



Online Harassment in the Workplace: the Role of Technology in Labour Law Disputes

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Abstract. In this paper, we explore the role technology plays in online workplace harassment as it emerges in the legal verdicts of labour law courts. Analysing 106 official legal verdicts on labour law violations, we demonstrate how technological traces are used as evidence for both indictment and the defence. We find that chat technologies risk providing a platform for online workplace harassment which extends beyond the boundaries of work and into private life. In contrast to online harassment on social media sites, online harassment in the workplace exists within situations of known audiences in hierarchical organisational structures. Thus, speaking up against a violator can have severe financial and social consequences for the survivor. Our data show that chat technology, by capturing and documenting abusive behaviours, makes harassment visible, allowing survivors to hold the harassers legally accountable. Furthermore, we find that online harassment, because it extends beyond the physical workplace, extends the legal and ethical responsibility of the employer. We argue that research on computer-supported co-operative work should consider how the design of co-operative technologies can help survivors speak up, as well as inhibit violators' abusive behaviour. We also propose that design strategies must consider employers' extended responsibility for moral and ethical conduct.

Keywords: Abusive behaviour, Labour laws, Chat technology, Legal disputes, Workplace harassment, Online harassment, Skype, WhatsApp, Moral harassment, Sexual harassment, Legal evidence

1. Introduction

Research on computer-supported co-operative work (CSCW) aims to understand the essential nature of co-operative work in order to design co-operative technologies (Schmidt and Bannon 1992). By exploring unanticipated use of co-operative technologies, we gain important insights into the consequences of our designs. Thus, in this paper, we are particularly interested in the unanticipated use and unintended consequences of one specific type of technology in the workplace: chat technology. Chat technology is increasingly entering the workplace as companies use applications such as SLACK, WHATSAPP, SKYPE, or VIBER for coordination, software testing, or other types of work (Tenório et al. 2018; Pinto et al. 2017; Handel and Herbsleb 2002). How companies and employees use technology shapes work in important ways, and it

is critical to pay attention to the invisible consequences and infrastructures (Suchman 1995, Bjørn & Boulus-Rødje, 2018, Mørck et al, 2018). Prior CSCW research has explored the underlying assumptions of various types of work and technologies (e.g., Bjørn and Hertzum 2011) by unpacking the nature of the invisible (Dombrowski et al, 2017) yet fundamentally important work of secretaries, nurses, remote workers, and others (Bjørn et al. 2017; Bossen and Foss 2016; Møller et al, 2011, Møller and Vikkelsø 2012; Wagner 1993). Our research builds on CSCW literature by exploring one major unintended consequence of chat technology, the risk of online harassment in the workplace, which has emerged recently in the Superior Labour Court in Brazil.

The increased prevalence of take-home laptops or other portable communication devices, such as company-sponsored smartphones, increases the risk of online workplace harassment. Survivors of this type of harassment are unable to escape the constant online presence of the workplace (Odongo and Rono 2017). Thus, harassment extends beyond the workplace, with serious consequences. Online harassment on social media sites such as TWITTER has been investigated in prior CSCW research (e.g., Blackwell et al. 2018). However, less attention has been paid to online harassment in the workplace. With unique access to 106 legal disputes from the Brazilian Superior Labour Court, we analysed the complete set of case materials with final verdicts to explore the role technology plays in harassment in the workplace. Furthermore, we wanted to identify the legal and ethical challenges introduced in tandem with the use of chat technology in the workplace. In this sense, our research question is: *Which legal and ethical concerns for harassment are introduced when chat technology enters the workplace?*

Our data show that chat technology risks providing a platform for employees and employers to conduct online harassment in the workplace, and this harassment extends beyond professional boundaries into the private sphere. Thus, harassment situations ‘outside’ the workplace become the legal responsibility of the employer. When the physical walls of the workplace vanish and are replaced by blurred digital boundaries, employers’ ethical responsibility transcends *work hours* and *workplace*. Employers’ responsibility for online harassment on digital platforms becomes a continuous responsibility covering *every hour* and *every place*. Our data also suggest that chat technology fosters visibility for otherwise hidden workplace harassment. The mixture of private and semi-public access embedded in group messaging technology provides accountability in new ways (Bjørn and Ngwenyama 2009), and accountability produces legal evidence, which can be used in courts when settling harassment disputes. Finally, we reflect upon the nature of our empirical material (the legal documents) and argue that such resources provide new insights into technology-use practices in the workplace, which can complement other existing methodological approaches in CSCW research.

In this paper, we first introduce workplace harassment and online harassment as the two streams of literature which serve as the foundation for our work. Second, we present our method, the empirical setting, our material from the labour law courts in Brazil, and our analytical approach to the data. This overview is followed by a results section, which focuses first on cases in which digital traces from chat technology were

used as evidence for indictment and then on cases in which these traces were used as evidence for the defence. Finally, we discuss our findings and present a conclusion.

2. Online workplace harassment

2.1. Harassment in the workplace

In 1976, American psychiatrist Carroll Brodsky, one of the first people to raise the issue of workplace harassment, emphasized that harassment is characterized by repeated and persistent attempts by one person to wear down and frustrate another person (Salin 2008). A group of employees working together can be susceptible to experiencing problematic interpersonal behaviours based on personality conflicts, disagreements, and, in extreme cases, violence (Claybourn et al. 2014). At the end of the 1980s, there was a growing awareness in northern Europe and Australia of the risk of workplace harassment (Matthiesen and Einarsen 2010). At this time, workplace harassment was identified by situations in which individuals repeatedly mistreated colleagues by pressuring, frightening, or intimidating them while creating increased discomfort (Nielsen et al. 2017). Today, workplace harassment is seen as a severe organisational problem that results in consequences for individuals as well as organisations (Becton et al. 2017). Workplace harassment harms survivors' health and wellbeing, causing severe problems for organisations' efficiency (Nielsen et al. 2017; Campos et al. 2012; Moran 1994). Moreover, harassment causes stigmatization, deprives individuals of their fundamental rights, and may inflict mental damage, which can lead to survivors' exclusion from the workplace and even from the labour market (Leymann 1996). Workplace harassment causes health problems such as stress, fear, anxiety, headaches, digestive problems, nausea, and sleeplessness. It also leads to absenteeism, poor performance, and mistakes, resulting in high turnover and increased business costs (Moran 1994).

Organisations try to minimize the risk of workplace harassment by implementing anti-harassment programs and establishing clear policies against behaviours which are considered harmful for employees (Becton et al. 2017). Harassment comes in different forms; while most people are familiar with sexual harassment, fewer are aware of moral harassment. Moral harassment is characterized by any interpersonal aggression that can cause psychological, moral, or material harm (Campos et al. 2012). Moral harassment is considered a repetitive and persistent act of harmful torment, including hostile verbal and nonverbal behaviours which can frighten, intimidate, humiliate, or discomfort the survivor (Turte et al. 2012; Campos et al. 2012).

Frequently, moral harassment is directed towards a single survivor, but it can also occur against a group of people and even against all employees of a company (Stephan 2013). Moral harassment can be classified as vertical descendant (i.e., from the boss against a subordinate), vertical ascendant (i.e., from the subordinate against the boss), horizontal (i.e., between colleagues), or mixed (i.e., between bosses and subordinates in different directions) (Guimarães et al. 2016). Examples of moral

harassment include abusive supervision, incivility, bullying, victimization, interpersonal deviance, emotional abuse, and social undermining (Nielsen et al. 2017).

2.2. Online harassment in the workplace

Online harassment refers to abusive behaviours enabled by technology platforms used to target specific users. Online harassment includes flaming (name calling or insults), doxing (public release of personally identifiable information), and public shaming (humiliation) (Blackwell et al. 2018). Current research explores cyber-interpersonal violence (Choi and Lee 2017; Mitchell et al. 2016) and online harassment on different social networking sites, especially in famous cases such as #gamergate (Vitak et al. 2017). Researchers have documented how difficult it is to capture toxic and verbal violence in such media (Guberman et al. 2016). Therefore, researchers have provided different approaches for addressing these issues, such as blocklists (Jhaver et al. 2018). Unfortunately, such strategies have been found to inadequately protect survivors and have been known to cause unnecessarily unfair treatment of people who have been blocked (Jhaver et al. 2018).

Generally, there is a lack of agreement on what constitutes online harassment. Research have shown that supporting networks and classification schemes have been shown to help identify and address online harassment (Blackwell et al. 2018). Online workplace harassment has received less attention than harassment on social media sites. Online workplace harassment differs from harassment on social media in that, due to its context, the audience and participants are known to each other. Workplace bullying and harassment have been identified as two of the most concerning silent and unseen occupational hazards of the twenty-first century (Bellini et al. 2016). While harassment on social networking sites often is anonymous and has invisible audiences, online workplace harassment has predefined participants and risks financial and social consequences. Harassment experienced on social media is harmful and should be addressed, but online workplace harassment produces different challenges and types of harm and thus needs to be addressed differently.

Employers encourage their employees to use social media because of perceived benefits for the company. However, the use of social media also has the potential to cause problems, as employees might misbehave (Khan et al. 2011). When companies encourage their employees to adopt new technologies in the workplace, they focus on the features that support the work and might not attend to the risk of malicious usage directed against both employers and employees. Recent works such as Bac (2018), Brown et al. (2018), Odongo and Rono (2017), Farley et al. (2016), and Ophoff et al. (2015) document different malicious uses of communication and information tools in the workplace (e.g., blogs, chat rooms, e-mail, instant messenger, FACEBOOK, YOUTUBE, and TWITTER).

Researching online harassment in the workplace is critical, because we need to understand what transforms inappropriate social media behaviours into cases of harassment. There is a growing judicial trend to hold employers liable for defamatory remarks

made by their employees, even when these remarks occur outside of 'normal' work hours (Khan et al. 2011). The separation between private and professional time is blurred due to the pervasiveness of technology such as take-home laptops and smartphones. Thus, new questions emerge about employers' responsibility for their employees' behaviour outside the workplace on digital platforms connected to work.

3. Method

To explore online harassment in the workplace, we took a different empirical approach than mainstream CSCW research. We accessed the official website of the Brazilian Superior Labour Court, which provides free online access to all legal documents, and identified and collected cases related to online harassment in the workplace. We closely examined the legal case materials with verdicts on online harassment in order to gain insight into the unanticipated use and unintended consequences of chat technology in the workplace. Before we review the details of our method, we will introduce the empirical setting of the Brazilian Superior Court and the use of legal material as empirical data.

3.1. Empirical setting: Brazilian Superior Court

Different countries have unique labour and anti-harassment laws. It is important to understand the general legal framework of the Brazilian Superior Labour Court. In Brazil, workplace harassment is divided into two main categories: sexual harassment and moral harassment. Sexual harassment is characterized by unwanted sexual advances or obscene remarks in the workplace or other professional situations, while moral harassment is characterized by 'any abusive conduct, in particular behaviour, words, actions, gestures, or text capable of violating the personality, dignity, or physical or psychological integrity of a person, jeopardizing their employment, or deteriorating the working environment' (Hirigoyen quotes in Lerouge 2013). In most countries, sexual harassment is typified as a crime punishable by detention. In contrast, moral harassment is often viewed as a less serious offence, though some countries do consider it a crime. In 2002, France addressed moral harassment in its labour laws, and some members of the European Union have specific laws against harassment (Guerrero 2004). The United States follows the Equal Employment Opportunity Commission's guidelines for investigating discriminatory practices in the workplace and has considered moral harassment a crime since 1969 (Bac 2018). In Brazil, there are dedicated laws to prevent sexual harassment, but no federal laws against moral harassment in the workplace. However, the Brazilian Superior Labour Court considers moral harassment in the workplace a severe labour law violation and, when proven guilty, the employer must pay compensation to the survivor (de Lima 2004).

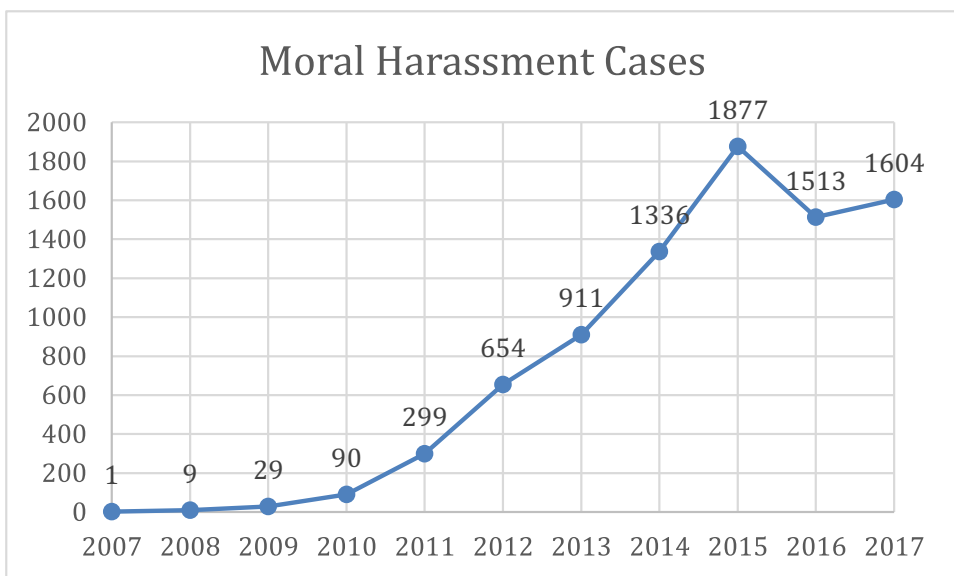
The first article of the Brazilian Constitution assures citizens 'the dignity of the human person' and 'the social values of work and free initiative'. Considering that guarantee, the Brazilian Superior Labour Court (i.e., the highest

Brazilian appellate court for labour law issues) has taken decisions and created jurisprudence to address moral harassment in the workplace (Soares and Duarte 2014). The first verdict on moral harassment in the workplace was in 2007, and since then, moral harassment disputes have increased considerably each year in Brazil. Graph 1 illustrates the timeline of moral harassment verdicts (not just online) in the Brazilian Superior Labour Court over the last ten years.

Above, we notice that the number of harassment cases have increased exponentially since 2007. Years 2016 and 2017 show a decrease because many cases are still pending and thus unavailable due to legal confidentiality. Because we are not interested in all cases of harassment in the workplace but only those of *online* harassment in the workplace, we searched, identified, and selected the 106 cases which concern online harassment in the workplace. It is important to note that chat technology, such as WHATSAPP, had been adopted by 57% of Brazilians by 2017 (Bucher 2018). Therefore, the increased number of cases linked to chat technology might be a special Brazilian phenomenon.

3.2. Data collection

We identified and collected official legal documents on the Brazilian Superior Labour Court - TST website (<https://tst.jusbrasil.com.br/>), which is a free online server. From the total number of cases, we searched the documents using the Portuguese word for harassment ('assédio') in combination with names of messaging technologies ('WHATSAPP' OR 'SKYPE' OR 'chat' OR 'messenger').



Graph 1. Cases of moral harassment in Brazil in the last ten years from Brazilian Superior Labour Court - TST (2018)

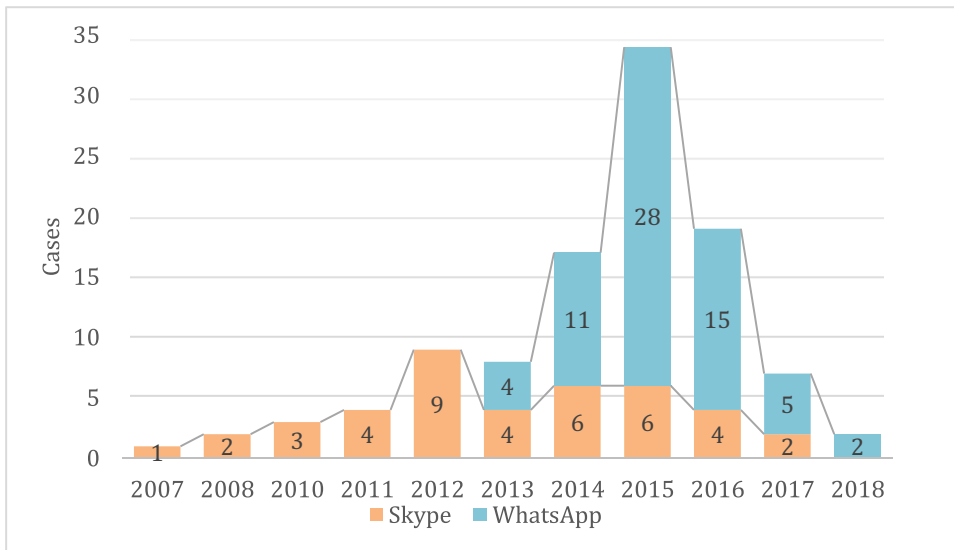
We identified 106 final verdicts regarding online harassment in the workplace from 2007 to 2018 (see Graph 2).

Graph 2 shows, by year, the number of cases in the Brazilian Superior Labour Court in which online harassment in the workplaces was linked to SKYPE and/or WHATSAPP. After 2015, there is a decrease in cases due to fact that many cases are still ongoing and thus not publicly available.

3.3. Data analysis

We analysed the verdicts and documents of these 106 Brazilian Superior Labour Court cases, considering both survivors’ and the accused’s viewpoints with a focus on the technology involved. We performed a thematic analysis (Creswell 2012; Miles et al. 2014; Saldaña 2015), which we will explain in more detail.

In all cases, verdicts included concerns about the role technology (SKYPE and WHATSAPP) played in the harassment. We analysed the cases by dividing them into two main categories: cases in which technology was used as *evidence for indictment* and cases in which technology was used as *evidence by the defence*. We discussed the cases collaboratively. Based upon these discussions, the first author read all documents in Portuguese, creating a thematic coding scheme based on the empirical data stated by both attorneys for the survivors and attorneys for the accused. The first author then coded the complete set of documents following the thematic coding scheme. During this process, results were translated into English and discussed by both authors. We found that the following categories emerged in all cases in which technology was used as evidence for indictment: ‘abusive practices’, ‘offenses’,



Graph 2. One hundred six final verdicts of online harassment in the workplace from the Brazilian Superior Labour Court - TST (2018)

‘harassment’, ‘privacy violation’, and ‘employee availability’. In the cases in which technology was used as evidence for the defendant, the following categories emerged: ‘avoidance evidence’, ‘caring messages’, and ‘friendship evidence’. We used ATLAS.TI to organize the thematic analysis. Table 1 shows examples of quotes from legal documents in each category.

4. Results

4.1. Indictment evidence

In our analysis, we identified multiple situations in which technology such as SKYPE or WHATSAPP served as indictment evidence, or proof which the prosecutor used to charge the accused. In these cases, the survivors accused their superiors or colleagues of labour law violations for online harassment in the workplace and presented the technology traces to the judge as evidence. In those indictment cases, smartphones or laptops were either personal devices or provided by the organisation. Below, we demonstrate four different examples which each show how technology was used as indictment evidence.

Table 1. Examples of quotes from lawyers by category.

Category	Sample quotes (translated from Portuguese)
Evidence for indictment	
Abusive practices	‘Frequently, our manager demands that we meet his unrealistic sales goals, and he uses different sources to convey his demands, including WHATSAPP [...]’
Offenses	‘The technology traces prove that the employer was carrying out offenses every day against the victim [survivor] [...]’
Harassment	‘From the WHATSAPP chat [...], it is clear that the supervisor was solicitous and sympathetic to all employees, except the victim, whom he clearly stated he had a personal problem with.’
Privacy violation	‘The employer organized a “group dynamics” event, which he then video recorded without the employees’ approval or knowledge. Furthermore, the employer shared these videos in various chat groups, which [...] also violated the privacy of the employees.’
Employee availability	‘The company monitor its employees through messages sent to the WHATSAPP group [...]’
Evidence for the defence	
Avoidance evidence	‘The witness cannot have known if other chat groups were used.’
Caring messages	‘My client [accused] used to send caring messages through WHATSAPP...’
Friendship evidence	‘The suspicion adopted by the sentence would be the link between the survivor and his witness revealed through social networks (FACEBOOK) [...]’

Moral harassment in a law firm using SKYPE. In this case, SKYPE was used as indictment evidence to prove labour law violations concerning online moral harassment. The workplace was a law firm. According to the legal documentation, Daenerys, the survivor, accused her superior, Mr. Viserys, of committing moral harassment on SKYPE. Daenerys's lawyer reported that Mr. Viserys violated labour laws by engaging in abusive practices using SKYPE technology. The SKYPE group was dedicated to coordinating work between lawyers in the company, including Daenerys and her colleagues. The legal documentation shows that Mr. Viserys frequently used the SKYPE group to increase staff members' workloads and to promote higher productivity. While this might be appropriate behaviour during work hours, the SKYPE group conversations continued outside the workplace. Mr. Viserys regularly charged staff members in the SKYPE group (in particular directed at Daenerys) to comply with a new set of work hours he invented, as shown by the quotation below.

[...] [Mr. Viserys] set up a Skype group, where he constantly put pressure on the staff to increase productivity, including outside office hours, while being on time and respecting the office hours [...]. When the survivor [Daenerys] arrived at the office at 8:15/8:25 a.m., Mr. Viserys reprimanded her personally in front of all members in the Skype chat group. He warned her to respect the office hours and be on time, while all her colleagues witnessed this warning in the Skype chat (08 April 2015, Part of the original quote from Daenerys' case translated and paraphrased from Portuguese to English; elaborating part of the original quote from Brazilian Superior Labour Court, public document number TST-RR-4300-51.2012.5.21.0009).

Figure 1 presents a part of the original quote, in Portuguese, of the legal document regarding Daenerys' case.

Throughout the legal documentation, Daenerys's attorney emphasized her exposure in the SKYPE group conversation and how it made her feel uncomfortable. By warning her to change her behaviour in the public chat forum and allowing her colleagues to witness the situation, Mr. Viserys embarrassed her. In this case, Daenerys used the SKYPE group messages sent by Mr. Viserys as evidence of the online moral harassment she had experienced. All messages were appended to the case file and thus part of the final verdict. The SKYPE group evidence became essential material in the legal case and served as grounds for the judge's ruling. The judgement was that Mr. Viserys's use of the SKYPE groups was, in fact, online moral harassment in the workplace and therefore a labour law violation. The case was concluded in favour of Daenerys. In our empirical data, cases like Daenerys's were common. Several of the cases proved moral harassment by demonstrating how supervisors like Mr. Viserys conducted abusive practices by constantly pushing employees to increase productivity and seeking to control 'employee availability' outside the workplace. The legal documents

digitalização: que havia os skype coletivo, através do qual era feita a cobrança a todos os advogados. tanto da produção, como do horário. (...) que inclusive chegou a receber mensagem, via skype. do Dr. [REDACTED], chamando à atenção com relação ao seu horário de entrada, posto que cheirava entre 08:15/08:25 e foi advertida de que deveria chegar às 08 horas, sabendo que o mesmo ocorria com os outros advogados: (...)”

Figure 1. Part of the original quote from Daenerys’ case from Brazilian Superior Labour Court, public document number TST-RR-4300-51.2012.5.21.0009.

especially demonstrated how such activities become problematic when employers use a non-official tool, such as SKYPE or WHATSAPP. Reminding employees to be productive and timely is not the problem—the problem is that these alerts were sent in a semi-public forum using non-official technology.

SKYPE causing Psychological violence at a bus company. In this case, SKYPE was used as indictment evidence in a case about training a new employee. Mrs. Cersei, the most experienced of five employees in the logistics department of a bus company, was assigned to provide training to Catelyn, a new employee. However, while Mrs. Cersei’s acceptance of the assignment was documented in the company’s SKYPE group conversations, Catelyn repeatedly complained to her co-workers that Mrs. Cersei did not provide her with the training necessary for her to complete her daily work. She reported that Mrs. Cersei would not even greet her when they met at the company site. Furthermore, Mrs. Cersei was aggressive in her responses on SKYPE, writing, ‘Why have you not learned this yet?’ or ‘How could a person with your low level of expertise get hired?’ Using chat technology, Catelyn complained to a superior that Mrs. Cersei refused to give her training. However, the superior did not interfere in the conflict but rather avoided the problem by having Catelyn and Mrs. Cersei work opposite schedules. Furthermore, the superior expressed in a SKYPE conversation with Mrs. Cersei that he would not allow additional conflict and would fire either of the two employees if they did not solve the problem. At the height of the conflict, Mrs. Cersei threatened to physically assault Catelyn, who was irritating her simply by being present. This threat was made in a SKYPE conversation with an employee working at a different geographical site. Catelyn presented the complete set of SKYPE messages to the court as indictment

evidence. She had access to the SKYPE messages because Mrs. Cersei had used a public company computer to send them. While the SKYPE conversations were private, the computer was not. Because the computer was shared, the judge permitted Catelyn to present the conversations as legal evidence. The quotation below presents part of the prosecuting attorney's documentation of Mrs. Cersei's aggressive behaviour using the SKYPE messages:

The legal documentation and testimony of the witness prove that humiliating and abusive practices took place in the workplace, as evident in the documents on pg. 24 (SKYPE messages), which demonstrate the aggressiveness of the employer towards her employee (09 November 2016, Part of the original quote from Catelyn's case translated and paraphrased from Portuguese to English; elaborating part of the original quote from Brazilian Superior Labour Court, public document number TST-RR-457-66.2012.5.09.0024).

In this case, the chat technology documentation was found to legally demonstrate that Mrs. Cersei engaged in abusive behaviour of an offensive nature that resulted in intense psychological violence (i.e., harassment). As a result of the harassment, Catelyn was marginalized in the work environment, which caused psychological and moral damage. While Mrs. Cersei's lawyer argued against using the SKYPE conversations as legal evidence, the judge allowed it and ruled in favour of Catelyn.

Use of WHATSAPP through Abusive behaviour in a department store. In this case, interactions on WHATSAPP were used as legal proof that labour law violations had occurred at a large department store in Brazil. The sale manager, Mr. Joffrey, created a WHATSAPP group to coordinate his sales staff. In this WHATSAPP group, Mr. Joffrey pressured his salespeople to increase sales 'at any cost'. According to the legal documentation, Arya, a salesperson, was threatened with termination if she did not achieve the store's sales goals. In the quotation below, Arya's lawyer argues that Mr. Joffrey behaved abusively towards Arya and his sales staff when he used chat technology to pressure them to increase sales:

The documentation, verified by the WHATSAPP messages, demonstrates that the manager placed illegal pressure on the victim and her colleagues and abusively forced them to increase sales at any cost (06 December 2017, case translated and paraphrased from Portuguese to English; elaborating part of the original quote from Brazilian Superior Labour Court⁷, public document number TST-AIRR-10482-02.2016.5.03.0078).

Eventually, Mr. Joffrey terminated Arya's employment, and Arya decided to denounce his abusive behaviour in a court of law. During this legal process, Arya's lawyer gathered the messages sent by Mr. Joffrey in the WHATSAPP group and

presented them as evidence of online harassment in the workplace. The judge considered the WHATSAPP messages incontestable evidence of a labour law violation. In the final verdict, the judge found Mr. Joffrey guilty and ordered him to pay compensation to Arya.

Sexual harassment using WHATSAPP at a car dealership. In our empirical data, most cases concerned online moral harassment. However, there were also cases of online sexual harassment in the workplace. In most of these cases, WHATSAPP messages were used as indictment evidence. One example which illustrates this trend occurred at a car dealership. An employee, Sansa, accused the sales director, Mr. Ramsay, of attempting to use his authority to obtain sexual advantages from her, which is a form of sexual harassment. Sansa presented her private WHATSAPP conversations as evidence of the online sexual harassment she suffered by Mr. Ramsay, as shown by the quotation below:

October 4 – Mr. Ramsay: You look wonderful [today]

October 4 – Mr. Ramsay: Wow!

October 4 – Mr. Ramsay: I want to smell [you]

October 4 – Sansa: No

October 4 – Mr. Ramsay: I missed you

October 4 – Mr. Ramsay: Your little face

October 4 – Mr. Ramsay: What a f@#*?!

October 4 – Sansa: Noooo

(24 August 2016, case translated and paraphrased from Portuguese to English; elaborating part of the original quote from Brazilian Superior Labour Court, public document number TST-AIRR-10070-52.2013.5.11.0014)

In this case, the indictment evidence presented by witnesses and e-mails was not enough to prove abusive behaviour. Instead, the court required concrete proof. The WHATSAPP messages sent to Sansa by Mr. Ramsay from his mobile phone supported the prosecution's accusations and led the judge to rule that Mr. Ramsay had committed online sexual harassment in the workplace. Sentences such as 'I want to smell [you]' and 'I missed you' caused the judge to declare Mr. Ramsay guilty, and Mr. Ramsay had to pay compensation to Sansa. Besides the

sexual harassment, the case presents a typical instance of ‘privacy violation’, since it demonstrates the blurred boundary between work life and private life—and how, by crossing this barrier, Mr. Ramsay took advantage of his professional position to sexually harass his employee both during and outside of office hours. The case was transferred from the labour law court to the criminal court once the online sexual harassment was confirmed.

In all the cases which introduced chat technology as indictment evidence, it was clear that when chat technology enters the workplace, there is a ‘dark side’. The cases showed that chat technology allows employees and employers to engage in malicious activities online, creating a venue for abusive behaviour and harassment. However, we also found that the persistence and trackability of behaviours on chat platforms allows survivors to demonstrate their experiences and reveal workplace harassment. They can prove that labour law violations have occurred, which might have been difficult without technology traces. Thus, chat technology can provide legal evidence of moral harassment, psychological abuse, and even criminal behaviours like sexual harassment.

4.2. Defence evidence

The persistent and reviewable traces of digital harassment were used as evidence not only for indictment, but also for the defence. Examining all the cases in which chat technology was used as defence evidence, we identified three different ways in which defence attorneys presented technology traces to prove the innocence of clients accused of labour law violations. Below we demonstrate these different approaches through three concrete cases.

Use of WHATSAPP messages to disprove a harassment accusation. In this first labour court case, Tyrion, who worked for a condominium on general services, accused his manager, Mrs. Lysa, of cursing and humiliating him through intolerant and impatient behaviour. Such abusive behaviours clearly constitute moral harassment, and thus a guilty verdict would mean Mrs. Lysa had violated labour laws. It is important to note that the abusive behaviour had not occurred on online media, but rather in face-to-face interactions. Mrs. Lysa claimed she was innocent of harassing Tyrion. Her attorney argued that his client always treated Tyrion well and that Tyrion’s accusation was inappropriate. To support their claim, Mrs. Lysa and her attorney presented transcripts of WHATSAPP conversations between Mrs. Lysa and Tyrion, saying the transcripts illustrated Mrs. Lysa’s interactions with her employee, as demonstrated by the quotation below:

In the legal documents, the defendant denies the accusation of abusive behaviours towards Tyrion, as she [Mrs. Lysa] clearly ‘had a good relationship with the victim, to whom she always sent supportive messages using WhatsApp’ (22 June 2017, Part of the original defense statement presented by Mrs. Lysa’s lawyer

translated and paraphrased from Portuguese to English from Brazilian Superior Labour Court, public document number TST-AIRR-1227-13.2015.5.05.0009).

Mrs. Lysa's attorney attempted to convince the judge that Tyrion had a positive relationship with his manager, and therefore his accusation against Mrs. Lysa was false. Although the judge did consider the WHATSAPP messages as evidence for the defence, that evidence was not enough to find Mrs. Lysa not guilty. Instead, Tyrion's accusation proved to be stronger evidence. Ultimately, Mrs. Lysa was deemed guilty and ordered to pay compensation for mistreating and harassing Tyrion in the workplace. This case demonstrates that chat conversations illustrating appropriate interaction between employees and employers is not strong evidence for the defence. The 'caring messages' shared with Tyrion on the WHATSAPP platform were insufficient to acquit Mrs. Lysa of harassment charges.

Use of WHATSAPP messages to disprove accusations of abusive behaviour. This second case focused on increased stress in the workplace. Jamie, a salesperson at a large food company, accused his supervisor, Mr. Tywin, of abusive behaviour. According to the legal documents, Mr. Tywin excessively demanded that his sales staff meet the sales goal established by the company. He approached the team after work hours, sending SMS, WHATSAPP messages, or e-mails and, in some cases, even calling employees on their home phones, placing a constant pressure on all employees to increase their sales. Before indictment, Mr. Tywin's attorney presented the judge with transcripts of WHATSAPP messages to show that Mr. Tywin was not abusive. The defence argued that the messages demonstrated Mr. Tywin was not offensive or in any way threatening to his employees. The attorney further emphasized that placing pressure on employees to meet sales goals was indeed a part of the company's strategy and routine, and thus not a special case of workplace harassment. In the quotation below, Mr. Tywin's lawyer argued that asking employees to meet sales targets is neither abusive nor offensive:

The messages transcribed from the WHATSAPP chat forum (pg. 116) presented here show that sales goals were assigned to the survivor and other sellers, but without any threats or abusive behaviour (14 December 2016, Part of the original defence statement presented by Mr. Tywin's lawyer case translated and paraphrased from Portuguese to English; elaborating part of the original quote from Brazilian Superior Labour Court, public document number TST-AIRR-799-53.2015.5.18.0111).

This case demonstrated a typical example of using chat technology traces to 'avoid evidence' by disproving accusations. The defence attorney's strategy was to show the judge WHATSAPP messages which portrayed Mr. Tywin's behaviours as inoffensive, despite his encouragement to meet the sales goal. However, the judge

found this evidence insufficient. The court found Mr. Tywin guilty and ordered him to pay compensation to Jamie for both overtime and moral harassment.

Annulment of testimony based on FACEBOOK friendship. The final example of chat technology's use as defence evidence involved accusations of harassment at a shoe factory. When an employee, Ellaria, left the factory, she accused her supervisor of moral harassment. Part of Ellaria's indictment evidence was the testimony of her former co-worker, Sand, who confirmed before the judge that the supervisor mistreated and harassed both Ellaria and her co-worker. The defence attorney tried to avoid Sand's testimony by requesting it be annulled because the witness was a good friend of Ellaria. To prove their close relationship, the attorney cited data from the social networking site FACEBOOK:

[...] the survivor [Ellaria] and her witness [Sand] have a close friendship. The friendship is documented by their contact and interaction through FACEBOOK as well as on WHATSAPP. Due to this situation, the judge should reconsider the evidence based on Sand's testimony [...], since she is a friend of the survivor (audience page 101) (24 February 2016, a quotation from the lawyer of the factory arguing close friendship between Ellaria and Sand case translated, paraphrased from Portuguese to English; elaborating part of the original quote from Brazilian Superior Labour Court, public document number TST-RR-637-78.2014.5.04.0371).

When the judge asked Sand to characterize her friendship with Ellaria, Sand explained that she only knew Ellaria on social media and as a co-worker, and that they did not have a close friendship. The judge rejected the defence lawyer's attempt to dismiss the testimony, ruling that the relationship characterized by social media connections was not sufficient to prove close friendship. Thus, Sand's testimony stood and served as an essential piece of the case to prove the factory guilty of moral harassment.

From all the cases on online harassment, it was clear that both the defence and the prosecution used technology traces as evidence. In our material, chat technology was used as both indictment evidence and defence evidence. While we only present seven concrete cases in this paper, they display the larger patterns we saw across all cases. There were no cases in which chat technology alone served as sufficient evidence. However, in combination with other forms of evidence, it was a strong tool to demonstrate labour law violations related to online harassment in the workplace. Considering all cases, it was also evident that technological traces serves as stronger indictment evidence than defence evidence. In almost all cases, the survivor of harassment could best utilize chat messages as evidence. This pattern suggests that the persistent nature of online harassment in the workplace provides stronger tools for survivors to prove their cases compared to workplace harassment outside the digital world.

5. Discussion

Since 2007, online workplace harassment has been recognized as an occupational hazard by the legal system in Brazil. Across all our empirical cases, it was evident that online harassment took place in both highly paid professions, such as law, and low paying jobs, such as retail. While the boundaries and borders of inappropriate online behaviour in the workplace are still being constituted (Khan et al. 2011) and defined legally in Brazil, the increased number of cases in the last decade clearly shows the importance and urgency of finding legal methods to address this topic. While courts, laws, and regulations decide what constitutes the legal parameters of online harassment in the workplace, CSCW research should take responsibility for the unintended consequences of our digital systems from a design-oriented perspective.

Investigating the two ways that digital traces were used in workplace harassment disputes, we found clear differences between situations in which chat technology was presented as legal evidence for indictment and situations in which it was introduced by the defence. In all cases in which chat technology was introduced as evidence for indictment, the case transgressed the legal definition of workplace harassment to include the experiences of the harassment survivor. Thus, using chat technology as evidence complemented other sources, such as witness testimony. In this way the technology traces became statements of the affairs in question. Moreover, all indictment cases were filed by the survivor against the employer and used technology traces to demonstrate a high level of harassment by the employer (typically an individual) towards the survivor.

Turning to the cases in which chat technology was used by the defence, we saw a different pattern. In each case of online harassment in the workplace, an employer defended the behaviours of one employee towards another (the survivor). Here chat technology traces were used as evidence against the claimed problematic behaviour, either to demonstrate affection, annul testimony due to close friendship, or normalize the behaviour within the organisation and thus render it unproblematic. However, in all these cases, the judge ruled such evidence insufficient. Interestingly, our analysis shows that including chat technology as evidence leverages the case of the survivor but not the case of the employer. Workplace harassment is often invisible; survivors seek to survive without telling anyone about the situation, since revealing harassment can lead to financial repercussions or public embarrassment. Online harassment has a profoundly negative impact on survivors and our data indicate a constitutive relationship between workplace harassment in physical environments and in digital environments. In all analysed cases, these two ‘harassment spaces’ were highly interlinked, and verdicts took both contexts into account. Thus, our data suggest that, while chat technology potentially introduces a new venue for workplace harassment, it also allows the survivor to document experiences in new ways which serve as evidence in court. Due to the constitutive relationship between physical and digital harassment spaces, one might also speculate whether the introduction of chat technology amplifies or simply documents existing harassment situations. If the latter

is the case, unintended consequences of chat technology include providing survivors better tools for revealing and halting harassment. Our data thus reveals a different, maybe even positive, aspect of online harassment: Increased visibility and cessation of harassment behaviour in the workplace. The persistence and visibility of digital traces serve to legally document harassment, claims of which might otherwise be opaque and nonconsequential.

Shedding light on the invisible aspect of work performed by those in less powerful positions (Bossen and Foss 2016; Kristiansen et al. 2018) has always been a keen interest for CSCW researchers (Suchman 1995; Wagner 1993). Exploring invisible work reminds us to take notice of the hidden and opaque aspects of the workplace. When we closely examine online harassment and the role of digital technologies, we notice an important aspect of the workplace. When viewing co-operative work from afar, we often miss details and thus risk neglecting unintended consequences in the design of co-operative technologies (Bjørn et al. 2017). By making aspects of work visible available through technology, allowing others to monitor and act accordingly, individuals becomes accountable for their actions. When digital platforms capture interactions in co-operative technologies and the interaction becomes visible, then these actions (Bjørn and Ngwenyama 2009), including inappropriate behaviour, becomes open to scrutiny and individuals becomes accountable. While co-operative technologies span life and work, thus creating an inability to escape from the online world and enabling harassers to do more harm in this context than a traditional workplace context (Odongo and Rono 2017), the persistence and traceability of the technology allows survivors to document experiences and hold harassers accountable for their actions.

Online harassment in the workplace is fundamentally different from online harassment on social media outside the workplace (e.g., Vitak et al. 2017; Blackwell et al. 2018), where survivors are often harassed by anonymous participants. Online workplace harassment exists in co-operative environments, where participants are known to each other. The known audiences of online workplace harassment create high risk situations for survivors, because personal identification jeopardizes the financial stability of the survivor, and thus economic and social penalties are continuously a threat. Yet, digital documentation brings forth the experienced behaviours from hidden spaces, making them available for scrutinizing as legal evidence. When victims know the harasser and have documentation, they can take legal action.

Our data demonstrate that through digital means, workplace harassment moves beyond the border of work and into the private sphere. We saw several examples of how the boundaries between work and private life are blurred, not only as laptops and smartphones travel between the office and home (Martin et al. 2016; Glöss et al. 2016), but also as colleagues are connected through social media sites, such as in the factory case. Co-workers are digitally connected in multiple ways, both inside and outside the workplace, and digital technologies risk becoming a platform where workplace harassment is extended outside professional engagement. We saw this risk

in several of our cases. In the UK, the law is clear that employers are liable for defamatory remarks made by their employees on social media during work hours (Khan et al. 2011). However, what happens when an employee is demonstrating problematic behaviour outside work hours using messaging tools, such as WHATSAPP, which span both work and private life? In all our cases, it was clear from the verdicts that online workplace harassment transcends *work time* and *workplace*. When employees interact using chat technology outside of normal work hours or of the walls of the workplace, the activity and behaviour are the employer's responsibility. If digital chat technologies such as SLACK, SKYPE, or WHATSAPP are used in the workplace and 'leave' the office with the employee, all interactions between employees on this platform are the responsibility of the employer. Interestingly, the verdicts of our cases indicate that the legal and ethical responsibilities of employers increase with the introduction of chat technology in the workplace. Employers become responsible for employees' behaviour *everywhere* and *all the time*.

Finally, we reflect upon the type of data material which served as the foundation of our work in this paper. Digital court records and documentation have different properties than other materials (e.g., interviews and observations) which are considered ethnographic data in CSCW research. By using documents from legal disputes with verdicts, we had unique access to detailed descriptions of the unintended consequences of digital technology in the workplace. When investigating the legal documents, it became clear that lawyers and caseworkers, like CSCW researchers, share an interest in the contextual details and situations which are shaped by technology. We were impressed by the details in the data and the insights into context we could gain based upon the documents. While each country has different laws and policies guiding the labour market (e.g., union negotiations, etc.), the Brazilian Superior Labour Court is particularly interesting because of its focus on work and the workplace. This situation is different in other countries, such as Denmark. We see a high potential for legal documents to bring interesting insights about work practices and technology to CSCW research. Furthermore, our findings demonstrate that CSCW research can leverage legal documentation as a site for design and inquiry (Bjørn and Boulus-Rødje 2015). Legal documentation and labour disputes provide a new, relevant methodological venue for ethnographic data collection. Moreover, the focus on legal documents as empirical data provides a different type of balance in diverse perspectives on work disputes. Both sides of each dispute share detailed accounts of the situation, thus providing us, as CSCW researchers, new insights into the role of technology in the workplace.

6. Conclusion

Online harassment is an emergent field of CSCW research. However, only a few CSCW researchers have explored online harassment in the workplace, and, to the best of our knowledge, no one has explored online harassment in the workplace

using legal case material. We set out to explore online harassment in the workplace and, in particular, the role played by chat technology. Having access to the complete legal documentation of harassment cases from the Brazilian Superior Labour Court, we discovered that, due to the blurred boundaries between work life and private life, online harassment in the workplace extends into survivors' private lives. Thus, chat technology provides a platform for workplace harassment to enter the private sphere. Furthermore, survivors of workplace harassment risk financial punishment, as well as social consequences, if they speak up. However, our work also suggested that chat technologies can be a vehicle for making visible otherwise hidden harassment experiences in the workplace. The invisibility of harassment in the workplace often makes it difficult for survivors to prove their experiences. However, when harassment is digitally captured by technology *and* the harasser is known, technology supports survivors in illustrating their experiences. When harassment is digitally captured and reviewable, offenders become accountable for their actions, including—as our data demonstrate—in the legal sense when technology traces are provided as evidence in a court of law.

We argue that by analysing legal documentation as empirical data, CSCW researchers are able to gain new insights into the role which technology plays in the workplace. Exploring new types of data is relevant for developing the CSCW discipline, and therefore we argue that our analytical effort holds significant potential for expanding future CSCW research.

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References

- Bac, Mehmet (2018). Wages, performance and harassment. *Journal of Economic Behavior & Organization*, vol. 145, January 2018, pp. 232–248.
- Becton, J. Bret; J. Bruce Gilstrap; and Maurice Forsyth (2017). Preventing and correcting workplace harassment: Guidelines for employers. *Business Horizons*, vol. 60, no. 1, January 2017, pp. 101–111.
- Bellini, Carlo Gabriel Porto; Miguel Mauricio Isoni Filho; Pedro Jácome de Moura Junior; and Rita de Cássia de Faria Pereira (2016). Self-efficacy and anxiety of digital natives in face of compulsory computer-mediated tasks: A study about digital capabilities and limitations. *Computers in Human Behavior*, vol. 59, June 2016, pp. 49–57.

- Bjørn, Pernille; and Nina Boulus-Rødje (2015). The Multiple Intersecting Sites of Design in CSCW Research. *Computer Supported Cooperative Work (CSCW): An International Journal*, vol. 24, no. 4, August 2015, pp. 319–351.
- Bjørn, Pernille; and Nina Boulus-Rødje (2018). Infrastructural Inaccessibility: Tech Entrepreneurs in Occupied Palestine. *ACM Transactions on Computer-Human Interaction (TOCHI)*, vol. 25, no. 5, October 2018, pp. 26:1–26:31.
- Bjørn, Pernille; and Morten Hertzum (2011). Artefactual Multiplicity: A Study of Emergency-Department Whiteboards. *Computer Supported Cooperative Work (CSCW)*, vol. 20, nos 1–2, April 2011, pp. 93–121.
- Bjørn, Pernille; and Ojelanki Ngwenyama (2009). Virtual team collaboration: Building shared meaning, resolving breakdowns and creating translucence. *Information Systems Journal*, vol. 19, no. 3, April 2009, pp. 227–253.
- Bjørn, Pernille; Anne-Marie Soderberg; and S. Krishna (2017). Translocality in Global Software Development: The Dark Side of Global Agile. *Human-Computer Interaction*, vol. 25, no. 5, pp. 1–30.
- Blackwell, Lindsay; Tianying Chen; Sarita Schoenebeck; and Cliff Lampe (2018). When Online Harassment is Perceived as Justified. *ICWSM'2018. Proceedings of the Twelfth International AAAI Conference on Web and Social Media, Palo Alto, California, 25–28 June 2018*. Palo Alto: AAAI Publications, pp. 22–31.
- Bossen, Claus; and Martin Foss (2016). The Collaborative Work of Hospital Porters: Accountability, Visibility and Configurations of Work. *CSCW'16. Proceedings of the 19th ACM Conference on Computer-Supported Cooperative Work & Social Computing, San Francisco, California, 27 February –02 March 2016*. New York: ACM, pp. 965–979.
- Brazilian Superior Labour Court - TST (2018). Coordination of Statistics and Research of the TST (Coordenadoria de Estatística e Pesquisa do TST). TST, April 2018. <http://www.tst.jus.br/web/autoatendimento>. Accessed 19 February 2018.
- Brown, Megan Lindsay; Lauren A Reed; and Jill Theresa Messing (2018). Technology-Based Abuse: Intimate Partner Violence and the Use of Information Communication Technologies. In J. R. Vickery and T. Everbach (eds), *Mediating Misogyny: Gender, Technology, and Harassment*. Cham: Springer International Publishing, pp 209–227.
- Bucher, Birgit (2018). WhatsApp, WeChat and Facebook Messenger Apps – Global Messenger Usage, Penetration and Statistics, Usage of selected mobile messaging apps among smartphone owners in Brazil in January and July 2017. Messengerpeople, May 2018. <https://www.messengerpeople.com/global-messenger-usage-statistics/#Brazil>. Accessed 20 Feb 2019.
- Campos, Izabel C. Martins; Lizandra Da Silva; Rafaela Luiza Trevisan; and Roberto Moraes Cruz (2012). Moral harassment at work model and inability. *Work*, vol. 41, no. Supplement 1, 2012, pp. 2060–2067.
- Choi, Kyung-Shick; and Jin Ree Lee (2017). Theoretical analysis of cyber-interpersonal violence victimization and offending using cyber-routine activities theory. *Computers in Human Behavior*, vol. 73, August 2017, pp. 394–402.
- Claybourn, Marvin; Barry Spinner; and Kathryn Malcom (2014). Workplace harassment: A test of definitional criteria derived from an analysis of research definitions and Canadian social definitions. *International Journal of Law and Psychiatry*, vol. 37, no. 6, November 2014, pp. 589–600.
- Creswell, John W. (2012). *Research design: Qualitative, quantitative, and mixed methods approaches* 4th Edition. London: Sage.
- Dombrowski, Lynn; Adriana Alvarado Garcia; and Jessica Despard (2017). Low-Wage Precarious Workers' Sociotechnical Practices Working Towards Addressing Wage Theft. *CHI'17. Proceedings of the 2017 CHI Conference on Human Factors in Computing Systems, Denver, Colorado, 06–11 May 2017*. New York: ACM, pp. 4585–4598.

- Farley, Samuel; Iain Coyne; Carolyn Axtell; and Christine Sprigg (2016). Design, development and validation of a workplace cyberbullying measure, the WCM. *Work & Stress*, vol. 30, no. 4, October 2016, pp. 293–317.
- Glöss, Mareike; Moira McGregor; and Barry Brown (2016). Designing for Labour: Uber and the On-Demand Mobile Workforce. *CHI'16. Proceedings of the 2016 Conference on Human Factors in Computing Systems, San Jose, California, 07–12 May 2016*. New York: ACM Press, pp. 1632–1643.
- Guberman, Joshua; Carol E. Schmitz; and Libby Hemphill (2016). Quantifying Toxicity and Verbal Violence on Twitter. *CSCW'16. Proceedings of the 19th ACM Conference on Computer Supported Cooperative Work and Social Computing Companion, San Francisco, California, 27 February – 02 March 2016*. New York: ACM Press, pp. 277–280.
- Guerrero, Maria Isabel S. (2004). The development of moral harassment (or mobbing) law in Sweden and France as a step towards EU legislation. *Boston College International & Comparative Law Review*, vol. 27, no. 2, pp. 477–500.
- Guimarães, Carmelita Angélica; Vera L. Cançado; and Reginaldo de Jesus Carvalho Lima (2016). Workplace moral harassment and its consequences: A case study in a federal higher education institution. *Revista de Administração*, vol. 51, no. 2, pp. 151–164.
- Handel, Mark; and James D. Herbsleb (2002). What is chat doing in the workplace? *CSCW'02. Proceedings of the 2002 ACM Conference on Computer Supported Cooperative Work, New Orleans, Louisiana, USA, 16–20 November 2002*. New York: ACM Press, pp. 1–10.
- Holten Møller, Naja; and Pernille Bjørn (2011). Layers in Sorting Practices: Sorting out Patients with Potential Cancer. *Computer Supported Cooperative Work (CSCW)* vol. 20, no. 3, June 2011, pp. 123–153.
- Jhaver, Shagun; Sucheta Ghoshal; Amy Bruckman; and Eric Gilbert (2018). Online Harassment and Content Moderation: The Case of Blocklists. *ACM Transactions on Computer-Human Interaction*, vol. 25, no. 2, April 2018, pp. 33.
- Khan, Sarosh; Roksana Moore; and Mark Weal (2011). Social Media on the Job: An Exploration of the Potential Legal Consequences of Employees' Social Media Activities During the Course of Employment. *WebSci'11. Proceedings of the 3rd International Web Science Conference, Koblenz, Germany, 15–17 June 2011*. New York: ACM, pp. 19:1–19:8.
- Kristiansen, Kristian Helbo; Mathias A. Valeur-Meller; Lynn Dombrowski; and Naja L. Holten Møller (2018). Accountability in the Blue-Collar Data-Driven Workplace. *CHI'18. Proceedings of the 2018 CHI Conference on Human Factors in Computing Systems, Montreal QC, Canada, 21–26 April 2018*. New York: ACM Press, pp. 1–12.
- Lerouge, Loïc (2013). Workplace Bullying and Harassment in France and Few Comparisons with Belgium: A Legal Perspective. In *International Tokyo Seminar on Workplace Bullying and Harassment*. Tokyo, Japan: The Japan Institute for Labour Policy and Training, no. 12, pp. 39–59.
- Leymann, Heinz (1996). The content and development of mobbing at work. *European Journal of Work and Organizational Psychology*, vol. 5, no. 2, January 1996, pp. 165–184.
- Lima, Francisco Meton Maques de (2004). *Elementos de Direito do Trabalho e Processo Trabalhista*. 10th ed. São Paulo: LTR.
- Martin, David; Jacki O'Neill; Neha Gupta; and Benjamin V. Hanrahan (2016). Turking in a Global Labour Market. *Computer Supported Cooperative Work (CSCW)*, vol. 25, no. 1, February 2016, pp. 39–77.
- Matthiesen, Stig Berge; and Ståle Einarsen (2010). Bullying in the workplace: definition, prevalence, antecedents and consequences. *International Journal of Organization Theory & Behavior*, vol. 13, no. 2, March 2010, pp. 202–248.
- Miles, Matthew B.; A. Michael Huberman; and Johnny Saldaña (2014). *Qualitative data analysis: A Methods Sourcebook 3rd Edition*. London: Sage.

- Mitchell, Kimberly J.; Michele L. Ybarra; Lisa M. Jones; and Dorothy Espelage (2016). What Features Make Online Harassment Incidents Upsetting to Youth? *Journal of School Violence*, vol. 15, no. 3, July 2016, pp. 279–301.
- Møller, Naja L. Holten and Signe Vikkelsø (2012). The clinical work of secretaries: Exploring the interaction of administrative and clinical work in the diagnosing process. In J. Dugdale et al. (eds): *From Research to Practice in the Design of Cooperative Systems: Results and Open Challenges*. London: Springer, pp. 33–47.
- Moran, Kate (1994). Harassment in the Workplace. *Physiotherapy*, vol. 80, no. 4, April 1994, pp. 239–243.
- Mørck, Peter; Tue Odd Langhoff; Mads Christophersen; Anne Kirstine Møller; and Pernille Bjørn (2018). Variations in Oncology Consultations: How Dictation Allows Variations to be Documented in Standardized Ways. *Computer Supported Cooperative Work (CSCW)*, vol. 27, nos 3–6, December 2018, pp. 539–568.
- Nielsen, Morten Birkeland; Lars Glasø; and Ståle Einarsen (2017). Exposure to workplace harassment and the Five Factor Model of personality: A meta-analysis. *Personality and Individual Differences*, vol. 104, January 2017, pp. 195–206.
- Odongo, Agnes Owuato and Gideon Cheruiyot Rono (2017). Workplace Harassment Through ICT. In Rehema Baguma; Rahul De'; and Tomasz Janowski (eds): *ICEGOV'17. Proceedings of the 10th International Conference on Theory and Practice of Electronic Governance, New Delhi AA, India, 07–09 March 2017*, New York: ACM Press, pp. 187–190.
- Ophoff, Jacques; Thabiso Machaka; and Adrie Stander (2015). Exploring the impact of cyber incivility in the workplace. *InSITE 2015. Proceedings of Informing Science & IT Education Conference, Tampa, Florida, 29 June –5 July 2015*, Santa Rosa, Calif.: Informing Science Institute, pp. 493–504. <http://proceedings.informingscience.org/InSITE2015/InSITE2015Proceedings.pdf>
- Pinto, Danieli; Karoline Garcia; and Nelson Tenório (2017). Technological communication tools in use - the shape of knowledge shared within software development teams. In K. Liu, J. Bernardino, A.C. Salgado, and J. Filipe (eds): *IC3K 2017. Proceedings of the 9th International Joint Conference on Knowledge Discovery, Knowledge Engineering and Knowledge Management, Funchal, Madeira, Portugal, 1–3 November 2017*. Setúbal, Portugal: SCITEPRESS, pp. 158–166.
- Saldaña, Johnny (2015). *The coding manual for qualitative researchers*, 2nd Edition. London: Sage.
- Salin, Denise (2008). Organisational responses to workplace harassment. *Personnel Review*, vol. 38, no. 1, December 2008, pp. 26–44.
- Schmidt, Kjeld; and Liam Bannon (1992). Taking CSCW seriously. *Computer Supported Cooperative Work (CSCW)*, vol. 1, nos 1–2, March 1992, pp. 7–40.
- Soares, Fernanda De Carvalho; and Bento Herculano Duarte (2014). O Assédio Moral no Ordenamento Jurídico Brasileiro. *Fórum Trabalhista – RFT*, Belo Horizonte, pp. 21–47.
- Stephan, Cláudia Coutinho (2013). *O princípio constitucional da dignidade e o assédio moral no direito do trabalho de Portugal e do Brasil*. São Paulo: LTR.
- Suchman, Lucy (1995). Making work visible. *Communications of the ACM*, vol. 38, no. 9, September 1995, pp. 56–64.
- Tenório, Nelson; Danieli Pinto; and Pernille Bjørn (2018). Accountability in Brazilian Governmental Software Project: How Chat Technology Enables Social Translucence in Bug Report Activities. *Computer Supported Cooperative Work (CSCW)*, vol. 27, nos 3–6, December 2018, pp. 715–740.
- Turte, Samantha Lemos; Maria Eduarda Cavadinha Correa; Andrea Aparecida Da Luz; and Frida Marina Fischer (2012). Harassment at work? Empowerment and autonomy as coping strategies of young workers. *Work*, vol. 41, no. Supplement 1, 2012, pp. 5674–5676.
- Vitak, Jessica; Kalyani Chadha; Linda Steiner; and Zahra Ashktorab (2017). Identifying Women's Experiences with and Strategies for Mitigating Negative Effects of Online Harassment. *CSCW'17. Proceedings of the 2017 ACM Conference on Computer Supported Cooperative Work and Social*

Computing, Portland, Oregon, USA, 25 February – 01 March 2017. New York: ACM Press, pp. 1231–1245.

Wagner, Ina (1993). Women's voice: The case of nursing information systems. *AI & Society*, vol. 7, no. 4, December 1993, pp. 295–310.

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