in contemporary virtual environments, and key to any eventual attempt to implement dispute resolution in such environments.

6. EVE ONLINE

This behavior seems particularly problematic for developers. Taylor [33, p136] notes a trend amongst developers that "at time expresses itself with statement about players 'not playing right', 'causing trouble' or 'ruining gameplay'. In general, there are fewer examples of this in Eve Online – the site of my recent ethnographic study - than many other environments, as Eve is a relatively free-form world in which the developer, CCP, adopt a laissez-faire type of regulation; that is – pretty much anything goes – within the environment. As mentioned previously, however, the caveat is important; the use of external aids to automate parts of the in-game experience being seen as problematic by CCP just as it previously had by Sony.

There has been much discussion in the Eve Online community on the subject of automation as a form of cheating. During 2011, the player-operated blog Eve News 24 published a series of exposes on large-scale botting operations, as well as companies operating large-scale real-money-trading within the Eve Online Environment.

Whilst real money trading is problematic, and through my involvement with the environment it became apparent a community norm existed against the activity, it is nonetheless an activity from which other participants do not see a direct impact. By contrast, botting actively removes resources from the environment that other players could obtain, and allows those partaking in the activity to quickly accrue more resources than other players, and EVE is ultimately a game about controlling resources.

Thus, when *Eve News 24* exposed a large real money trading operation, IskBank, in EVE, the focus of a large section of the community was on how they acquired the resources they sold. In theory, the proprietors of the site, and their contacts, could have manually participated in the environment themselves or hired people to do so, in the fashion of traditional 'gold farming' operations frequently discussed in the context of World of Warcraft. However, experience of the environment led to the conclusion that it would be extremely difficult for IskBank to acquire the currency at the rate they did, and indeed, in an interview with Eve News 24 Vadim, proprietor of IskBank admitted using botters [20].

Botting (or automated play) takes a number of forms in Eve. One such operation is a mining bot, which is tasked with continually extracting resources from asteroids or moons, often in a chained fashion repeated daily after the resources reset. Another example is belt combat bots, which travel from system to system, again through a chained path, killing drones and AI agents, collecting dropped resources and possibly salvaging the wreckage of the ship. Thirdly, there are market bots which, often working in conjunction with the other types of bots, but also occasionally alone, monitor markets and undercut genuine player offers by 0.01 ISK, guaranteeing the best price for resources.

All of these, and indeed all forms of automation, are in breach of CCP's terms of service. CCP Spitfire [5], writing on the EVE forums, commented "Any means to automate the gameplay in EVE Online directly violate our terms of service, and (regardless of what someone might have told you) such behavior is not tolerated." and CCP developer Pollux [4], in a developer blog, commented "One particular type of cheating that the ESTF [Eve Security Task Force] has been focusing its attention on is programs that automate EVE's gameplay on behalf of a player, or bots. In the past months of our war against the bots, we have been constantly identifying and tracking players using different types of bots, enforcing our policies and giving them their time off from New Eden".

During the EVE News 24 investigation, the community blog conducted a number of interviews with players who had participated in the activity. Fred [14], who claims to have "never cheated in a game ever prior to this, not even considered it", considered that botting was so prevalent within Eve that he had suffered an "attitude wear", and investigated botting; after starting to use the software, he noted that botting paid for his accounts and kept him able to compete at a high-level within the environment. He comments, "I'm pretty sure that the average user do as I do. We use bots as a mean to pay for our accounts, and to get what we need without spending hours on hours to grind for it". As was the case with all of these accounts, the story met with an

overwhelmingly negative reaction from the *Eve News 24* community, with comments such as "go play something else and fuck that game up if you want to bot, at least on those games, you're not fucking up the entire economy in your efforts to automate winning".

Both McAdams [22] and Strandburg [32] suggest this is expected behavior when participants feel that rules or norms are not being enforced. Indeed, such behavior also mirrors Ostrom's [27] theory of 'memory loss'. In the past, rules against botting had been enforced, however due to staff re-organization there was "a period of time where nobody had responsibility for handling the technology responsible for nuking botters" [20]. In time, this led to the type of 'memory loss' outlined by Fred.

Records obtained during the community investigation show Paul [28] to have been a regular customer of Iskbank. Paul wanted to acquire ISK to pay for equipment and resources within the environment to progress his character. Subsequently, he wanted ISK to fund market speculation – either arbitrage (different prices for items in different regions of space) or predicting that a game change or other development will lead to a change in resources value making it profitable to stockpile and then sell items. For Paul, Iskbank was simply a cheaper way to acquire ISK. He commented, "It's simple, really. ISK is cheaper thank (sic) PLEX, and PLEX is just a legalized way of buying ISK". Over the course of several months, Paul spent more than $1,000 on ISK. Asked if he'd been caught, he replied, "Nope. If I did [get caught], I doubt I'd continue."

Both of these accounts indicate a lack of clarity amongst players as to where the line was drawn between accepted behavior which some members of the community perceive as cheating (such as the buying of in-game currency for real world money), and that which the platform operator perceives as cheating (the use of bots, or acquiring in-game currency from a source other then themselves). Additionally, they show the role both community norms and codified rules, and there enforcement have in shaping environmental behavior; in this case the other community members were able to have players stop participating in such activities before the platform operator were able to, and at least a portion of the blame for the participants behaving in such ways to begin with can be attributed to platform operator inaction.

7. CONCLUSION

The differentiation between cheating and advantage play, as applied to contemporary online environments, seems supported by both traditional play literature and contemporary designer accounts. Whilst it is primarily a distinction of terminology, loosening the rhetoric around cheating to me seems advantageous. We can essentially divide play approaches into three styles; developer-approved, advantage play and cheating. By doing so, we can closely align disputes arising within online gaming environments to those in the last 10 years of offshore gambling, making use of precedents and resolution strategies where appropriate.

Koster [19], whose work on both cheating and players natural inclination to seek advantage I discussed previously, also includes a rule stating that "No matter what you do, someone is going to automate the process of playing your world, and that "Looking at what parts of your game players tend to automate is a good way to determine which parts of the game are tedious and/or not fun."

Given this, it seems inevitable that similar challenges to those discussed above are likely to be experienced in other online environments as the industry continues to develop. As we are beginning to see with 'Complete Gacha' in Asia [29], in which certain gaming mechanics have been determined to be gambling, and are being legislated as such, as well as in the move of social networks towards having games with the option to spend real world currency for in-game rewards, such environments are likely to face increasing regulatory interest. Additionally, the increasing prominence of real money as both an input and output in these environments is likely to lead to participants continuing to search for ways to profit from the environments.

As such, the distinction between cheating and advantage play is likely to become ever more blurred, and terms and conditions ever more specific to counter such styles of participation. Additionally, however, participants are likely to seek increased protection for acts that they consider within the terms of service at the time they were performed and which led to realizing a profit from the environment, causing an increased need for dispute resolution and determinations made as to whether specific behavior is fair or foul. Advantage play provides us with a term to categorize behavior which the platform operator may not encourage, but is not in breach of their terms and so should not be sanctionable behavior, whilst additionally providing us with a constant reminder that players will always seek out optimal play styles, and whether developer or regulator, it is important to be aware of such participants.

Whilst participants certainly care if others cheat [8], it is once when we begin to see real world consequences that governments and other regulatory bodies become interested in the space, and where a form of regulation outside of the game space becomes significant. In both the offshore gambling industry and contemporary online environments, there is geographical disparity amongst users, a lack of dispute resolution or enforcement options between customer service departments and the courts, a continual supply of disputes, and often significant issues with terms of service documents, particularly in cases where the codified rules differ from the community norms. In these spaces then there remains an argument for such a service to be provided, whether that is through pressure brought by the player base or through some mode of self-regulation.

Whatever definition of cheating one ultimately prefers, these are clearly issues on which the community, and perhaps best the community, is able to adjudicate. For it is the community which best understands the practices which have become commonplace, the precedents set in the past by the developers, and the norms which are established.

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