IDENTIFYING MOTIVATIONS BEHIND PLAYER TOXICITY IN COMPETITVE SETTINGS

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On my honor as a University Student, I have neither given nor received unauthorized aid on this assignment as defined by the Honor Guidelines for Thesis-Related Assignments

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Introduction

Toxicity is a common phenomenon in video games that involves players insulting, berating, and harassing other players. Toxic players are present in every game, regardless of the actions taken to prevent them from ruining other players' experiences. About 25% of customer support calls to video game companies from players of their respective games are on the topic of toxicity (Blackburn, 2014, p. 1). Usually, punishments of toxic players are carried out without much question of why they were behaving in the way that they were. While it is important to take preventive measures and actions against toxic players, it is equally important to understand why they behave in the way that they do. It is better to understand the root of the problem, which is why players behave in a toxic manner, than to blindly come up with solutions to preventing toxicity. Unfortunately, the research that has been done on analyzing player toxicity doesn't completely encompass the reason for their behavior (Neto, 2017, p. 1). As of now, there only has been research done on toxicity in non-competitive settings. While this is useful, not knowing the reasoning for toxicity in competitive settings takes away from completely understanding the root of the problem. Why does this matter? Toxicity from players in game causes other players to feel frustrated and have a negative experience in their games (Neto, 2017, p. 1) and not fully understanding why players behave in this way continues this negativity in video games.

In this paper, I focus on research identifying the reason behind toxic behavior in competitive settings. My research shows that the main reason players are toxic in competitive settings is because they feel the need to win at all costs. They will lash out at other players if they

feel that the performance of their game isn't reflecting their standards. In conjunction to further research, this paper will be using Slovic's model in "Beyond Numbers: a Broader Perspective on Risk Perception and Communication" (Slovic, 1994).

Problem Definition

It is important to define what is currently known and what is not known based on the existing research that is present.

What is known

The biggest contribution to toxic behavior is player motivation. Specifically, this is what the player intends to get or achieve out of playing the game. Player motivation can be categorized into four categories: play as power, play as progress, play as fantasy, and play as self (Lin, 2005, p. 3). Play as power is when the player does whatever they want but at the expense of other players (Lin, 2005, p. 3). Play as progress relates to when the player wants to learn from the game and have some form of achievement. Play as fantasy refers to the player's desire to engage in fantastical and fictional games that stimulate creative and imaginative thinking. Play as self is what the player does to get the most out of a game to achieve optimal life experiences (Rieber, 1996, p. 2,3). According to Lin and Sun, some toxic players fall into the category of play as power.

Neto and coauthors built an analysis model using the League of Legends (LoL) tribunal, which contains full matches of players who were reported for toxicity, that can classify in-game chat messages as positive topics, negative topics, and offender topics. It gives insight into what toxic players are saying to other players in the match, which is helping for understanding how

toxicity is present in competitive settings and how toxic players utilize play as power in their matches, but doesn't tell us why the toxicity is present.

Aside from abusing the in-game chat, toxicity can be present in other forms. For example, in team-based games, there is a term called "teamkilling", when a player kills another player who is on their team, which puts the team at a disadvantage because they have less players who are able to play the game against the opposing team at that given moment. While a game mechanic like this seems counterintuitive, some developers make it a feature of their game because it adds more depth to the game and forces players to make decisions around the possibility of unintentionally killing a teammate. Intentional teamkills are where player toxicity comes into play. Why would anyone consciously put their team at a disadvantage? They do this because their motivation for playing the game falls into the category of play as power. Whether they know that their actions negatively impact the other player's experience or not, they are acting in a selfish manner, putting their experience first at the expense of another player's experience.

What is unknown

While player motivation for being toxic in non-competitive settings is established, it is not in competitive settings. This is partly due to the fact that there is a difference in goals between players who play competitive games. Some players in these games play to win while others plays just to have fun. In essence, it is a difference between play as power players and play as self players. Rieber also defines play as power as "contests or competitions in which winners and losers are declared," (Rieber, 1996, p. 2). Players whose motivations fall into play as self are more likely to not take the game as seriously as players whose motivations fall into play as power. Because of this, the players who are actively trying to win and take the game seriously

are going to feel frustrated towards those who are not. Most games have separate game-modes for both types of players. “Casual” game-modes exist for more relaxed gameplay that is more suited for play as self players and “ranked/competitive” exist for play as power players who want to play the game with rules that closely adhere to the rules in professional matches. However, both types of players can be found in “ranked/competitive” game-modes, causing frustration between both groups of players.

category	description	rules	examples	precedence	unique count
nonlatin	special character, foreign language	pattern	文章	500	20133
praise	acts of courtesy, kindness, sport spirit or gratitude	list	gj, gg, thx, hf	100	295
bad	profanity, swear words, inappropriate language	list, letterset	noob, idiot, f*	90	4881
laughter	acronyms expressing laughter	letterset	HAHAHAHA, lol, ROFL	60	2158
smiley	emoticons, symbols resembling faces or emotions	pattern, list	:D, ;), oO, -_-	50	1110
symbol	symbols or numbers	pattern	?, 1, ..., ??!?, /	40	3181
slang	DotA-specific game-technical terms, used to coordinate with team	list	ursa, mid, back, farm, bkb	30	10046
command	in-game commands, control words to trigger certain effects	pattern	!ff, !pause, -swap	20	2513
stop	English stop words	list	was, i, it, can, you	10	1322
timemark	automatically generated time-stamps, prepended in pause-mode	pattern	[00:05], [01:23]	5	223

Figure 1: Word/Phrase Annotation Categories and their Frequency (Martens, 2015, p. 3)

Figure 1 shows categories of words and phrases with examples after filtering through chat logs from the game DotA, which is a game that has a competitive scene. As a result, the difference in motivations between the two groups of players exists in this game. One of the categories in Figure 1 is “bad”, which can be attributed to the result of the frustration of the players who play to win. Words such as “noob” and “idiot” are often used by players who think another player isn’t performing to the standards that they expect. Even though this data was extracted using the game DotA, scenarios where words/phrases that are used from the “bad” category can be seen in other games as well.

Methods

Video game companies are constantly assessing what they need to change or update in their game to both get new players and keep existing ones. Toxicity is a factor that drives players away from certain games, especially if those games are known to have a toxic player base. However, dealing with toxicity becomes one more thing that companies need to do on top of creating new content or fixing bugs. As a result, the level of toxicity becomes a risk that companies need to keep in mind. If the player base overall becomes more toxic, it would discourage new players from playing the game due to its reputation and make existing players stop playing the game.

Slovic's paper "Beyond Numbers: a Broader Perspective on Risk Perception and Communication" provides a model for analyzing risk. There are three key concepts that are presented in it: different people perceive risks in different ways, the way information involving risk is presented may affect how people react to it, and risk and dread are not very correlated and they are both perceived at different degrees by the public.

The way people perceive risk is often dependent on their personal experiences and beliefs. Specifically, how people judge risk is "influenced by the memorability of past events and the imaginability of future events," (Slovic, 1994, p. 3). Because of this, traumatic events such as death or injury will often leave memories that change how people perceive the risk, even if the perceived risk was low before the event. Additionally, prior beliefs impact risk perception as well. Slovic states that beliefs are often persistent of new information and once a belief is formed, "initial impressions tend to structure the way that subsequent evidence in interpreted," (Slovic, 1994, p. 4). This is especially true after a person faces a traumatic experience.

Risk perception also depends on how the information that they receive relating to it is presented to them. People who don't have prior beliefs or experiences relating to the risk are

susceptible to “subtle changes in the way that risks are expressed” and “can have a major impact on their perceptions and decisions,” (Slovic, 1994, p. 4). Information can be presented in a number of ways but depending on the wording and format of how that information is presented, people may perceive risk based on that information differently. For example, presenting the statistics of a certain medical procedure in terms of death rate verses survival rate will yield different reactions from people. People who are presented with the death rate are more inclined to perceive the procedure as a high risk operation while the latter are more inclined to perceive it as low risk.

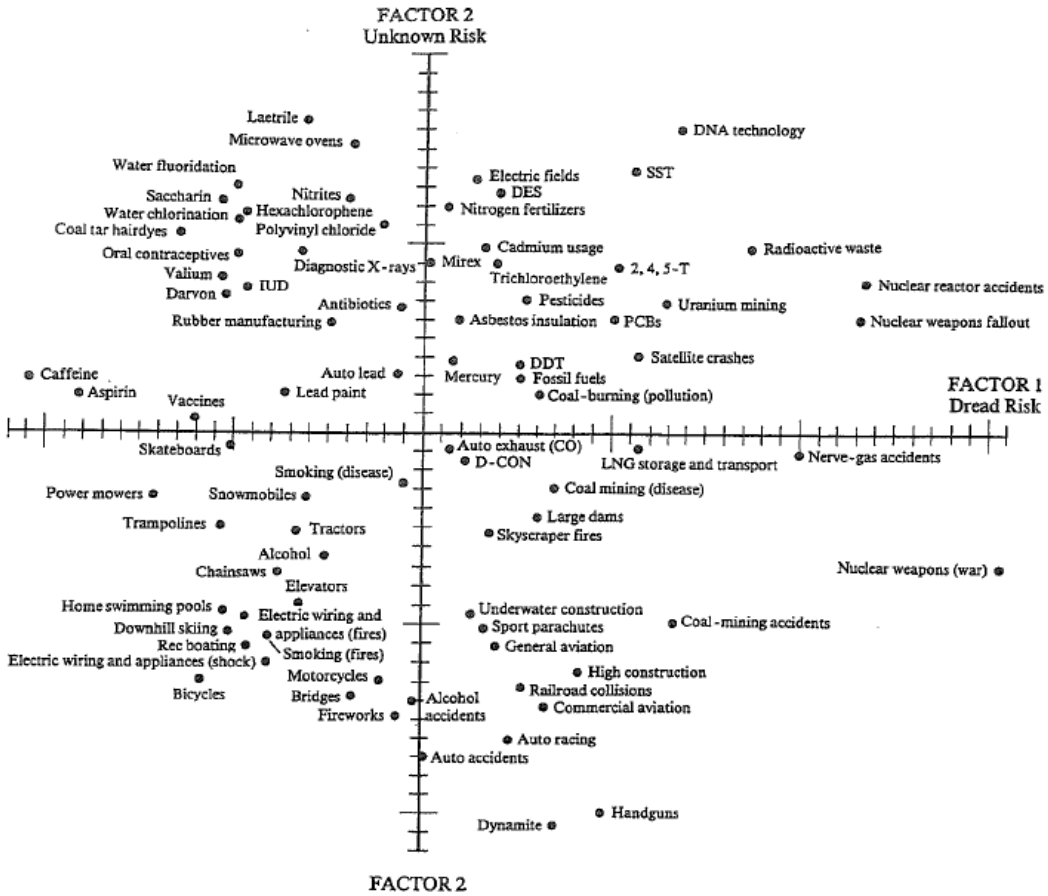

Figure 2: 81 Hazards and their Relationship between Dread Risk and Unknown Risk (Slovic, 1994, p. 11)

Risk of the unknown and risk derived from dread are very uncorrelated. Unknown risk is how observable the risk is and dread risk is how controllable it is. Figure 2 demonstrates this relationship well as it includes a wide range of hazards that people can face. The total of all 81 hazards are evenly spread on the graph, indicating this lack of correlation. It is clear that from Figure 2, people see risk differently depending on what it is, especially if it involves their experiences.

Unfortunately, toxicity is sometimes kept on the backburner by some companies because it is "part of the competitive game culture akin to traditional sports," (Türkay, 2020, p. 1). These companies see toxicity as a low risk because it has always existed and as a result make little effort to even mitigate the problem. In some games, they become almost echo chambers of toxicity as more and more players continue their toxic behavior because it goes unattended. Fortunately, there are companies such as Electronic Arts, Infinity Ward, and Valve who have launched anti-toxicity initiatives (Ratan, 2020, n.p.). These companies most likely view toxicity as a high risk to the player base in their games. These companies have assessed the risk of toxicity differently based on their experience and player feedback and act on that perceived risk differently.

Additionally, players need to assess the risk of their toxic actions verses how the game handles punishments. With companies launching their anti-toxicity initiatives, players may need to reevaluate the risks involved with toxic actions. In their game Rainbow Six Siege, Ubisoft announced that they are planning on making changes to their approach of toxicity. One feature that they plan on adding to their game is a reputation system, where each player has one of three reputation standings: positive standing, neutral standing, and negative standing. Figure 3 highlights the factors that contribute to the reputation of a player, which include toxic actions

such as teamkilling or communication abuse (Ubisoft). If their reputation score is low, players may miss out on in-game rewards or face communication sanctions.

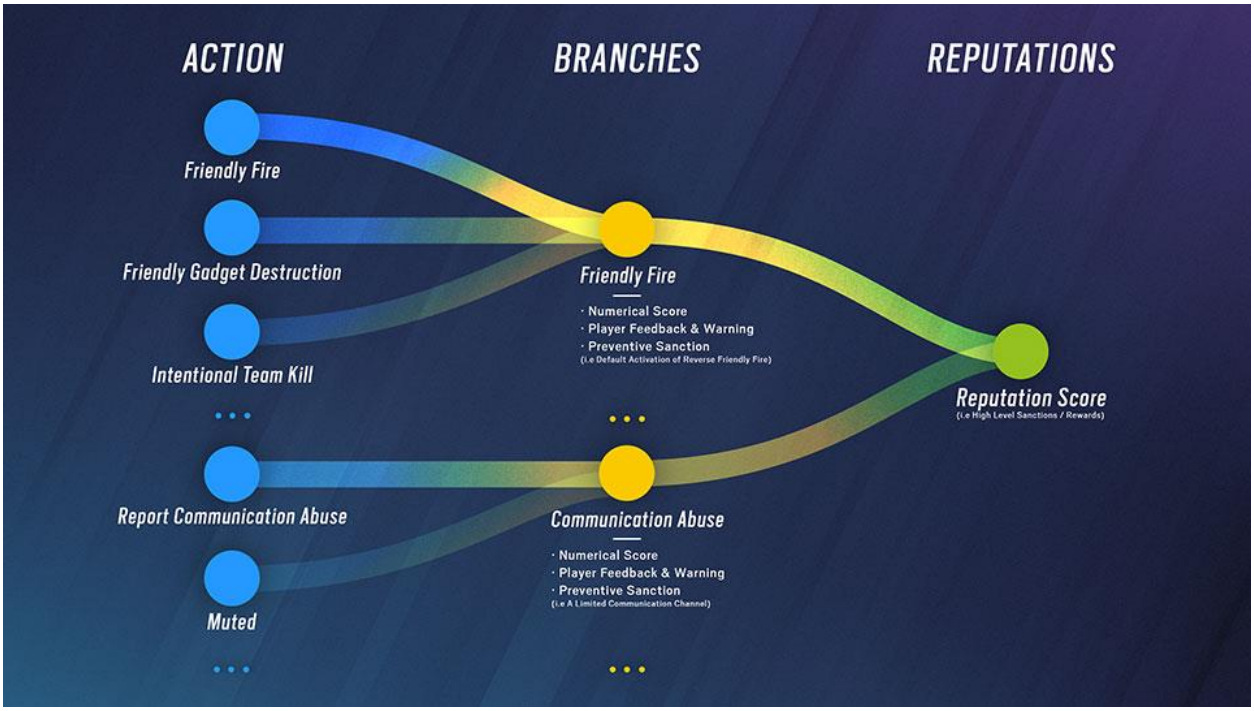

Figure 3: Rainbow Six Siege Reputation System Score Breakdown (Ubisoft)

With companies taking action against toxic players, players run the risk of being excluded from crucial features within the game. Communication is a key aspect of online video games and having that taken away means missing a large part of those games. As a result, weighing the risks of being toxic becomes very important to players if they want to enjoy the game.

Results

At the beginning of this paper, I hypothesized that the reason why players are toxic in competitive settings is because they feel that they need to win their matches at all costs. This

hypothesis came from prior research and experience in online competitive video games over several years. However, after further research, there seem to be more reasons than just one.

Toxicity sometimes stems from a player's desire to win at all costs. As mentioned before these types of players fall into the play as power category when categorizing their motivations for playing their competitive game of choice. Sirlin encourages this win-at-all-costs mentality in his book "Playing to Win", where he walks through the process of mastering any competitive game and progressing towards being one of the best of that game. The reason why players want to win at competitive games is because they "offer an objective measure of your progress," (Sirlin, 2006, n.p.). Players use wins to indicate how well they are able to perform in games over a period of time. If they lose a game, they feel that they are not making progress towards being the best at the game. In team based games, other players who don't share the same sentiment as play as power players are seen as a hinderance and frustrate those who want to win. Frustration from other players isn't the only cause of toxic behavior from play as power players. It can also stem from a term called "tilting". This is when poor performance can cause players to feel frustrated at their losses, causing them to behave in a toxic manner and decreasing their performance even more as a result of their negative mindset (Emmerich, 2020, p. 2). This cycle of frustration doesn't end until the player takes a break from the game and resets their mindset. However, other players become collateral from either verbal abuse or toxic actions from this player. The toxic players own mindset becomes the reason for their toxicity.

In addition to this, toxic players often have other motivations for behaving the way that they do in game: pleasure, power, challenge, and control (Emmerich, 2020, p. 2). Some players genuinely find enjoyment out of harassing other players in their games and seek opportunities to do so. They like seeing that their actions or words caused someone to feel worse than they do

(Emmerich, 2020, p. 2). Even with the challenge of the game that they are currently playing, they see other players as a challenge to see if they can upset the other players. In a way, they gain a sense of accomplishment, not just from their performance in a game, but also from the reaction that they receive from other people (Emmerich, 2020, p. 2). Toxic players may see toxicity as a way to "demonstrate dominance" over others by belittling them. Taunting or trash talking other players in competitive games is a tactic used by players to off-balance their opponent's mental state (Sirlin, 2006, n.p.). They may also use their "dominance" in a game that they are not performing well in, where they may see it as a way to feel superior to others and cope with their poor performance. Finally, players may behave in a toxic manner because they were once victims of toxicity (Emmerich, 2020, p. 2). Once again, they take out their frustration on other players, but instead of their performance being the cause of it, it is another player. This cycle of toxicity is the worst cause for toxic behavior because it only increases the amount of toxicity present in games.

Finally, the anonymity of online interactions allows for the facilitation of toxicity (Blackburn, 2014, p. 1). In a study done by Lapidot-Lefler et. al., participants were tasked to debate with one another, where one group was given anonymity with each other and the other group was not. The study showed that participants who were given anonymity while debating were more likely to be aggressive, hostile, or toxic with each other than the group not given anonymity (Lapidot-Lefler, 2021, p. 7). However, this distinction only happened when participants subjectively felt that they were unidentifiable to others (Lapidot- Lefler, 2021, p. 7). Because most interactions in video games are anonymous, the findings of the study can be applied to toxicity in video games. Players in video games are given a feeling of anonymity because their only identifying feature is their username, which is most likely not related to their

personal identity. As Lapidot-Lefler et al. found, players in video games are more likely to become aggressive, hostile, or toxic to other players because they are given anonymity. When a player wants to win at all costs, feels frustrated with the game and other players, or wants to exercise their "dominance" or "power" over other players, they don't feel bad when they are toxic to others. Toxic players subjectively feel that they are unidentifiable to others since their username is the only thing identifying them, so they have the belief that they can't be confronted or held responsible for their words or actions.

Conclusion

Toxicity is a problem that online video games have faced since the beginning. While this problem can't be solved entirely, it can be minimized to a point where it isn't seen as a big problem. The best way to reduce toxicity is by getting to the root of the problem and finding out why players behave in a toxic manner. The original hypothesis was that player toxicity in competitive settings stemmed from the players' desire to win their games. However, further research has proven that there are more underlying reasons for player toxicity. Video game companies are partially to blame for toxicity having a big presence in their games. Their risk assessment of how their player base is doing verses how much effort they feel they need to put into dealing with the toxicity greatly affects how "toxic" a player base is. Fortunately, there are companies making an effort to mitigate toxicity in their games. More importantly, players can be toxic for more reasons than just wanting to win. They could feel enjoyment from harassing other players, or they could want to show other that they are superior by putting others down. They also could be in the cycle of "tilt". All of these reasons are the building blocks of what causes toxicity. Now that they have been identified, toxicity in video games can be reduced one step at a time.

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