

# Social representations overrun and tarnished by cyberbullying

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## Abstract

Information and communication technologies are gaining prominence as influencers of cognitive performance, given the speed with which information is generated and disseminated, changing personal and professional relations. If, on the one hand, this provides evolution and transformation, on the other, it can cause harm, such as cyberbullying – violence that silently hurts people. Such scenario requires reflection and bioethical action. This study sought to understand the perception of cyberbullying in professional and personal daily life. This exploratory and quantitative research by convenience was carried out with 35 public servants from the Federal Institute of Education, Science and Technology of the South of Minas Gerais. Results were discussed based on the literature about information and communication technology, digital violence and, mainly, bioethics.

**Keywords:** Information technology. Cyberbullying. Bioethics.

## Resumo

### Representações sociais invadidas e maculadas por cyberbullying

Tecnologias da informação e comunicação vêm ganhando destaque como influenciadoras do desempenho cognitivo, dada a rapidez com que as informações são geradas e disseminadas, modificando relações pessoais e profissionais. Se, por um lado, isso traz evolução e transformação, por outro pode provocar danos como o *cyberbullying*, violência que vulnera pessoas de forma silenciosa. Essa conjuntura requer reflexão e atuação bioética. Este estudo teve como objetivo conhecer a percepção do fenômeno do *cyberbullying* praticado no cotidiano profissional e pessoal. Trata-se de pesquisa exploratória e quantitativa por conveniência, da qual participaram 35 servidores públicos do Instituto Federal de Educação, Ciência e Tecnologia do Sul de Minas Gerais. Os resultados foram discutidos com base na literatura sobre tecnologia da informação e comunicação, violência digital e, principalmente, bioética.

**Palavras-chave:** Tecnologia da informação. *Cyberbullying*. Bioética.

## Resumen

### Las representaciones sociales invadidas y manchadas por el *cyberbullying*

Las tecnologías de la información y la comunicación han ido ganando protagonismo como influyentes en el rendimiento cognitivo, dada la rapidez con la que se genera y difunde la información, modificando las relaciones personales y profesionales. Si, por un lado, esto trae evolución y transformación, por otro puede provocar daños como el *cyberbullying*, la violencia que violenta silenciosamente a las personas. Esta coyuntura requiere reflexión y actuación bioética. Este estudio tuvo como objetivo conocer la percepción del fenómeno del *cyberbullying* practicado en la vida cotidiana profesional y personal. Se trata de una investigación exploratoria y cuantitativa por conveniencia, en la que participaron 35 servidores públicos del Instituto Federal de Educación, Ciencia y Tecnología del Sur de Minas Gerais. Los resultados se discutieron a partir de la literatura sobre tecnología de la información y la comunicación, violencia digital y, principalmente, la bioética.

**Palabras clave:** Tecnología de la información. Ciberacoso. Bioética.

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Information and communication technologies (ICTs), as means of modern data transmission and reception, involve many people daily. From the simplest tasks, such as talking to family members and friends on social media, to more complex ones, such as paying bills via online services, or even creating, receiving or sharing fake news, ICTs directly affect people's lives and how they interact and understand each other via communication. Hence, questions have arisen in practical life and in research groups concerned about this modern bioethical problem.

Cyberbullying features among several topics on the harmful use of technology, albeit little researched in Brazil, unlike several countries in Europe and the United States. A quick analysis, however, demonstrates that in everyday life everyone can be witness, perpetrator or victim of this type of virtual violence without even realizing it. As such, this study seeks to understand the perception of cyberbullying as practiced and facilitated by ICTs, directly affecting people's dignity in their professional and personal daily lives.

### Information technology: a historical overview

The Industrial Revolution can be considered a major drive of the advances in communications and consequently of the emergence of ICTs. The industrialization process and technological development do not occur in isolation, as they reflect a certain stage of knowledge. Consequently, the technological revolution of the 20th century ushered in the so-called "information society," which has drastically changed people's daily lives<sup>1</sup>.

The term "information society" replaced the expression "post-industrial society" to convey a new technical-economic paradigm, with data on technical, organizational and administrative changes that focus on information as a result of technological advances in microelectronics and telecommunications. Such technologies changed the proportion, quality and speed of information, thus differentiating between the concepts of information technology (IT) and ICT<sup>2</sup>.

Communication is a key factor in human evolution, as it allows ideas and knowledge to be spread over time<sup>3</sup>. Or rather, communication is the process by which people share meanings

by transmitting symbolic messages<sup>4</sup>. ICTs are sets of technological resources used in an integrated manner, with a common goal. It is a term created to specify the role of communication in IT.

When it comes to ICT use, one must talk about the Internet, since it is a central tool in the everyday life of individuals<sup>5</sup>. In Brazil, the Internet was introduced in the early 1990s, first by Brazilian scientists who exchanged information and files using the National Research Network, with its commercial use becoming widespread in 1995<sup>6</sup>.

### Social networks

Nowadays, being connected does not depend on the distance between people, but on the available communication technology. In general, new connection technologies offer new possibilities to experience identities and freedom; but with so many possible connections, people are increasingly being overwhelmed by the myriad of data. Besides, technology is built to direct attention towards what interests certain social and economic groups<sup>7</sup>. In this digital age, humanity is believed to be increasingly divided, unequal, anxious, and alone.

Social networks allow users to interact using profiles – virtual pages designed to publish photos, files, videos, texts, among others, which can be shared with other network users interactively, offering the user a real-time relationship, social participation and inclusion, and sharing of content and opinion<sup>8</sup>. Social network sites are like systems that allow building a public profile, coordinating a list of users with whom a connection is shared, viewing and crossing this list and those made by other users within the system<sup>9</sup>.

Regarding the use of social networks, in the name of modernity, of new trends or of technological advancement, ways of thinking, acting and living that is at odds with the moral principles previously respected and accepted emerge<sup>10</sup>. These principles refer to cultural processes: collective customs and habits of a group or society. Positive (working, praising) or negative (humiliating, harassing) behaviors, projecting susceptible individual actions practiced regularly, become a benchmark for certain social groups, who adopt them regardless of how such action is manifested. This reflects on society, ushering in an ethics within this social group.

Access to information became instantaneous on social networks, which normally anticipate news that will later be disseminated by traditional media, such as TV, radio and printed press. People who use these networks are directly influenced by their peers, obtaining information that is modeled, qualified and recommended by other users. This data transmission is fast, often making it difficult to reflect on the information, preventing it from being filtered or decisions based on facts<sup>11</sup>.

## Cyberbullying

Cyberbullying is a recent practice that has multiple definitions, since its conceptualization is still being established. Studies show that every new event or phenomenon that affects human beings is investigable by science, a systematic enterprise that investigate cognitive properties and their possible meanings<sup>12</sup>. Cyberbullying is known as a “faceless phenomenon,” distinguished from bullying by specific characteristics that give it unique features<sup>13</sup>. The main aspects that distinguish cyberbullying from bullying are the difficult identification of the aggressor, the significant increase in the number of witnesses, the possibility of role reversal – victim becoming aggressor and vice versa –, and the lack of verbal feedback to the source about the outcome of the action<sup>14</sup>.

For Yang and Grinshteyn<sup>15</sup>, cyberbullying is a new form of violence that constitutes a “social issue,” being the topic and concern of several disciplinary fields, and presenting itself as a public health issue. Cases of cyberbullying can be defined as acts of psychological and systematic violence perpetrated in the digital environment, whether by text messages, photos, audios or videos, expressed on social networks or in online games, transmitted by cell phones, tablets or computers, and whose content is intended to cause harm to another person in a repetitive and hostile manner<sup>16</sup>.

Willard<sup>17</sup> has classified the most complete and consensual typologies for the term “cyberbullying,” namely: 1) flaming, which consists in sending rude, vulgar and angry messages about someone, by email or SMS, to an online group or to the person themselves; 2) online harassment,

characterized by repeatedly sending offensive messages to a person via e-mail or other text-messaging mechanism; 3) cyberstalking, which is online harassment that includes threats of harm or an overly intimidating act; 4) denigration (humiliation), practiced by online posting or sending harmful, feigned, or cruel statements about someone to others; 5) impersonation, in which the perpetrator impersonates another person and sends or posts material online that belittles the victim; 6) outing, which is sending or posting text messages or images online that contain sensitive, private, or embarrassing information about someone; and 7) exclusion, which means to cruelly ignore or exclude someone from an online group.

Cyberbullying is a widespread form of violence and has been included in healthcare discourse due to the associations between its practice and harmful health outcomes for both the bully and the bullied<sup>18</sup>. Despite advances, legislation on the theme is inconsistent and does not cover all hypotheses. Besides, its effectiveness has serious shortcomings, quickly becoming obsolete, given the speed and ephemerality of information on and of the Internet – a space where illicit activities span territories and nations, leading to latency in handling cases where the perpetrator remains anonymous<sup>19</sup>.

## Bioethical framework

In essence, bioethics is a field of knowledge concerned with the ethical and moral consequences of scientific advances. It presents several concepts, including principles that guide appropriate scientific production<sup>20</sup>. Pessini defines the essence of bioethics as a cry for the dignity of life, which will always be guided by two values: on the one hand, the boldness of scientific knowledge, which innovates, transforms, enhances, makes life more beautiful, healthier, less sick and less hurtful. On the other, the prudence to ensure that life itself is not manipulated, discarded, or “made into a guinea pig”<sup>21</sup>.

According to Lepargneur<sup>22</sup>, the principles of bioethics first appeared in 1978, when the North American Commission for the Protection of the Human Person in Biomedical and Behavioral

Research presented, at the end of its work, the so-called *Belmont Report*. This document established the three fundamental principles of bioethics: autonomy, related to the dignity of the person; beneficence, in which maximizing the good of the other implies minimizing the harm; and justice, which should rather be called the “principle of equity”<sup>22</sup>.

But the regulation of bioethics around these three principles, associated with the lack of positive law to answer certain questions, is insufficient to solve ethical and legal problems. With technological development, human freedom has reached such proportions that it can jeopardize the dynamism of life and nature itself<sup>23</sup>.

According to Fonsêca<sup>24</sup>, Hans Jonas’ thought, developed based on the principle of responsibility, imposes itself from an ethical perspective on contemporary technology, diagnosing it and then prognosticating it. Responsibility bioethics postulates the elements of integrity of the being and environmental sustainability by referencing radical responsibility, the impulse of human action before technological civilization<sup>24</sup>.

## Method

This quantitative, exploratory and descriptive field research was carried out by applying a previously structured questionnaire to 35 public servants from the Federal Institute of Education, Science and Technology of the South of Minas Gerais (IFSULDEMINAS) in office at the rectory, in the city of Pouso Alegre, Minas Gerais, Brazil. Data were collected by sending the participants a form on Google Drive. The instrument used included sociodemographic queries and semi-structured questions about the phenomena: internet use and cyberbullying. Using the electronic form was necessary due to the COVID-19 pandemic, as physical distancing was indicated.

To analyze the sociodemographic characteristics, we created a database using the SPSS software version 20, and applied descriptive statistics techniques to ascertain frequency and percentage of categorical variables and measures of central dispersion and trend for numerical or continuous variables. As for qualitative data, textual information was evaluated by means of Bardin’s content analysis<sup>25</sup>.

In the first stage of content analysis (pre-analysis), we performed a “skimming reading,” in which information without logical understanding and unrelated to the research objective was discarded. The statements were then transcribed into a specific database, without the questions, thus forming the corpus. In the second stage, this corpus was sectioned into recording units or excerpts, separated by the slash character (/), and codified, in which each excerpt (theme, word or phrase) described a relevant characteristic of the content. In forming the elementary context units (ECUs), sentences that presented ideas of contrariness, adversity, complementarity, or that had deductive meaning were considered unitary, that is, were counted only once. In turn, sentences that presented confirmatory ideas, of reiteration, were considered different ECUs and counted individually. Next, the information was categorized, and the ECUs containing the same meaning were grouped into similar thematic groups, which could then be divided into subgroups. Quantitative analysis of the information was performed by computing the ECUs (percentage and frequency) for each organizational group, including the subgroups. In the third stage (inference), we interpreted, deduced and concluded what is hidden under the apparent reality of the discourse, that is, what certain statements mean in depth based on a theoretical framework<sup>25</sup>.

The study complied with the determinations of Resolution 466/2012 of the National Health Council<sup>26</sup>. Research participants virtually signed an informed consent form (ICF) that explained the importance of consent and provided contact information for any clarifications required by the participant. A copy of the form with the answers and the consent form was sent by e-mail to each respondent. The project was carried out to obtain a master’s degree in bioethics from the University of Vale do Sapucaí.

## Results and discussion

The research interviewed 35 public servants, of which 51.4% were men. The age ranged from 25 to 65 years, with mean age of 39±9.56 years. Most respondents were “married” (42.9%), and, regarding religion, 71.4% of the participants declared themselves Catholic. Self-declared white

respondents predominated (82.9%). We were unable to verify whether gender, age, schooling level, marital status, religion, or skin color/ethnicity interfere in the public servants' relationship with cyberbullying. We found no studies confirming such relations in the researched literature.

Regarding professional information, 94.3% of the participants were technical-administrative. Respondents had worked on average for 7.62±6.42 years at IFSULDEMINAS, ranging from 1 to 35 years of career in this institution. As for information about the ICTs, all participants use applications and the Internet to communicate. About the phenomenon of cyberbullying, 85.7% of the public servants consider it important to know about and discuss the topic to prevent it.

Lacerda, Padilha, and Amaral<sup>27</sup> state that, while social media have negative aspects and contribute to the practice of cyberbullying, they are also foundational in the fight against cybercrime. Their countermeasures range from ads that raise users' awareness about the problem to the support options offered, providing quick and secure ways to report it.

A total of 74.3% of the public servants consider cyberbullying a crime and believe the aggressor must be criminally punished. According to Santos, Rodrigues, and Silva<sup>28</sup>, this practice is still poorly traced, discussed and punished, even with strong evidence of recurring aggressions of this type. According to Gonçalves<sup>29</sup>, in Brazil, the Brazilian Civil Rights Framework for the Internet is considered the "new constitution of the Internet," the "Bill of Rights" of Internet users, as it ensures users' rights and freedoms, protecting their freedom of expression, privacy, data, and their citizenship and participation in the digital world.

The answers to the question "What do you understand by cyberbullying?" were analyzed following Bardin's methodology<sup>25</sup>. The participants expressed themselves subjectively in this question, and their answers were classified into two groups, A and B. Group A included the answers that identified and described the phenomenon. Group B gathered answers from public servants who were unable to recognize what cyberbullying is, but who nonetheless issued opinions with different meanings.

Group A was subdivided into A1 and A2, and group B into B1 and B2. The A subgroups included answers from public servants who only defined the phenomenon (A1) and those who defined the phenomenon, associating it with current events (A2). The B subgroups compiled statements from public servants who did not define the phenomenon (B1) and who did not define it and are indifferent (B2). Chart 1 summarizes these data.

**Chart 1.** Perception of IFSULDEMINAS' public servants about cyberbullying, based on verbalizations of their understanding (Pouso Alegre, Minas Gerais, Brasil)

Groups	Participants	Subgroups
A	Defined (31 participants)	A1 - Defined (17 participants)
		A2 - Defined and associated with current events (14 participants)
B	Did not define (4 participants)	B1 - Did not define (3 participants)
		B2 - Did not define and are indifferent (1 participant)

Bellow, we examine the main representations of IFSULDEMINAS' public servants.

*"[Cyberbullying] Is the practice of virtual bullying through social networks, via the Internet and online communication channels, using IT, to expose, denigrate, and belittle someone through virtual lynching, expression of derogatory ideas towards others, a way of disparaging, ridiculing, exposing someone, without authorization, and with intent to hurt or have fun, without measuring the consequences for others. Bullying has always existed, but with the advancement of IT, this process has intensified and really needs to be studied and brought to the attention of people, especially young people, because its consequences can be devastating and irreversible"* (P7).

Cyberbullying can be considered a current form of bullying that goes beyond the limits of school life, work environment or even family life, since it is not restricted to physical space. In fact, "cyberbullying" is a variant of the word "bullying," and is used to classify violence that uses the virtual environment



to propagate itself. It can be categorized as a cruel form of violation and exposure of the victim for the simple fact that all it takes is one click for bullies to achieve their goal<sup>30</sup>.

*"I understand it [cyberbullying] as a form of harassment and violence that usually takes place in the virtual environment, through the practice of posting, on social networks, that can affect one's integrity, whether with comments, images or rumors, resulting from intentional or unintentional act, often behaviors that they would not have in person, which leads to consequences for the person exposed, such as mortification and psychological, material and moral damage" (P9).*

For Mello, Camillo, and Santos<sup>19</sup>, this practice is a form of abuse or moral harassment that is spreads through the Internet, cell phones, or the use of new technologies and means of communication.

*"[It is] a form of bullying using electronic media via Internet access. Bullying refers to an offensive and constant practice carried out by one or more bullies towards a chosen victim. Generally, this practice causes serious psychological, emotional and physical damage to the victim and also to those who practice this type of aggression" (P34).*

Many children and adolescents participate in the cyberspace, which is reflected in the lack of responsibility in the use of this environment. Such lack of accountability and control becomes a sort of encouragement and promotes "offensive jokes," which end up in aggressive practices. The most appropriate way to prevent virtual bullying is supervision by family and educators<sup>27</sup>.

*"[Cyberbullying is] taking advantage of the ease and anonymity provided by the network [Internet] to ridicule, promote abuse, insult, slander, defamation or action that tarnishes the image of a group or individual by means of a situation that offends or violates the privacy of others, without authorization, on social media, causing great embarrassment" (P23).*

Everything that is social, and therefore human, is communication. As a virtual and digital environment, the Internet enables a greater degree of freedom of expression – something that the individual cannot renounce, as it is impossible for

a person not to think, not to speak<sup>30</sup>. But freedom of expression is not a superior value to others; it must preexist, because the law cannot impose impossible limits. The field of law concerns itself with the real effectiveness of the legal norm, for the law only regulates what is possible<sup>28</sup>.

Our analysis show that 68.6% of the participants have already been victims of cyberbullying, 71.4% have already been bullies, 94.3% have already exposed themselves on the Internet, 57.1% have already witnessed cyberbullying episodes, and 5.7% have never been involved in it. Nowadays, questions and discussions about the control of access to information are still emerging in the search for solutions to this issue. These debates cover privacy protection and bioethical conflicts in the use of the Internet. The risks of this use, however, are still poorly understood, since this tool affords many targets to potential violators<sup>31</sup>.

The freedom and dignity of the human person are interrelated with communication, not existing without it, while being indispensable for interaction in the social sphere. Ensuring full freedom of communication is crucial for human development in all dimensions, and involves safeguarding freedom of expression and privacy, which are in themselves important contributions to protecting human dignity<sup>28</sup>.

In responsibility bioethics, human action in the technological era must restore the possibility of regaining the original relationship of human beings, balancing coexistence<sup>24</sup>. As such, the major challenge for the theory of responsibility in the technoscientific society consists in considering the dignity of the human person as the primary category of bioethics<sup>23</sup>.

## Final considerations

This research allowed us to learn about the perception of IFSULDEMINAS's public servants about the phenomenon of cyberbullying, practiced and facilitated by the use of ICTs, which directly affects their professional and personal daily lives. This complex phenomenon, according to the participants, can be defined as violence that affects the integrity, dignity and freedom of an individual or group. Bullies take advantage of the ease and anonymity provided by the Internet to post,

on social networks, comments, images or rumors to ridicule, attack, slander, insult, defame. This causes great mortification and psychological, emotional and physical damage to victims, who suffer the impact of cyberviolence, but also to the perpetrator, for not being in optimal psychological conditions.

We must also report the limitations of the present research so that they can be overcome in future investigations. First is the fact that the questionnaire had to be sent online. Although all confidentiality issues were assured, in this modality the participants' answers may not correspond to reality, due to social desirability or aiming to minimize the issue. Another relevant limitation to be overcome refers to the scant sample size. A broader study is recommended

to assess perceptions about the phenomenon of cyberbullying, directly affecting people's dignity.

What cyberbullying represents and its possible risks constitute a topic that should be routinely debated in social milieus, to prepare people regarding their actions, so that they can protect themselves and not compromise themselves or others when using digital technologies. Besides, the COVID-19 pandemic is a serious scenario both in Brazil and worldwide. Given this context, in which humanity is increasingly dependent on ICTs due to the physical distancing imposed by sanitary measures, individuals are constantly involved – as victims, perpetrators or witnesses – in episodes of cyberbullying. Finally, we suggest other studies be carried out about cyberbullying in pandemic times.


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#### Participation of the authors

Rosana Aparecida Rennó Moreira Aleixo designed the study, collected, interpreted and analyzed the data, and discussed the results. Both authors developed the final revision with critical and intellectual participation in the manuscript.

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