

Organizational Surveillance of Computer-Mediated Workplace Communication: Employee Privacy Concerns and Responses

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Abstract Email, social media, and other types of computer-mediated workplace communication tools can enhance flexibility in how employees perform their jobs, expand networking opportunities, increase profits, cut costs, and enable collaboration among diverse groups across the globe. Despite their advantages, these technology tools can also cause security breaches, financial loss, employee distraction, and lawsuits. To prevent such damaging consequences, many companies monitor their employees' computer-mediated workplace communication. However, this surveillance is often met with resistance from employees as it taps into concerns over workers' privacy rights, due process, and fairness. We examine these employee concerns through an empirical study of full-time working adults' beliefs about their computer-mediated workplace communication privacy and their evaluations of organizational justice, trust in upper management, and commitment to the organization. Our results suggest that employees who perceive less computer-mediated workplace communication privacy tend to view their organization's policies as less fair, trust upper management less, and demonstrate less commitment to their organizations. Furthermore, results indicate that procedural justice mediated the relationship between privacy and organizational commitment and moderated the relationship between privacy and organizational trust.

Keywords Employee privacy · Electronic monitoring · Organizational justice · Social networking · Communication

An inherent tension exists between an employer's right to monitor employee computer-mediated workplace communication (CMWC) and the employee's right to privacy. The

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importance of effectively managing this tension was brought to the public's attention by the brutal cyberattack perpetrated against Sony Pictures Entertainment in late 2014. Both Sony and its employees were hurt by this legal, economic, public relations, and human resources disaster. Sony employees' personal information (e.g., Social Security numbers), work information (e.g., disciplinary actions), and personal emails were posted online (Ellis 2014), making the employees susceptible to identity theft, embarrassment, and career damage. Emails containing mean-spirited and racist comments made by top Sony executives, as well as references to discriminatory employee salaries, were also published (Holpuch 2014), along with previously unreleased Sony films (Ellis 2014). As a result, four lawsuits were filed, alleging Sony was negligent in not guarding against the attack (Ellis 2014), and Sony undoubtedly suffered financial loss.

Employers and employees fear they or their organizations will suffer a similar fate—lawsuits, damaged reputations, financial loss, and shattered morale—due to information breaches or abuses at the hands of hackers, unwitting employees, or disgruntled workers. To prevent such devastating consequences, many companies monitor their employees' CMWC. Although employees want their information and reputations protected and may accept the organization's right to monitor their CMWC, they also desire and expect privacy in the workplace. And although employers want to respect their employees' privacy, they also want to protect their information, equipment, reputations, and investments. The present study investigates the effects associated with this tension surrounding organizational surveillance of CMWC and employee privacy.

Computer-mediated workplace communication (CMWC) and other forms of electronic technology are ubiquitous and often times helpful tools used by contemporary employees (Allen et al. 2007; Snider 2014; Snyder 2010). They enable efficient communication, expand networking opportunities, and are cost efficient means of storing data. Despite their usefulness, employers monitor their employees' CMWC to prevent security breaches and lawsuits, such as those experienced by Sony, and to increase worker productivity (Friedman and Reed 2007; Lucero et al. 2013; Snider 2014). However, this surveillance gives many workers pause as it taps into concerns over privacy rights, due process, fairness, and trust (Alge 2001; Fairweather 1999; Rosenberg 1999; Snyder and Cistulli 2011; Snyder and Cornetto 2009; Tabak and Smith 2005). These employee concerns associated with CMWC privacy are the focus of this essay. Specifically, we examine full-time working adults' CMWC privacy and their perceptions of organizational justice, their trust in the organization, and their organizational commitment through an empirical survey study. We begin with a description of the benefits and drawbacks of organizational technology and the implications for employee privacy rights. We then review the types of CMWC tools and the reasons organizations monitor employees' use of these tools. We follow with the employee perspective, including critiques of CMWC monitoring. We then delineate the relationships among CMWC monitoring, privacy, fairness, organizational trust, and commitment. Finally, we present our hypotheses, describe our method, and report and discuss the results of our analyses.

Introduction

Organizational technology can be used to drive profits, increase the flexibility of employees' work arrangements, deliver services at reduced costs, and streamline collaboration among diverse individuals throughout the world. In most cases, communication and information

technology, such as the Internet, expedites productivity and facilitates workplace communication (Rosenberg 1999). However, these innovations can also overwhelm employees with information and communications that reduce their productivity, they can be used to infringe on employees' privacy, and they can tether employees to the organization, blurring the lines between their private home lives and their public work lives (Murray and Rostis 2007; Snider 2014).

Of course, employers monitoring and attempting to control their employees' work, as well as private, lives is nothing new. Since Henry Ford organized his factory towns, hired Pinkertons to prevent unionizing, and employed a "sociology department" to investigate workers' home lives and personal habits (e.g., skipping church, drinking), employers have watched and sought to control employees inside and outside the workplace proper (Dillon et al. 2008; Lune 2010; Meyer 1981). Workers have long recognized "that upon crossing the threshold of the workplace, many civil liberties must be temporarily abandoned" (Rosenberg 1999, p. 7). Employees frequently must surrender their own rights, including their right to privacy, to the rights of their employers (Friedman and Reed 2007; Lee and Kleiner 2003). Employers also monitor workers' communication when they are "off the clock," raising questions of free speech (Lucero et al. 2013). Despite employees' desire for more job-related freedom, workplace privacy has eroded and monitoring has increased. These trends are due, in part, to financial pressure and new technology (Maltby as cited in Petrecca 2010), as well as increasing business competition, legislation protecting employer's interests, and lawsuits (Friedman and Reed 2007).

Computer-Mediated Workplace Communication (CMWC)

CMWC Tools

Computer-mediated workplace communication (CMWC) includes the use of email, social networking sites, instant messages, organizational blogs, and other forms of electronic text-based tools to send and receive messages in organizations (Snyder 2010). One of the most common forms of CMWC is email. Despite predictions that email would be replaced by tools such as social media (Rainie as cited in Snider 2014), employees still report email as their most important form of workplace technology (Pew Research Center 2014 as cited in Snider 2014). A CareerBuilder survey also found that 61 % of employees send personal emails at work (McGrory-Dixon 2011).

Related to email is instant messaging (IM). IM allows for "virtual real-time communication through an exchange of text" (Pazos et al. 2013, p. 69). IM enables employees to simultaneously work on many tasks, such as editing a report while asking a coworker a question. Although employees most frequently report using IM for coordination and efficiency (Pazos et al. 2013), more than 65 % of office workers stated they used instant messaging at work for personal conversations and almost 80 % said they used it to gossip (PR Newswire 2003).

Another form of CMWC is social networking sites, "web-based services that allow individuals to construct a public or semi-public profile within a bounded system, articulate a list of other users they share a connection with, and view a list of connections made by others within the system" (Boyd and Ellison 2008, p. 211). Employees and organizations use social networking sites to share information with the public (Boyd and Ellison 2008). A Pew Research Center study (2014, as cited in Snider 2014) found that 18 % of workers considered social networking sites to be very or somewhat important tools. Social networking sites also

composed 14 % of the non-work-related websites employees reported visiting on the job (Gouveia 2013). Among the sites, workers spend the most time on Tumblr (57 %), Facebook (52 %), and Twitter (17 %; Conner 2013).

Blogs (a combination of the words “web” and “log”) are “web sites that are created by individuals to display historical as well as up-to-date content” (Baxter and Connolly 2013, p. 105). Like diaries, they often contain private thoughts or reflections, but their content may be publically, as well as privately, accessible. Organizational blogs are often intended for internal use only. Such blogs may take many forms (e.g., employee blogs, promotional blogs, newsletter blogs; Baxter and Connolly 2013; Lee et al. 2008).

CMWC Surveillance: an Overview

Surveillance and monitoring of employee CMWC occurs in the context of many moving parts and concerns, resulting in an employer-employee tension. For their part, employers contend with issues of workers’ excessive use of CMWC and therefore, employer concern over wasted time, as well as problematic content of some CMWC, and thus, employer concern over liability. There are also the issues associated with employees (un)intentionally leaking confidential company information and hackers illegally accessing and obtaining said information. Employers must also abide by the rule of law, such as Title VII of the US Civil Rights Act, which prohibits racial discrimination, and the USA Patriot Act, which grants law enforcement wider latitude to investigate suspected terrorists (Dillon et al. 2008; King 2003). At the same time, employees contend that organizational surveillance of CMWC violates their free speech (Lucero et al. 2013) and privacy (Dillon et al. 2008) rights and increases job stress (Lee and Kleiner 2003).

CMWC surveillance may hinder it due to its effect on employees’ stress, job satisfaction, and thus, their performance (Fairweather 1999; Tabak and Smith 2005). In addition, the cost of the monitoring (Tabak and Smith 2005) and its potential to duplicate work and impede access to information (Rosenberg 1999) make it financially untenable. In addition, the employer’s desire to prevent lawsuits due to employees’ CMWC is met with employees filing their own privacy lawsuits against employers who monitor them (Dillon et al. 2008).

The proportion of employers who report monitoring their employees’ CMWC varies across studies. For instance, a 2002 survey of Ethics Officer Association sponsoring partners revealed that 92 % of these companies monitored all forms of communication, including email and internet (Hoffman et al. 2003). In 2007, 43 % of American companies monitored employees’ email use, with 73 % using technology to automatically monitor it and 40 % appointing an employee to do so (American Management Association 2014). A 2011 CareerBuilder survey found that half of employers monitored employee Internet and email usage and 28 % monitored emails only (McGrory-Dixon 2011). In 2012, Gartner, Inc. predicted that 60 % of corporations would have programs monitoring social media use by 2015.

CMWC Surveillance: Employers’ View

In monitoring CMWC, employers appear to be primarily concerned with liability due to the content of employees’ CMWC. CMWC creates an electronic record that can be retrieved and used in lawsuits, even after having been deleted by users (Dillon et al. 2008; Lee and Kleiner 2003; Mainiero and Jones 2013). Ten percent of employers report fighting lawsuits generated by employee emails and 2 % report being ordered by legal authorities to disclose employee instant messages (American Management Association 2009 as cited in Petrecca 2010).

Discrimination is one form of liability companies attempt to guard against by monitoring employee CMWC. Discrimination occurs when employees send racist or sexist jokes over company email or post such material on social media sites accessible to coworkers (Friedman and Reed 2007; Lee and Kleiner 2003). Sexual harassment is one type of discrimination associated with CMWC. It includes, but is not limited to, posting sexually explicit comments or pictures on one's social networking sites, sending sexually charged emails to coworkers (Friedman and Reed 2007; Mainiero and Jones 2013), viewing or downloading pornography during work hours and/or on company devices (Rosenberg 1999), and using instant messaging, Facebook, or email to ask a coworker out on a date (Mainiero and Jones 2013). Mainiero and Jones (2013) emphasize the importance of this last source of harassment given Millennials' penchant for technology-driven communication and acceptance of workplace romance. Employers appear to have good cause for concern over CMWC-sexual harassment, as 9 % of workers in a 2009 American Management Association/ePolicy survey admitted to using their organization's e-mail to send sexual, romantic or pornographic text or images (Petrecca 2010). Almost one-third of workers reported they made sexual advances through instant messages (PR Newswire 2003).

Apart from sexually harassing CMWC, employers may also be liable for generally offensive, harassing, or bullying CMWC (Lee and Kleiner 2003; Snyder 2010) that harms employee welfare (Lucero et al. 2013). For instance, a Computerworld Index (1997, as cited in Rosenberg 1999) survey revealed that 22 % of employees received offensive emails. On the flip side, a 2009 American Management Association/ePolicy study showed that 89 % of employees reported using their company's system to send jokes, gossip, rumors, or other disparaging comments to non-employees (Petrecca 2010). Over half (64 %) of employees reported they made negative remarks about management in instant messages and almost 50 % stated they used abusive language in them (PR Newswire 2003). On a related note, defamation lawsuits due to posting inaccurate or malicious comments about coworkers on social media (Lucero et al. 2013) or sending emails about employee performance to organizational members who are not legally entitled to such information (Dillon et al. 2008) are also of concern to employers.

In addition to trying to prevent CMWC that damages the reputation of employees, organizations also work to prevent CMWC that damages the company's reputation (Lee and Kleiner 2003). For instance, disgruntled employees may post negative opinions or disparaging information about their employers on social networking sites, destroying their reputation (Lucero et al. 2013). These concerns seem well-founded, as fairly recent research shows that 14 % of workers have forwarded to third parties potentially embarrassing work e-mails intended for intra-office readers (according to a 2009 AMA/ePolicy survey, as cited by Petrecca 2010).

Another motivation for CMWC surveillance centers around preventing confidential company information from being leaked, intentionally or otherwise, to competitors or the public (Friedman and Reed 2007; Lee and Kleiner 2003; Lucero et al. 2013; Rosenberg 1999). Such information includes trade secrets (Lee and Kleiner 2003; Rosenberg 1999), intellectual property (Friedman and Reed 2007), and employee files (Rosenberg 1999). In fact, a 2009 American Management Association/ePolicy survey revealed that 14 % of employees reported they had e-mailed confidential or proprietary company information to outsiders (Petrecca 2010).

Employers also monitor CMWC to improve productivity (Dillon et al. 2008; Friedman and Reed 2007; Lee and Kleiner 2003; Lucero et al. 2013; Rosenberg 1999; Tabak and Smith 2005). Some businesses see such surveillance as helping them fulfill their responsibility to stockholders (Friedman and Reed 2007). Improvements in productivity are accomplished by

curbing the amount of time employees spend surfing the web, following Twitter, or sending personal emails (Lee and Kleiner 2003; Rosenberg 1999). Personal CMC at work appears common. More than 65 % of office workers stated they used instant messaging at work for personal conversations (PR Newswire 2003). Productivity is also said to benefit from the feedback employers are able to provide employees based on the information acquired through surveillance (Lee and Kleiner 2003). For example, customer service can be ensured by monitoring employees' interactions with clients, customers, and patients (Lee and Kleiner 2003; Rosenberg 1999). Companies also monitor CMWC to protect their equipment from improper use (Snyder and Cornetto 2009) and to guard against computer downloads that may be unauthorized (shareware, freeware), illegally obtained, in violation of copyright law, or infected with viruses (Rosenberg 1999).

Aside from issues of liability, productivity, and information protection, employers purport that CMWC monitoring benefits employees by protecting them from workers who may be taking advantage of the system or harming others (e.g., through harassment on social media; Lucero et al. 2013; Sewell and Barker 2006; Tabak and Smith 2005). Employers may also claim that CMWC surveillance increases the fairness of reward distribution and performance evaluations because it "objectively" monitors employee performance (Alder and Tompkins 1997) and allows employers to more accurately ascertain who the [un]productive workers are (Lee and Kleiner 2003).

CMWC Surveillance: Employees' View

The employer-espoused benefits of monitoring employee CMWC are challenged by and coexist along with the drawbacks identified by employees and other critics. For instance, instead of enhancing productivity, CMWC surveillance may hinder it due to its effect on employees' stress, job satisfaction, and thus, their performance (Fairweather 1999; Tabak and Smith 2005). In addition, the cost of the monitoring (Tabak and Smith 2005) and its potential to duplicate work and impede access to information (Rosenberg 1999) make it financially untenable. Furthermore, the employer's desire to prevent lawsuits due to employees' CMWC is met with employees filing their own privacy lawsuits against employers who monitor them (Dillon et al. 2008).

Although these effects of surveillance are undoubtedly important, we focus our scholarly attention on the effects of employee privacy perceptions associated with surveillance or monitoring, as opposed to surveillance or monitoring per se. This approach is motivated, in part, by critics who contend that CMWC surveillance violates workers' human dignity and privacy rights (Lee and Kleiner 2003; Tabak and Smith 2005). Surveillance, monitoring, and privacy are distinct, but related, constructs. *Surveillance* involves an authority (e.g., management) using information automatically collected via *monitoring* to make decisions (Botan 1996).¹ *Privacy* refers to one's ability to control access to that information (Altman 1975, 1976; Botan 1996; Snyder 2010; Stone and Stone 1990).

Although *privacy* is a commonly understood entity, we draw attention to the control aspect of the construct emphasized by Altman (1975, 1976); Stone and Stone (1990); Botan (1996) and Snyder (2010). They defined privacy as the extent to which individuals believe they control their personal information and interactions. According to this perspective, when

¹ Like Snyder (2010), we use the terms surveillance and monitoring interchangeably and do not distinguish between the two.

employees think they have lost such control, for example, due to CMWC monitoring or surveillance, they feel their privacy has been invaded (Alge 2001). The extent of this invasion and employees' sense of how well they are able to selectively control access to their CMWC influence their work-related attitudes (see Snyder 2010). This is the issue we take up in the present study. Specifically, we examine the relationships between employees' perceptions of their CMWC privacy (given their organization's existing monitoring policy and practices) and their perceptions of organizational justice, trust in upper management, and commitment to the organization.

CMWC Surveillance, Privacy, and Employee Attitudes

Organizational Justice

Organizational justice refers to perceptions of fairness regarding organizational outcomes and processes (Cropanzano and Greenberg 1997). It is usually conceptualized as encompassing three dimensions or types: distributive, procedural, and interactional justice. Distributive justice refers to the perceived fairness of decision-based outcomes (Cropanzano and Greenberg 1997; Homans 1961), procedural justice to the perceived fairness of the processes used to make decisions about outcomes (Leventhal 1980; Thibaut and Walker 1975), and interactional justice to perceptions of the fairness of the interpersonal treatment and adequacy of the information received when outcomes are distributed (Bies and Moag 1986; Greenberg 1986).

The present study examines the relationship between CMWC privacy and procedural justice. In the organizational context, procedures perceived as consistently applied, unbiased, accurate, correctable, representing the best interest of superiors and subordinates, and meeting ethical standards tend to be considered fair (Leventhal 1980). Alge (2001) points out that privacy and control are predictors of procedural justice and his lab study with undergraduates showed that invasion of privacy was associated with lower procedural justice perceptions.

Almost 30 years ago the U.S. Congress's Office of Technology Assessment (1987, as cited in Rosenberg 1999) released a report on electronic workplace monitoring that acknowledged fairness concerns, especially in terms of performance quotas, standards, and punitive use of the information acquired. Employee perceptions of fairness are also likely to be affected when they believe their communication privacy boundaries are disregarded or disrespected by the organization or its actors via monitoring.

It is important to note that employees' perceptions of privacy violations may not coincide with the organization's views, further demonstrating the employer-employee tension inherent in the monitoring-privacy debate. Employees may have established psychological boundaries around their CMWC that differ from those constructed and communicated by the organization (Allen et al. 2007; Snyder 2010). For instance, even though employees are informed of the surveillance, it is covert and unobtrusive. Therefore, they are often not aware of when they are being monitored (Botan 1996; Snyder 2010; Snyder and Cornetto 2009). They may also forget what they have been told about surveillance. Even when employees are aware, they may believe they have more privacy than they do (Dillon et al. 2008). Employees may also view the boundaries as ambiguous or ignore the rules (Petronio 2002). Even when employees are aware of and agree with the employer's reasons for monitoring their CMWC, employees still have boundaries around what is acceptable to monitor. They still believe there are some forms of information and communication that should not be monitored (Allen et al. 2007; Snyder and Cornetto 2009).

Individuals expect privacy, even in the workplace (Snyder 2010; Snyder and Cornetto 2009), although the law limits the extent of workers' privacy rights (Dillon et al. 2008) and does not necessarily consider fairness in this regard (Rosenberg 1999). So while legal, CMWC monitoring is not always seen as just by employees. Tabak and Smith (2005, p. 174) summarize this sentiment, stating, "Even though the law may grant employers wide latitude when implementing electronic monitoring systems, a sense of 'fair play' may not. Aggressive monitoring systems may be acceptable in a court of law yet rejected by valued employees seeking an environment of mutual respect and trust."

So, because employees expect privacy and have established psychological boundaries around their CMWC, even when they have been informed of how their employer may monitor their CMWC, they are, nonetheless, expected to view CMWC monitoring as a privacy boundary breach that violates their psychological contract with the organization (Snyder 2010; Snyder and Cistulli 2011). Research indicates that psychological contract violations have been associated with lower perceptions of procedural justice (Sayers et al. 2011). In contrast, when employees believe their organizations have mechanisms that enable workers to preserve their privacy, perceptions of procedural justice are said to increase (Friedman and Reed 2007). The first hypothesis tests the relationship between CMWC privacy and organizational justice.

H1: Stronger perceptions of employee privacy will be related to stronger perceptions of procedural justice.

Organizational Trust

Trust in the organizational context has been defined as, "the willingness of a party to be vulnerable to the actions of another party based on the expectation that the other will perform a particular action important to the trustor, irrespective of the ability to monitor or control the other party" (Mayer et al. 1995, p. 712). Trust is important in superior-subordinate relationships, as well as in employee job satisfaction and commitment (Nyhan 2000; Snyder 2010). Relevant to CMWC monitoring, employee trust is associated with a greater willingness to accept the implementation of innovative technology (Nyhan 2000).

When boundaries around information are not respected, feelings of suspicion, deceit, and untrustworthiness develop (Petronio 2002). Research shows this to be true of email privacy, surveillance, and trust. For instance, employees with stronger privacy concerns over email surveillance trusted top management less (Snyder 2010; Snyder and Cistulli 2011) and had lower quality relationships (less trust and likability) with them (Snyder 2010).

Developing and maintaining trust may be conceptualized as a social exchange process involving interdependency and a dynamic give-and-take process that develops over time (Hubbell and Chory-Assad 2005; Whitener et al. 1998). According to Whitener et al. (1998), not only does trust develop via the reciprocation of social rewards (e.g., friendship), but trustworthy behavior on the part of management can serve as a social reward for employees. When management behaves in a trustworthy manner, the probability that employees will reciprocate with trust increases. Employees' trust is partially dependent on their perceptions of management's trustworthy behavior and management's trustworthy behavior is partially dependent on their expectations of employees' trustworthy behavioral responses.

Because developing and maintaining trust is a mutual, reciprocal process, employees who interpret CMWC surveillance as an indicator the organization does not trust them may

reciprocate by not trusting management (Lee and Kleiner 2003; Rosenberg 1999; Snyder 2010; Tabak and Smith 2005). Surveillance may also create a culture that provides cues employees use to determine their employers' trustworthiness. For instance, employees may perceive CMWC surveillance as a means of management control, thus limiting their own control over their CMWC privacy, leading to mistrust (Tabak and Smith 2005). The second hypothesis addresses the relationship between CMWC privacy and trust in the organization.

H2: Stronger perceptions of employee privacy will be related to stronger organizational trust.

Organizational Commitment

Organizational commitment is defined as a strong sense of identification and involvement with a specific organization (Mowday 1998; Mowday, Porter, and Steers 1982). According to Mowday (1998), Lyman Porter originally conceived of organizational commitment as involving the employee's 1) acceptance of the organization's goals and values, 2) inclination to work toward achieving the organization's goals, and 3) desire to remain a part of the organization. However, Porter focused primarily on the emotional attachment aspect of commitment. He saw it as "a bond characterized by acceptance of an organization's goals" (Mowday 1998, pp. 389–390).

Higher employee organizational commitment can be a competitive advantage and has been shown to yield financial benefits for organizations (Mowday 1998). It is related to lower job turnover and absenteeism and higher job satisfaction (Mowday et al. 1982). Organizational commitment has also predicted stronger employee professional vitality and increased employee satisfaction with career advancement (Grimland et al. 2012).

As previously discussed, employees expect privacy and have established psychological boundaries around their CMWC that may differ from the organization's. These boundaries exist even when they have been informed of their organization's CMWC monitoring policy (Allen et al. 2007; Petronio 2002; Snyder 2010). So, despite being aware of the monitoring, employees are likely to see it as a privacy boundary breach that violates their psychological contract with the organization (Snyder 2010; Snyder and Cistulli 2011). A psychological contract violation implies that employers are not meeting employees' expectations, which is associated with lower organizational commitment (Grimland et al. 2012; Meyer and Allen 1997). Similarly, employee privacy concerns over email surveillance were associated with less organizational commitment (Snyder and Cistulli 2011). Practices, such as CMWC surveillance, that impinge on workers' privacy will likely lead to lower levels of commitment (Brown 1996; Fairweather 1999), perhaps because employees see it as a means for management to exercise control over them (Tabak and Smith 2005). Organizational commitment may also suffer because electronic surveillance is said to lead to employee stress (Lee and Kleiner 2003; Rosenberg 1999), which has been shown to reduce employee loyalty (Lee and Kleiner 2003). This stress may be due to employees believing their privacy has been invaded by the surveillance. Based on this theorizing and related research, hypothesis three was advanced.

H3: Stronger perceptions of employee privacy will be related to stronger organizational commitment.

Method

Participants and Procedures

Participants in the present study were selected and recruited in a manner consistent with other studies of workplace privacy and surveillance (Allen et al. 2007; Snyder 2010; Snyder and Cistulli 2011; Snyder and Cornetto 2009). In order to participate in the study, individuals had to be at least 25 years old and work full-time. A combination of convenience and network sampling was used to obtain a sample of participants that met these criteria. Aside from the time, cost, and educational advantages of having students recruit participants (Kimmel 2007), our method enabled us to sample employees in a wide range of occupations and organizations, thus increasing external validity and avoiding the potential bias inherent in sampling from a single organization or occupation (Chory and Hubbell 2008; Chory and Westerman 2009; Geddes 1993). This was particularly important as CMWC monitoring and privacy expectations differ across industries and institutions (Allen et al. 2007; Snyder and Cornetto 2009).

Convenience sampling consisted of one of the researchers entering classrooms at a US university and soliciting undergraduate students to participate. Students who met the inclusion criteria completed the questionnaire in class. Network sampling consisted of the researcher asking students who did not meet the inclusion criteria to recruit individuals who did. The researcher gave student recruiters a paper copy of the questionnaire and a cover letter containing an internet link to the questionnaire. Participants recruited by students either completed the questionnaire on paper (and mailed it back to the researcher) or they completed the questionnaire online via SurveyMonkey.com. All participation was voluntary and anonymous.

The final sample consisted of 182 full-time employees (39 % male), ranging from 25 to 63 years in age ($M = 38.38$, $SD = 11.57$). The majority (79.3 %) reported their ethnicity as Caucasian, 8.6 % as Hispanic, 6.9 % as African American, 1.1 % as Asian American, 0.6 % as Pacific Islander, and 3.4 % reported being of another ethnicity. Participants worked an average of 43.10 hours per week ($SD = 8.88$ hours), and most earned an annual income of approximately \$20,001 to \$40,000 (29.7 %). Over half (50.3 %) of the respondents worked in a managerial or professional field, 32.6 % in technical, sales, and administrative support, 13.1 % in service occupations, 2.3 % in precision, production, craft, and repair, and 1.7 % in operation and fabrication.

Measures

CMWC Privacy Consistent with our conceptualization of privacy as a control process, we used an adapted version of Snyder's (2010) 13-item perceived email privacy measure. This measure assesses employees' perceptions of control over their CMWC, given their organizations' CMWC monitoring policies and practices. The measure contains two dimensions, one of which taps into employees' perceptions of their own ability to control access to their CMWC content. Snyder (2010) labeled this dimension *proficiency at maintaining privacy*, though we re-labeled it *perceived ability to control access* (PACA) to more accurately describe what was measured. The other dimension, *concern about organizational infringement* (COI), refers to employees' concerns about the organization impinging on their perceived ability to control access to their CMWC.

On the questionnaire, the measure was preceded by the following instructions: “The following items refer to ‘CMC’ – Computer Mediated Communication. CMC includes the use of email, social networking sites (e.g., Facebook, MySpace), instant messages, organizational blogs, organization software, as well as other forms of electronic communication.” Responses were recorded on a 5-point Likert scale ranging from strongly disagree (1) to strongly agree (5). Exploratory factor analysis with principal axis factoring and varimax rotation was conducted on the measure. The items and factor loadings appear in Table 1.

Scores ranged from 1.00 to 5.00 for *perceived ability to control access* to one’s CMWC (PACA; $M = 2.91$, $SD = 1.01$, Cronbach’s $\alpha = 0.93$) and *concern about organizational infringement* (COI; $M = 2.63$, $SD = 0.91$, Cronbach’s $\alpha = 0.95$). Higher PACA scores indicated stronger perceptions of privacy, whereas higher COI scores indicated weaker perceptions of privacy.

Procedural Justice Perceptions of the fairness of the organization’s CMWC monitoring policy was measured with five 7-point semantic differential scales with the following anchors: unfair/fair, unjust/just, biased/neutral, unwarranted/warranted, and unjustified/justified (Chory and Westerman 2009). Scores ranged from 1.00 to 7.00 ($M = 5.28$, $SD = 1.46$, Cronbach’s $\alpha = 0.93$).

Table 1 CMWC privacy measure items and factor loadings

Item	Factor loading	
	COI	PACA
My organization has too much authority to record and review the CMC messages I send and receive at work.	0.751	-0.058
My organization has too much ability to monitor and record my CMC messages.	0.777	-0.128
I am not pleased with my organization’s ability to review the content of the CMC messages I send and receive at work.	0.808	-0.136
I am concerned that I do not have complete control over who reads the content of the CMC messages I send and receive at work.	0.843	-0.249
I feel that the way my organization monitors the content of my CMC messages is a violation of my privacy.	0.841	-0.094
I do not have enough control over who is able to read the CMC messages I send and receive at work.	0.811	-0.258
I feel uneasy about the way my organization monitors my CMC messages.	0.866	-0.067
I feel that my organization compromises my ability to regulate who reads the CMC messages I send and receive at work.	0.829	-0.177
I am uncomfortable with my organization’s ability to monitor my CMC messages.	0.791	-0.057
When sending and receiving CMC messages at work, I am in complete control over who sees the content of those messages.	-0.105	0.852
I am confident that I am in control of who sees the content of my CMC messages.	-0.103	0.948
I am confident with my ability to regulate who has access to the CMC messages I send and receive at work.	-0.068	0.941
I am satisfied with my ability to control the information my organization can gather about me through the CMC messages I send and receive at work.	-0.276	0.731
Eigenvalue	6.98	2.85
Percent of variance	53.69	21.90

The bold entries draw attention to the items comprising the given factor

Organizational Trust Organizational trust was measured with six items (see Hubbell and Chory-Assad 2005) that assess how employees feel about their upper/top management. A sample item includes, “Upper management can be trusted to make sensible decisions for the organization’s future.” Responses were recorded on a 5-point Likert scale ranging from strongly disagree (1) to strongly agree (5). Scores ranged from 1.00 to 5.00 ($M = 3.46$, $SD = 0.84$, Cronbach’s $\alpha = 0.91$).

Organizational Commitment Organizational commitment was assessed with Porter and Smith’s (1970) 15-item measure. A sample item is “I am proud to tell others that I am part of the organization.” Responses were recorded on a 5-point Likert scale from strongly disagree (1) to strongly agree (5). Scores ranged from 1.53 to 5.00 ($M = 3.59$, $SD = 0.66$, Cronbach’s $\alpha = 0.91$).

Results

Hypotheses

The hypotheses were tested through multiple regression analyses, one for each criterion variable (justice, trust, and commitment). Preliminary analyses indicated that participant age, salary, ethnicity, and job field were related to the predictor and/or criterion variables. Therefore, these variables were entered as controls in the first step of the regression models. CMWC privacy (PACA and COI) was entered as the predictor in the second step of all three models. The hypotheses were evaluated based on the change in variance accounted for by the addition of CMWC privacy to the model. Pearson correlations among the variables appear in Table 2 and the multiple regression results for the hypotheses appear in Table 3.

The first hypothesis predicted that stronger employee CMWC privacy perceptions would be related to stronger perceptions of procedural justice. Results of the multiple regression analysis indicated that the addition of CMWC privacy improved the ability of the model to predict procedural justice, $\Delta R^2 = 0.10$, $p < .05$, supporting the first hypothesis. Concern about organizational infringement (COI) predicted procedural fairness perceptions, $\beta = 0.28$, $p < .05$; whereas perceived ability to control access (PACA) did not, $\beta = 0.08$, $p > .05$.

The second hypothesis predicted that stronger employee CMWC privacy perceptions would be related to stronger organizational trust. Results of the multiple regression analysis indicated that the addition of CMWC privacy improved the ability of the model to predict

Table 2 Correlations among CMWC privacy and employee responses

	1	2	3	4
1 Concern about Organizational Infringement (COI)	–			
2 Perceived Ability to Control Access (PACA)	–.30**	–		
3 Procedural Justice	–.36**	.16*	–	
4 Organizational Trust	–.17*	.20*	.21*	–
5 Organizational Commitment	–.17*	.10	.30**	.70**

* $p < .05$, ** $p < .001$

Table 3 Results for the hypotheses testing the relationships between cmwc privacy and employee responses

	Procedural justice β	Organizational trust β	Organizational commitment β
Demographics			
Age	.06	-.04	.06
Salary	.18*	.16 [†]	.09
Race/ethnicity	-.02	-.17*	-.07
Technical, sales, administrative fields	.01	-.23*	-.28*
Service and other fields	-.06	-.05	-.14
CMWC Privacy			
Concern about Org. Infringement (COI)	-.28*	-.13	-.18*
Perceived Ability to Control Access (PACA)	.08	.13 [†]	-.02
$\Delta R^2 =$	.10*	.05*	.03 [†]
$\Delta F =$	9.27*	4.16*	2.65 [†]
$R^2 =$	.17*	.17*	.14*
$F =$	4.52*	4.30*	3.47*

* $p < .05$, [†] $p < .10$; df for $\Delta F = 2$, 148 to 154, df for $F = 7$, 148 to 154

Race/Ethnicity was coded 1 = White/Caucasian and 2 = All Other Races/Ethnicities. Occupational field was dummy coded such that results for Tech, Sales, Administration and Service and Others should be interpreted relative to the Managerial and Professional field. ΔR^2 refers to the change in variance accounted for by the addition of CMWC Privacy. R^2 refers to the variance accounted for by the model, and β refers to the standardized regression coefficient when all predictor variables are included

organizational trust, $\Delta R^2 = 0.05$, $p < .05$, supporting the hypothesis. PACA predicted organizational trust at $p < .10$, $\beta = 0.13$; whereas COI did not, $\beta = -0.13$, $p > .05$.

The third hypothesis predicted that stronger employee CMWC privacy perceptions would be related to stronger organizational commitment. Results of the multiple regression analysis indicated that the addition of CMWC privacy improved the ability of the model to predict organizational commitment at $p < .10$, $\Delta R^2 = 0.05$, marginally supporting the hypothesis. COI predicted commitment, $\beta = -0.18$, $p < .05$, whereas PACA did not, $\beta = 0.02$, $p > .05$.

Post Hoc Analyses

Research indicates that perceptions of procedural justice are related to organizational trust and commitment (Colquitt et al. 2001; Hubbell and Chory-Assad 2005). Therefore, we tested whether procedural justice mediated and/or moderated the relationships between CMWC privacy and organizational trust and commitment. Our reanalysis also enabled us to better assess the power of CMWC privacy to predict trust and commitment by incorporating additional control variables.

Three regression analyses were conducted. For all three regression models, a block composed of the employee demographic variables was entered in the first step, followed by a block composed of the employee response variables not being predicted (i.e., trust and commitment if predicting justice, justice and commitment if predicting trust, and justice and trust if predicting commitment). The CMWC privacy block (COI and PACA) was entered on

the third step, and the interaction terms for procedural justice and CMWC privacy were entered as a block on the fourth step. Results appear in Table 4.

Before testing procedural justice as a mediator or moderator, we examined CMWC privacy as a predictor of justice while controlling for organizational trust and commitment. Results (see Step 3 in Table 4) indicate that when controlling for trust and commitment, CMWC privacy explained an additional 9 % (vs. 10 %, see Table 3) of the variance in procedural justice and COI predicted procedural justice with only slightly less strength, $\beta = -0.25, p < .05$, than it had without these controls, $\beta = -0.28, p < .05$. This pattern of results suggests that neither trust nor commitment mediated the relationship between CMWC privacy and procedural justice. Therefore, procedural justice was tested as a mediator and a moderator of the relationship between CMWC privacy and organizational trust and commitment.

Baron and Kenny (1986) and Judd and Kenny's (1981) criteria were used to test mediation.² Results in Table 3 fulfilled their first two requirements.³ Results for Step 3 in Table 4 fulfill their third requirement for organizational commitment, but not organizational trust. When all the predictors were included in the model, procedural justice predicted organizational commitment, $\beta = 0.17, p < .05$, but did not predict organizational trust, $\beta = -0.07, p > .10$.

In predicting organizational commitment, results indicate that CMWC privacy went from explaining 3 % of the variance in commitment, $\Delta R^2 = 0.03, p < .10$; $\beta_{\text{COI}} = -0.18, p < .05$ (see Table 3); to not explaining any variance in commitment once procedural justice was controlled, $\Delta R^2 = 0.01, p > .10$; $\beta_{\text{COI}} = -0.05, p > .10$. This pattern of results suggests that procedural justice fully mediated the relationship between CMWC privacy concerns and organizational commitment.⁴

In predicting organizational trust, results show that when procedural justice and organizational commitment were entered into the model (see Step 3, Table 4), PACA predicted organizational trust with virtually the same strength, $\beta = 0.14, p < .05$, as it had without these controls, $\beta = 0.13, p < .10$.

Procedural justice as a moderator of the relationship between CMWC privacy and organizational trust and commitment was then examined. Results (see Step 4, Table 4) indicate that the addition of the interaction terms improved the ability of the regression models to predict

² Baron and Kenny (1986) and Judd and Kenny's (1981) state that mediation is present when 1) the initial predictor variable and the criterion variable are related (see MacKinnon et al. 2007 for an exception to this condition); 2) the initial predictor variable (e.g., employee privacy concerns) and the mediating variable are related; and 3) the mediating variable and the criterion variable are related when controlling for the initial predictor variable. If controlling for the mediating variable causes the initial predictor and criterion variables to no longer be related, then full mediation is assumed to be present. If controlling for the mediating variable causes the initial predictor and criterion variables to be related with less strength than they had prior to controlling for the mediator, partial mediation is said to be present. In the present study, the employee CMWC privacy block was the initial predictor variable, procedural justice was the mediating variable, and organizational trust and commitment were the criterion variables.

³ Results in Table 2 indicating that CMWC privacy predicted organizational trust, $\Delta R^2 = 0.05, p < .05$; $\beta_{\text{PACA}} = 0.18, p < .10$; and commitment, $\Delta R^2 = 0.05, p < .10$; $\beta_{\text{COI}} = -0.18, p < .05$; fulfilled the first requirement. Results in Table 2 indicating CMWC privacy predicted procedural justice, $\Delta R^2 = 0.10, p < .05$; $\beta_{\text{COI}} = -0.28, p < .05$; fulfilled the second requirement.

⁴ In addition, results for Step 3 suggest that procedural justice and/or trust may have acted as a suppressor variable (Cohen and Cohen 1983; Henik and Tzelgov 1985), as PACA predicted commitment when justice and trust were controlled, $\beta_{\text{PACA}} = -0.12, p = .066$, but not when they were free to vary (see Table 2), $\beta_{\text{PACA}} = -0.02, p > .05$. Note that PACA's negative standardized regression coefficient does not necessarily mean that PACA is negatively related to commitment. The interpretation of this suppression effect is an empirical question and is beyond the scope of the present study.

Table 4 Results of the post hoc analyses testing procedural justice as a mediator and a moderator

		Procedural justice	Organizational trust	Organizational commitment
		β	β	β
Demographics (Step 1)				
	Age	.02	-.07	.08
	Salary	.18*	.09	-.04
	Race/ethnicity	-.03	-.14*	.06
	Technical, sales, administrative fields	.06	-.06	-.12 [†]
	Service and other fields	-.01	.05	-.09
Step 1:	$R^2 =$	.07 [†]	.12*	.12*
	$F(5, 149) =$	2.18 [†]	4.18*	3.92*
Employee responses (Step 2)				
	Procedural justice	–	-.07	.17*
	Organizational trust	-.08	–	.65*
	Organizational commitment	.26*	.65*	–
Step 2:	$\Delta R^2 =$	.06*	.39*	.41*
	$\Delta F(2, 147) =$	5.27*	58.16*	64.10*
	$R^2 =$	.13*	.51*	.53*
	$F(7, 147) =$	3.15*	21.89*	23.48*
CMWC privacy (Step 3)				
	Concern about Org. Infringement (COI)	-.25*	-.03	-.05
	Perceived Ability to Control Access (PACA)	.10	.14*	-.12 [†]
Step 3:	$\Delta R^2 =$	.09*	.02*	.01
	$\Delta F(2, 145) =$	7.82*	3.41*	1.69
	$R^2 =$	.22*	.53*	.54*
	$F(9, 145) =$	4.42*	18.34*	18.81*
Interaction terms (Step 4)				
	Procedural justice X COI	–	-.13*	.01
	Procedural justice X PACA	–	-.05	.07
Step 4:	$\Delta R^2 =$	–	.02 [†]	.01
	$\Delta F(2, 143) =$	–	2.54 [†]	.72
	$R^2 =$	–	.55*	.54*
	$F(11, 143) =$	–	15.79*	15.46*

* $p < .05$, [†] $p \leq .082$; Race/Ethnicity was coded 1 = White/Caucasian and 2 = All Other Races/Ethnicities. Occupational field was dummy coded such that results for Tech, Sales, Administration fields and Service and Other fields should be interpreted relative to the Managerial and Professional field. β refers to the standardized regression coefficient when all predictor variables are included

organizational trust, $\Delta R^2 = 0.02$, $p = .082$, $\beta_{PJ \times COI} = -0.13$, $p = .029$; but not organizational commitment, $\Delta R^2 = 0.01$, $p = .487$. The pattern of means suggests that when employees who have lower COI perceive more organizational justice, they have stronger organizational trust.

In sum, stronger employee CMWC privacy predicted stronger perceptions of procedural justice. Procedural justice mediated the relationship between CMWC privacy and organizational commitment and moderated the relationship between CMWC privacy and organizational trust.

Discussion

Understanding how employee privacy perceptions associated with computer-mediated workplace communication (CMWC) surveillance influences employees' attitudes is important for improving employer-employee relationships and cultivating a safe and productive work environment. We addressed this issue by conducting an examination of the relationships between employee perceptions of CMWC privacy and their perceptions of justice, trust in their employer, and commitment to their organization. Our results contribute to the ongoing discussion of the employer-employee tension surrounding the organization's desire to monitor CMWC and the employee's resistance to such monitoring by providing empirical evidence of its effects.

We expected that employees' perceived CMWC privacy would be positively related to their perceptions of procedural justice, organizational trust, and organizational commitment. Our results confirmed that employees' feelings of CMWC privacy did, in fact, predict higher levels of the employee outcomes, but to varying degrees. CMWC privacy appears to be most important for employees' CMWC policy fairness judgments, as privacy explained 10 % of the variance in these employee responses, followed by employees' trust in upper management, and then, their commitment to their organizations.

Not only did CMWC privacy in general predict employees' attitudes toward employers, the separate dimensions of privacy were individually related to employee fairness, trust, and commitment. The concern of infringement (COI) component of CMWC privacy was the primary predictor of employees' fairness evaluations. When employees were more concerned about the organization's ability to impinge on their perceived ability to control access to their CMWC, they rated the organization's CMWC monitoring policy as less fair. Scholars such as Altman (1975, 1976); Botan (1996), and Stone and Stone conceptualized privacy as marked by feeling in control, and Leventhal (1980) asserted that fair procedures are those that can be corrected and represent all parties. When employees feel less control over access to their CMWC, hence less privacy, they may also feel less able to correct or affect the organizational processes governing their CMWC, leading them to consider these procedures unfair.

Employees' concern about the organization infringing on their ability to control access to their CMWC was also correlated with employees feeling less committed to their organizations, but when the relationships between perceived CMWC privacy and justice and trust were controlled, COI did not predict commitment on its own. Instead, results of the mediation analysis indicate that COI was associated with commitment through its relationship with procedural justice. Specifically, employees concerned about the organization impinging on their ability to control their CMWC access perceived less procedural justice, which lead to lower organizational commitment.

In contrast to COI's relationship with commitment being mediated by procedural justice, COI's relationship with trust was moderated by procedural justice. Our results suggest that when employees are less concerned about their organization infringing on their CMWC control and also perceive more organizational justice, they tend to exhibit stronger organizational trust. Employees' perceived ability to control access to their CMWC (PACA) also predicted organizational trust. Stronger perceptions of control, hence more CMWC privacy, was associated with employees trusting their employers more. According to Petronio (2002), a violation of privacy (i.e., a lack of control) leaves a person feeling vulnerable and at risk for exploitation. In response, employees may guard against such exploitation by trusting top management less (Hubbell and Chory-Assad 2005). Likewise, when employees feel in control

of access to their CMWC, they likely feel secure in their relationship with their organizations, leading them to trust their organization's top management more. Our results support this line of reasoning.

Our findings are consistent with past research and theorizing on related constructs. For example, the relationships we observed between employees' CMWC privacy and fairness are in line with those observed by Alge (2001) and discussed by Friedman and Reed (2007) and Tabak and Smith (2005). Our results concerning CMWC privacy's relationships with organizational commitment and trust are consistent with Snyder and Cistulli's (2011) findings on email monitoring privacy. Similarly, our results are in line with work on managing communication privacy (Petronio 2002). Finally, procedural justice as a mediator and a moderator of privacy's influence on organizational trust and commitment emphasizes the criticality of employee fairness in modern organizations. It is precisely fairness, i.e., balancing the organization's right to monitor with the employee's right to privacy, that defines the employer-employee tension surrounding CMWC surveillance.

Employers wishing to enhance perceptions of CMWC monitoring fairness are encouraged to be transparent about the monitoring, to communicate information about the policy to employees, including why employers believe it to be necessary (Snyder 2010), and to demonstrate caring and goodwill toward employees in developing and communicating the policy (Allen et al. 2007). Transparency, explanations, and concern are associated with stronger perceptions of organizational justice (Colquitt et al. 2001).

At a time in which organizations are anxious about protecting their confidential digitally-stored information from hackers, their reputations from disgruntled workers with social media accounts, and their wallets from lawsuits related to defamation, cyberbullying, and discrimination, employers have turned to monitoring their employees' CMWC as a defense. At the same time, employers are faced with the difficulty associated with retaining talented employees in the age of job mobility, temporary versus lifetime employment, organizational restructuring, and decreasing benefits, all of which threaten employee loyalty (Wharton School 2012). Although organizations may be well-intentioned in monitoring worker CMWC (e.g., to prevent discrimination), our results suggest their efforts may well backfire if employees see the surveillance as an attempt by the employer to gain even greater control. Whether employers realize it or not, their attempts to prevent cyberattacks and digital media disasters inadvertently alienate the very people whose commitment and trust they are trying to secure. Our findings underscore the value in finding ways to balance the needs and concerns of employers and employees in designing and implementing CMWC monitoring policies.

Limitations and Future Research

The first limitation of the study is that our participants were not recruited via random sampling, but in a manner consistent with prior studies (Allen et al. 2007; Snyder 2010; Snyder and Cistulli 2011; Snyder and Cornetto 2009). Although the US Bureau of Labor Statistics indicates our sample was similar to the 2014 general US population in age and salary, it included a higher proportion of managerial/professional (50 % vs. 38 %) and technical/sales/administrative (33 % vs. 23 %) employees. Our participants also worked an average of 43 hours per week, whereas only 25 % of employed persons in the general population worked this many hours. In addition, our sample underrepresented African American (7 % vs. 13 %) and Asian American (1 % vs. 6 %) employees. The relatively homogeneous nature of our sample may have limited our ability to fully identify the nuances of workplace privacy among

different types of employees. Therefore, we urge caution in generalizing our results to other populations.

The second limitation also stems from our recruitment method. Our sample differed from the larger population, but it was demographically similar to samples in prior CMWC research (e.g., Allen et al. 2007; Dillon et al. 2008), potentially constraining our ability to detect differences in results across studies. For example, many of the participants in the present and prior CMWC research were Generation X professionals who were not “raised” on digital, mobile, or internet-based communication technology, but likely came to it after their beliefs and rules concerning privacy and communication were already formed. These dispositions may have caused participants to respond in ways unique to their cohort. In addition, it may very well be that participants recruited by undergraduates are distinct in ways that may explain our results and those of prior studies. Future research should address this issue by using random sampling or purposive sampling.

Third, we did not assess the nature of CMWC surveillance or how it was communicated (if at all) to employees. We asked employees to report their privacy perceptions regarding their employer’s general CMWC monitoring. However, as technology becomes more complex, employers may choose to monitor only certain types of CMWC, and employee perceptions of CMWC privacy may differ depending on the type. It is plausible that employees may be more concerned about the organization’s ability to monitor personal email accounts and social networking sites and less concerned about the surveillance of CMWC used to conduct business. In addition, whether the policy was orally communicated or simply included in the employee handbook may have influenced employee responses. Future research should address these issues.

Fourth, we did not take into account the roles played by organizational characteristics such as culture in examining employees’ privacy and organizational attitudes. As Tabak and Smith (2005) asserted, cultural factors such as management style and the degree of openness, employee participation, and bureaucracy may affect how workers perceive CMWC surveillance. Knowledge in this area would help to inform the types and methods of monitoring, if any, that would be most well-received by employees in different industries and organizational structures.

Finally, the cross-sectional nature of our research design did not allow us to examine the directionality of the relationships observed. It is certainly possible that less loyal and trusting employees consider their organizations’ policies to be less fair, which drives their perceptions of lower privacy. Snyder and Cornetto (2009) suggested something similar in stating that although monitoring could break down workplace relationships, poor workplace relationships could lead to more employee monitoring.

Conclusion

With the expansion of digital communication and internet-based organizational technology, surveillance of employee CMWC is only likely to increase. The employer-employee tension surrounding organizational surveillance and employee privacy is also likely to continue. The results of our study inform this debate by providing timely insight and empirical evidence of the effects that employees’ CMWC privacy perceptions have on their attitudes toward and evaluations of their employers. Namely, when workers feel their employers have too much power over access to workers’ CMWC messages and/or workers do not believe they can control access to their CMWC, workers view their employers’ policies as less fair, they trust

their employers less, and they are less committed to their organizations. Incorporating our findings into the design and implementation of CMWC monitoring practices should enhance the employer-employee relationship and foster a more just, respectful, and productive workplace. It may also help us to better understand how the human desire for privacy functions in the workplace and how it influences employer-employee relations.

Ethical Approval Statement All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards.

References

- Alder, G. S., & Tompkins, P. K. (1997). Electronic performance monitoring: an organizational justice and concertive control perspective. *Management Communication Quarterly*, *10*, 259–288.
- Alge, B. J. (2001). Effects of computer surveillance on perceptions of privacy and procedural justice. *Journal of Applied Psychology*, *86*, 797–804.
- Allen, M. W., Coopman, S. J., Hart, J. L., & Walker, K. L. (2007). Workplace surveillance and managing privacy boundaries. *Management Communication Quarterly*, *21*, 172–200.
- Altman, I. (1975). *The environment and social behavior*. Monterey: Brooks/Cole.
- Altman, I. (1976). Privacy: a conceptual analysis. *Environment and Behavior*, *18*, 7–29.
- American Management Association, & The ePolicy Institute. (2014). *2007 electronic monitoring and surveillance survey*. Retrieved January 31, 2015 from <http://www.amanet.org/training/articles/The-Latest-on-Workplace-Monitoring-and-Surveillance.aspx>.
- Baron, R. M., & Kenny, D. A. (1986). The moderator-mediator distinction in social psychological research: conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology*, *51*, 1173–1182.
- Baxter, G. J., & Connolly, T. M. (2013). The “state of art” of organisational blogging. *The Learning Organization*, *20*, 104–117.
- Bies, R. J., & Moag, J. S. (1986). Interactional justice: communication criteria of fairness. In R. J. Lewicki, B. H. Sheppard, & M. Bazerman (Eds.), *Research on negotiation in organizations* (vol. 1, pp. 43–55). Greenwich: JAI Press.
- Botan, C. (1996). Communication work and electronic surveillance: a model for predicting panoptic effects. *Communication Monographs*, *63*, 293–313.
- Boyd, D. M., & Ellison, N. B. (2008). Social network sites: definition, history, and scholarship. *Journal of Computer-Mediated Communication*, *13*, 210–230.
- Brown, W. S. (1996). Technology, workplace privacy, and personhood. *Journal of Business Ethics*, *15*, 1237–1248.
- Chory, R. M., & Hubbell, A. P. (2008). Organizational justice and managerial trust as predictors of antisocial employee responses. *Communication Quarterly*, *56*, 357–375.
- Chory, R. M., & Westerman, C. Y. K. (2009). Feedback and fairness: the relationship between negative performance feedback and organizational justice. *Western Journal of Communication*, *73*, 157–181.
- Cohen, J., & Cohen, P. (1983). *Applied multiple regression/correlation analysis for the behavioral sciences*. Hillsdale: Lawrence Erlbaum Associates, Inc..
- Colquitt, J. A., Conlon, D. E., Wesson, M. J., Porter, C. O. L. H., & Ng, K. Y. (2001). Justice at the millennium: A meta-analytic review of 25 years of organizational justice research. *Journal of Applied Psychology*, *86*, 425–445.
- Conner, C. (2013, September 07). Who wastes the most time at work? Forbes. Retrieved January 31, 2015 from <http://www.forbes.com/sites/cherylsnappconner/2013/09/07/who-wastes-the-most-time-at-work/>.
- Cropanzano, R., & Greenberg, J. (1997). Progress in organizational justice: Tunneling through the maze. In C. L. Cooper, & I. T. Robertson (Eds.), *International review of industrial and organizational psychology* (pp. 317–372). London: Wiley.
- Dillon, T. W., Hamilton, A. J., Thomas, D. S., & Usry, M. L. (2008). The importance of communicating workplace privacy policies. *Employee Responsibilities and Rights Journal*, *20*, 119–139.
- Ellis, R. (2014, December 20). Lawsuits say Sony Pictures should have expected security breach. Retrieved February 3, 2015 from <http://www.cnn.com/2014/12/20/us/sony-pictures-lawsuits/>.
- Fairweather, N. B. (1999). Surveillance in employment. The case of teleworking. *Journal of Business Ethics*, *22*, 39–49.

- Friedman, B. A., & Reed, L. J. (2007). Workplace privacy: employee relations and legal implications of monitoring employee e-mail use. *Employee Responsibilities and Rights Journal*, 19, 75–83.
- Geddes, D. (1993). Examining the dimensionality of performance feedback messages: source and recipient perceptions of influence attempts. *Communication Studies*, 44, 200–215.
- Gouveia, A. (2013). 2013 wasting time at work survey. Retrieved January 31, 2015 from <http://www.salary.com/2013-wasting-time-at-work-survey/slide/3/>.
- Greenberg, J. (1986). Stealing in the name of justice: informational and interpersonal moderators of theft reactions to underpayment inequity. *Organizational Behavior and Human Decision Processes*, 54, 81–103.
- Grimland, S., Vigoda-Gadot, E., & Baruch, Y. (2012). Career attitudes and success of managers: the impact of chance event, protean, and traditional careers. *The International Journal of Human Resource Management*, 23, 1074–1094.
- Henik, A., & Tzelgov, J. (1985). Control of halo error: a multiple regression approach. *Journal of Applied Psychology*, 70, 577–580.
- Hoffman, W. M., Hartman, L. P., & Rowe, M. (2003). You've got mail... and the boss knows: A survey by the Center for Business Ethics of companies' email and internet monitoring. *Business and Society Review*, 108, 285–307.
- Holpuch, A. (2014, December 15). Sony email hack: what we've learned about greed, racism and sexism. The Guardian. Retrieved February 03, 2015 from <http://www.theguardian.com/technology/2014/dec/14/sony-pictures-email-hack-greed-racism-sexism>.
- Homans, G. C. (1961). *Social behavior*. New York: Harcourt, Brace and World.
- Hubbell, A. P., & Chory-Assad, R. M. (2005). Motivating factors: perceptions of justice and their relationship with managerial and organizational trust. *Communication Studies*, 56, 47–70.
- Judd, C. M., & Kenny, D. A. (1981). Process analysis: estimating mediation in treatment evaluations. *Evaluation Review*, 5, 602–619.
- Kimmel, A. J. (2007). *Ethical Issues in behavioral research: Basic and applied perspectives*. Malden: Blackwell Publishing.
- King, N. J. (2003). Electronic monitoring to promote national security impacts workplace privacy. *Employee Responsibility and Rights Journal*, 15, 127–147.
- Lee, H. H., Park, S. R., & Hwang, T. (2008). Corporate-level blogs of the fortune 500 companies: an empirical investigation of content and design. *International Journal of Information Technology and Management*, 7, 134–148.
- Lee, S., & Kleiner, B. H. (2003). Electronic surveillance in the workplace. *Management Research News*, 26, 72–81.
- Leventhal, G. S. (1980). What should be done with equity theory? In K. J. Gergen, M. S. Greenberg, & R. H. Willis (Eds.), *Social exchanges: Advances in theory and research* (pp. 27–55). New York: Plenum.
- Lucero, M. A., Allen, R. E., & Elzweige, B. (2013). Managing employee social networking: evolving views from the national labor relations board. *Employee Responsibilities and Rights Journal*, 25, 143–158.
- Lune, H. (2010). *Understanding organizations*. Malden: Polity Press.
- MacKinnon, D. P., Fairchild, A. J., & Fritz, M. S. (2007). Mediation analysis. *Annual Review of Psychology*, 58, 593–614.
- Mainiero, L., & Jones, K. (2013). Sexual harassment versus workplace romance: social media spillover and textual harassment in the workplace. *Academy of Management Perspectives*, 27, 187–203.
- Mayer, R. C., Davis, J. H., & Schoorman, F. D. (1995). An integrative model of organizational trust. *Academy of Management Review*, 20, 709–734.
- McGrory-Dixon, A. (2011, November 28). Half of employers monitor employee Internet usage. Retrieved January 31, 2015 from <http://www.benefitspro.com/2011/11/28/half-of-employers-monitor-employee-internet-usage>.
- Meyer, J. P., & Allen, N. J. (1997). *Commitment in the workplace*. Thousand Oaks: Sage.
- Meyer, S. (1981). *The five dollar day: Labor, management and social control in the Ford Motor Company, 1908–1921*. Albany: State University of New York Press.
- Mowday, R. T. (1998). Reflections on the study and relevance of organizational commitment. *Human Resource Management Review*, 8, 387–401.
- Mowday, R. T., Porter, L. W., & Steers, R. M. (1982). *Employee-organization linkages: The psychology of commitment absenteeism and turnover*. New York: Academic Press.
- Murray, W. C., & Rostis, A. (2007). Who's running the machine? A theoretical exploration of work stress and burnout of technologically tethered workers. *Journal of Individual Employment Rights*, 12, 249–263.
- Nyhan, R. C. (2000). Changing the paradigm: trust and its role in public sector organizations. *American Review of Public Administration*, 30, 87–109.
- Pazos, P., Chung, J. M., & Micari, M. (2013). Instant messaging as a task-support tool in information technology organizations. *Journal of Business Communication*, 50, 68–86.

- Petrecce, L. (2010, March 17). More employers use tech to track workers. USA today. Retrieved from <http://www.usatoday.com/money/workplace/2010-03-17-workplaceprivacy15CVN.htm>.
- Petronio, S. (2002). *Boundaries of privacy: Dialectics of disclosure*. Albany: SUNY Press.
- Porter, L. W., & Smith, F. J. (1970). *The etiology of organizational commitment*. Unpublished paper, University of California at Irvine.
- PR Newswire (2003, September 17). *Blue Coat study reveals abusive language, job gripes and sexual advances rampant among IM use at work*. Retrieved January 31, 2015 from <http://www.prnewswire.com/news-releases/blue-coat-study-reveals-abusive-language-job-gripes-and-sexual-advances-rampant-among-im-use-at-work-71099042.html>.
- Rosenberg, R. S. (1999). The workplace on the verge of the 21st century. *Journal of Business Ethics*, 22, 3–14.
- Sayers, J. K., Sears, K. L., Kelly, K. M., & Harbke, C. R. (2011). When employees engage in workplace incivility: the interactive effect of psychological contract violation and organizational justice. *Employee Responsibilities and Rights Journal*, 23, 269–283.
- Sewell, G., & Barker, J. R. (2006). Coercion versus care: using irony to make sense of organizational surveillance. *Academy of Management Review*, 31, 1–24.
- Snider, M. (2014, December 31). Employees’ “electronic leash” gets tighter. USA Today, 3B.
- Snyder, J. L. (2010). Email privacy in the workplace: a boundary regulation perspective. *Journal of Business Communication*, 47, 266–294.
- Snyder, J. L., & Cistulli, M. D. (2011). The relationship between workplace e-mail privacy and psychological contract violation, and their influence on trust in top management and affective commitment. *Communication Research Reports*, 28, 121–129.
- Snyder, J. L., & Cornetto, K. M. (2009). Employee perceptions of e-mail monitoring from a boundary management perspective. *Communication Studies*, 60, 476–492.
- Stone, E. F., & Stone, D. L. (1990). Privacy in organizations: theoretical issues, research findings, and protection mechanisms. *Research in Personnel and Human Resources Management*, 8, 349–411.
- Tabak, F., & Smith, W. P. (2005). Privacy and electronic monitoring in the workplace: a model of managerial cognition and relational trust development. *Employee Responsibilities and Rights Journal*, 17, 173–189.
- Thibaut, J., & Walker, L. (1975). *Procedural justice: A psychological analysis*. Hillsdale: Erlbaum.
- US Bureau of Labor Statistics, United States Department of Labor. (2014). *Labor force statistics from the Current Population Survey*. Retrieved August 24, 2015 from <http://www.bls.gov/home.htm>.
- Wharton School. (2012, May 09). Declining employee loyalty: a casualty of the new workplace. *Knowledge@Wharton*. Retrieved February 06, 2015 from <http://knowledge.wharton.upenn.edu/article/declining-employee-loyalty-a-casualty-of-the-new-workplace/>.
- Whitener, E. M., Brodt, S. E., Korsgaard, M. A., & Werner, J. M. (1998). Managers as initiators of trust: an exchange relationship framework for understanding managerial trustworthy behavior. *Academy of Management Review*, 23, 513–530.

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