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Cyberbullying impacts on victims' satisfaction with information and communication technologies: The role of Perceived Cyberbullying Severity

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ABSTRACT

This study aims to understand how individuals' perceptions of the severity of cyberbullying they endure affects their experience with the Information and Communication Technology (ICT) medium through which cyberbullying occurs. To this end, it proposes a theoretical model based on Transactional Theory of Stress and Coping and Expectation-Confirmation Theory. A survey-based study involving 115 cyberbullying victims is employed to empirically validate the proposed model. Results indicate that victims' perceptions of the severity of a cyberbullying episode negatively impact their satisfaction with ICT. Implications of these results for academics and practitioners are discussed and directions for future research are outlined.

1. Introduction

Traditionally, Information Systems (IS) research has focused on the positive outcomes associated with information and communication technology (ICT) use (i.e. benefits derived from adoption). More recently, there has been an increased interest among IS researchers in understanding the possible negative consequences that could arise when using ICTs (e.g., technostress, technology addiction, cyberbullying, etc.). These phenomena that relate to the negative impact of ICT use on individuals' or organizations' well-being have been collectively referred to as 'the dark side' of ICT use [1]. These negative impacts are brought about by ICT use, and as such, this dark side phenomenon is technology-based [2]. Hence, it is expected that users' experiences with and perceptions of the ICTs involved will be affected by these negative impacts. It thus becomes important for IS researchers to examine the influence of such negative consequences on the ICT user's well-being and experience with the ICT itself, which is the focus of this research.

Cyberbullying can be defined as hostile or aggressive behaviors performed through information and communication technologies (ICT) that are intended to harm or inflict discomfort on others [3–5]. This phenomenon has gained prominence due to several reported cases of suicides linked to cyberbullying [6,7].

Although cyberbullying shares some characteristics with traditional bullying, it has its own unique characteristics that may increase its negative consequences for victims. First, cyberbullying can occur at any place and at any time [8,9], preventing victims from feeling safe when they remove themselves from the bullying location (like they can in the case of traditional bullying) [10,11]. Second, in cyberbullying, the aggressors are able to remove themselves from the impact of their actions. Cyberbullies can be anonymous,[1] which gives them the possibility to create new identities or impersonate a victim's friends [12,13]. Anonymity leaves cyberbullies with little fear of repercussion or punishment [14], and encourages them to continue behaviors they would not perform in face-to-face interactions [15]. Furthermore, cyberbullies do not see their victims' reactions, something that in traditional bullying makes bullies realize the harm they are causing to the victim and may inhibit them from further bullying actions [16,10]. The third distinguishing characteristic of cyberbullying is the bully's ability to reach easily a large audience. In traditional bullying, the audience of a bullying episode is limited to the people physically present where the episode occurs (e.g., classrooms) [8]. In cyberbullying, the material posted by the bully (e.g., embarrassing photos) can be easily viewed and permanently accessed by a large online audience [16,13,10].

ICT embody certain qualities/features that may encourage cyberbullying. For example, individuals may experience a disinhibition effect when they are interacting with others online [17], where they may dissociate online activities from face-to-face actions. As such, they may feel that norms that apply to face-to-face social interactions do not apply to virtual interactions [18]. The online disinhibition effect has been proposed as a reason behind more aggressive behaviors in cyberbullying when compared with traditional bullying [19]. In addition, information conveyed through ICT can be highly equivocal (i.e., it can

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[1] It is worth noting that the majority of victims know who is cyberbullying them (e.g., the bully is part of their social group) [11,156].

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have several meanings and interpretations) [20] due to the lack of elements present in face-to-face communications (e.g., body language, voice intonation). This lack of social cues to gauge others' reactions may lead to a reduced social censorship when interacting with others online [18]. Finally, the possibility to have back-and-forth communications, with a larger duration in between, may facilitate sending more planned and hurtful online messages [21].

In studying cyberbullying, IS researchers have focused mainly on the prevalence of this phenomenon (see for example [22–24], and the potential motivations and antecedents of online aggression (e.g., gaining social status, personality traits [25,26]. Tokunaga [4] conducted a meta-synthesis of the studies published in cyberbullying between 2004 and 2009 and found that on average, 20%–40% of young people have experienced episodes of cyberbullying. According to this author, the variation in prevalence rates is explained by the diverse definitions and measures used by researchers. Previous studies in cyberbullying have analyzed this phenomenon mostly by determining whether participants have experienced cyberbullying. However, the mere occurrence of events (e.g., being tagged in an embarrassing photo) does not indicate that those events have negative consequences for those exposed to them (i.e. victims). The EU Kids Online network conducted a qualitative study finding that perceptions and consequences of cyberbullying vary among victims. For example, they found that the same act (e.g., receiving sexual content) may provoke a different reaction (e.g., laughter or fear), depending on the victim; in the same vein, a written comment (e.g., name calling) may be perceived as a joke if coming from a friend, but as hurtful if coming from a stranger [27]. These findings highlight the importance of studying a victim's perceptions of a cyberbullying episode[2] when analyzing the impacts of that episode on that victim.

Researchers in different fields have also explored the correlates of cyberbullying, finding that this phenomenon impacts victims psychologically (e.g., creating negative emotions such as anxiety [8,28]), scholastically (e.g., low school performance [29]) and socially (e.g., altering victims' relationships with family members and friends [30]). The broad array of cyberbullying correlates studied by researchers has not included how victims' experience with ICT is affected by their falling victim to cyberbullying episodes. Here, it is worth noting that negative experiences such as traditional bullying affect how victims feel not only about their bullies, but also about the place where the bullying occurs (e.g., school, workplace) (see for example [31–34]). In the same vein, and although a cyberbullying episode may affect how victims feel about their bullies, it may also affect how they feel about the medium via which the cyberbullying episode occurred (e.g., Facebook). Furthermore, some studies indicate that victims may stop using ICT where they experience cyberbullying [35]. This suggests that cyberbullying not only affects victims' well-being, but it may also have an impact on their experience with ICT. Although Sticca and Perren [36] suggested that positive feelings derived from using ICTs may be reduced with cyberbullying, researchers in the IS field have not investigated how cyberbullying episodes may affect users' experience with ICTs via which cyberbullying occurs.

Therefore, the main objective of this research is to understand how a victim's perception of a cyberbullying episode's severity (henceforth, this measure is to be referred to as Perceived Cyberbullying Severity) impacts her/his well-being and perceptions of the ICT medium involved (henceforth to be referred to as cyberbullying medium). Considering the stressful nature of cyberbullying, we leverage the Transaction Theory of Stress and Coping Lazarus and Folkman, 1984 as an appropriate lens to understand a victim's appraisal of this stressful event. We also employ Expectation-Confirmation Theory [37] to understand the specific effects of a victim's perception of the severity of a cyberbullying episode on their experience with the cyberbullying medium. Towards the above objective, these two theories are used to propose a research model to understand a victim's satisfaction with the ICT through which the cyberbullying episode occurred. Satisfaction is an appropriate dependent variable in this context as: (i) it has been shown to be an important predictor of individuals' intention to continue using a particular ICT (e.g., [38]) and (ii) it is well-suited to explore the effects of the "dark-side" of technology use phenomena on users' experience with technology, where users may continue utilizing an ICT albeit with less satisfaction (for example, due to high social pressures, or fear of missing out in the case of social media). As such, this research provides theoretical contributions in understanding the dark-side of ICT use phenomenon in general and cyberbullying in particular. It also provides contributions to practice in gaining an understanding of the true impact of cyberbullying on victims and the subsequent negative influence of such impact on their experiences with the ICT medium involved.

2. Background and theoretical foundations

2.1. Cyberbullying

Interest in the fairly recent phenomenon of cyberbullying has risen among researchers in different areas such as Information Systems, Psychology, Sociology, Criminology, and Education [11]. One of the topics that has been studied is the prevalence of this phenomenon, where authors have found rates ranging from 8.6% [39] to 59% [40] in college students and between 9% [23] and 20% [41] in working adults. The variation in prevalence rates can be explained by the different conceptualizations of cyberbullying and varied measures employed in research studies [42]. In defining cyberbullying, researchers have not agreed on how the three criteria that have been utilized to define traditional bullying (i.e. intentionality, repetition, and power differential) can be applied to this phenomenon (see [43] for a discussion about this matter). In terms of measures, researchers have employed self-reported surveys to determine the prevalence of cyberbullying [44] in terms of occurrence or frequency of experienced behaviors (see [16] and [44] for a discussion of cyberbullying measurement).

Along with the prevalence of cyberbullying, researchers have explored its correlates. There is evidence to associate cyberbullying with victims' experiencing negative emotions such as anger (e.g., [45] and anxiety (e.g., [42,8]. Other psychological correlates associated with cyberbullying include victims' experiencing feelings of loneliness (e.g., [46,47]) and depressive symptoms (e.g., [48,49]). Victims can also experience problems in diverse areas such as health (e.g., [50]), behavior (e.g., substance use [49]), academic performance (e.g., [51]), and personal relations (e.g., [30]). Finally, cyberbullying is also correlated with increased suicidal ideation among victims [52], who are almost twice as likely as non-victims to have attempted suicide [53].

Despite the findings on different correlates of cyberbullying, researchers have also found that some victims report not being affected by this phenomenon (e.g., [54,55]) with percentages as high as 43% (see for example, [56]). The reasons behind the variation in the type of impacts associated with cyberbullying is unclear [57]. However, it is important to note that the perceptions of a victim and whether a specific episode has an impact on her/him have been shown to be more salient themes in qualitative studies characterizing cyberbullying than the episode's occurrence or the characteristics coming from traditional bullying (e.g., intentionality, repetition) [57,58]. This may indicate that existing self-report measures pointing solely at the occurrence of cyberbullying episodes may fall short at addressing the important issues of impact and victim's perceptions.

An alternative measure to evaluate a cyberbullying experience utilizing a victims' assessment may be then helpful to determine its impacts on their lives. As previously mentioned, the mere occurrence of cyberbullying episodes may not determine the negative consequences

[2] In this research, a cyberbullying episode may consist of one action (e.g., a photo posted on a group wall) or multiple actions related to the same issue (e.g., several messages sent over a certain period of time).