

An Overview of Trolling Behavior in Online Spaces and Gaming Context

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Abstract—Trolling is frequently observed in online platforms of communication, although, it remains as an obscure phenomenon. This is due to it having limited empirical research and lack of consensus about the definitions amongst scholars. This study aims to bring an insight into trolling behavior by presenting an overview of previous research on toxic behaviors that are considered as trolling in online communities and in the context of online gaming. Additionally, a questionnaire that is used to observe how trolling is perceived was conducted to 83 participants and the findings are discussed.

Keywords—trolling, toxic behavior, online games, computer-mediated communication

I. INTRODUCTION

Online platforms are beneficial environments that provide occasions for socializing with acquaintances, meeting new people with similar interests or having discussions. Even though providing a myriad of opportunities for these activities, online spaces like social media platforms and online communities are not always inherently safe for all of their users. One of the threats online users could face is being exposed to are toxic behaviors, such as trolling. Online games, besides of serving their main purpose, entertainment, are also sources of online communication and expression. As a result, this makes online games also susceptible for toxic behaviors and trolling.

In academia, online trolling is an ambiguous term. Although gaining interest of researchers in the past few years, trolling remains as a sophisticated phenomenon. This is due to it being an under-researched field. There is little empirical research about trolling. Additionally, the lack of agreement amongst the researchers makes it harder to obtain a unified definition of an online troll and what toxic behaviors are considered as trolling. Some researchers have identified certain behaviors such as deceptive and disruptive behaviors [1] as trolling. However, other scholars state that trolling does not necessarily involve hostile intentions [2]. In the context of online gaming, trolling definition broadens to include gameplay-specific types of trolling behaviors [3–5]. While acknowledging that trolling is not always performed with harmful intentions, it is important to mention that trolling is often associated with toxic behaviors and cyber-bullying.

In order to have an understanding of how trolling is perceived by people and especially by gamers who play multi-player online games, an online questionnaire was conducted. The questionnaire contains questions regarding general demographics, online multi-player gaming habits, how trolling is perceived and previous trolling experience. This current study is a derived from the first author's master's

thesis, which has a more extensive research design including other topics. Data regarding those questions are not in the scope of this study and therefore will not be evaluated in this study.

In this paper, the definitions of troll will be introduced by demonstrating the outcomes of different approaches that the literature had on identifying online trolls and what toxic behaviors are denoted as trolling behaviors. An explanation of these behaviors will be presented and trolling behavior in the context of gaming will be explored. The relation of trolling, toxic behavior or cyber-bullying will be discussed and similarities between these interrelated concepts will be highlighted. Then, the methodology will be presented, and results will be discussed.

II. TROLLING

A. Online Trolling

Even though there is no consensus of what is considered as trolling in literature, most studies agree that trolling is performed with a harmful intent. A scholar considers trolling as acting in a “deceptive, destructive, or disruptive manner in a social setting on the Internet with no apparent instrumental purpose” [1, p. 97]. Contrarily, other studies do not consider ‘deception’ as an identifier while presenting a trolling definition [6]. Hardaker's [7] research point the key characteristics of trolling, which include aggression, deception and disruption. The author defines a troll as someone who gains trust of a group by disguising into a non-hostile identity and conceals their true intentions that are causing disruption or starting or aggravating a conflict [7].

Conversely, according to Bishop [2], trolling used to serve the purpose of mutual enjoyment in an online community in the early 1990s. According to the author, this practice later has shifted towards an abusive form where it is not for mutual enjoyment any longer, but only for the perpetrator's enjoyment. This change took place during approximately the last decade and what trolling was in the early 1990's was very much different than what trolling is today. The author classified the two types of trolling as *classical trolling* and *anonymous trolling*. In classical trolling, the trolling actions were used as an instrument to welcome new members to an online community. Later, the toxicity of trolling started rising with a series of attacks on deceased person's memorial page. According to the author, this is when the friendlier version of trolling evolved into a malicious version, anonymous trolling, which followed with trolls sharing their online abuses of others online. The same study introduces another classification for trolling types: *kudos trolling* and *flame*

trolling, where the former is for the entertainment of others and discourages abuse, the latter may be offensive.

Besides of trolling for disruption and trolling for mutual enjoyment, recent studies have also identified other types of trolling behavior that do not demonstrate any similarities with these properties. According to a recently conducted study about Twitter trolls, politically charged trolls played a significant role in promoting lynching of the opposition leaders and journalists during key political happenings [8]. Mihaylov et al. [9] states that ‘*opinion manipulation trolls*’ spread misinformation in order to manipulate user opinion about products, companies and politics. Similarly, hired manipulative trolls are used to influence public opinion [9]. Another research found that there are trolls on Twitter that create content that also functions as criticism [10].

B. Trolls, Bystanders and Victims

The person who performs the trolling behavior is called a *troll* (or an *online troll*) and the person who is exposed to the trolling behavior is called a *victim*. The trolling behavior is usually directed specifically at the victim. The people who happen to witness an occurrence of trolling, but not experiencing it first-hand like the victim does, are called *bystanders*. These three roles were previously used as instruments to analyze cyber-bullying amongst junior high school students [11].

A study that instrumented an online survey with a sample size of 125 gamers found that frequent trolls were significantly younger and male, and trolls tended to have longer gameplay sessions [4]. In the same study it was reported that approximately half of the participants witnessed occurrences of trolling as bystanders either frequently, very frequently or always. Only 6% were found to be victims of trolling very frequently or always while half of the participants stated that they either very rarely or never been a victim in the past 12 months. Nearly all participants (97%) were reported to have been trolled in textual format, while 11% said that the trolling they have encountered was in an auditory form on the internet. However, among all the participants that have reported to being trolled during gameplay; 84% of them were trolled in auditory format and 72% of them experienced textual trolling format. Additionally 17% participants mentioned of another kind of trolling, which the authors categorize it as trolling that occurs as in-game behaviors [4].

C. Trolling Motivations

A recent study that examines comprehensive personality profiles of internet trolls found similarities between trolling with sadism, psychopathy and Machiavellianism [1]. The same study considers trolling as a reflection of everyday sadism by emphasizing their findings about a common characteristic of trolls and sadists; both enjoy distressing others. Moreover, the study also associated Bishop’s [2] flame trolling with sadism by stating that it is the troll-speak equivalent of sadistic pleasure [1].

In order to have a better insight of motivations for trolling in the context of gaming, researchers collected data directly from online trolls. Cook et al. [5] conducted semi-structured interviews with self-confessed trolls and found personal enjoyment, revenge and thrill-seeking were motivations for trolling. In the same study, boredom was also found as a component that leads to trolling and trolling due to boredom is perceived as a meta-game by the troll. Other studies support these findings. It was found that amusement, boredom,

attention seeking and revenge are reasons for trolling in online spaces and gaming environments [4], [12]. Other triggers include, being trolled, noticing weakness in other players and circumstantial occurrences like trolling in the pre-game lobby of online multi-player games [5].

D. Online Trolling in the Gaming Context

As mentioned earlier in this paper, the types of trolling behavior that are observed in online spaces like social media platforms and online communities are insufficient to cover trolling behavior in the context of gaming. When we consider the in-game communication dynamics, online trolling is redefined to include gameplay-specific behaviors [5], [13], that supports previously presented themes of trolling that are deception and disruption. Namely, griefing and feeding are toxic behaviors defined in the gaming context due to their gameplay dependent nature. Although they are not always considered as a type of trolling and addressed separately by some scholars [3],[14], similar properties are treated as trolling by others [5].

Kwak et al. [13] explored toxic behavior in team competition online games by using large datasets based on the decisions made by the users. They have used the crowdsourcing system of an online game that makes decisions on what happens to reported players; should they be punished or not. Their research deals with the following aspects: assisting enemy, inappropriate name, intentional feeding, negative attitude, offensive language, spamming and verbal abuse. Even though they do not explicitly declare these behaviors as trolling behavior, in this present study these items are introduced to demonstrate how toxic behaviors are related to trolling behaviors.

Another study, that collected data directly from self-confessed trolls to have an understanding of the perpetrators’ own perception of trolling, have broadened the definition of trolling, and identified two types of trolling: verbal trolling and behavioral trolling [5]. The explanations and the subdivisions are elaborated as follows [5, p. 3329]:

Verbal Trolling: Using a chat function in-game to troll another player.

Trash-talking: Putting down or making fun of other players

Flaming: Presenting emotionally fueled or contrary statements with an instrumental purpose.

Misdirection: Spread false information among targeted or general players

Spamming: Repeating game-unrelated chat either textually or audibly in-game.

Inappropriate Roleplaying: Pretending you are a different person (non-game-related) to obtain some kind of specific reaction.

Behavioral Trolling: Using existing game mechanics to troll another player.

Inhibiting team: Actively hampering your teammates’ in their goals.

Contrary play: Playing the game outside of what is intended by most players.

Aiding the enemy: Disregarding strategic play to make it easier for the opposing team to win.

Other studies, although using different names for types of trolling, demonstrate similar classifications. For instance,

‘intentional feeding’ is considered as a toxic behavior and defined as “when a player deliberately allows the other team to kill them, thus feeding the enemies with gold and experience in turn allowing them to become quite powerful” [14, p. 6]. This could be considered as equivalent to a combination of previously mentioned [5] ‘inhibiting team’ and ‘aiding the enemy’. Another phenomenon, which is also sometimes observed separate from trolling is called ‘griefing’. Warner and Raiter defines it as “intentional harassment of other players ... which utilizes aspects of the game structure or physics in unintended ways to cause distress for other players” [3, p. 215]. Contrary play, although it does not inherently include harassment, is similar to griefing. Another study has identified types of trolling as griefing, sexism/racism and faking/intentional fallacy [4].

This study conceptualizes trolling by combining often over-lapping types of trolling. Trolling taxonomy defined for this study is as follows:

- Insulting, using offensive language or hate speech
- Spamming
- Feeding
- Faking/intentional fallacy
- Misdirection
- Inappropriate roleplaying
- Griefing
- Flaming
- Trash-talking

E. Trolling, Cyber-bullying and Toxic behavior

Some studies point to a relation between trolling, cyber-bullying and toxic behavior. For instance, according to Binark et al. [8], trolling could be considered as cyber-bullying when it starts to include threats that might be harmful for the victim. Similarly, other studies classified trolling as type of online bullying or as a type of cyber bullying, where trolling often happens anonymously [15], [16]. Law et al. [16] suggests that bullies usually know their victim, and Lenhardt [1] states that their identities are usually clear. Therefore, bullies perform their attacks accordingly, where trolls seemingly do not have any purpose for performing their attacks [1]. Contrarily, trolling and cyber-bullying are considered as separate phenomena by some other studies. For example, Hardaker [7] evaluates trolling as impoliteness. Buckels [1] considers trolling as a form of online anti-sociality together with cyber-bullying, and states that the disruptive and deceptive nature of trolling may be distinguishing. Other studies define toxic behavior as a negative behavior that evokes negative emotions, has a long term effect in harming and could be exemplified as ‘griefing’, ‘cyber-bullying’, ‘mischief’ and ‘cheating’ [13], [14].

III. METHOD

A. Participants

The online questionnaire was filled in by 83 participants. There were 55 males (66.27%) and 28 females (33.73%). The ages of the participants ranged from 19 to 51 years ($M=29.84$; $SD=4.77$). Most of the participants lived in Turkey (79.52%), and the others said they lived in Ireland (5 participants), UK (3 participants) and 1 participant each in France, Canada, Iran, USA, China, Czechia, Finland, the Netherlands and Norway. 48 participants said they play online multi-player games, while 24 participants reported that they used to play but not

any longer. 11 participants said they do not play online multi-player games.

B. Questionnaire

The questionnaire has questions about general demographics; age, gender, country of residence, multi-player online gaming habits (e.g. gaming platforms, genre of games, who they play games with, the frequency of meeting with an online troll, average amount of time gaming per week). Then, there are questions about how trolling is perceived (e.g. *Which of the following behavior(s) do the trolls perform in games?*, *What is the motivation of the troll?*) and trolling experience (e.g. *Have you ever trolled?*, *Do you consider yourself as a troll?*). Some questions were adapted from other questionnaires [4] and some questions were added after pilot study.

IV. RESULTS

A. Gaming Platforms, Game Genres, Gaming Frequency and Years in Gaming

Out of participants who still play games (48), 42 participants game on computer, 28 participants game on mobile devices and 15 game on consoles. FPS is the most common genre with 30 participants playing, followed by MMORPG and role-playing games (26 participants), board and card games (23 participants) and MOBA (22 participants). In an average week, most participants play less than 5 hours (37.5%), followed by playing 5 to 10 hours (22.92%). 38 participants said they have been playing games longer than 7 years.

B. Frequency of Encountering Trolling

45 participants reported that they play games with random people online and 14 of them said they encounter a troll either every time or often and 18 of them said they sometimes encounter a troll.

C. Behaviors That are Considered Trolling

Out of all participants, 63 of them said they think trolls insult, use offensive language or hate speech. It is followed by trash-talking (61 participants) and feeding (58 participants). The comparison of the trolling taxonomy can be seen in Figure 1.

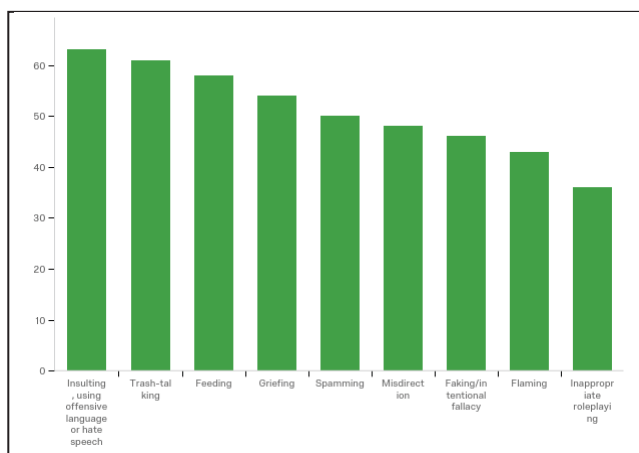


Fig. 1. Behaviors that are considered trolling (number of participants/ type of behavior)

D. Trolling Motivations

Out of all participants, 75 of them agreed that trolls' motivation for trolling is personal enjoyment. 59 participants stated that trolling occurs because the troll is bored and revenge as a motivation for trolling is noted by 28 people.

E. Trolling Experience

Out of the participants who play games (48 participants), 22 of them said they have trolled someone else before, with 5 of them being often. Out of the participants who have previous trolling experience, only 4 of them said they define themselves as trolls. The most common reason for trolling was revenge (12 participants), followed by personal enjoyment (10 participants).

V. CONCLUSION

This study aims to present an overview of the trolling literature and compare and contrast different definitions of trolling introduced in previous research. We also demonstrated the relation between trolling, cyber-bullying and toxic behavior, which is an essential part of the literature and necessary to discuss in order to achieve a deeper understanding of the phenomenon. As mentioned earlier, there is a gap remaining in empirical research on trolling behavior. Most of the studies explore trolling behavior and other toxic behaviors in games like *League of Legends* [13] or *Second Life* [3]. One study was found to address trolling in the gaming context which takes into consideration of many different genres of online multi-player games, regardless of mentioning the gaming platforms [4]. To our knowledge, a research about trolling behavior that is inclusive to every type of game which is played online with at least two players (i.e. online multi-player game) on every platform (e.g. desktop, console, mobile) is not present. This current study fills this gap by being inclusive of every genre of online games on every platform. In this study, it was found that insulting/offensive language, trash-talking and feeding are behaviors that are considered as trolling the most, followed by grieving, spamming and misdirection and the most commonly observed motivation is personal enjoyment. These are similar findings to what the literature suggests [4], [5], [12]. This topic will be elaborated with an extensive research as the first author's master's thesis.

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