

REETTA OKSA

Towards Thriving or Draining?

Psychosocial Well-Being Implications
of Social Media Use at Work

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of Social Media Use at Work

ACADEMIC DISSERTATION

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PunaMusta Oy – Yliopistopaino
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Dedication

This dissertation work is dedicated to my beloved son Lauri, my greatest teacher and the endless source of unconditional love, joy, and curiosity

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My academic path has not been the most straightforward, but it surely has been enlightening and exciting. After high school over 20 years ago, I felt great interest to social sciences, and I got into the University of Lapland to study social work. However, life took me to Business Administration, specifically Human Resource Management, studies at Oulu University of Applied Sciences and Coventry University, England. Since working several years in different management consulting projects, the desire to understand people better and the social dynamics in the work context got me to start my studies in social psychology in 2012. After finalizing my Master's in 2015, working, and having a baby, I finally started my doctoral studies in 2018. The journey has been one to remember of which I am extremely grateful to the wonderful people I have been surrounded by.

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I got a card from my mum over 20 years ago, which I have been carrying with me all these years. The message I want to pass on to my son and anyone ever thinking if they are enough as they are or capable of achieving something that might be scary:

“Believe in yourself – it’s the direct path to reach your dreams”

Espoo, September 2022

ABSTRACT

Employees increasingly use technological advancements such as collaborative technologies and social media platforms at work in response to rapid change and demands of contemporary work life. Pervasive by its nature, social media use for work purposes imposes both opportunities and threats, such as knowledge sharing, social support, blurred boundaries between work and private life, and technology-related stress and exhaustion that influences employees' psychosocial well-being at work. The technological transformation of work and interaction progressively to online environments is a crucial social psychological phenomenon. More detailed knowledge is needed to understand the psychosocial well-being implications of social media use at work because they can have severe consequences for the modern work life.

This doctoral dissertation in social psychology examines the way employees use social media at work in five professional organizations and among the general workforce in Finland as well as how the use relates to psychosocial well-being at work. The aim is also to identify other key predictors of psychosocial well-being in the context of increased social media use at work. The dissertation consists of four distinct studies conducted during years 2018–2021. Adopting a mixed-method approach, the first study utilized focus group interviews ($N = 52$) and cross-sectional survey data ($N = 563$) from five professional organizations. A mixed-method approach was also used in the second study, which utilized the data sets from the first study along with cross-sectional Finnish workforce survey data ($N = 1,817$). The third study was based on the same cross-sectional survey data sets from the second study. The fourth study consisted of longitudinal 4-point survey data ($n = 965$ of the original sample of $N = 1,817$) from the Finnish workforce. Analyses were conducted with theory-driven content analysis, structural equation modeling, linear regression analysis, and hybrid multilevel linear regression analysis.

According to the results, employees actively use social media in professional organizations and among the overall Finnish workforce. Following and sharing content, communicating, and staying in touch with colleagues and networking were

the main purposes for the use. The use is driven by intrinsic motivations of personal choice and interest and extrinsic motivations of organizational culture and personal branding. The positive psychosocial well-being implications included enhanced information, autonomy, organizational encouragement and support, social networks, and professional identity development. Higher organizational identification, social support, and higher work engagement were also identified. Negative psychosocial well-being implications involved physiological symptoms, fears, social pressure, and unclear rules. Higher psychological distress, burnout, and technostress were observed, especially among millennials.

The positive and negative psychosocial well-being implications were related to various use motivations such as content production, information seeking and communication with colleagues, as well as generational and occupational differences, and situational and sociodemographic factors. Millennials were more active social media users than former generation employees were, but they also perceived the use as more straining, similar to the result among women and heavy users. The results highlight that nonwork-related social media communication with colleagues and work community, in addition to work-related communication, is associated with positive psychosocial well-being implications.

This dissertation accelerates an integrative view of social media use at work and psychosocial well-being in contemporary work environments from both organizational and national perspectives. The results emphasize the dynamic relationship of social media use at work and psychosocial well-being, and the dual – thriving and draining – well-being implications. The motivational potential can be harnessed by encouraging formal and informal social media communications and nurturing psychological needs of autonomy, relatedness, and competence by fostering employees' resources and work engagement. The results are timely and provide practical suggestions for employees and organizations, which are central considering the intensified social media use at work and the post-COVID work life.

TIIVISTELMÄ

Työelämä on muuttunut vauhdilla, minkä vuoksi työntekijät ovat alkaneet käyttää enenevässä määrin edistyksellisiä teknologioita kuten yhteistyöalustoja ja sosiaalisen median alustoja työtarkoituksiin. Koska sosiaalinen media on läsnä lähes kaikkialla, sen käyttämiseen liittyy monenlaisia uhkia ja mahdollisuuksia työntekijöiden psykososiaaliselle työhyvinvoinnille, kuten esimerkiksi helppo ja nopea tiedonjakaminen, sosiaalinen tuki, työn ja vapaa-ajan rajojen hämärtyminen ja teknologian käyttöön liittyvä stressi ja uupumus. Työn ja vuorovaikutuksen siirtyminen lisääntyvässä määrin verkkoon on merkittävä sosiaalipsykologinen ilmiö. Lisää tutkimusta ja tarkempaa tietoa tarvitaan, jotta voidaan paremmin ymmärtää työhön liittyvän sosiaalisen median käytön yhteyttä työntekijöiden psykososiaaliseen hyvinvointiin, koska käytöllä voi olla myös vakavia seurauksia nykytyöelämälle.

Tässä sosiaalipsykologian väitöskirjassa tarkastellaan työntekijöiden sosiaalisen median käyttöä työssä viidessä asiantuntijaorganisaatiossa ja yleisesti suomalaisten työntekijöiden keskuudessa ja analysoidaan kuinka sosiaalisen median työkäyttö liittyy työntekijöiden psykososiaaliseen työhyvinvointiin. Lisäksi tutkitaan minkälaiset muut tekijät ennustavat psykososiaalista työhyvinvointia lisääntyneen sosiaalisen median käytön kontekstissa. Väitöskirja koostuu neljästä erillisestä artikkelista, joiden aineistot on kerätty vuosina 2018–2021. Ensimmäisessä artikkelissa käytettiin monimenetelmällistä lähtökohtaa ja aineisto koostui viidestä asiantuntijaorganisaatiosta kerätyistä fokusryhmähaastatteluista ($N = 52$) ja poikkileikkauskyselytutkimuksesta ($N = 563$). Myös toinen artikkeli oli monimenetelmällinen ja siinä hyödynnettiin samoja aineistoja kuin ensimmäisessä tutkimuksessa sekä lisäksi poikkileikkauskyselyaineistoa, joka kerättiin suomalaisilta työntekijöiltä ($N = 1817$). Kolmannessa artikkelissa käytettiin samoja poikkileikkauskyselyaineistoja kuin toisessa artikkelissa. Neljännessä artikkelissa käytettiin neljän keräyspisteen kansallista pitkittäiskyselyaineistoa ($n = 965$ alkuperäisestä otoksesta $N = 1817$). Analyysimenetelminä hyödynnettiin teoriaohjaavaa sisällönanalyysia, rakenneyhtälömallia ja lineaarista ja monitasoista lineaarista regressioanalyysia.

Tulosten mukaan sekä asiantuntijaorganisaatioiden tietotyöntekijät että suomalaiset työntekijät yleisesti käyttävät sosiaalista mediaa aktiivisesti työssään.

Sosiaalista mediaa käytetään eniten työssä sisältöjen seuraamiseen ja jakamiseen, viestintään ja yhteydenpitoon työkavereihin sekä verkostoitumiseen. Käyttöä ohjaa sisäisestä motivaatiosta käsin henkilökohtainen valinta ja kiinnostus sosiaalisen median käyttöön työssä. Lisäksi ulkoisina käyttömotivaatiotekijöinä esiin nousivat organisaatiokulttuuri ja henkilöbrändääminen. Informaation helppo saatavuus, autonomia, organisaatiolähtöinen kannustus ja tuki, sosiaaliset verkostot ja työntekijöiden kehittäminen koettiin positiivisina sosiaalisen median käyttöön liittyvinä resursseina ja psykososiaalisina työhyvinvointitekijöinä. Sosiaalisen median työkäyttö oli myös yhteydessä korkeampaan organisaatioon samaistumiseen, sosiaaliseen tukeen ja työn imuun. Negatiivisiin psykososiaalisiin työhyvinvointivaikutuksiin kuului fysiologiset oireet, pelot, sosiaalinen paine ja epäselvät säännöt. Lisäksi sosiaalisen median työkäyttö oli yhteydessä korkeampaan psyykkiseen kuormittuneisuuteen, työuupumukseen ja teknostressiin etenkin milleniaaleilla.

Useat sosiaalisen median käyttömotivaatiot, kuten esimerkiksi sisällöntuottaminen, informaation etsiminen ja viestintä työkavereiden kanssa sekä erot sukupolvien, ammattialojen, tilanetekijöiden ja sosiodemografisten taustatietojen välillä olivat yhteydessä sekä positiivisiin ja negatiivisiin psykososiaalisiin työhyvinvointivaikutuksiin. Tulokset osoittavat, että milleniaalit käyttävät sosiaalista mediaa vanhempia sukupolvia aktiivisemmin työssään, mutta he kokevat käytön myös kuormittavamammaksi samoin kuin naiset ja paljon sosiaalista mediaa käyttävät työntekijät. Tulokset myös korostavat, että työhön liittyvän sosiaalisen median viestinnän lisäksi myös työhön suoraan liittymätön epävirallinen viestintä työkavereiden ja työyhteisön kanssa on yhteydessä positiivisiin psykososiaalisiin työhyvinvointivaikutuksiin.

Tämän väitöskirjan tulokset kokoavat kattavan kuvan sosiaalisen median käytöstä asiantuntijaorganisaatioissa ja yleisemmin suomalaisten työntekijöiden keskuudessa. Tulokset korostavat sosiaalisen median työkäytön ja työhyvinvoinnin dynaamista suhdetta ja kaksijakoisia – kukoistamaan auttavia ja loppuun kuluttavia – työhyvinvointivaikutuksia. Sosiaalisen median työkäyttöön liittyvä motivaatiopotentiali on mahdollista ottaa käyttöön kannustamalla työntekijöitä viralliseen ja epäviralliseen sosiaalisen median viestintään, ja tukemalla psykologisia perustarpeita eli autonomiaa, kompetenssia ja yhteenkuuluvuutta, kasvattamalla työntekijöiden resursseja ja työn imua. Tulokset ovat erittäin ajankohtaisia ja tarjoavat tärkeitä suosituksia työntekijöille ja organisaatioille ottaen huomioon lisääntyneen sosiaalisen median työkäytön ja koronapandemian jälkeisen työelämän.

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ABBREVIATIONS

COR	Conservation of Resources theory
COVID-19	Corona Virus Disease 2019
IT	Information technology
JD-R	Job demands–resources model
MS Teams	Microsoft Teams
RQ	Research question
SDT	Self-determination theory

ORIGINAL PUBLICATIONS

- Article I Oksa R., Kaakinen, M., Savela, N., Ellonen, N., & Oksanen, A. (2022). Social Media Usage in Professional Organizations: Boosting and Draining Workforce. *Behavior & Information Technology*. <https://doi.org/10.1080/0144929X.2022.2094833>
- Article II Oksa, R., Saari, T., Kaakinen, M., & Oksanen, A. (2021). The Motivations for and Well-Being Implications of Social Media Use at Work among Millennials and Members of Former Generations. *International Journal of Environmental Research and Public Health* 18(2), 803. <https://doi.org/10.3390/ijerph18020803>
- Article III Oksa, R., Kaakinen, M., Savela, N., Ellonen, N., & Oksanen, A. (2021). Professional social media usage: Work engagement perspective. *New Media & Society*, 23(8), 2303–2326. <https://doi.org/10.1177/1461444820921938>
- Article IV Oksa, R., Kaakinen, M., Savela, N., Hakanen, J., & Oksanen, A. (2021). Professional Social Media Usage and Work Engagement Among Professionals in Finland Before and During the COVID-19 Pandemic: Four-Wave Follow-Up Study. *Journal of Medical Internet Research*, 23(6), e29036. <https://doi.org/10.2196/29036>

1 INTRODUCTION

Contemporary work life has undergone major transformations in recent years. Globalization and digitalization have changed organizations for good (Eurofound, 2021b; Sutela et al., 2019). Although some technologies and social media platforms have been an integral part of individuals' leisure time for quite some time (Boyd & Ellison, 2007), the utilization of such tools in work contexts has increased incrementally through the last decade and specifically during the COVID-19 pandemic (Cao et al., 2019; Kodama, 2020; Leonardi, 2020; Nisar et al., 2019; Yu et al., 2018). A great deal of social interaction and especially knowledge work has inherently transferred to online environments. The technological advancements not only have changed the mode of business operations, but also influenced the organizational and communication cultures (Ellison et al., 2015; Leidner et al., 2018; Pekkala, 2020). From a social psychology perspective, this transformation in work life is significant.

During the COVID-19 pandemic, work communication, organizing work tasks, and ways and places of work have faced new types of flexibility and trust that work can be completed properly regardless of physical location (Barnes, 2020; Leonardi, 2020; Kodama, 2020). Nevertheless, increased digitalization of work and technology use have raised concerns about the effect on organizations, which could jeopardize employees' psychosocial well-being and social lives (Barber et al., 2019; Eurofound, 2021b; Tams et al., 2020; Tarafdar et al., 2013). Psychosocial hazards are work organizing, management and design as well as work environment related aspects (e.g., workload, control, interpersonal relationships, home-work interface) that pose the potential threat to employees psychological, physical, and social well-being (Cox et al., 2000; Leka & Cox, 2010).

The focus of this dissertation is on social media use for work purposes because of its omnipresence and the intensified use in work contexts lately (Cao et al., 2019; Eurostat, 2020; Leonardi, 2020; Oksanen et al., 2021). *Social media* is generally referred to as a set of internet-based applications in which content creation and exchange is possible (Kaplan & Haenlein, 2010) for the social media users as producers (Buchmann & Lomborg, 2012). Social media communication is also defined as de-institutionalized i.e., characterized by the users' ability to control and

modify the content, in addition to the communication being networked and collaborative (Bechmann & Lomborg, 2012). In this dissertation, the term social media use at work (i.e., professional social media use) refers to the use of work organizations' internal enterprise social media platforms such as Microsoft Teams (MS Teams) and Workplace from Meta (former Facebook) or external public social media platforms such as LinkedIn and Twitter, which employees use in their work to meet, discuss, create, and maintain social networks and to produce, edit, follow, and share work-related content for internal or external audiences easily at any time (Oksa, Kaakinen, Savela, Hakanen, et al., 2021; Oksa, Saari, et al., 2021; Oksa, Kaakinen, Savela, Ellonen, et al., 2021; Oksanen et al., 2021). In addition, various collaborative and quick messaging tools are considered. Thus, a wider view of social media is applied to examine the phenomenon.

Research has indicated that social media use for professional purposes poses novel opportunities and threats for employees, organizations, and societies. Enterprise social media platforms can disseminate information fast, especially internally, and communication and collaboration globally are commonplace (Cai et al., 2018; Ellison et al., 2015; Liu & Bakici, 2019). Social media can be a smooth medium of social interaction and foster togetherness, social capital and knowledge management, and creative performance within a work community (Ahmed et al., 2019; Ali et al., 2020; Sun et al., 2020). However, excessive social media use can be straining and addictive, induce work and family conflicts, and have negative personal consequences and influence on employees' work environment, innovativeness, and job performance as well as on companies' success (Ali et al., 2020; Liu & Bakici, 2019; Moqbel & Kock, 2018; Nisar et al., 2019; Yu et al., 2018).

Employees' motivation plays a key role when new work technologies, such as social media platforms, are deployed and are incorporated into work (Davis et al., 1992; Ma et al., 2020; Schmid & Dowling, 2020). To be able to thrive in life and at work, individuals need to be motivated and energized, which is empowered by nurturing work settings and by supporting employees' psychological needs of autonomy, competence, and relatedness, key constructs of self-determination theory (SDT; Deci & Ryan, 2000; Deci et al., 2017). These are key elements in psychological and physical well-being influencing the way individuals operate and perform in their social settings such as workplaces (Deci & Ryan, 2000).

Work engagement represents employees' fundamental positive motivational work-related mental condition, which comprises of vigor, dedication, and absorption (Schaufeli et al., 2002; Schaufeli & Bakker, 2004a). Job resources, the positive psychological, physical, social, and organizational elements of work, are the main

contributors of personal development, achieving work goals, and fostering work engagement (Demerouti et al., 2001), hence they intrinsically motivate employees and fulfil their basic psychological needs (Deci & Ryan, 2000; Ryan & Deci, 2000a). People tend to maintain and defend their resources, and an actual or even potential loss of them can lead to psychological distress (Hobfoll, 2001). Conversely, job demands that require continuous physical and psychological effort have related costs such as burnout, which has three dimensions: exhaustion, cynicism, and reduced professional efficacy (Demerouti et al., 2001; Maslach et al., 1996; Schaufeli & Bakker, 2004a). Finding the balance between job demands and resources to foster work engagement and avoid burnout is a pervasive challenge in contemporary work life. Hence, this dissertation focuses on these occupational well-being indicators and their relation to social media use in the work context.

Prior research has mainly concentrated on exploring social media use at work by focusing only a single or limited platforms with focus of either internal or external platforms, either solely studying work-related social media use or nonwork-related social media use with limited methods and rather small and mostly cross-sectional samples (e.g., Sun et al., 2022; Syrek et al., 2018; van Zoonen et al., 2016; Yu et al., 2018). This dissertation contributes to the literature by analyzing the topic using multiple methods and data sets with diverse social media use, communication, and well-being variables to fill the existing gaps. Moreover, the aim is to gain a broader understanding of social media use in the work context as well as the ways employees perceive the use and the psychosocial well-being implications the use involves.

This doctoral dissertation aims to contribute to the research by furnishing evidence from four distinct studies by qualitatively and quantitatively analysing social media use at work in organizational settings as well as nationally. The dissertation investigates how social media is used at work by employees working in Finland and scrutinizes the use in relation to employees' psychosocial well-being as well as identifies the other main predictors of psychosocial well-being in the context of intensified social media use at work. This was accomplished by drawing from the key occupational well-being theories, SDT (Deci & Ryan, 2000), conservation of resources theory (COR; Hobfoll, 2001), the job demands-resources (JD-R) model (Demerouti et al., 2001), and concepts of work engagement (Schaufeli & Bakker, 2004a) and burnout (Maslach et al., 1996). These theories were chosen based on their suitability for the research as addressing both positive and negative factors of occupational well-being, hence forming coherent theoretical basis, in addition to their popularity in the current working life research literature.

Article I provides foundational knowledge on how employees use social media in five professional organizations (i.e., expert organizations) and the related job demands as well as job resources and personal resources. Article II examines professional social media use motivations in relation to millennials and members of former generations' burnout, psychological distress, and technostress in five professional organizations and among Finnish workforce. Article III assesses the way work-related and nonwork-related social media communication relates to work engagement and the relationship to social support and organizational identification. Article IV scrutinizes, using a longitudinal national data set, the way work-related and nonwork-related social media communication is associated with work engagement, social support, task resources, and psychological distress. Consequently, this doctoral dissertation builds article by article an integrative view of the positive and negative psychosocial well-being implications of employees' social media use at work.

2 TECHNOLOGICAL TRANSFORMATION OF WORK LIFE

2.1 Evolution of Work Tools at the Information Age

In the past few decades, the evolution and swiftness of information networks and technologies have shaped contemporary work life. Nevertheless, the information technology developments are nothing novel, but have long been an integral part of work contexts (Castells, 2010; Markus & Robey, 1988). ARPANET, the predecessor of the contemporary internet that was first established in 1969 (Castells, 2010), was created early in the 1960s (Kodama, 2019). Concurrently, signs of early social media elements in internet-based participatory writing were accompanied by Open Diary (Kaplan & Haenlein, 2010).

Since the 1970s, organizations have used information networks and computer-mediated technologies for information sharing, storing and modification of information, collaboration, and project work (Kiesler et al., 1984). Knowledge work was established along with the technological developments (Drucker, 1979). In the 1970s, 40% of employees in the United States and Canada worked in jobs utilizing information technologies, other OECD countries following far behind (Pyöriä, 2005a). Nevertheless, in the late 1970s, Usenet empowered more interactive public user communication in discussion forums together with the first weblogs, later in the 1980s known as blogs (Kaplan & Haenlein, 2010).

Beside development of the internet, wireless communication networks transformed connectivity with mobile phones in the 1990s (Castells, 2011). Moreover, knowledge work, email, personal webpages, and content publishing became more popular (Pyöriä, 2005a) during the period, which was referred to as Web 1.0 (Kaplan & Haenlein, 2010). Companies such as Amazon and eBay were pioneers and launched their webpages in 1995, although company webpages became more common during the internet bubble, which eventually burst in the early 2000s (Kaplan & Haenlein, 2010). The expansion of internet users exploded to 1,500,000,000 by 2009 and covered around 60% of the most developed countries (Castells, 2010). Wireless communication, internet, and the World Wide Web together shaped the tradition of interactive communication (Castells, 2010). Social

media giant and vanguard Facebook was introduced in 2004, and it paved the way for other engaging social media applications (Kaplan & Haenlein, 2010). Overall, in the 21st century, social networking sites and virtual communities such as Facebook and Myspace became an integral part of everyday interaction (Boyd & Ellison, 2007; Castells, 2010). The shift from Web 1.0 to 2.0 was characterized by users' behavioral change from passive content users to more active content creators and modifiers (Keipi et al., 2017).

Still, at the beginning of the millennium, only approximately half of Finns worked in some sort of job utilizing information technologies that also facilitated remote and multilocal work (Pyöriä, 2005b). However, by 2021, 97% of Finns utilized digital collaborative tools and quick messaging services for their work (Lyly-Yrjänäinen, 2022), which is an enormous leap from 17% of Finns using technology for work in the 1980s (Sutela et al., 2019). In recent years, work life and information technologies have further accelerated with enhanced features such as analytics, automation, robotics, Internet of Things, platforms, artificial intelligence, and machine learning (Eurofound, 2021b; Kodama, 2019).

2.2 Social Media Use at Work

Social media has been used vigorously for informal communication, social sharing, and interaction for over two decades. During the 1990s, platforms such as SixDegrees.com and Blogger became prevalent, and in the early 2000s, popular platforms such as Wikipedia, Facebook, Twitter, and Myspace were introduced (Boyd & Ellison, 2007; Boyd, 2008; Kaplan & Haenlein, 2010). In professional contexts, social networks such as LinkedIn, established in 2003, have gradually gained users and audiences, but the use did not immediately soar in the same way that use of nonprofessional platforms did, instead increasing steadily (Boyd & Ellison, 2007; Eurostat, 2020). Use among professionals took an upsurge in the 2010s (Cao & Yu, 2019; Eurostat, 2020; Leonardi et al., 2013). In 2019, 53% of organizations belonging to the European Union used at least one social media platform (Eurostat, 2020).

At the beginning of the 2020s, COVID-19 brought along accelerated application of remote work technologies together with more prominent utilization of social media platforms for work (Eurofound, 2020; Leonardi, 2020; Oksanen et al., 2021). Thus, the traditional intranet and email have been challenged by new forms of communication and work technologies such as Workplace from Meta, MS Teams,

Slack, and WhatsApp. Indeed, during 2021, 77% of Finns used collaboration platforms and quick messaging services, an increase of 10% from 2019, but the use of more traditional social media platforms for work was still rather low (24%; Lyly-Yrjänäinen, 2022).

Digitalization and technological advancements such as social media have shaped the way social world is perceived and changed the social and organizational practices for good, but much of the research attention has been on these deterministic and social constructivist views, undermining the materialistic properties of technology that enable users to perform actions, also referred as affordances (Leonardi & Barley, 2008; Leonardi & Vaast, 2017). In an organizational context, widely used affordances, as Treem and Leonardi (2012) defined them, are persistence, visibility, editability, and association. In brief, persistence refers to content accessibility and leverage; visibility refers to communication, knowledge, and participants; editability refers to possibilities to modify content (e.g., to improve the content quality); and association refers to people and contents (Treem & Leonardi, 2012).

Social media also poses numerous other affordances and prospects for workplaces and organizations. First, organizations' internal social media platforms, such as Yammer, Workplace from Meta, MS Teams, and Slack, are used as avenues for knowledge distribution and sharing, organizing work tasks, collaboration, project work, and meetings, as well as for both work-related and nonwork-related communication with colleagues (Cai et al., 2018; Leidner et al., 2018; Liu & Bakici, 2019; Mäntymäki & Riemer, 2016; Pitafi et al., 2018). These internal platforms are commonly called *internal social media*, *enterprise social media*, or *enterprise social networking sites* (Ellison et al., 2015; Leonardi et al., 2013). In addition to internal platforms, external *public social media platforms* such as LinkedIn, Twitter, and Facebook, and can be applied for work purposes such as marketing, organizational and self-branding, recruitment, professional development, and stakeholder management (Chu, 2020; Eurostat, 2020; Ellison et al., 2015; Leidner et al., 2018; Siverzen et al., 2013).

Interestingly, according to Bechmann & Lomberg (2012) social media communication being de-institutionalized, the control over how employees act especially in external social media platforms is not in the hands of the employers compared to companies' internal platforms. Thus, this can induce reputational issues for organizations (Ivens et al., 2021; van den Berg & Verhoeven, 2017). The use of social networking and enterprise social networking sites are influenced by individual users' diverse motivations and goals, perceived norms, and social and psychological aspects (Ellison et al., 2015). Generally, people are motivated to create content and participate in social media because they want to express their identities and lives as

well as develop themselves and their internet content, and they want to network with others and belong to social media communities (Matikainen, 2015). Information sharing, information seeking, entertainment, and social interaction have been positively related to employees' enterprise social media use intentions (Beck et al., 2014; Liu & Bakici, 2019). Furthermore, specific individual (self-enhancement, enjoyment, and venting negative feelings), interpersonal (bonding and bridging ties), and organizational (perceived external prestige and organization–employee relationship) factors have been established (Lee, 2020).

Employees can be motivated to use social media networks to enhance their career prospects (Davis et al., 2020; Nikitkov & Sainty, 2014). Cyberloafing i.e., using social media for personal purposes at work is also common and can have both positive and negative consequences for organizations (Andreassen et al., 2014; Koay et al., 2018; Liberman et al., 2011). In 2020, the focal drivers for Finn's social media use were knowledge sharing (86%), information retrieval (83%), networking and collaboration (73%), customer service (53%), sales and marketing (43%), and product and service development (38%; Keyriläinen, 2021).

Typically, social media use is more common among generation Y young adults (i.e., millennials) who have grown up with technological developments as well as internet-based services and communities at hand, which have shaped their worldviews, values, and behavior and given them the stage to voice out their opinions and influence the world in which they live (Boyd, 2008; Deloitte, 2021; Keipi et al., 2017; Prensky, 2005). In the professional context, millennials are the biggest working generation (Brightenburg, 2018), thus influencing greatly the use of social media for professional purposes. However, the workforce is aging, which needs to be considered from technology ability, use motive, and well-being perspectives (Eurofound, 2017). In Finland, social media use for work purposes is more common among employees aged 35–44 (29%) and 45–54 (26%) as well as women (28%) use social media more than men (19%) (Lyly-Yrjänäinen, 2022).

2.3 Recent Changes in Work Life and Shift towards Remote Work

Digitization (turning a behavior, activity, or process into data), digitalization (technologies shaping social life), the platform economy (digitalized business operations and economic transactions of goods and services), and the gig economy (work transacted via platforms but delivered locally plus digital labor) have transformed the contemporary work life (Kenney & Zysman, 2019; Leonardi &

Treem, 2020; Vallas & Schor, 2020; Wood et al., 2019). In addition, an ageing workforce and greater diversity, as well as economic, ecological, and social challenges, have become commonplace (Roberson, 2019; Schneider & Clauß, 2019; Varianou-Mikellidou et al., 2019). Moreover, the COVID-19 pandemic has severely disrupted work and life (Hodder, 2020; Kniffin et al., 2021). In addition to cultivating business processes and work styles, these key transformations stimulate new challenges for employees, such as demand for new IT and work skills and polarization in the labor market (Barnes, 2020; Eurofound, 2021b). It is obvious that the ongoing transformative upturn in contemporary work life requires time and determination, but also psychological effort in ways people think, adapt, and behave within these new norms.

Technological advancements have provided enhanced opportunities for adaptive, multilocal, and remote work since the 1970s and 1980s, and more so during the 1990s and 21st century when knowledge work became more popular (Andriessen & Vartiainen, 2006; Olson, 1983; Pyöriä, 2011). Remarkably, only slightly more than 5% of employees worked remotely on a regular basis in 2019 (Leonardi, 2020). However, the increase of remote work has been evident in Finland: before the pandemic, 22% of Finns sometimes worked remotely, which increased to 41% in 2021 (Sutela & Pärnänen, 2021).

Nevertheless, according to Eurofound (2021), nowadays only 37% of work can be performed remotely, highlighting the digital divide between white-collar knowledge workers and blue-collar workers. Although not all jobs can be operated remotely, the COVID-19 pandemic has correspondingly played a crucial role in the transfer of the ways and places of work to means that are more digital (Kniffin et al., 2021; Kodama, 2020; Molino et al., 2020; Wang et al., 2020). Because work is performed increasingly in a global landscape and in distributed organizations, a need exists for smooth information and knowledge flow in which social media can shape and be shaped by social processes (Ellison et al., 2015; Mäntymäki & Riemer, 2016; Sun et al., 2019).

Currently, knowledge work can be accessed and completed practically anywhere and anytime. Finland began heading toward remote work during COVID-19: Nearly 60% of professionals worked remotely at the outburst of the pandemic in spring 2020 (Eurofound, 2020a). During the pandemic, work life was boosted by numerous digital tools and platforms (Leonardi, 2020; Oksanen et al., 2021; Oksa, Kaakinen, Savela, Hakanen, et al., 2021; Sutela & Pärnänen, 2021), and employees have been using, for example, MS Teams for online meetings over twice as much as before and have been sending 45% more chats than they did prior to COVID-19 (Microsoft,

2021). In addition to remote-working knowledge workers, half of those doing work at their employers' premises used digital meeting tools and quick messaging services (Sutela & Pärnänen, 2021).

Working remotely requires different kinds of well-being considerations from organizations and individuals. The need to maintain trust and lead people remotely is vast, as is the need for self-management and workdays scheduled to allow breaks and account for ergonomics (Dittes et al., 2019; Fosslien & West Duffy, 2020; Kniffin et al., 2021), together with taking care of home and family duties and even homeschooling during the pandemic lockdowns (Eurofound, 2020a; Häkkinen et al., 2020). Although remote workers have typically reported less conflict between work and home domains, the pandemic has changed and compromised the dynamics (Eurofound, 2021a). Overall, possibilities to influence one's work decreased, but men reported better possibilities to influence their work than women did (Sutela & Pärnänen, 2021).

Although the sudden leap to remote work has required endurance and flexibility in ways of working (Carroll & Conboy, 2021; Richter, 2020; Wang et al., 2020), Microsoft (2021) indicated that 73% of employees globally are now apt for such flexibility and the possibility to work remotely after COVID-19. There has been pondering that henceforth, remote work is here to stay to at least for some extent and knowledge work will be most likely done in a hybrid mode (i.e., partly in the physical workplace and partly from home or other suitable locations (Eurofound, 2021b; Microsoft, 2021; Leonardi, 2020; Richter, 2020). Hence, there is a vast need for organizations, Human Resource Management practitioners, leaders, and employees to adapt, support and make the most out of the possibilities of hybrid work (Gratton, 2021; Petani & Mengis, 2021).

3 WELL-BEING AT WORK

3.1 Motivational Basis of Well-being at Work

Contemporary work provides employees opportunities for wider meaningfulness and purpose as well as a source of self-realization (Ryan & Deci, 2017). To thrive in life and at work, be motivated, and function for optimal performance, basic psychological needs of *autonomy* (i.e., a sense of volition, self-regulation, and integrity; deCharms, 1968; Deci & Ryan, 2000), *competence* (i.e., the sense of mastery and effectiveness; White, 1959), and *relatedness* (i.e., a need for belongingness and relatedness; Baumeister & Leary, 1995) must be fulfilled (Deci et al., 2017). These key psychological needs are the core elements of SDT and drive individuals' psychological development and goal-oriented behavior (Deci & Ryan, 2000), which individual differences and social context influence (Ryan & Deci, 2000a).

SDT is a macro theory about motivation that entails autonomous motivation and controlled motivation that influence employees' well-being and performance (Olafsen & Deci, 2020). Activities that derive from autonomous regulation (i.e., a person's pure choice, willingness, and volition) are typically intrinsically motivated, but in specific situations, they can derive from extrinsic motivation (i.e., instrumental behavior to gain a certain outcome, e.g., a reward or true self-regulation; Deci et al., 2017; Ryan and Deci, 2000a). Notably, autonomous work motivation has been associated with positive outcomes such as higher life satisfaction, positive affect, work quality and work effort even in situations where employees have low psychological detachment from work (Olafsen & Bentzen, 2020).

Intrinsic motivation supports basic psychological needs, hence, it is related to positive well-being implications, whereas thwarting employees' psychological needs and promoting extrinsic motivation can result in negative implications for well-being (Chen et al., 2015; Niemic et al. 2009; Ryan & Deci, 2000a). Extrinsic motivation, however, is needed at times and can foster true self-regulation (Deci et al., 2017; Ryan & Deci, 2000a). Moreover, amotivation refers to the state of not being motivated to act or acting without intention (Ryan & Deci, 2000b). Generally, people possess greater work motivation once they internalize the significance of their work (Deci et al., 2017).

Workplaces have different work cultures and leading styles that nurture autonomous motivation and employee engagement or hinder them, thus promoting controlled externally motivated behaviors (Deci et al., 2017). Outstandingly, research has exposed that managerial support for employee autonomy in particular typically extends to the other two psychological needs of relatedness and competence, as well as result in enhanced creativity, psychological well-being, job satisfaction, and work engagement, in addition to decreased psychological and physical illness, exhaustion, absenteeism, and turnover (Baard et al., 2004; Deci et al., 2017; Hon, 2012; Morau & Mageau, 2012; Liu et al., 2011; Otis & Pelletier, 2005; Williams et al., 2014).

Most Finnish employees (87%) fully or to some extent experience meaning in their work, and women and older employees experience higher meaningfulness compared to men and younger employees (Lyly-Yrjänäinen, 2022). Overall, in Finland, possibilities to influence one's work have remained rather stable during the past two decades. Finnish employees could place the most influence on their work pace (47%) and work tasks (42%; Lyly-Yrjänäinen, 2022). Generally, men can influence their work more than women can (Lyly-Yrjänäinen, 2022). Competence development is seen in a positive light, and most Finns (84%) stated they are always able to learn new things in their workplace (Lyly-Yrjänäinen, 2022). Fifty-four percent of Finnish employees always or often experience collaboration and togetherness in the work community, but employees aged 35–44 experience the least togetherness (Lyly-Yrjänäinen, 2022).

3.2 From Resources to Work Engagement

The JD-R model has been extensively utilized in occupational well-being studies (Bakker & Demerouti, 2017). *Job resources* are psychological, physical, social, and organizational aspects of work such as autonomy, social support, participation in making decisions, role clarity, skill variety, and performance feedback that foster employees' learning, personal development, and abilities to achieve work goals, but also help to diminish the negative burden of job demands (Demerouti et al., 2001; Bakker et al., 2011; Bakker & Demerouti, 2007; Schaufeli & Bakker, 2004a). Job resources are an integral part of the motivational process of the JD-R model because they can positively influence on individual well-being (e.g., by enhancing work engagement), which in turn can foster organizational outcomes such as higher organizational commitment (Bakker & Demerouti, 2017; Hakanen et al., 2008; Schaufeli & Bakker, 2004a). The JD-R model has been used to explain work

engagement in high job demand circumstances (Bakker et al., 2007). To achieve work goals and high performance, job resources can enhance extrinsic motivation (Gagné & Deci, 2005; Hakanen et al., 2008), but ultimately, job resources enhance intrinsic motivation by fulfilling psychological needs of autonomy, competence, and relatedness (Deci & Ryan, 2000; Schaufeli et al., 2009; Xanthopoulou et al., 2009a) and lead to enhanced motivation and well-being (Schaufeli et al., 2004; Van Den Broeck et al., 2008).

In addition to job resources, *personal resources* are important contributors to work engagement (Llorens et al., 2007; Xanthopoulou et al., 2007; Xanthopoulou et al., 2009a). Personal resources can involve an individual's self-belief in his or her resilience and capacity to control and influence his or her surroundings as well as experience meaningfulness and purpose, which subsequently can lead to positive psychological and organizational outcomes (Hobfoll, 2003; Xanthopoulou, 2007). Optimism, organizational-based self-esteem, and self-efficacy are examples of personal resources (Xanthopoulou, 2007; Xanthopoulou, 2009a).

Work engagement is a persistent, motivational, work-related mental state that is widely used to describe the positive aspects of well-being at work that are comprised of vigor (i.e., persistence, resilience, and higher energy levels), dedication (i.e., feelings of pride, enthusiasm, and significance), and absorption (i.e., positive immersion in one's work and challenge detaching from work; Schaufeli et al., 2002; Schaufeli & Bakker, 2004a). Work engagement is closely linked to burnout, sharing the same ground as burnout research, but instead it is viewed as a positive indicator of well-being (Bakker et al., 2008; Maslach et al., 1996, 2001; Schaufeli et al., 2002). However, the concepts are not direct opposites, but operate distinctly (Bakker et al., 2014; Hakanen & Schaufeli, 2012).

Research has shown the significance of work engagement in work context because employees tend to be more committed, creative, innovative, and proactive, and they help and support colleagues and share knowledge (Demerouti et al., 2017; Hakanen et al., 2008; Bailey et al., 2017; Xanthopoulou et al., 2009b). Because work engagement is contagious, the social surroundings, colleagues, and leaders are in an important role in boosting work engagement (Bakker, 2022). Employees who engage in their work are more productive, and work engagement is associated with in-role, extrarole, task, and organizational performance (Borst et al., 2020; Hakanen and Koivumäki, 2014; Bailey et al., 2017), financial returns (Xanthopoulou et al., 2009b), and development of wages and career prospects (Hakanen et al., 2021). Work engagement can enhance life satisfaction (Hakanen & Koivumäki, 2014; Shimazu et al., 2012), positively spill over to employees' families (Bakker, 2022), and buffer

against psychological distress, anxiety, depression, work absenteeism, turnover intentions, disability pensions, and burnout (Bailey et al., 2017; Hakanen & Schaufeli, 2012; Hakanen et al., 2021; Halbesleben, 2010; Innstrand et al., 2012; Schaufeli et al., 2008; Schaufeli et al., 2009).

In 2021, Finns' average work engagement was relatively good, with a score of 3.5 (on a scale from 1 to 5). Fifty-nine percent of Finns experienced vigor, 54% experienced dedication, and 53% experienced absorption either always or often (Lyly-Yrjänäinen, 2022). In general, work engagement as a long-lasting mental state was quite stable before and even in the early stages of COVID-19 pandemic (Kaltiainen & Hakanen, 2022; Mäkikangas et al., 2016; Oberländer & Bipp, 2022; Oksa, Kaakinen, Savela, Hakanen, et al., 2021), but a slight decrease in work engagement was also discovered during the pandemic (Oksa, Kaakinen, Savela, Hakanen, et al., 2021; Kaltiainen & Hakanen, 2022; Syrek, Kühnel, Vahle-Hinz, et al., 2021).

Relatively like JD-R, *COR theory*, which was first developed as a stress theory, implies that individuals have an urge to maintain and protect the resources they possess, and potential or actual loss of their valuable resources can induce stress reactions and psychological distress (Hobfoll, 2001; Hobfoll, 2003). In COR theory, resources are not context specific such as they are in JD-R, but rather understood as comprehensive psychological resources such as resilience (Shin et al., 2012; Hu et al., 2017). In situations that present a risk of resource loss, well-being benefits of resources, such as the manifestation of coping skills, gain their ultimate salience; therefore, resource losses play a more important role than resource gains play (Hobfoll et al., 2003).

3.3 Mental and Somatic Burden in the Work Context

The JD-R model initially measured job demands as a source of exhaustion as a dimension of burnout and lack of resources (i.e., disengagement at work; Demerouti et al., 2001). *Job demands* refer to the psychological, physical, organizational, and social elements of work that involve an employee's persistent physical or psychological effort such as time pressure, workload, and noise (Demerouti et al., 2001). In the health impairment process of JD-R, job demands diminish health and well-being, which can lead to exhaustion, burnout, and depression (Bakker et al., 2003; Bakker et al., 2005; Hakanen et al., 2008; Schaufeli & Bakker, 2004a).

Physical risks in the work environment, such as noise, temperature, and repetition, have decreased during the past decades in European Union countries (Eurofound, 2017). Digitalization has somewhat eased the physical load. Physical work demands have remained rather similar during the past two decades, with 13% of respondents fully agreeing their work was physically demanding (Lyly-Yrjänäinen, 2022). Younger and older employees and those who work in the manufacturing industry and for municipalities regard their work as the most physically demanding (Lyly-Yrjänäinen, 2022).

In addition to the physical demands of work, the World Health Organization (2021) reported that mental health problems (e.g., anxiety and depression) have become a worldwide problem, especially with the increase observed during COVID-19. Concurrently, 75% of mental, neurological, and substance use services have been disrupted in 33% of the countries (World Health Organization, 2020). Thus, calls for psychosocial recovery plans and interventions have been expressed (Mooney et al., 2001).

Mental health problems were reported to cause increased sick leaves prior to COVID-19 in both Finland and abroad (Foss et al., 2010; Mauramo et al., 2019; Roelen et al., 2014). Sick leaves have slightly decreased during the pandemic in general (Lyly-Yrjänäinen, 2022; Sutela & Pärnänen, 2021). Moreover, mental health problems have been one of the key reasons for work disability pensions over the years (Ahola et al., 2010; Kivimäki et al., 2007; Mykletun et al., 2006). In Finland during 2020, mental health problems were the main reason for disability pensions, especially for employees younger than 35 (80%), but also alarming rates were exposed for employees aged 35–44 (66%), 45–54 (53%), and 55–59 (41%; Finnish Centre for Pensions, 2021).

Mental health problems can eventually lead to *burnout*, which is a work-stress syndrome caused by high job demands that have reduced an employee's job resources (Maslach et al., 1996). Burnout consists of three dimensions: exhaustion (i.e., reduced mental resources and a sense of chronic fatigue and strain), cynicism (i.e., attitude of cognitive distancing and feeling less interest and meaningfulness in one's work), and reduced professional efficacy (i.e., lowered experience of competence and accomplishment that can lead to decreased professional self-esteem; Hakanen & Schaufeli, 2006; Maslach et al., 1996; Maslach et al., 2001). Burnout is associated with extended sickness-related absenteeism (Schaufeli et al., 2009).

In 2021, the average burnout score for Finns was 2.3 (on a scale from 1 to 5, 5 being highest), hence the burnout rate was not alarming, but it is still very worrying.

Fifteen percent of Finnish workers reported emotional exhaustion from their work, 13% stated they were never or rarely interested or inspired by their work, and 11% stated they are often unable to concentrate on their work. Public sector employees and women experienced burnout the most (Lyly-Yrjänäinen, 2022). Women reported an increased risk of burnout from 69% in 2018 to 76% in 2021 (Sutela et al., 2019). No difference was established between remote workers and those working at their workplace (Sutela et al., 2019).

In addition to job demands and burnout, which are directly work-related concepts, *psychological distress* refers to a more context-free, lowered mental state of well-being (Horwitz, 2007; Mirowsky & Ross, 2002). Psychological distress is conveyed through symptoms (e.g., fatigue, anxiety, depression, and insomnia), and it can involve other functional and behavioral problems (Cuijpers et al., 2009; Drapeau et al., 2011; Kleinman, 1991). Medical and nonmedical employees reported an increase in psychological distress during COVID-19 (Gomez-Salgado et al., 2021; Ruiz-Frutos et al., 2021). Satisfying work, social support, having children, and successfully combining work and family life fosters employees' psychological well-being against psychological distress (Viertiö et al., 2021).

Sixty-four percent of Finnish employees experienced mental strain from work either fully or moderately during 2021 (Lyly-Yrjänäinen, 2022). Employees aged 35–44 regarded their work as the most demanding mentally, with 72% fully agreeing (Lyly-Yrjänäinen, 2022). Employees working in the public sector and professionals with higher education experienced higher mental strain (Lyly-Yrjänäinen, 2022). Men and women regarded work as mentally straining (Lyly-Yrjänäinen, 2022). Regardless of mental and psychical strains at work, employees' work ability has slightly increased during the past years (Lyly-Yrjänäinen, 2022).

In contemporary digital work environments, technostress has also been an increasing challenge (Bondani et al., 2020; Molino et al., 2020; Spagnoli et al., 2020; Tarafdar, Maier, et al., 2020). *Technostress* is defined as stress related to using technology in situations when the demands induced by the technology use exceed an individual's resources, which can result in strain, exhaustion, and burnout (Ayyagari et al., 2011; Cooper et al., 2001; Tarafdar et al., 2019).

3.4 Towards a Synthesis of Social Media Use and Well-Being at Work

Reflecting the fast pace of work life, intensive work and collaboration technologies can have detrimental psychological, behavioral and social consequences for employee well-being from both individual and organizational stances. Because social media is pervasive, the boundaries of work and private life can become blurred. Constant notifications, interruptions, and connectivity might not only disturb concentration, provoke stress, and cause sleep problems, but it can also influence one's identity and social relations more powerfully (Maier et al., 2015; Olmstead et al., 2015; Salo et al., 2019; Tarafdar, Maier, et al., 2020). In addition, cognitive burden, time management issues, and increased workload can become common (Cao & Yu, 2019; Fusi & Feeney, 2018; Maier et al., 2015; Luqman et al., 2020). Hence, organizations should pay attention to the increasing prevalence of psychological distress, technostress, and burnout, which can develop along with work-related and nonwork-related social media use at work (Bondanini et., 2020; Brooks & Califf, 2017; Oksanen et al., 2021; van Zoonen et al., 2017), because these can consequently decrease work performance and productivity (Cao & Yu 2019; Yu et al., 2018; Zhang et al., 2022). In-groups, discrimination, and polarization of attitudes can occur, and severer forms of work-related harassment and bullying in cyberspace have unfortunately become common (Celuch et al., 2022; Oksanen et al., 2020a; Vranjes et al., 2018; Vrontis et al., 2022).

Considering the exceptional COVID-19 circumstances and the changed working conditions, it is obvious that well-being consequences are deviant for employees (Eurofound, 2020a, 2020b; 2021a; Kniffin et al., 2021). The pandemic has posed various threats to employees and their ways of working (Kniffin et al., 2021) as well as for employees' mental well-being such as heightened anxiety, loneliness, stress, and depression (Latikka et al., 2021; Salari et al., 2020; Savolainen et al., 2021; Varga et al., 2021). Intensive technology use and remote work can be hazardous. COVID-19 research has specifically denoted that nonstop online meetings can drain employees and that concentration problems and multitasking have become common, which in turn can lead to fatigue and stress (Fauville et al., 2021; Leonardi, 2020; Oksanen et al., 2021). Microsoft (2021) reported that 42% of MS Teams chats are sent outside of working hours, thus indicating the work spillover to free time. The spillover can lead to negative consequences such as decreased work innovation and reduced well-being, as well as induce conflict between work and family domains (Eurofound, 2020b; Microsoft, 2021; Oksanen et al., 2021; Sun et al., 2021).

Hence, underpinning psychosocial well-being at work has shown its significance particularly during the pandemic. Supporting strategies for organizations, such as effective communication, flexibility and job control, sense of job security, and recognition have been exposed (Malinen et al., 2020). Indeed, vivid social media communication within work communities can enhance resources such as organizational transparency and the sense of togetherness (Ding et al., 2019; Leidner et al., 2018; Luqman et al., 2020). Technology and social media use can facilitate meaningfulness of the work, organizational identification, and social capital (Cai et al., 2018; Fieseler et al., 2015; Fulk & Yuan, 2013; Liu & Bakici, 2019; Oksa, Kaakinen, Savela, Ellonen, et al., 2021). Social media use can enhance working practices, knowledge flow, and innovation (Ali et al., 2020; Eurofound, 2020a; Sun et al., 2020; Waizenegger et al., 2020) as well as foster productivity and performance and organizational outcomes (Chen et al., 2019; Leftheriotis & Giannakos 2014; Pitafi et al., 2018; Nisar et al., 2019; Scutto et al., 2017). Moreover, both work-related social media use and personal social media use at work have been associated with enhanced work engagement in various work contexts (Men et al., 2020; Oksa, Kaakinen, Savela, Ellonen, et al., 2021; Oksa, Kaakinen, Savela, Hakanen, et al., 2021; Syrek et al., 2018; Sun et al., 2022; van Zoonen & Banghart, 2018).

Enhancing proactive and reactive coping mechanisms, such as fostering IT skills, self-efficacy, and autonomy, can support the use of technology and ease the stress from the technology (Pirkkalainen et al., 2019; Pekkala et al., 2022; Tarafdar, Pirkkalainen, et al., 2020). Indeed, sufficient professional social media use experience and skills can assist the flexibility of completing work and balance between private and work lives (Oksanen et al., 2021; van Zoonen et al., 2016). In addition to pure professional use of social media, nonwork-related social media use at work has been found to buffer the boundary conflicts and help to balance the two domains as well as foster social and psychological well-being outcomes (Beigi & Otaye-Edebe, 2021; Kühnel et al., 2020; Mäntymäki & Riemer, 2016; Sun et al., 2020; Syrek, Kühnel, Nägel, et al., 2021). However, individuals need to make a persistent effort to manage the spatial, temporal, and relational boundaries (Ollier-Malaterre et al., 2019). Furthermore, adequate social support from colleagues and especially supervisors received in social media are important resources for employees (Charoensukmongkol, 2014; Leidner et al., 2018; Oksa, Kaakinen, Savela, Ellonen, et al., 2021; Oksa, Kaakinen, Savela, Hakanen, et al., 2021).

4 AIMS AND METHODS

4.1 Research Aims, Questions and Hypotheses

This doctoral dissertation in social psychology examines social media use in a work context (i.e., professional social media use) and aims to gain an understanding of the use in relation to employees' psychosocial well-being implications. The aim is to contribute to the understanding of the relationship with a unifying view by four distinct articles utilizing both qualitative and quantitative organizational and national data and various analysis methods. The focus of the dissertation is on Finnish employees who are working. This dissertation draws on widely used occupational well-being theories and concepts of SDT (Deci & Ryan, 2000), the JD-R model (Demerouti et al., 2001), COR theory (Hobfoll, 2001), work engagement (Schaufeli & Bakker, 2004a), and burnout (Maslach et al., 1996) to answer the research questions (RQs). The present research proposes the following main RQs:

1. How is social media used for professional purposes?
2. How is professional social media use related to psychosocial well-being at work?
3. What are the other key predictors of psychosocial well-being in the context of increased social media use at work?

These general research questions are answered by qualitatively analysing focus group interview data and quantitatively analyzing survey data collected from five professional organizations in Finland as well as national survey data collected among the Finnish workforce. The key occupational well-being theories have been utilized as theoretical lenses to delve deeper to the topical phenomenon in contemporary work life and to understand the related psychosocial well-being implications of social media use at work. A summary of theories used in the studies, RQs and hypotheses are presented in Table 1.

Most of the previous studies have limited their focus on single methods, rather small and cross-sectional data, studying only a single or a few platforms use or solely studying either work-related or nonwork-related social media use (e.g., Sun et al., 2022; Syrek et al., 2018; van Zoonen et al., 2016; Yu et al., 2018). This research contributes to the literature by analyzing the topic with multiple methods with qualitative data and both cross-sectional and longitudinal quantitative data sets using diverse social media use and communication and well-being variables to fill the existing gaps. The aim is to gain a more extensive view of social media use in the work context, the way employees perceive the use, and the way it influences their psychosocial well-being at work. The aim is also to discover other key predictors of psychosocial well-being in the context of increased social media use at work.

4.1.1 Article I: Professional Social Media Use, Job Demands and Resources

Article I aimed to investigate the way social media is used within five professional organizations from distinct occupational fields and how the usage relates to employees' well-being and specifically job demands, job resources, and personal resources. The study drew from the JD-R model (Demerouti et al., 2001) and prior studies on social media use in the work context (e.g., Leonardi et al., 2013; Treem and Leonardi, 2012; van Zoonen et al., 2016; van Zoonen et al., 2017; Yu et al., 2018). The study aimed to answer the following three RQs with qualitative focus group interview data and quantitative survey data.

RQ1. What are the key characteristics of internal and external professional social media usage in professional organizations?

RQ2. For what purposes professional social media is used for in professional organizations?

RQ3. How is professional social media usage associated with job demands and job and personal resources in professional organizations?

4.1.2 Article II: Professional Social Media Use Motivations and Well-Being

Article II aimed to assess the relationship between motivations of social media use at work and well-being at work for millennials and members of former generations in Finland with organizational focus group interview data and organizational and national survey data sets. SDT (Deci & Ryan, 2000) was used as an overarching theoretical framework. Moreover, the study utilized research on different generations (e.g., Becton et al., 2014; Boyd, 2014; Smola et al., 2002; Tapscott, 1998; Wong et al., 2008) as well as well-being and social media use in the work context (e.g., Demircioglu et al., 2019; Kaplan & Haenlein, 2010; Leonardi et al., 2013; Pee & Lee, 2015; Raj et al., 2017; Treem et al., 2015; Yu et al., 2019). Two main RQs were set.

RQ1: How do millennials describe their motivations and social media use methods at work in qualitative professional organization employee interviews?

RQ2: How are various motivations for social media use at work associated with technostress, burnout, and psychological distress in professional organizations and among Finnish employees?

4.1.3 Article III: Professional Social Media Communication and Work Engagement

Article III aimed to examine associations between work engagement and work-related and nonwork-related communication with colleagues and the work community on social media in five professional organizations and among Finnish professionals. Based on research on job demands and resources and work engagement (Demerouti et al., 2001; Schaufeli et al., 2002; Schaufeli & Bakker, 2004a), as well as organizational identification (Mael & Asforth, 1992; Tajfel & Turner, 1985), social support (Baumeister & Leary, 1995; Cohen & Wills, 1985; Kelly et al., 2017), and social media (Charoensukmongkol, 2014; Fieseler et al., 2015; Gandy-Guedes et al., 2016; Syrek et al., 2018; van Zoonen & Banghart, 2018; van Zoonen & Treem, 2019), the following hypotheses were set:

H1a: A direct positive association exists between work-related communication on social media and work engagement.

H1b: A direct positive association exists between nonwork-related communication on social media and work engagement.

H2a: Organizational identification mediates the relationship between work-related social media communication and work engagement.

H2b: Organizational identification mediates the relationship between nonwork-related social media communication and work engagement.

H3a: Social support mediates the relationship between work-related communication and work engagement.

H3b: Social support mediates the relationship between nonwork-related communication and work engagement.

4.1.4 Article IV: Professional Social Media Communication, Work Engagement, and COVID-19

Article IV aimed to discover the association of professional social media communication with work engagement before and during the COVID-19 pandemic and the role of psychological distress, task resources, and perceived social support as predictors and moderators of work engagement. The following three hypotheses were posed based on studies conducted prior to and during COVID-19 on job demands and resources and work engagement (Hakanen et al., 2008; Keyriläinen, 2020; Oshio et al., 2018; Schaufeli et al., 2002; Schaufeli & Bakker, 2004a; Schwarzer & Knoll, 2007; van Wingerden et al., 2018), COR theory (Hobfoll, 2001), and studies on psychological distress (McGinty et al., 2021; Ramaci et al., 2017; Ruiz-Frutos et al., 2021) and social media (Mäntymäki & Riemer, 2016; Nisar et al., 2019; Oksanen et al., 2021; Waizenegger et al., 2020):

H1: Increased social media communication predicts an increase in work engagement.

H2: Increased perceived social support and task resources at work predict an increase in work engagement.

H3: Increased psychological distress predicts decreased work engagement.

H4: The association between work engagement and social media communication (i), social support (ii), and psychological distress (iii) was stronger during rather than before the COVID-19 pandemic.

Table 1. Theories, Research Questions, and Hypotheses in the Articles

Article #	Theory	Research Questions and Hypotheses
Article I	JD-R model	RQ1. What are the key characteristics of internal and external professional social media usage in professional organizations? RQ2. For what purposes professional social media is used for in professional organizations? RQ3. How is professional social media usage associated with job demands and job and personal resources in professional organizations?
Article II	SDT	RQ1: How do millennials describe their motivations and social media use methods at work in qualitative professional organization employee interviews? RQ2: How are different motivations for social media use at work associated with technostress, burnout, and psychological distress in professional organizations and among Finnish employees?
Article III	Work engagement	H1a: A direct positive association exists between work-related communication on social media and work engagement. H1b: A direct positive association exists between nonwork-related communication on social media and work engagement. H2a: Organizational identification mediates the relationship between work-related social media communication and work engagement. H2b: Organizational identification mediates the relationship between nonwork-related social media communication and work engagement. H3a: Social support mediates the relationship between work-related communication and work engagement. H3b: Social support mediates the relationship between nonwork-related communication and work engagement.
Article IV	Work engagement, JD-R model, COR theory	H1: Increased social media communication predicts an increase in work engagement. H2: Increased perceived social support and task resources at work predict an increase in work engagement. H3: Increased psychological distress predicts decreased work engagement. H4: The association between work engagement and social media communication (i), social support (ii), and psychological distress (iii) was stronger during rather than before the COVID-19 pandemic.

4.2 Data

4.2.1 Focus Group Interview Data

Focus group interviews were selected as a data collection method to gain a detailed understanding of knowledge workers' social media use at work and the association with well-being at work. The focus group interviews were conducted in five professional organizations in Helsinki, Finland, during February and March 2018. The companies represented diverse occupational fields (finance, retail, personnel services, telecommunications, and publishing) and were recruited by email and phone calls. Participation in the research was free of charge for the organizations, thus they have received the results of the research complementary. The participants for the focus group interviews were selected and invited by the organizations, and the research aims and right to withdraw were introduced to the participants by the companies' internal contact persons from human resources or their communications departments. Signed informed consent forms were collected from all participants before the interviews.

Focus group interviews consisted of two groups of four to six participants from each company, altogether 52 interviewees. The number of participants varied because of no-shows, which is normal (Bloor et al., 2009). Because focus group interviews are facilitated group discussions that aim to collect mutual experiences and opinions on a defined research topic, the group size can be rather small, but the data collection method is still effective (Morgan, 1998). The focus group interviews entailed 14 open-ended questions regarding social media use at work and questions related to well-being at work mapping out both positive and negative elements. The interviews averaged around 46 minutes. The focus group interviews were targeted to the millennial employees as the expectation was that they are active users of social media and they would have a good understanding of how social media is used in their organization. Because the aim was to interview millennials, the interviewees were from 25 to 38 years old with a mean age of 32. The interviewees, knowledge workers, worked as experts in their fields (i.e., qualified professionals or supervisors). All focus group interviews were recorded. The focus group interview data were used in **Articles I and II**.

4.2.2 The Social Media at Work in Professional Organizations Survey

The Social Media at Work in Professional Organizations Survey was distributed to employees of five professional organizations in Finland during November and December 2018. The companies represented distinct occupational fields: finance, telecommunications, personnel services, publishing, and retail. The companies were also the same ones used for the focus group interviews. The companies were chosen based on their active participation in public Finnish social media. The company sizes ranged from 2,000 to 10,000 employees. The survey was targeted to all employees in the organizations. The final participants ($N = 563$) were from 21 to 67 years ($M = 40.7$, $SD = 10.9$); 67.7% were female, 31.6% were male, and 0.7% were other. The response rate varied from 3.2% to 34.2% ($M = 17.7$, $SD = 11.9$).

The research group designed the survey to investigate social media use in the work context and the related well-being factors. The survey was run using the LimeSurvey program and was administered by the research group in the university server. Participants responded to the survey on their mobile phones or computers. The Social Media at Work in Professional Organizations Survey data were used in **Articles I, II and III**.

4.2.3 The Social Media at Work in Finland Survey

The Social Media at Work in Finland Survey, identical to the Social Media at Work in Professional Organizations Survey, was conducted among the general Finnish workforce, consisting of working-age, white- and blue-collar employees in different career levels from various occupational fields, thus being nationally representative. The survey was collected in the research project Social Media at Work (WorkSome), which is part of the Emerging Technologies Lab at Tampere University led by Professor of Social Psychology Atte Oksanen. The data collection began in spring 2019, and data have been collected every 6 months since then. The data were collected in collaboration with Norstat, and the participants were recruited from their panel.

In **Articles II and III**, the first wave cross-sectional data set was used. The participants completed the survey during March and April 2019 ($N = 1,817$, 46.84% female, $M_{age} = 41.75$, $SD_{age} = 12.19$). The response rate was 28.3%. Minor biases regarding age and gender were corrected with sampling weight.

In **Article IV**, four-point data from the survey was utilized. The first survey (T1) was collected between March and April 2019 ($N = 1,817$). The second survey round

(T2) was collected between September and October 2019 ($n = 1,318$) by contacting the survey participants of first round. The third wave (T3) was collected between March and April 2020 ($n = 1,081$), and the survey was only distributed to those who responded to the second survey. The fourth wave of the survey was collected between September and October 2020 ($n = 1,152$), and it was distributed to all original respondents from the first round. The final sample ($n = 965$, 45.08% female, *Mean* 44.97, *SD* 11.36) consisted of respondents who replied to all four waves of the survey and completed the whole survey. The response rate was 53.11%. The analyses concentrated on working-aged respondents, who were working at the time of the data collection ($n = 868$). Nonresponse analyses were completed, and no major bias was found. The sample was also aligned with official census figures of the Finnish working population. The sample covered all prominent areas of Finland and comprised all major occupational fields (Oksanen et al., 2021).

4.3 Analysis Methods

4.3.1 Content Analysis

In **Articles I and II**, focus group interview data were analyzed with theory-driven content analysis, which is replicable, and it enables deep exploration of the interview data and helps to identify context-specific connotations (Krippendorff, 2004). The analysis obeyed the six stages (unitization, sampling, coding, reducing the data, making abductive conclusions, and reporting the data) to answer to the posed RQs (Krippendorff, 2004). In **Article I**, the theoretical framework and coding of the interview transcripts were based on the JD-R model (Demerouti et al., 2001; Schaufeli & Bakker, 2004a). Analysis of **Article II** was based on SDT (Deci & Ryan, 2000; Ryan & Deci, 2000a, 2000b; Ryan & Deci, 2017). Two researchers conducted the analyses. Coding was cross-checked to ensure the reliability. Differences in coding were considered and discussed until understanding was finally gained. Direct interview quotations were included in articles to prove the credibility of the reasoning.

4.3.2 Main Variables and Statistical Techniques

In **Article I**, descriptive methods were used in addition to content analysis to investigate the main characteristics from the survey data such as frequencies and percentages of daily social media platform use and the purposes of professional social media usage. Professional social media platform use frequency was measured with the question, “How often do you use the following social media services for work purposes?” The answer options included *I don’t use them, less than weekly, weekly, daily, and many times a day*, and the answer options were given numerical values of 0–4, respectively. The respondents were given a list of 21 internal and external social media platforms. To track the active users who responded “daily” and “many times a day,” answer options were summed to describe the daily usage of the platforms. Purposes of professional social media use were measured with the question, “For which purposes do you use social media at work?” The multiple-choice answer options included statements such as *content following* and *information seeking for work-related issues*. Finally, experiences of usefulness, strain, and work–leisure conflict related to social media use were measured with the questions, “At the moment, do you experience conflict in social media use between work and leisure time?” “At the moment, do you experience the social media you use at work as straining?” and “How useful is your experience of social media at work?” by rating their experiences from 1 (*not at all*) to 7 (*considerably*).

In **Article II**, the main interest was to examine motivations for social media use at work, which was measured with the same question and answer options used in Article I: “For what purposes do you use social media at work?” The main motivations were matched with the results from qualitative analysis to five categories as dummy variables: information seeking, communication (communication with the work community), content production, content sharing, and networking. In addition, work-related and nonwork-related social media communication frequencies were measured with the questions, “How often do you use social media to keep in touch with your colleagues or work community regarding work-related matters (e.g., sharing information or agreeing on timetables)?” and “How often do you use social media to keep in touch with your colleagues or work community regarding nonwork-related matters?” The answer options included 0 = *I don’t use it*, 1 = *less than weekly*, 2 = *weekly*, 3 = *daily*, and 4 = *many times a day*.

Linear regression analysis was conducted to examine the social media use motivation associated with technostress, burnout, and psychological distress. Information seeking, communication with work community, information sharing,

networking, and content production were used as independent variables to describe the main use motivations for each model. For the models, we controlled remote work, weekly working hours, education attainment, living arrangements, age, gender, and the total amount of social media platforms used daily. All models were run separately for millennials and employees of former generations. No issues with multicollinearity were identified. Robust (Huber-White) standard errors were reported due to the heteroscedasticity of residuals. Furthermore, unstandardized regression coefficients, standard errors, statistical significance of the estimates (p value), and coefficients of determination (r^2) were reported for each model as well as the sampling weights.

Article III measured direct associations of work-related and nonwork-related social media communication with colleagues and work community and work engagement. Moreover, indirect relations of nonwork-related social media communication and work engagement through organizational identification and social support were examined. Work engagement was measured with the Utrecht Work Engagement Scale, consisting of vigor, dedication, and absorption dimensions (Schaufeli & Bakker, 2004b). The 9-item Finnish version was used for this study (Hakanen, 2009) and included statements such as, “At my work, I feel that I am bursting with energy.” The response options included *never*, *a few times a year*, *once a month or less*, *a few times a month*, *once a week*, *a few times a week*, and *every day*, with respective numerical values of 0 to 6. Work-related and nonwork-related social media communication was measured the same way as in Article II.

The analysis was conducted with descriptive methods and with structural equation modeling. Mean and SD scores were counted as continuous variables and frequencies (f) were counted for categorical variables. Moreover, correlations were calculated between the variables. Sampling weight was used to estimate univariate measures of the national sample. Structural equation modeling was used to test our hypothesized model. Lavaan package in the R statistical computing system was utilized in testing the model (Rosseel, 2012). In addition to direct and indirect paths, residual correlations between organizational identification and social support were included. Social media use for work purposes, gender, and age were also included in all regression paths. To test statistical and robust standard errors to adjust for multivariate nonnormality for the samples, a Yuan–Bentler scale was utilized (Rosseel, 2012). The errors were estimated within company clusters due to nested structure of Sample 1. Gender and age were controlled in the models, thus sampling weights were not used. Model fit was estimated and reported with the χ^2 statistic (Hu & Bentler, 1999), with degrees of freedom and a significance test with other

broadly used fit statistics of the root mean square error of approximation (RMSEA), the comparative fit index (CFI), and the standardized root mean squared residual (SRMR). Cutoff criteria of .06 for RMSEA, .95 for CFI, and .08 for SRMR were used (Hu & Bentler, 1999).

Article IV investigated the ways work-related and nonwork-related social media communication were associated with work engagement before and during the COVID-19 pandemic as well as the role of perceived task resources, social support, and psychological distress in moderating and predicting work engagement. Work engagement was measured in a similar way as in Article III. For descriptive statistics, mean and *SD* scores for the continuous variables as well as proportions and frequencies for the categorical variables were reported. In addition, for the within-person-level variables, we counted *SD* values between measurements and calculated correlations for the study variables measured at different time points. Using a hybrid multilevel linear regression model (Schunck & Perales, 2017), we assessed whether the within-person variation in social media communication, perceived social support, task resources, and psychological distress predicted changes in work engagement. Within-person effects demonstrate that time-variant changes in independent variables are associated with the change in the time-variant dependent variables (i.e., work engagement). Between-person effects involve a greater number of static differences between individuals compared to dynamic, timely fluctuation of within-person effects.

The analysis was done in two steps. All within-person and between-person main effects and a random intercept were contained in Model 1. The within- and between person effects were estimated for work-related and nonwork-related social media communication, task resources, perceived social support, and psychological distress. Within-person effects were estimated for time, which was included as binary variables (T2–T4), and T1 was used as a reference category. Between-person variables age, gender, and education at T1 were added to the model. Hypothesized moderation effects were tested by adding the within-person interaction terms of work-related and nonwork-related social media communication, task resources, perceived social support, and psychological distress at T4 in the model. The significant interaction terms (95% confidence interval [CI]), unstandardized regression coefficients (B), their estimated SE values, significance (*p* value), the variance of random intercept, and a log pseudolikelihood were reported. For all the significant predictors, effect size estimates were reported as Cohen *f*² coefficients (Selya et al., 2017). Table 2 reports the data, methods, dependent variables, independent variables, and background variables of each of the four articles.

Table 2. Summary of Data, Methods, and Key Variables of Each Article

	Article I	Article II	Article III	Article IV
Data	Focus group interview data (<i>N</i> = 52) and organizational survey data (<i>N</i> = 563)	Focus group interview data (<i>N</i> = 52), organizational survey data (<i>N</i> = 563), and national survey data (<i>N</i> = 1,817)	Organizational survey data (<i>N</i> = 563) and national survey data (<i>N</i> = 1,817)	National longitudinal four- point survey data (<i>n</i> = 965 of the original sample of <i>N</i> = 1,817)
Methods	Content analysis and descriptive analysis	Content analysis and linear regression analysis	Structural equation modeling	Hybrid multilevel linear and regression analysis
Dependent variables	Professional social media use, purposes of professional social media use, experiences of usefulness, strain, and work–leisure conflict related to social media use, and focus group interviewees	Technostress, burnout, psychological distress, and focus group interviewees	Work engagement, organizational identification and social support, work-related and nonwork-related social media communication	Work engagement
Independent variables	Professional social media use activity (heavy use) and occupational field	Social media use motivations and social media use frequency (platforms)	Organizational identification, social support, and social media platforms and work-related and nonwork-related social media communication	Work-related and nonwork-related social media communication, perceived social support, task resources, and psychological distress
Background variables	Age, gender, and organizational membership	Social media use, remote work, weekly working hours, education attainment, living arrangements, age, and gender	Age and gender	Age, gender, and education attainment

4.4 Ethical Considerations

The aim of this dissertation was to examine social media use at work, which poses an ethical consideration that is different compared to collecting data from social media (Moreno et al., 2013). In the context of this dissertation, interest was also on employees' perceptions of their well-being; hence, as when studying similar sensitive topics (Decker et al., 2011), the Finnish National Board on Research Integrity research ethics guidelines, the American Psychological Association's Ethical Principles and Code of Conduct, and the EU General Data Protection Regulation were carefully followed.

First, the Academic Ethics Committee of the Tampere region declared that the research does not involve ethical problems and granted approval for the research (90/2018). Second, in both the focus group interviews and the survey collections, the aims of the study were stated to the participants, and they were advised about the voluntary nature of the research and that they had the right to withdraw from the study at any point during data collection. Contact information was also provided in case further questions arose. Informed consent was collected in the beginning of the survey. Signed informed consent forms were also collected from all participants prior to the focus group interviews. Third, the research group paid careful attention to handling interview responses and expertly organized survey data to prevent disclosing identifiable information and safeguard participants' privacy and anonymity. The national surveys were administered by research service provider Norstat, and they provided the research group only anonymous data. The official research data protection guidelines were adhered to during the data storage.

5 OVERVIEW OF THE FINDINGS

5.1 Job Demands and Resources of Social Media Use at Work

In **Article I**, mixed-method approach with focus group interviews ($N = 52$) and survey data ($N = 563$) were utilized to examine social media use at work and the related job demands as well as job and personal resources in five mixed-sized professional organizations from distinct occupational fields: finance, telecommunications, publishing, personnel services, and retail. Moreover, we analyzed the frequencies of various social media platform use, the purposes for which they were used, and the way their usefulness, strain, and conflict with leisure time were perceived.

According to the survey results, professional organizations use social media platforms daily considering the variation of use between different industries. The use was most active in internal social media platforms compared to external platforms. Following and sharing content as well as communicating with colleagues and staying in touch with one's work community and networking were the top reasons for professional social media usage. Overall, professional social media usage was not considered that useful, straining, or conflicting with work and leisure time, but heavy users experienced it as more useful, straining, and conflicting compared to the mean scores of light users.

Focus interview data revealed specific job demands that were physiological symptoms, various fears, social pressure, and unclear organizational social media rules. Four main job resources related to professional social media use were also identified: organizational encouragement and support, social networks, easy and quick access to information, and the autonomy of the usage. Moreover, professional identity development was identified as personal resource. Interviewees highlighted the importance of social media as a communication and project management tool and for following and acquiring information on work-related discussions and developments to enhance their expertise.

Although internal social media platforms were frequently used, professional social media was not utilized to its full potential in the examined professional organizations. Professional social media usage involves both challenges and

opportunities in terms of organizational practices and occupational well-being, but the usage was perceived more as a job resource than a job demand.

5.2 Social Media Use Motivations and Well-Being

In **Article II**, a mixed method was utilized to gather knowledge on the motivations for work-related social media use and associated well-being implications among millennials and former generations from five professional organizations and from the Finnish workforce in general.

Millennials' social media use motivations were furnished from focus groups interviews ($N = 52$) and revealed their use is driven by intrinsic motivations of employees' subjective choice and interest in networking, following, contributing to, and enhancing their professional field. From an extrinsic motivation point of view, they perceived social media as an integral part of one's work and work role to organize and conduct daily work and communication, but also to enhance one's and one's organization's visibility and brand in social media. Social media use was pressured by organization, industry, or stakeholder demands; thus, the use was not purely based on free will. Finally, we mapped the social media use motivations into five archetypes contributing to psychological needs of autonomy, competence, and relatedness: information seekers (autonomy and competence), communicators (relatedness), content sharers (autonomy), content producers (competence), and networkers (relatedness).

Overall, social media is used dynamically for business purposes in Finland. Millennial employees in professional organizations were especially active users, but also the Finnish workforce in general and former generations followed their way with no statistically significant difference in the usage. The results imply that millennials experience more negative well-being implications related to social media use compared to former generations. In general, millennial employees experienced higher psychological distress among the Finnish workforce and higher burnout and technostress in both samples.

The archetypes of social media identified from focus group interviews were used as a basis for examining social media use motivations with survey data collected from professional organizations ($N = 563$) and a sample of the Finnish workforce ($N = 1,817$). Burnout, and technostress was lower among millennials who produced social media content in professional organizations. However, millennial women experienced more technostress than men. Technostress was also associated with

millennials using social media daily. Higher burnout was experienced by millennials living alone. Among former generations, information seekers experienced lower burnout. However, those former generation employees that used social media daily reported higher psychological distress. The younger of former generations, females, and those working less than 35 hours per week reported higher technostress.

In the national sample, content production and networking were connected to higher technostress and information seeking with lower technostress among millennials. Communication with their work community decreased burnout and psychological distress among millennials, which is an important finding. However, former generations reported higher technostress when communicating with the work community, seeking information, and sharing content. The youngest among the former generations reported higher technostress and burnout. Women experienced higher psychological distress than men. Remote workers also experienced higher technostress among both millennials and former generations. Altogether as the seen from the results, the link between social media use motivations and well-being is multidimensional.

5.3 Social Media Communication at Work and Work Engagement

Article III investigated work- and nonwork-related social media communication with colleagues and the work community among Finnish working-aged employees ($N = 1,817$) and employees of five professional organizations ($N = 563$) and examined the associations among work engagement, social support, and organizational identification. Among professional organizations, a strong, significant association exists between social media communication with colleagues for work purposes and frequency of using Skype, MS Teams, Facebook, WhatsApp, and LinkedIn. Among the Finnish workforce sample, WhatsApp, Facebook, Facebook Messenger, and Instagram were most frequently used for communication with colleagues. For nonwork-related communication, WhatsApp, Facebook, and Facebook Messenger were most frequently used platforms in both samples, in addition to MS Teams in the professional organization sample.

In the Finnish employee sample, work-related social media communication was directly associated with work engagement. Surprisingly, work-related social media communication was not associated with organizational identification or social support in professional organizations, but the association was identified among the Finnish workforce sample. A significant positive relationship between nonwork-

related social media communication with colleagues and social support and organizational identification was established in both samples. Among the Finnish workforce and in professional organizations, the frequency of social media use was positively associated with organizational identification, but negatively associated with social support in the professional organizations. Social support and organizational identification were significantly associated with work engagement in both samples.

Variation occurred in the relationship between the types of social media communication and work engagement in the samples. Work-related social media communication was directly associated with work engagement among the Finnish workforce. The association between nonwork-related social media communication and work engagement was mediated by organizational identification and social support in both samples, highlighting the importance on nonwork-related communication in boosting resources and work engagement consequently.

5.4 Social Media Communication at Work, Work Engagement, and COVID-19

Article IV delved deeper into the longitudinal associations of professionals' social media communication, perceived social support, task resources, and psychological distress with work engagement among the Finnish workforce before and during the COVID-19 pandemic. Considering the provoking effect of COVID-19 on people's work and lives, the main result was that work engagement did not change during T1–T3 (i.e., from spring 2019 to spring 2020), but only decreased at T4 in autumn 2020. The within-person results showed that more intensive work-related social media communication, task resources, and perceived social support were related to higher work engagement.

Regarding between-person results, we found a positive relationship between nonwork-related social media communication, social support, and task resources and the average level of work engagement. Moreover, psychological distress was related to lower work engagement. Older respondents and females experienced higher work engagement on average. In the moderation model, interaction effect between T4 and psychological distress was associated with work engagement pointing that during autumn 2020, the negative relationship between within-person differences in work engagement and psychological distress was stronger. The relationship between social media use, perceived social support, task resources and work engagement was not stronger during COVID-19 compared to prior pandemic.

6 DISCUSSION

The aim of this doctoral dissertation was to investigate professional social media use in the work context and provide a social psychological perspective on the way using social media at work relates to employees' psychosocial well-being. This was accomplished with four distinct studies that produced article by article an integrative overview of the phenomenon and the significant relationship of the two and provided answers to the general RQs posed for this dissertation.

1. Active Social Media Use at Work in Finland

Employees in Finland actively use social media, especially in the studied five professional organizations and among millennial employees. The professional organizations use social media more vividly and perceive the use as more beneficial than Finnish workforce in general. Employees in telecommunications and finance industries are especially active professionals using social media. Social media communication occurs more often on organizations' internal social media platforms, especially in professional organizations. External platforms are more used among the Finnish workforce. Employees' intrinsic use motivations, including their subjective choice and interest to follow and contribute content, use it for professional development purposes and to network, drive their social media use. Extrinsic use motivations derive from various organizational cultures and work roles. Employees also regard using social media for work as an integral part of the work role and they experience social pressure by the organization or stakeholders to be active in social media, which induces the extrinsic motivation to use social media. Employees predominantly use internal social media platforms as a communication channel for discussions among colleagues or work communities and as a project management tool to organize and distribute work tasks. In addition, employees are keen to share content and follow work, customer, and competitor content. Among the Finnish workforce and in professional organizations, employees use both internal and external platforms for work-related and nonwork-related communication.

2. Professional Social Media Use Associates with Psychosocial Well-Being at Work

Social media use at work has associations with various psychosocial well-being implications. The use is not considered highly useful, straining or in conflict with private life, but very active social media users (i.e., heavy users), perceive its the use as more straining and conflicting. They also perceive it more useful than those who use social media less. The intensified use deriving from the employers or employees themselves can stimulate both negative and positive implications.

From a positive stance, employees specify several well-being enhancing job resources related to social media use at work. Easy access and distribution of information is the most important job resource related to their social media use at work. They perceive autonomy and the possibilities for self-regulation –that is, to choose when, where, and for what purposes they use social media very positively. Employees consider the role of organizational encouragement such as leadership examples and social support, and interaction with internal and external social networks as vital job resources. The importance of social media as a tool to enhance employees' professional identity and knowledge is regarded as a social-media-related personal resource. Rapidity of social media is also seen very beneficial.

The results further highlight the mediating role of social support and organizational identification in the relationship between work engagement and both work-related and nonwork-related social media communication with colleagues and work community. Among the Finnish workforce, direct association between work-related social media communication with colleagues and work community and higher work engagement was identified. Furthermore, in the longitudinal within-person analysis, more intensive work-related social media communication with one's colleagues and work community were associated with increased work engagement. In addition, between-person differences in nonwork-related social media communication were associated with work engagement.

Positive results were also observed regarding well-being and social media use motivations. Information seeking was associated with lower technostress (Finnish millennials) and lower burnout (former generations in professional organizations). In addition, content producers reported lower technostress and burnout (millennials in professional organizations). Communication with one's work community was associated with lower burnout and psychological distress (Finnish millennials). Thus, regarding employees' psychological needs, professional social media use supports their autonomy, competence, and relatedness.

On the negative side, professional social media use can stimulate various fears such as fear of losing face and being humiliated as well as the more common fear of missing out (e.g., possibilities). Many employees experience social pressure to be active in social media and feeling of guilt if not (e.g., due to lack of time). Social media guidelines in handling difficult discussions in social media are needed. In addition, physiological symptoms such as sleeping problems are regarded as consequences of social media related job demands. Employees also consider time management issues as social media related strain.

Higher technostress was reported by those who used social media for content production and networking (Finnish millennials), content sharing, information seeking, and communication with work community (Finnish former generations). Consequently, the results indicate that all professional social media use motivations are also related to employees thwarted psychological needs of autonomy, competence and relatedness noting the generational and occupational differences. Interestingly, no negative well-being associations were found regarding social media use motivations among the professional organizations, which might indicate that employees are skilled social media users and can regulate the use adequately. Figure 1 summarizes the key psychosocial well-being aspects of social media use at work.

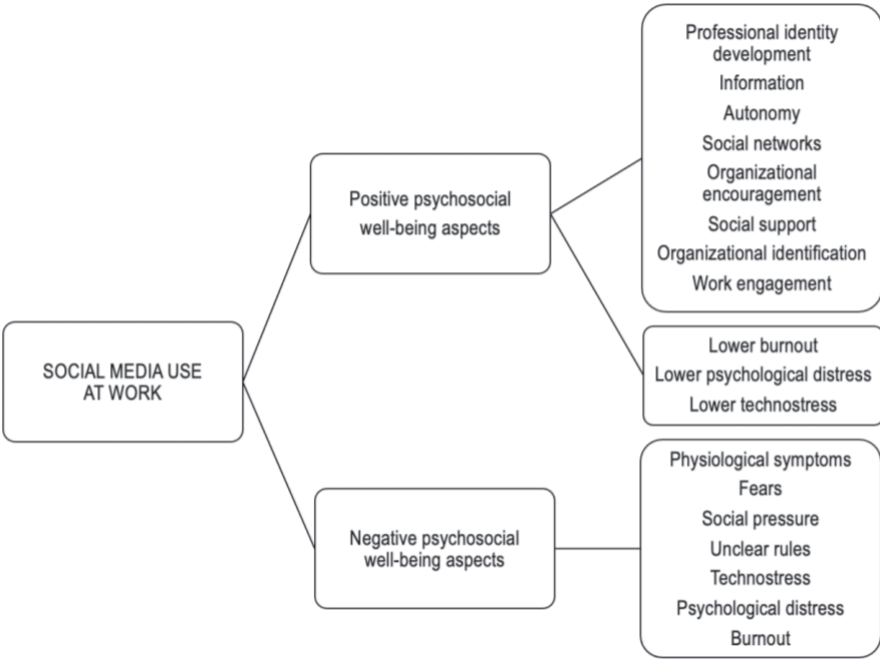


Figure 1. Positive and negative psychosocial well-being aspects of social media use at work.

3. Key Predictors of Psychosocial Well-Being in the Context of Increased Social Media Use at Work

Various generational, occupational, situational, and sociodemographic factors were found to be predictors of psychosocial well-being in the context of increased social media use at work before and during the COVID-19 pandemic. Millennials are more active social media users than former generation employees are, but they also experience the use as more of a burden. Millennials experienced higher technostress and burnout both in the professional organizations and among the Finnish workforce and higher psychological distress among the Finnish workforce. Regarding professional organizations results, millennial women reported more technostress compared to millennial men. Daily social media use was associated with higher psychological distress among former generations in the professional organizations and higher technostress among millennials in both samples. Professional organizations' employees living alone reported higher burnout. Remote working millennials experienced higher technostress in both samples.

Younger employees, women and those working less than 35 hours a week of former generations reported higher technostress in the professional organizations. Also, younger employees of former generations in the national sample reported higher technostress and burnout. Women reported higher psychological distress. Former generations working remotely experienced higher technostress in the national sample.

Besides social media communication at work, social support and organizational identification were associated with increased work engagement in professional organizations as well as among the Finnish workforce. Moreover, in the national sample women experienced higher social support, organizational identification and work engagement and older employees reported higher organizational identification and work engagement.

The findings provide firsthand knowledge on occupational well-being in the COVID-19 era, during which remote work and social media use for work purposes exploded. In the longitudinal analysis, increased social support and task resources were associated with enhanced work engagement. In the beginning of the pandemic work engagement was quite stable, however, decreased during autumn 2020, when COVID-19 was prolonged, and most knowledge workers were still working remotely. The decrease was stronger among those who experienced increased psychological distress. Moreover, women and older employees experienced higher work engagement on average.

6.1 Theoretical and Practical Implications

This doctoral dissertation has built a comprehensive view of social media use at work and established that it has a dynamic and noteworthy relationship with psychosocial well-being at work. The results are based on organizational and nationally representative data, which have not been examined this extensively in prior research and highlight the dual psychosocial well-being implications of social media use at work. Although research evidence regarding social media and well-being is growing (see, e.g., the review by van Zoonen et al., 2022), studies on the topic thus far have mostly been limited by their narrower scope and methods, and specific organizational or cross-sectional data. As in the recent professional social media literature (Cao et al., 2019; Kodama, 2020; Leonardi, 2020; Nisar et al., 2019; Oksanen et al., 2021; Yu et al., 2018), the findings enforce the prevalence of social media use for work purposes and indicate that social media is used frequently, especially in professional organizations, but also overall among the Finnish workforce.

The findings of this dissertation provide in-depth theoretical knowledge from qualitative and quantitative bases of job demands and job resources and personal resources related to social media use at work, which have not been investigated to this degree previously. Most of the prior research (e.g., Chen & Wei, 2019; Ding et al., 2019; van Zoonen et al. 2017; Yu et al., 2018) has focused on limited job demands or job resources in relation to social media use at work. The current findings highlight that professional social media use can act as a resource-boosting or draining medium which influences employees' psychosocial well-being in the work context. Notably, the combination of challenging job demands with rich job resources fosters utmost work engagement (Bakker & Demerouti, 2017).

The findings of this dissertation research advance the work engagement literature in the context of professional social media use. The results underline the motivational power of job resources like social support, and organizational identification, as they function as mediators of work-related and nonwork-related social media communication and work engagement. In other words, boosting social support and organizational identification at workplaces can advance social media communication, and working as precondition, it can subsequently enhance work engagement. Work-related social media communication was also found to be directly associated with work engagement highlighting the importance of online work communication in keeping employees motivated and engaged. In the longitudinal

analysis, we found both within-person and between-person level associations between social media communication and work engagement.

The results pinpoint the essence of the social and the psychological dimensions of the relationship of and emphasize the importance and practical value of nonwork-related social media communication in fostering social support, organizational identification, and work engagement, in addition to work-related communication. Nonwork-related social media communication is vital from not only psychological and social perspectives (e.g., getting to know colleagues better, social support, togetherness), but from a work practices point of view as well. Prohibiting nonwork-related activities has been associated, for example, with impaired knowledge sharing in the workplace (Huang et al., 2015; Liu & Bakici, 2019). Indeed, nonwork-related communication is associated with enriched collaboration and communication practices and possibilities to manage boundaries between work and non-work domains (Beigi & Otaye-Edebe, 2021; Mäntymäki & Riemer, 2016; Nisar et al, 2019). Afterall, it is fundamental that work is not too much invading private life.

Novel findings are demonstrated by the associations social media use at work has with job demands such as knowledge workers' various social-media-related fears. Employers should take these into a close consideration. Providing adequate emotional support and coaching on self-efficacy, coping and time management skills in addition to social media training are needed. Combating social media related fears is crucial but at the same time it can be challenging, especially in those work roles where social media use is highly encouraged or even required. Remarkably, the role of leadership examples in social media use is fascinating, as employees regard it as a job resource that encourages them to use social media. Based on this finding, it is therefore recommended employers, leaders, and managers to apply leadership examples in social media use in practice. On the other hand, social pressure for online presence can be burdening for employees. Constant online presence cannot be required, and social media cannot be the only channel for communication. Thus, finding a balance is of a key importance.

European Commission (2020) Digital Services Act has been proposed to renew the legislation regarding digital services and pinpointing the responsibility of the largest online platforms towards acting upon and dealing with illegal online content and ensuring more sustainable online environment for users. In addition, although employers have been taking actions towards social media governance; transparency and successful implementation are needed (Fuduric & Mandelli, 2014; Opgenhaffen & Claves, 2017; Parker et al., 2019). Accordingly, the findings emphasize the necessity for clear social media policies and guidelines and communication of those,

which could help employees to better navigate in, and especially deal with difficult situations encountered in social media. Employers should consider psychosocial risk management (i.e., identification, assessment, translation, interventions, and evaluation; Leka & Cox, 2010) related to online sphere to strategically minimize the psychosocial burden of social media use in addition to tackling overall psychosocial risk factors at work. From employers and especially Human Resource Management and Occupational Health and Safety standpoints, it is vital to manage digital surveillance but ensure digital privacy for employees; safeguarding interaction and discussions in social media for employees to freely express themselves and simultaneously considering they might be directly representing the employer. Prior research has also shown that more strategic management of work-related social media communication activities are needed to enable and motivate employees (Pekkala, 2020), which is especially vital going forward in the current turbulent work life.

The results also contribute to the currently limited research on social media use motivations by applying SDT in professional social media use context (Batenburg, 2017; Demircioglu, 2018; Demircioglu & Chen, 2019). Based on the results, the relationship between well-being and professional social media use motivations of information seeking, communication, content sharing, content producing, and networking—deriving both from intrinsic and extrinsic motivational bases—is influenced by generational and occupational differences. The results deviate to some extent from the literature on use motivations. Information seeking has not been found to be a major use motivation (Liu & Bakici, 2019; Wang & Kobsa, 2009), although support for the results exist (Beck et al., 2014; DiMicco et al., 2008; Keyriläinen, 2021). Nevertheless, the results indicate that information seeking was associated with lower burnout and both lower and higher technostress. Hence, encouraging employees to seek information online can have positive well-being outcomes, but can also be mentally draining or overloading which is also important to consider for example when organizing work tasks. From a work productivity perspective, active social media use has been positively related to subjective well-being, compared to more passive use that is often negatively related to well-being (Verduyn et al., 2017). The current findings revealed that heavy social media users regarded as the use particularly useful. However, daily social media use was associated with higher technostress and psychological distress.

The results imply that content sharing and networking are associated with higher technostress, which is interesting but also understandable considering the mental and social stimulus that online content and interaction can induce. Networking and

content sharing, however, have been stated as among the top use motivations in the literature (Beck et al., 2014; Keyriläinen, 2021; Liu & Bakici, 2019). Overall, the social media use motivations were linked to both enhanced and thwarted psychological needs of autonomy, competence, and relatedness. Moreover, job resources have been found to fulfill psychological needs (Van den Broeck et al., 2016). Accordingly, the results call for attention to ensure and nurture employees' autonomy to control their work and social media use as well as provide opportunities for professional development and using skills, enhance togetherness, social support, and networking in social media as those are regarded as well-being enhancing job resources.

Beyond the social media use at work, the results highlight various other key predictors related to employees' psychosocial well-being during the time of increased social media use. As the results imply, there was an increase in social media use already before the pandemic. Although millennials have the skills and are active in social media, they also regard the use more draining. The results call for actions in workplaces as younger employees have been associated with deteriorated mental well-being and the admitted disability pensions in Finland are highest for employees younger than 35 years (Finnish Centre for Pensions, 2021). Employees in professional organizations and older employees in general seem to be better off in terms of well-being. The current findings support the prior research that underline older employees and women reporting higher work engagement in Finland and Europe (Hakanen, 2009; Hakanen et al., 2019). However, women also reported more negative social media related well-being consequences. In addition, former generations experienced daily social media use, content sharing, information seeking and communication demanding. Hence, the results are multidimensional.

Work engagement remained rather stable in the beginning of the pandemic, thus deviating from prior research on major disasters' negative well-being consequences (Freedly et al., 1994; Hobfoll, 2001), but decreased in autumn 2020. The current results highlight that although work-related social media communication and adequate resources can have positive outcomes like increased work engagement, prolonged crisis such as COVID-19 and changed work conditions consequently can influence employees' well-being negatively. As already seen from the current results of prior to COVID-19, remote work has been associated with higher technostress. Furthermore, higher educated remote workers have reported higher burnout during the pandemic (Kaltiainen & Hakanen, 2022). Consequently, it is fundamental for employees to be able to manage their working conditions, experience meaningfulness in their work, utilize their skills, have social support and influence

over their work. It is of equal importance that employers' support their employees' overall mental well-being.

Increased use of social media at work has been a significant social psychological change in contemporary work life, and this doctoral dissertation contributes to unveiling the transformation from a psychosocial well-being perspective. Additional social psychological studies on the topic are needed. Overall, robust evidence is presented on professional social media use and the psychosocial well-being relationship with extensive qualitative, cross-sectional, longitudinal, organizational, and nationally representative data sets that were collected before and during the COVID-19 pandemic. The multidisciplinary findings contribute to various research fields such as occupational psychology, social science, information and communication technology, and management. Considering the increased use of social media at work, the rapid changes in work life during recent years and the influence of the prolonged COVID-19 pandemic, the findings of this doctoral dissertation are very timely. The findings provide essential knowledge regarding the relationship between social media use at work and psychosocial well-being for building enhanced organizational practices for the new normal going forward.

6.2 Limitations

This doctoral dissertation is subject to certain limitations. In **Article I** and **Article II**, the focus group participants were millennial young adults from five distinct occupational fields. Considering that millennials are active social media users, they were also a relevant source for data. Future studies could extend the interview scope to cover employees of different ages and occupational fields more extensively to gain comparable data. The focus group sizes averaged five participants, which is an acceptable number of interviewees (Bloor et al., 2009; Morgan, 1998), but wider perceptions could have been gathered with bigger groups. To ensure the reliability of the results and avoid any mixed perceptions, two researchers coded and analyzed the data. Possible disagreements were discussed. The focus group interview data was collected in Finland during 2018, therefore limitations of the timing and geographical location of data collection need to be acknowledged.

Survey data used in **Articles II, III, and IV** were self-reported information. Data sets used in **Articles II and III** were also cross-sectional and lacked investigation of causal mechanisms of professional social media use motivations relative to well-being at work as well as work-related and nonwork-related communication in

relation to work engagement. Longitudinal analysis of these relations would provide information about these dynamics more thorough. Regardless of the limitations mentioned above, the inter-item reliability measured with the Chronbach's alpha coefficients of **Articles II** and **III** remained good to excellent. Moreover, although using longitudinal data, **Article IV** was also observational by nature; therefore, direct interpretations of causal relationships should not be made. The effect sizes for some of the study variables were low. Nevertheless, the main results were robust. The survey collections were limited to Finland; hence, cross-national examination on the topic was not possible. Future studies could utilize longitudinal and cross-national data to delve deeper into the dynamics of social media use at work and psychosocial well-being to expose longitudinal within-person and between-person associations and country differences. Research should also look at the validity of the social media use measurement in the case of different age groups, and whether the measurement works in the same way in these groups. One potential avenue for future research could be related to strategic psychosocial risk management of online work sphere.

6.3 Conclusions

The results of this dissertation indicate that social media is increasingly used for professional purposes in Finland and the use stimulates dual – negative and positive – psychosocial well-being implications for employees and workplaces. Employees perceive social media use at work as mainly a thriving resource, but also as a draining demand. The use is based on motivations that derive from intrinsic and extrinsic bases having both positive and negative relations to psychosocial well-being. In addition, psychosocial well-being is influenced by various generational, occupational, situational, and sociodemographic factors. The results highlight the importance of nonwork-related social media communication with colleagues and one's work community, as well as work-related communication as a vehicle that can enhance psychosocial well-being. This finding is crucial in the contemporary work life in which especially knowledge work can be done increasingly in hybrid mode with induced social media use. Although social media use at work can have possible negative associations with psychosocial well-being at work, the positive motivational potential of social media use at work can be harnessed through encouraging formal and informal social media communications, and nurturing psychological needs of autonomy, relatedness, and competence by fostering employees' resources and work engagement.

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Social media use in professional organizations: boosting and draining workforce

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ABSTRACT

Social media use in professional organisations can have several psychological and physiological consequences. The aim of this study was to examine how social media is used in five professional organisations from distinct occupational fields and how such use relates to job demands, job resources, and personal resources. We collected survey data ($N = 563$) to analyze professional social media use. We also conducted theory-driven content analysis utilising focus group interviews ($N = 52$). Based on the results, internal and external social media platforms were mainly used for content following and sharing as well as communication with work communities. Social media use was not identified very straining or conflicting with private life. Those using social media more often experienced more strain and conflict but also considered social media more useful. Social media use was associated with job demands, such as physiological symptoms, fears, social pressure, and unclear rules, as well as job resources, such as organisational encouragement and support, social networks, information, and autonomy, and the personal resource of personal identity development. Professional social media use is perceived more as a job resource than as a job demand.

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Social media; well-being at work; job demands; job resources; personal resources; professional organisations

1. Introduction

The use of social media for professional purposes increased in the 2010s (Koch, Gonzalez, and Leidner 2012; Leonardi, Huysman, and Steinfield 2013; Treem and Leonardi 2012; Yu et al. 2018) and accelerated in the 2020s, especially during the COVID-19 pandemic (Oksa et al. 2021c; Oksanen et al. 2021). Social media is defined as a set of Internet-based applications derived from the technological, economic, and social drivers of Web 2.0, allowing for user-generated content exchange and creation (Kaplan and Haenlein 2010; Krämer, Neubaum, and Eimler 2017). In this study, ‘professional social media use’ refers to employees’ use of social media in their current workplace, the creation and maintenance of useful social networks (Leonardi, Huysman, and Steinfield 2013; Raj, Fast, and Fisher 2017), and following, producing, or sharing work or the organisation’s content (Leonardi, Huysman, and Steinfield 2013).

Organisations and their employees use social media for various internal and external purposes. Social media is used internally to share knowledge and collaborate with a work community via internal platforms such as Yammer and Microsoft Teams, and it is used externally via professional networks such as LinkedIn or more generic platforms such as Twitter (Leonardi,

Huysman, and Steinfield 2013; van Zoonen, Verhoeven, and Vliegthart 2016b). Publicly available external social media sites are used for sales, marketing, employer branding, and recruitment purposes to attract desirable employees (Kaplan and Haenlein 2010; Leonardi, Huysman, and Steinfield 2013; Sivertzen, Nielsen, and Olafsen 2013; Yoganathan, Osburg, and Bartkowski 2021). Moreover, social media functions as a vehicle for organisational ambassadorship (Dreher, 2013; Helm 2011), enhancing relationships with customers and allowing companies to follow competitors and market trends (Leftheriotis and Giannakos 2014). Social media can also foster personal and organisational visibility, personal branding, and development (Leidner, Gonzalez, and Koch 2018; Van Dijk 2013). However, using social media for work purposes also involves a burdening factor (Oksa et al. 2021a; Oksanen et al. 2021; Yu et al. 2018).

The use of professional social media can positively impact employee engagement (Oksa et al. 2021b, 2021c) and commitment (Sharma and Bhatnagar 2016) and enhance social capital by, for example, emphasising the importance of social networks and togetherness (Leonardi, Huysman, and Steinfield 2013; Oksa et al. 2021b). Social media communication can increase information sharing, social learning, and organisational transparency (Leonardi, Huysman, and

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Steinfeld 2013; Olmstead, Lampe, and Ellison 2015; Treem and Leonardi 2012). It therefore can lead to enhanced employee productivity (Fusi and Feeney 2018; Leftheriotis and Giannakos 2014; Nisar, Prabhakar, and Strakova 2019). Furthermore, social media promotes internal innovation (Ali et al. 2020) and, as such, can increase returns on investments (Scutto 2017). It can also enhance and challenge the integration of professional and personal domains, as it is possible to use social media flexibly for work-related purposes (Microsoft 2021; Oksanen et al. 2021).

Although social media has been found to foster internal collaboration and openness in organisations, it can also result in fragmented in-groups and function as a tool for discrimination (Leonardi, Huysman, and Steinfeld 2013) and wider cyberbullying in the workplace (Oksanen et al. 2020, 2021; Snyman and Loh 2015). Moreover, Holland et al. (2016) revealed the link between job dissatisfaction and generation Y employees born between 1980 and 1999 to express their work-related concerns in social media. As social media use is difficult to monitor and control, it involves the intrinsic risk that employees will engage in undesirable conversations, which can result in reputational problems (Dreher, 2013; Helm 2011; Ivens, Schaarschmidt, and Könsgen 2021; Kaplan and Haenlein 2010; van den Berg and Verhoeven 2017).

As work life in professional organisations is heavily digitalised, the strain of professional social media use can actually be part of more general communication-technology – related stress (Mahmuda, Ramayahb, and Kurnia 2017; Salanova, Llorens, and Cifre 2013; Tarafdar, Tu, and Ragu-Nathan 2010). Excessive social media use can hinder concentration on work and blur the line between work time and leisure time, resulting in increased stress and, in the worst case, burnout (Maier et al. 2015; Salo, Pirkkalainen, and Koskelainen 2019; van Zoonen, Verhoeven, and Vliegthart 2016a). Therefore, social media use can cause personal and professional identity negotiation conflicts (Ollier-Malaterre, Rothbard, and Berg 2013). Social media use may intensify communication and information overload, which can lead to social media exhaustion, which in turn compromises job performance (Cao and Yu 2019; Yu et al. 2018). Moreover, people who are dependent on social network sites (SNSs) have been found to suffer from sleeping problems and experience more cognitive failures in everyday life (Salo, Pirkkalainen, and Koskelainen 2019; Xanidis and Brignell 2016). Consequently, employee productivity can decrease, which means that not all employees are willing to network and share information via social media (Alber et al. 2016; Ellison, Gibbs, and Weber 2015).

Currently, the largest living and working generation of employees in professional organisations were born in the 1980s and 1990s and are labelled ‘generation Y’ or ‘millennials’ (Cattermole 2018). Such young adults, in their 20s and 30s, value meaningful work (Robyn and du Preerz 2013) and appreciate opportunities to influence the organisational culture and ways of working (Terjesen, Vinnicombe, and Freeman 2007). Young adults have used the Internet throughout their childhoods and adolescence, used various services when they were new, and participated in a diverse set of online networks (Boyd 2014). These young adults are in key positions to capitalise on the increased use of social media in work life.

Despite the increase of social media use in work contexts, there is still lack of detailed studies on how social media use varies between employees in various industries. In this study, we included the professional use of social media on internal corporate platforms (e.g. Yammer or Microsoft Teams) as well as via general social media services (e.g. LinkedIn or Twitter). Therefore, we examined the use frequency of these platforms and the purposes for which employees use social media in their work.

In addition to use purposes and contexts, scholars have measured social media use in various ways depending on their conceptualisation of it, such as active and passive use, heavy and light use, and use and non-use (Lutz and Hoffmann 2017; Oksanen et al. 2020, 2021, 2021a). In this study, we identified heavy and light users, and we explored the extent to which professional social media is considered beneficial or a burdensome and a conflicting factor. Last, we postulated novel qualitative knowledge on how employees in various professional organisations perceive the association of professional social media use and job demands as well as job resources and personal resources, which had not been studied to this extent. The utilised mixed-methods approach provides comparative knowledge on the use of professional social media among employees across five industries and qualitative information on the personal experiences associated with professional social media use. This combined effort is a significant contribution to the existing research.

2. Job demands and resources in the context of social media

Positive and negative elements of wellbeing at work have been widely studied, using the job demands-resources (JD-R) model (Bakker and Demerouti 2017). The model was originally developed to measure exhaustion and disengagement, i.e. burnout and the lack of

required job resources (Demerouti et al. 2001). Over the years, however, the model has been developed to account more comprehensively for job demands and job resources; thereby, thereby also facilitating the discovery of elements that lead to work engagement (Schaufeli and Bakker 2004). In addition, the JD-R model has been used to account for work engagement in situations in which job demands are high (Bakker et al. 2007).

The JD-R model uses the health impairment process and motivational process as explanatory mechanisms (Schaufeli and Bakker 2004). In the health impairment process, job demands may diminish health and well-being, which in turn lead to burnout (Schaufeli and Bakker 2004). Job demands are physical, social, and organisational characteristics of work that require constant psychological or physical determination from the employee and may have negative consequences, such as exhaustion (Demerouti et al. 2001). These stressor characteristics e.g. noise, time pressure, and workload (Demerouti et al. 2001). Job demands, such as time pressure, do not necessarily decrease work engagement, especially when the employee has sufficient resources, such as autonomy and social support, that buffer the negative implications (Bakker and Demerouti 2017). They may, however, lead to exhaustion if the employee must make increasing physical or psychological efforts that negatively impact their health and well-being (Demerouti et al. 2001). Additionally, job demands are said to predict burnout and lead to depression (Hakanen, Schaufeli, and Ahola 2008).

In contrast, the motivational process includes job resources that have a positive impact on individual well-being and may lead to high work engagement (Schaufeli and Bakker 2004). Job resources are psychological, physical, social, and organisational characteristics of work that enable employees to achieve work goals, enhance personal growth, and have a positive impact on job demands from physical and psychological perspectives (Bakker 2011; Bakker and Demerouti 2007). Control over one's work, social support, and performance feedback are examples of job resources (Demerouti et al. 2001; Schaufeli and Bakker 2004), which can predict work engagement, which in turn has a positive impact on the individual and organisation (Bakker and Demerouti 2017). High work engagement may, for instance, lead to increased organisational commitment (Hakanen, Schaufeli, and Ahola 2008). In addition to job resources, personal resources, i.e. self-belief in resiliency and one's capacity to impact and control the environment positively, play an important role in positive psychological and organisational outcomes (Hobfoll et al. 2003; Xanthopoulou et al. 2007).

Optimism, self-esteem, and self-efficacy are examples of personal resources (Xanthopoulou et al. 2007; Xanthopoulou et al. 2009).

The JD-R model has been used to explore turnover intentions, for example, through the relations between technology-based job autonomy, overload, monitoring, job satisfaction, and organisational commitment (Carlson et al. 2017). Research on technology use in the workplace utilising the JD-R model has highlighted the straining elements, such as information overload and interruptions, and motivational elements, such as mental breaks and accessibility, of technology use that affect organisational outcomes and well-being (Kim and Christensen 2017; Ter Hoeven, van Zoonen, and Fonner 2016). The JD-R model has also been used in a blended psychological intervention study by (Makowska-Tłomak et al. 2022) to investigate effectiveness of employees' stress reduction in relation to digital transformation stress during the COVID-19 by enhancing their resources.

The JD-R model has been used in previous social media studies in the work context. Researchers have quantitatively analyzed and focused on the relationship between social media use and specific job demands, such as work-life conflict (van Zoonen, Verhoeven, and Vliegthart 2016a), communication overload (Chen and Wei 2019), information, social overload (Chen and Wei 2019; Yu et al. 2018), and interruptions (van Zoonen, Verhoeven, and Vliegthart 2017). Charoensukmongkol (2014) also identified the intensity of social media use as a demand associated with exhaustion.

In addition, researchers have discovered the association of social media use with job resources such as accessibility and effective communication (van Zoonen, Verhoeven, and Vliegthart 2017), job control and social support (Ding et al. 2019), organisational identification (Oksa et al. 2021b) as well as the integration of work and leisure time (van Zoonen, Verhoeven, and Vliegthart 2016b). The positive relationship between coworker support and the intensity of social media use has also been discovered (Charoensukmongkol 2014). Furthermore, Sun, Wu, and Jeyaraj (2022) utilised JD-R model to examine the role of challenge and hinderance stressor in the relationship between enterprise social media use and work engagement.

Awareness of the risks and the advantages of social media use has gradually increased in organisations (Cao and Yu 2019; Dreher 2013; Olmstead, Lampe, and Ellison 2015; Opgenhaffen and Claeys 2017). However, there is still a need for further and more thorough qualitative research to understand the variety of job demands, job resources, and personal resources

associated with professional social media use, which we aim to provide.

3. This study and research questions

The aim of this social psychological study was to analyze how employees in professional organisations from five distinct occupational fields utilise social media in their work. In addition, we analyzed how professional social media use relates to well-being at work. We grounded our study on the J-DR model (Demerouti et al. 2001) and previous studies on social media use at work (e.g. Leonardi, Huysman, and Steinfield 2013; Oksa et al. 2021b, 2021c; Treem and Leonardi 2012; van Zoonen, Verhoeven, and Vliegthart 2016a; van Zoonen, Verhoeven, and Vliegthart 2017; Yu et al. 2018). We expected professional social media use to involve various and multidimensional job demands and resources.

The scope of the prior studies has been limited to some specific job demand or resource relationships, and the studies lack a wider view on social media use in work life in various industries and the connection to energising and straining factors, which our study provides. Moreover, in most prior studies, researchers have explored the theme mostly with a single method and by focusing merely on one company or particular platform. The literature also lacks studies on organisations' internal and external social media platform use. By analyzing both types of platform use, we gain a more comprehensive view of how employees are using social media for their work. External platforms can be used for activities such as information retrieval and client cooperation, which can act differently as a resource or a demand, compared to internal platforms, a fact that is important to consider. Moreover, researchers have not qualitatively investigated job demands, job resources, and personal resources related to professional social media. With the current study, we aimed to address and fill these existing gaps. Therefore, this study includes the first analysis of internal and external platforms and their relation to job demands and resources as well as the well-being implications of social media use. We aimed to provide a general perspective on the still-emerging phenomenon of social media use at work. Therefore, we posed the following research questions:

- (1) What are the key characteristics of internal and external professional social media use in professional organisations?
- (2) For what purposes is professional social media used in professional organisations?

- (3) How is professional social media use associated with job demands as well as job and personal resources in professional organisations?

The results offer organisations important information on how social media can be utilised to promote well-being at work and avoid the risks involved. The study provides insight into five distinct industries in Finland: telecommunications, finance, publishing, retail, and personnel services. Overall, the present study provides new knowledge on social media use in the work context with novel qualitative and quantitative evidence.

4. Material and methods

4.1. Participants

To investigate the relationship between professional social media use, job demands and job resources, and personal resources, we conducted a mixed-method study at five Finnish professional organisations representing distinct occupational fields. The data consists of quantitative survey responses from five professional organisation employees and qualitative interviews of young adult employees employed by the same organisations. Mixed-method studies have gained popularity in human-computer interaction and social media studies in the past few years (e.g. Laumer et al. 2017; Shibuya, Hamm, and Cerrato Pargman 2022). We used the mixed-method approach as our study strategy because qualitative and quantitative methods serve different purposes and complement each other. First, the survey gave us quantified information about social media platforms: which internal and external social media platforms professionals are using for their work, how much, for what purposes and how useful, and to what extent they perceive such use as burdensome or conflicting. Furthermore, we qualitatively analyzed the detailed job demands and job and personal resources the interviewees described in relation to social media use. We conducted the interviews prior the survey as input for the original survey design.

4.1.1. Survey data

We collected the online survey data from employees of the five professional organisations during November and December 2018 to discover the relevant professional social media platforms and the purposes for their use as well as work well-being factors. The survey participants ($N = 563$) were between 21 and 67 years old ($M = 40.7$, $SD = 10.9$), and 67.7% of them were female.

The five selected professional organisations are well-known examples of their occupational fields in Finland. We recruited them by phone calls and e-mail, and participation in the research was free for the companies. The companies represent the occupational fields of telecommunications, finance, publishing, retail, and personnel services. We decided to focus on these occupational fields based on their extensive use of information and communication technologies. These occupational fields also represent different sectors doing knowledge work. The organisations' size ranged from 2,000 to 10,000 employees. The companies' human resources or communications departments recruited participants via e-mail and internal social media platforms. The number of targeted participants in these organisations ranged from 152 to 2,737. The response rate to the survey ranged from 3.2% to 34.2% ($M = 17.7$, $SD = 11.9$).

We informed participants about the aims of the study and advised them that they had the right to withdraw from the study during data collection. Participation in the study was fully voluntary. The local Academic Ethics Committee of Tampere Region in Finland approved the study with statement #90/2018.

4.1.2. Interview data

Our interview data included focus group interviews ($n = 10$) with 52 participants. We conducted these interviews at the same five professional organisations during February and March 2018 in Helsinki, Finland. Focus group interviews are facilitated group discussions, which are used to gather a broad set of collective experiences, views, and beliefs on the research topic within a short period of time (Morgan 1998). The company contact person, usually the human resources manager or the equivalent, sent the participants an invitation email. All the interviewees signed an informed consent form prior to the interviews.

Table 1. Experiencing professional social media use as useful, straining, or in conflict with leisure use, by light and heavy users of social media ($N = 563$).

Experiencing ...	Light users	Heavy users	p	B
	Mean (95% CI)	Mean (95% CI)		
work-leisure conflict in social media use.	2.0 (1.9–2.2)	2.5 (2.3–2.7)	0.001	0.46
strain in professional social media use.	2.0 (1.8–2.1)	2.4 (2.2–2.6)	<0.001	0.46
professional social media as useful.	3.7 (3.5–3.9)	5.2 (5.0–5.4)	<0.001	1.47

Notes: CI = confidence intervals for the means, $p = p$ -values of independent two-sample t-tests, B = unstandardised regression coefficient for heavy users in comparison to light users based on linear regression models that we adjusted for age and gender. [R1: 1] The scale of the dependent variables ranges from 1 (not at all) to 7 (considerably).

We conducted two focus group interviews at each of the companies over the course of one day, one following the other. According to Bloor et al. (2001), the ideal focus group size is six to eight participants; however, focus groups can be an effective mode of gathering data even with three participants. Also, Morgan (1998) stated that 20% participant loss is acceptable. In the current study, we had an average of five interviewees per focus group, ranging from four to six participants, due to no-shows. The interviews, which we recorded, lasted approximately 46 min each. The mean age of the respondents was 32, ranging from 25 to 38 years, and 69% of the interviewees were women. The interviewees were employed as qualified professionals or supervisors. The focus group interviews consisted of 14 open-ended questions about professional social media use and well-being at work.

4.2. Measures of quantitative data

4.2.1. Professional social media use

With different use concepts, we examined professional social media use from the perspective of use frequency of various social media platforms, hereafter referred as *professional social media use*. The professional use of social media platforms was rated by the survey responses to the following question: 'How often do you use the following social media services for work purposes?' The answer options were 'I don't use', 'Less than weekly', 'Weekly', 'Daily', and 'Many times a day'. We assigned the answers the numerical values of 0, 1, 2, 3, and 4, respectively. The list we provided to the respondents included 21 internal and external social media platforms. We selected these platforms based on their general popularity during the data collection. To identify active users, we summed the answer options 'Daily' and 'Many times a day' to report daily use of different social media platforms.

For the comparison of heavy and light users of social media (see Table 1), we summed all original items concerning the use of professional social media platforms to achieve a composite variable. The composite variable's possible values ranged from 0 to 84, with a value of 84 indicating that a respondent used all 21 social media platforms many times a day. Researchers have used similar approaches to measure general social media activity in earlier studies (Kaakinen et al. 2018; Savolainen et al. 2020). Second, we divided the composite variable by the median, creating a dummy variable for which the value 1, labelled as *heavy users*, indicated high scores for the use of various social media platforms and the value 0, labelled as *light users*, indicated scores below or equal to the composite variable's median value.

4.2.2. Purposes of professional social media use

We asked the participants, 'For which purposes do you use social media at work?' We asked them to select one or more of the following functions: 'I don't use', 'content following', 'content creation', 'content sharing', 'professional networking', 'to learn something about my coworkers', 'communicating with clients and other stakeholders', 'taking a break from work', and 'communicating with friends and family'.

4.2.3. Experiences of usefulness, strain, and work-leisure conflict related to social media use

We asked the respondents to rate their experiences from 1 (*not at all*) to 7 (*considerably*) in response to the following questions: 'At the moment, do you experience conflict in social media use between work and leisure time?', 'At the moment, do you experience the social media you use for work as straining?' and 'How useful is your experience of social media at work?'

4.2.4. Background variables

We used age, gender, and organisational membership (in five professional organisations) as sociodemographic variables.

4.3. Data analysis

4.3.1. Quantitative data analysis

We used descriptive methods to analyze the survey data and general social media use characteristics. We report percentages and frequencies for daily use of social media platforms and the purposes of social media use. To compare heavy users' and light users' experiences of usefulness, strain, and work-leisure conflict related to social media use, we report mean scores, 95% confidence intervals (CI) for the means, and *p*-values of independent two-sample *t*-tests. We also reported our comparison between heavy and light users based on linear regression analyses. The purpose of these analyses was to adjust for age and gender. For the linear regression analyses, we report unstandardised regression coefficients (B) and their standard errors (SE). In the models, we used experiences of usefulness, strain, and work-leisure conflict related to social media use as dependent variables, and the independent variable was type of social media user (0 = *light*, 1 = *heavy*). The controls included age and gender.

4.3.2. Qualitative data analysis

In the focus group interview data analysis, we utilised theory-driven deductive content analysis to categorise the focus group transcripts. Content analysis is a valid and replicable analytical method, and it explores the

data thoroughly and permits context-related meaning making (Krippendorff 2004, 18–19). We used the JD-R model as a theoretical framework to discover specific job demands and job resources related to professional social media use (Bakker et al. 2007; Demerouti et al. 2001; Schaufeli and Bakker 2004). We used the QSR NVivo 12 qualitative analysis software in the categorisation process.

We adapted our qualitative data analysis from the six stages Krippendorff (2004, 83–84) defined: unitisation, sampling, coding the data, reducing the data, making abductive conclusions, and narrating the data to answer the proposed research questions. The first step of our qualitative data analysis process was the interview data transcription, after which we imported the transcripts into the QSR NVivo 12 software. In the first stage, we openly coded text segments under job resources and job demands. In this way, we developed our theoretically grounded coding scheme based on the JD-R model. We used four categories for the job demands: physical demands, psychological demands, social demands, and organisational demands (Bakker et al. 2007; Schaufeli and Bakker 2004). We divided job resources into four categories: task-related resources, work-organizing-related resources, social resources, and organisational resources (Bakker et al. 2007; Schaufeli and Bakker 2004). Additionally, we used self-efficacy and self-esteem as a combined category for personal resources (Xanthopoulou et al. 2009). Next, we further analyzed and reduced the data. We further subcategorised each of the four job demand categories into physiological symptoms, fears, social pressure, and unclear rules. Moreover, we further classified job resources into four subcategories: organisational encouragement and support, social networks, information and autonomy, and personal resources into professional identity development. We answered our second research question based on these specific subcategories.

To confirm the coding reliability, two researchers coded the data independently. They cross-checked the coding and discussed and clarified any disagreements on coding, which eventually led to mutual agreement on the coding. To increase the results' credibility, we used direct quotations from the interview data to demonstrate our conclusions. Additionally, to strengthen the findings' credibility, we used two evidence sources. In the studied professional organisations, we used the survey data to determine the nature and the extent of professional social media use, and we used the focus group interviews to explore the job demands, job resources, and personal resources related to professional social media use more in-depth.

5. Results

5.1. General characteristics of social media use in professional organizations

Based on the survey data ($N = 563$, see Table 2), 84.4% of the employees used social media once or many times a day, and the use varied across industries. Telecommunications (95.1%) and finance (94.3%) employees demonstrated the most active use, and retail employees (75.8%) demonstrated the least active use. The descriptive statistics suggest that employees use internal social media platforms more than external ones. The social media platform most used for internal purposes was Skype, which more than 60% of the respondents used daily. In telecommunications and finance, only 8% and 15% of employees, respectively, used Skype on a less than daily basis. The second most used platform was Microsoft Teams, which almost 40% of the respondents used daily. Microsoft Teams's greatest ratio of daily users was among employees at the finance company (67.8%). Additionally, more than 15% of all the respondents used Workplace by Facebook, Yammer, or WhatsApp once a day or more.

Employees used external social media platforms considerably less frequently than internal ones. LinkedIn was the most used external social media platform, and less than 12% of respondents used it daily. However, more than one-fourth of the employees at the personnel service organisation used LinkedIn. The second most used external social media platform was Facebook, which 11% of respondents used. Daily use of Facebook was most popular in the finance (19.5%) and publishing organisations (19.2%). Additionally, a surprisingly high proportion (31.4%) of telecommunications employees used wiki sites daily. Interestingly, almost 95% of respondents used Twitter less than daily, and the finance organisation featured the highest proportion of daily Twitter users (10.3%). The proportion of daily Instagram users was even smaller (2.8%), with no major variation across organisations.

Figure 1 shows the main reasons for social media use at work. Content following was the most popular reason in all professional organisations, as 79% of the participants selected it. Communicating with colleagues and staying in touch with the work community was also a popular purpose for social media use (69%). More than half of the respondents indicated that they used professional social media for content sharing (56%) and professional networking (52%). Furthermore, approximately one-third of respondents used professional social media to create new content, communicate with friends and family, take a break from work, get

to know colleagues, and communicate with clients and stakeholders. Almost 6% of the respondents did not use social media for work purposes at all. Moreover, we observed some differences across fields. For example, content sharing and professional networking were more common in the personnel services organisation than in the other organisations.

On average, the respondents did not regard professional social media as highly useful, but they also did not experience much strain or conflict between work and leisure time in the context of social media use (see Table 1). However, comparing light and heavy users' mean scores, light users ($M = 2.0$) experienced less conflict than heavy users ($M = 2.5$). Moreover, light users ($M = 2.0$) experienced less strain from social media use than heavy users ($M = 2.4$). Interestingly, heavy users considered the use of professional social media especially useful ($M = 5.2$) whereas the light users did not regard professional social media as particularly useful ($M = 3.7$). These differences were statistically significant based on a t -test ($p < 0.05$).

Linear regression analyses provided similar results. Compared to the light users of social media, the heavy users had average scores that were 0.46 points higher on a scale of 1–7 for strain ($B = 0.46$, $SE[B] = 0.13$, $p < 0.001$) and for conflict between work and leisure ($B = 0.46$, $SE[B] = 0.14$, $p = 0.005$). Heavy users also considered social media significantly more useful than light users did ($B = 1.47$, $SE[B] = 0.14$, $p < 0.001$). Overall, all the respondents considered professional social media use a resource rather than a demand regardless of age, but heavy users regarded social media as more demanding and more useful than did light users. This may indicate that perceiving social media as useful may lead to heavier use.

5.2. Job demands related to professional social media use

Aside from the survey data, the qualitative part of the research was concentrated on the views of young adult employees from the five professional organisations. We aimed to attain a thorough understanding of how they associate professional social media use with job demands and job resources and personal resources. The focus group interviews of these young adults yielded similar findings about the demanding aspects of professional social media use: Professional social media use was not regarded as highly straining because its use was not forced in the organisations and because people had the autonomy to use it flexibly in terms of content and time. Next, we introduce the key job

Table 2. Use of various social media platforms in five professional organisations ($N = 563$): Percentage of respondents who use a social media platform once a day or more (n).

	1. (personnel service) $N = 128$	2. (finance) $N = 87$	3. (publishing) $N = 52$	4. (retail) $N = 194$	5. (telecom) $N = 102$	All 5 orga-nizations $N = 563$
Heavy users ^a	46.9% (60)	63.2% (55)	53.9% (28)	37.6% (73)	47.1% (48)	46.9% (264)
At least one platform	82.8% (106)	94.3% (82)	82.7% (43)	75.8% (147)	95.1% (97)	84.4% (475)
Internal						
Skype	60.2% (77)	85.2% (74)	42.3% (22)	47.9% (93)	92.2% (94)	63.9% (360)
Microsoft Teams	56.3% (72)	67.8% (59)	50.0% (26)	13.9% (27)	38.2% (39)	39.6% (223)
Workplace by Facebook	0.0% (0)	0.0% (0)	0.0% (0)	51.6% (100)	0.0% (0)	17.8% (100)
Yammer	1.6% (2)	79.3% (69)	0.0% (0)	0.5% (1)	21.6% (22)	16.7% (94)
Trello	3.9% (5)	1.2% (1)	34.6% (18)	2.1% (4)	0.0% (0)	5.0% (28)
Slack	15.6% (20)	1.2% (1)	0.0% (0)	1.6% (3)	2.9% (3)	4.8% (27)
Smarp	0.8% (1)	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)	0.2% (1)
External						
WhatsApp	25.8% (33)	10.3% (9)	15.4% (8)	7.7% (15)	21.6% (22)	15.5% (87)
LinkedIn	28.1% (36)	9.2% (8)	0.0% (0)	9.8% (19)	2.9% (3)	11.7% (66)
Facebook	7.8% (10)	19.5% (17)	19.2% (10)	8.3% (16)	8.8% (9)	11.0% (62)
Wiki sites	2.3% (3)	8.1% (7)	3.9% (2)	2.6% (5)	31.4% (32)	8.7% (49)
Twitter	1.6% (2)	10.3% (9)	0.0% (0)	7.2% (14)	5.9% (6)	5.5% (31)
Instagram	2.3% (3)	3.5% (3)	5.8% (3)	2.1% (4)	2.9% (3)	2.8% (16)
Facebook Messenger	4.7% (6)	3.5% (3)	0.0% (0)	1.0% (2)	1.0% (1)	2.1% (12)
YouTube	2.3% (3)	1.2% (1)	1.9% (1)	0.5% (1)	2.0% (2)	1.4% (8)
Chat forums	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)	2.0% (2)	0.4% (2)
SlideShare	0.0% (0)	0.0% (0)	0.0% (0)	1.0% (2)	0.0% (0)	0.4% (2)
Snapchat	0.0% (0)	0.0% (0)	1.9% (1)	0.5% (1)	0.0% (0)	0.4% (2)
Blog services	0.0% (0)	0.0% (0)	0.0% (0)	0.5% (1)	0.0% (0)	0.2% (1)
Periscope	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)
Pinterest	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)

Notes: Original scale was 0 = I don't use, 1 = Less than weekly, 2 = Weekly, 3 = Daily, 4 = Many times a day.

^aWe divided a composite variable, the sum of all 21 platform items, by the median.

demands brought up in the interviews. Following the job demands, we present professional social-media-related job resources and personal resources.

5.2.1. Physiological symptoms

Although white-collar professional work is rarely physically demanding, the interviewees reported some physiological problems. Compared to the time before social media, neck and back pain have become more common. Furthermore, the respondents believed social media decreased energy levels. Some of them mentioned blue light from screens and sleeping problems in the conversations, which they often considered as technology-related demand.

Yes, my social media use is draining. If you would have asked me in my twenties, I would have said, "No way," but when you have done it 15 years, it brings all these physical problems (i.e. back, blue light, and falling asleep, etc). (Retail, group 2)

Consequently, some interviewees indicated that they had restricted their social media use and dedicated specific times to using social media.

5.2.2. Fears

The focus group interviews revealed that social media causes various kinds of fears. For example, respondents discussed fear of missing out (FoMO) in most of the focus group interviews. People wanted to follow news

and people, and stay updated because they fear missing out on professional and entertaining content in social media. Additionally, interviewees expressed fears of losing face and being humiliated. Young adults are especially cautious about posting on social media, and when they do so, they want to express their own views and avoid simply reposting for the sake of amplifying their visibility. This may lead people to worry about whether they have enough skills to craft appropriate social media posts and, more broadly, to question their capability and professionalism. People want to maintain an attitude of professionalism; therefore, they avoid being linked to negative discussions and social media scandals.

If I'm not there [on social media], am I a real professional? Maybe it's the feeling that you have to be there all the time and the demand for yourself that if you say something, it needs to be something new and mind-blowing. (Telecommunications, group 2)

5.2.3. Social pressure

Social media creates social pressure if colleagues and clients are active on it. For instance, clients may make contact via social media at any time of the day. The interviewees mostly described social media as a hectic experience, in which a sense of information overload is present at all times. People feel that they do not have enough time for social media. Therefore,

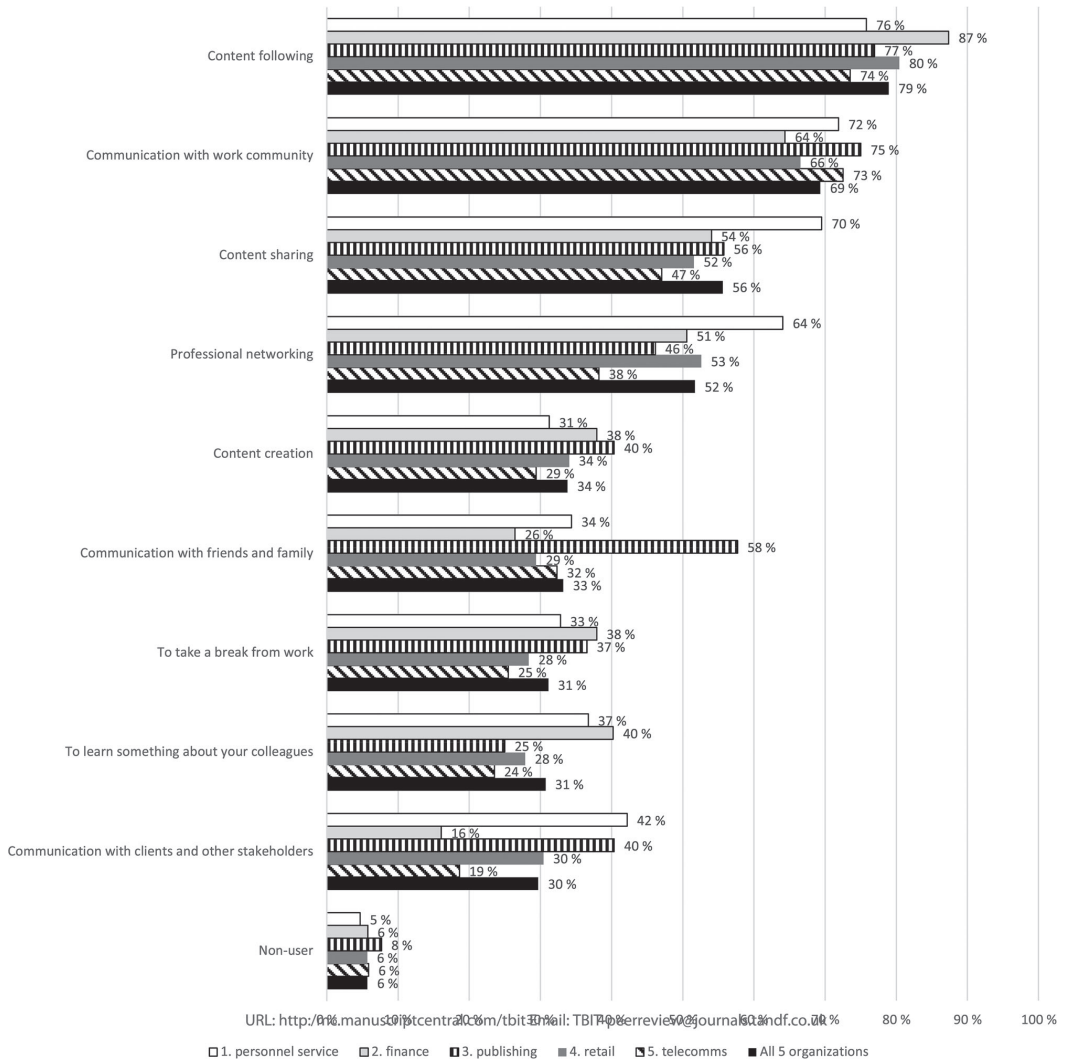


Figure 1. . Professional social media use purposes by industry (% , N = 563).

they experience feelings of guilt when they are not active on social media. Moreover, social media is used for networking and sharing work-related information. However, fragmented groups and in-groups may emerge on social media forums and lead to discrimination, even accidentally. Therefore, many companies have decided that social media cannot be the only platform for sharing work-related knowledge and information.

I get this feeling sometimes if I have been really busy and been like whole day in meetings, and then you realize that, "Oh no, I have not published anything, and I

indeed should." So, in these kinds of situations, it may be demanding when you think that it is part of your job, but it's not your priority number one. (Personnel services, group 1)

5.2.4. Unclear rules

Many interviewees reported that the rules for social media use were unclear. Companies may have provided social media guidance, but employees often either were not aware of it or found it ambiguous. In particular, there was a lack of clarity regarding the specific platforms and the purposes for their use. Information was

disseminated to several places, and colleagues and clients could make contact through various platforms. Moreover, the interviewees expressed uncertainty about whom to contact and what to do if they were confronted with provocative content or a social media scandal. Furthermore, they reported ambiguity about the appropriate time within which one might need to react or respond on social media. For instance, it may be challenging to determine whether one must answer messages on external social media platforms in the evenings and on weekends. Doing so would increase their workload – mentally and physically. It was pointed out that commenting on something in the middle of the night may even create a reputational problem.

Maybe it is the guidance thing, which I at least or I might have missed the guidance. I feel that if I get involved in some discussions in social media and I have to comment something a bit challenging as the company employee, how should I react, and what are the limits? (Publishing, group 1)

5.3. Job resources related to professional social media use

5.3.1. Organisational encouragement and support

Overall, social media is seen in a positive light in the interviewed professional organisations, and its use is encouraged but not forced. Most of the organisations encouraged and offered support. For instance, employees may receive help and advice from colleagues, supervisors, or communications or IT departments. Some companies have dedicated social media teams that collect news and relevant information from various social media platforms, which help employees share relevant content. Employees from all the organisations reported that leadership examples were an essential job resource. We observed that on social media, leadership activity immediately cultivated a culture of trust and honesty. Moreover, social media made people feel equal regardless of their titles or status.

It has maybe something that diminishes people's fences or roles and titles, that people became somewhat equal, that links are shared in some group, [that] it doesn't matter if you are CEO or assistant ... that everyone is just a human there and that people are connected by being part of that particular group (Publishing, group 2).

5.3.2. Social networks

Collaboration on social media occurs quickly regardless of location. Social media makes it easy to share status updates on projects, decreases working in silos, and groups together people who are committed to shared goals. Consequently, social media improves knowledge

sharing and ways of working. Social media also makes it easier for coworkers to get to know each other personally, thus enhancing the experience of working face-to-face and team spirit across the organisation. Among our participants, the ability to create and maintain social networks effortlessly was seen as a resource. They noted that social media facilitates finding and contacting people with similar interests, expanding one's network, and connecting with people one has never met. Social media makes it possible to stay connected with old and new colleagues and clients, and it may positively influence customer relationships.

One [way] in which I use social media, especially if we're talking about customer work, it is nice to get to know the customer; you see the professional personality somewhere like in LinkedIn. You see what they have shared, if they have liked something, what I have said, and build the relationship that way. (Personnel service, group 1)

5.3.3. Information

Most of the interviewees identified information availability as social media's the most important job resource. On social media, access to information is unlimited, making it easy to familiarise oneself with competitors, market trends, clients, and collaborators. Furthermore, knowledge sharing is seen as a positive job resource because social media enables wider and faster dissemination of information than traditional email, intranet, or training sessions. Social media is an effective tool for following news and participating in discussions about one's employer and overall work life. Given social media's sharing speed, good news, bad news, and rumours spread rapidly. That being said, social media also affords a reasonable opportunity to correct wrong information quickly.

Teams is maybe the best technical thing that has happened during my career here so far. All messages are coming through way better than, e.g. in Skype, where you may not even notice if someone has sent you something. In Teams, you can easily share materials, and it is cool that several people can update documents at the same time. (Finance, group 1)

5.3.4. Autonomy

The interviewees pointed out that they had autonomy to control their social media use. It is vital to allow people to discover their own style of social media use. Not everyone wants to participate actively in discussions, but they can still play important roles by following news and gathering information. Additionally, if people feel proud of their work, they may find it worthwhile to

share work-related content on social media. Social media posts that are done purely on promotion and commercial purposes to boost company's brand may seem awkward. The frequency of social media use varies greatly from person to person. Some use social media many times a day whereas others may not even use it weekly. Some may prefer to use it at home whereas others tend to use it during the workday. Moreover, people appreciate their ability to control their use by turning off notifications or muting social media groups. Thus, social media makes work-related communication more flexible, and respondents viewed it as a job resource enhancing job autonomy.

Social media use is like using email; it is my own decision. If I want to read my emails, then I read them, and it's my personal choice, which I've made. I have not felt any kind of pressure; it is just part of the ordinary day. (Finance, group 2)

5.4. Personal resources related to professional social media use

5.4.1. Professional identity development

From a personal resource stance, social media helps people enhance their professional identity and self-esteem. Social media is increasingly used for professional development purposes. Work-related information, such as market trends, articles, and online courses are readily available. Moreover, creating professional social networks is regarded as a valuable asset for personal growth. When people get involved in discussions and enjoy successes on social media, their self-esteem is enhanced. Positive public recognition can have an enduring power. Additionally, observing one's own created content positively affecting someone's life makes social media use meaningful.

I'm still excited about the fact that the company CEO retweeted my story and replied to me using [a] smiley. (Retail, group 2)

To summarise, professional social media use involves many elements, positive and negative, that influence well-being at work. Relative to survey data, the focus group interviews yielded similar results in terms of the purpose and frequency of professional social media use. Several companies had dedicated social media teams engaged in updating their social media platforms. Although several external social media platforms were in use, some interviewees felt that companies' external social media platforms did not have dedicated resources and that their content and appearance could be more up to date. Additionally, social media was used for internal purposes at all the interviewed organisations. Some

people used internal social media regularly whereas others rarely used it.

Aligning with the survey results, the focus group interviews revealed that across organisations, internal social media was primarily used as either a communication channel, aimed at reaching all employees, or a project management tool. Additionally, the interviewed participants used social media mainly to follow interesting work-life content (e.g. professional social media groups). Social media is used to gain information on new trends and clients and attain an improved understanding of the market. Therefore, social media use was more closely related to learning and improving one's own professionalism and skills than to representing the company. To sum up, the focus group interview results support the survey results; both sets of results indicate that although the use of social media has energetic and straining factors, it is seen as a job resource rather than a job demand.

6. Discussion

The aim of this study was to examine how professional social media is used and to identify the key characteristics of professional social media use in the five studied professional organisations. Furthermore, we analyzed the relationship between professional social media use and job demands, job resources, and personal resources.

Our results demonstrate that employees in professional organisations are active social media users; nevertheless, they also reflect use differences across industries. Most of the expert organisation employees used at least one social media platform for professional purposes, and that proportion was higher among the telecommunications and financial industry employees than among employees from the other organisations. Internal social media platforms were used more frequently than external platforms. The use of professional social media mainly involved content following and internal communication. Moreover, social media was used for content sharing and professional networking. Professional social media use was not perceived as highly straining or conflicting with private life. However, those using social media more experienced more strain and conflict but also regarded social media as more useful than light users did.

In addition to examining professional social media use, we investigated job demands, job resources, and personal resources as they relate to professional social media use and developed an extensive overview of these factors across five industries in Finland. We organised job demands into four categories:

physiological symptoms, fears, social pressure, and unclear rules. Furthermore, we assigned job resources to four discrete categories: organisational encouragement and support, social networks, information, and autonomy. In addition, we identified professional identity development and considered it a personal resource (see Figure 2 for a summary of resources and demands).

6.1. Theoretical implications

This study furnishes new information about how social media is used in professional organisations. Previous studies have focused mainly on specific social media platforms (e.g. Twitter; Syrek et al. 2018; van Zoonen, Verhoeven, and Vliegthart 2016b) or non-work-related use of social media at work (Brooks and Califf 2017; Syrek et al. 2018; Vitak, Crouse, and LaRose 2011). In contrast, we extensively explored social media platforms, internal (e.g. Microsoft Teams) and external (e.g. LinkedIn), while considering social media platforms that people may regard as personal (e.g. Instagram). By studying these various types of platforms, we gained a holistic view of how social media is used for professional purposes. For example, clients and other stakeholders may communicate via external platforms, which respondents experienced as straining. Moreover, external platforms can be utilised for networking with other professionals with similar interests, retrieval of information and best practices, and following the latest market trends and competitors, which may not be possible if only internal platforms are used. Therefore, studying only external or internal platforms would not have been adequate. Additionally, the current study was concentrated specifically on professional social media use (i.e. how social media is used for work-related matters), which is important to differentiate from more leisurely social media use.

The present study contributes to the literature by providing new insights about job demands, job resources, and personal resources related to professional social media use, as we utilised qualitative interview data and thus captured employees' genuine elaborations of social media use. The present study revealed that employees experience various fears regarding the use of professional social media – related to internal and external platforms, with those regarding the latter being more prominent. For instance, respondents discussed the fear of lacking sufficient competence, the fear of negative online discussions, the fear of losing face, and FoMO in several focus group interviews. To date, no studies have been conducted on professional social media use and its association with the FoMO phenomenon although FoMO has been linked to non-

work-related social media use and lower productivity at work (Rozgonjuk et al. 2020) and has gained attention in work settings without a pure work-related social media construct (Budnick, Rogers, and Barber 2020; Tandon et al. 2022). Therefore, this study is the first to contribute to research on work-related social media use and FoMO.

In the focus interviews, the participants emphasised feeling social pressure to participate in using social media – internal and external platforms – if colleagues and clients were using it. However, interviewees raised the following concerns: Whether one participates or not, in-groups can develop on social media, and social media can be used for discrimination or cyberbullying purposes – even in the work context – which supports previous findings (Leonardi, Huysman, and Steinfield 2013; Oksanen et al. 2020; Snyman and Loh 2015). In accordance with Xanidis and Brignell's (2016) work, this study revealed that social media use can lead to sleeping problems. Notably, our interviews provided important insights into unclear organisational social media rules and the guidance that employees seek, especially in burdensome situations, such as negative online interactions. Our findings also strengthen earlier calls for rules and guidance regarding online harassment (Oksanen et al. 2020).

Supporting van Zoonen, Verhoeven, and Vliegthart (2016b, 2017) findings and those of Leidner, Gonzalez, and Koch (2018), this study confirmed that social media is used as an information source and a way to communicate with colleagues and clients. Additionally, social media is used to expand one's professional network internally and externally; these factors are seen as job resources. Supporting Treem and Leonard's (2012) findings as well as those of Olmstead, Lampe, and Ellison (2015), we discovered that the use of professional social media has a positive impact on learning and information sharing across organisations, thereby enhancing solidarity. Beyond these positive outcomes, our results advance the understanding of the importance of organisational encouragement and support, especially leadership examples, which were experienced as essential resources for professional social media use. Moreover, this study contributes to the existing social media literature by enforcing the roles of autonomy and individual differences in social media use, which previous studies have not explored in such depth. Social media's roles in personal growth and self-esteem enhancement were also exposed as personal resources, thereby providing insights into these phenomena in the professional context.

This study yielded information on internal and external social media platform use in five professional

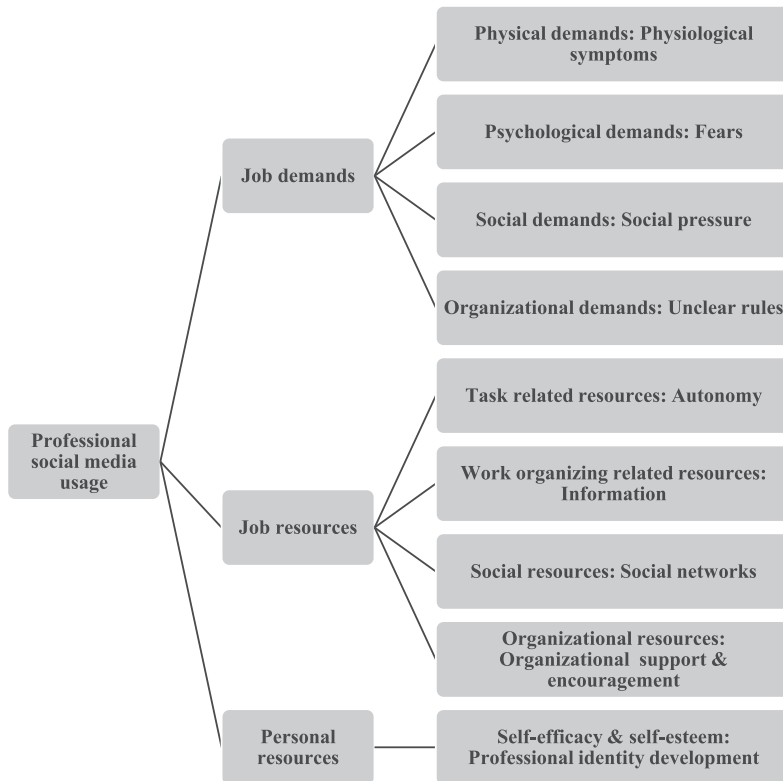


Figure 2. Categorisation of job demands, job resources and personal resources related to professional social media use.

organisations, all operating in distinct occupational fields. In these organisations, employees used internal social media platforms such as Skype and Microsoft Teams actively; however, external social media (e.g. LinkedIn and Facebook), surprisingly, were used on less than weekly. This study also revealed that heavy use of social media is associated with elevated strain and conflict between work and leisure time. These findings align with van Zoonen, Verhoeven, and Vliegenthart (2016a) work on the conflict and strain factors and provide new information: Particularly, heavy social media use is regarded as more conflicting and straining – but also more useful (i.e. the more one uses social media, the more useful one considers it). Based on the current study's quantitative and qualitative results, professional social media is not seen as overly demanding, and it is regarded as a job resource rather than a job demand.

6.2. Practical implications

This study contributes to the research field with practical guidance on accounting for the possibilities and risks

involved in professional social media use. Because companies are in constant turbulence due to digitalisation and new technologies, it is important to recognise the factors that impact organisational culture as well as the ways of working and approaches to well-being at work that enable the best possible future for a business. The study's findings provide organisations insights on how social media is used within the studied organisations, and they provide a glimpse into the use differences across five distinct occupational fields. Moreover, the use's frequency and purpose were exposed. For instance, one noteworthy discovery was that external social media platforms were not used dynamically in the studied organisations. Furthermore, the findings suggest organisations' potential to enhance the use of internal social media platforms.

For organisations, it is crucial to understand what motivates people to use social media for work purposes. Our findings highlight that affording employees some autonomy to determine how, when, and why they use social media for work are key motivators. Complementing more conventional means, social media also serves

as a professional development method, which is important to understand in organisations. However, it is vital to train people to use social media. Organisational encouragement and support for professional social media use, such as providing leadership examples, were seen as a job resource that enhanced organisational transparency, in support of previous research findings from Treem and Leonardi (2012) and Olmstead, Lampe, and Ellison (2015). In turn, organisational transparency enhances organisations' social support and togetherness, as the findings of Oksa et al. (2021b) and our findings demonstrated.

Our results highlighted that social media guidance and rules are neither clear nor comprehensive. According to the literature, regulations and policies of professional social media use has increasingly been established across organisations (Banghart, Etter, and Stohl 2018; Dreher 2013; Olmstead, Lampe, and Ellison 2015; Opgenhaffen and Claeys 2017; Stohl et al. 2017). However, our results suggest that although a positive change has occurred over the years – from forbidding to allowing social media use at work – there remains a need to clarify the various platforms' use purposes. Moreover, we determined that guidance for difficult situations, such as negative discussions or social media scandals, is highly critical but still missing in some organisations. To conclude, it is fundamental for organisations to recognise not only professional social media use's energising factors but also its draining factors. We have presented this study's results to the exposed organisations along with suggestions proposed to help them optimise professional social media use.

6.3. Strengths, limitations, and suggestions for future research

We conducted this study using a mixed-method approach, which is one of the study's strengths. First, we conducted the focus group interviews to gain an overall understanding of social media use in the studied organisations and its relation to well-being at work. Then, we developed the survey based on the information from the focus group interviews. For this study, our survey data provided quantified information on professional social media use. Furthermore, the focus group interviews facilitated an in-depth analysis of professional social media use and its association with job demands and job resources and personal resources. Notably, investigating social media use, job demands, job resources, and personal resources in the work context and thus contributing to psychology, social science, health, information and communication technology,

and management research fields is another of the study's strengths.

One of this study's limitations is its focus group size, which averaged five people because of no-shows. We could have generated more discussion and wider perspectives with larger focus groups; however, we covered the research topics successfully with the smaller groups. We collected the data during 2018 and in Finland; therefore, the findings are limited to that specific time and geographical location. Our data were limited to five professional organisations representing distinct occupational fields. However, our results on social media use in these organisations align with official statistics on social media use in various occupational fields in Finland (Official Statistics Finland 2018).

Additionally, narrowing down consideration of job demands, job resources, and personal resources to be based solely on focus group interviews could be seen as a limitation of the study. In the future, job demands, job resources, and personal resources could be studied quantitatively as well as qualitatively to gain a deeper understanding of their associations with professional social media use. Moreover, a longitudinal investigation of various job demands and job and personal resources in relation to professional social media use could be useful.

7. Conclusions

Our goal for this study was to discover professional social media use's key characteristics in the five studied professional organisations from distinct occupational fields to gain an overview of social media use in the professional context. To summarise, these organisations used social media for external and internal purposes. Internal use was more routine, and external social media platforms were not used actively. Based on the analysis, professional social media was used mainly for content following and internal communication purposes. Moreover, people shared content in social media and engaged in professional networking. Professional social media use was not regarded as particularly draining or as conflicting with work and leisure time. However, those using social media more often experienced more strain and conflict due to social media use, but they also regarded social media as more useful than did users who did not use social media for work purposes as actively.

We discovered an association between professional social media use and job demands, job resources, and personal resources. According to the findings, professional social media use correlates with job demands, including physiological symptoms, such as neck pain,

and psychological elements, such as fears. Additionally, we identified social pressure and unclear rules of professional social media use as job demands. Moreover, professional social media use is associated with four job resources. Our participants defined information availability and autonomy to control the use of professional social media as key job resources. In addition, our participants regarded the potential to create and maintain social networks and obtain organisational support for and encouragement regarding social media use as job resources. People use social media for professional identity development purposes, and this use constitutes a personal resource. In sum, job demands, job resources, and personal resources are important elements for well-being at work that organisations should take into account when utilising social media for work purposes.

The present study's contribution to the research field is threefold. First, it contributes to theory by providing multidisciplinary findings to multiple research fields, including psychology, social science, health, information and communications technology, and management. Second, the study furnishes organisations with practical implications and suggestions worthy of consideration for avoiding pitfalls and fostering the positive potential of social media use. Third, this study provides an in-depth analysis of and novel knowledge on social media use in the work context and the related job demands and job and personal resources. To conclude, professional social media use has yet to fulfill its optimal utilisation potential in organisations. Using social media for work purposes has positive and negative consequences for well-being at work and for organisational culture and ways of working. However, professional social media ultimately functions as a job resource rather than a job demand.

Disclosure statement

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Informed consent and ethical approval


Signed informed consent has been received from all the interviewees. Favourable statement has been received from the regional ethics committee for the study.


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PUBLICATION II

Motivations for and Well-Being Implications of Social Media Use at Work among Millennials and Members of Former Generations

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Article

The Motivations for and Well-Being Implications of Social Media Use at Work among Millennials and Members of Former Generations

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Abstract: Working life has digitalized considerably in recent decades and organizations have taken into use new forms of collaborative technologies such as social media platforms. This study examined the relationship between social media use at work and well-being at work for millennials and members of former generations in Finland. The research data contained focus group interviews ($N = 52$), an expert organization survey ($N = 563$), and a nationally representative survey ($N = 1817$). Well-being measures included technostress, burnout, psychological distress, and a set of background variables. Content analysis and linear regression models were used as analysis methods. The results showed that millennials have various intrinsic and extrinsic motivations for social media use at work. Intrinsic motivations included employees' personal choice and their pure interest to follow the market and discussions in their own field. Extrinsic motivations were related mainly to organizations' work culture and personal branding. The survey findings revealed, however, that millennials were not only more active social media users for work, but they also experienced higher technostress and burnout than members of former generations. Social media use motivations were associated with both higher and lower technostress and burnout depending on motivation, indicating that social media use can have both positive and negative effects. Overall, our findings suggest that employees tend to utilize social media more if their needs for autonomy, competence, and relatedness are fulfilled.

Keywords: social media; work life; millennials; technostress; burnout; psychological distress



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1. Introduction

Working life has digitized considerably in recent decades and the progress still goes on [1]. Technology Acceptance Model (TAM) is widely used to explain user intentions [2] and intrinsic and extrinsic motivations to usage have established already in the early stages [3]. In general, younger employees tend to have a more positive attitude toward technology [4] (Morris & Venkatesh, 2000) and adapt more easily to new technologies compared to their older colleagues [5,6]. Younger employees lay their usage more on attitudinal base and older employees on social and process factors [4]. However, personality plays even greater role than age [7]. Technology acceptance has also been associated with work engagement, which highlights its importance for employee well-being [8].

Within the last decade, organizations have implemented more advanced forms of professional technology such as enterprise social media platforms [9–11]. However, younger employees may be more skeptical about the usefulness of social media for work compared to older employees [12]. Social media use at work is defined in this article as the use of internal corporate platforms such as Microsoft Teams or public social media platforms such as LinkedIn, through which employees use in their current workplace to create and

maintain useful social networks [10,13], and to follow, share, and produce work or related content internally or to public audiences [10]. Although some studies exist, more research is needed on motivations to use social media for work purposes especially among different generations and the related well-being implications.

The work life is getting more technology intensive and technostress, in other words, technology related stress that employees find challenging to cope with, is also a pervasive issue in organizations [14–17], which has been further provoked by the COVID-19 [18]. Remarkably, younger employees are associated with higher levels of information technology (IT) related strain [19] and technostress compared to their older colleagues [20]. Technology can also stimulate burnout [21]. Nevertheless, the positive consequences of digitalization exist, and nearly a fifth of Finnish employees feel that it has decreased the strain and over half think that it has increased the work productivity and transparency [22]. Pirkkalainen and colleagues also pointed out that normative pressure and information load enhance IT engagement, which is higher for younger employees [19]. IT engagement can also foster IT enabled work productivity [19].

Members of Generation Y or millennials who were born in the 1980s and 1990s, are also known as digital natives [6] and the Net Generation [23]. They grew up in a digitized world and have had the opportunity to use and participate in various Internet based services and communities from their earliest stages [24,25]. Although millennials are technologically savvy and play active roles in work life, the workforce is growing steadily older in Europe, and the number of employees over 50 years old (31%) has surpassed the number of employees under 35 years old (30%) [26]. Therefore, organizations need to consider that employees can have different sets of technical experience and skills and the underlying motives to use technology can also vary. Therefore, the current study examines the relationship between social media use at work and well-being at work for millennials and members of former generations in Finland. In this study, our first aim is to explore millennials' motivations and methods of professional social media use by examining qualitative data. We then analyze quantitative data of five expert organizations from finance, telecommunications, personnel services, publishing, and retail occupational fields and a nationally representative sample of Finnish employees to discern employees' motivations for social media use at work and relationship to technostress, burnout, and psychological distress.

1.1. Digitalization and Well-Being in Contemporary Work Life

Finland has a long history in technological excellence with companies such as Nokia and is a leader in digitalization [27]. In Finland, 24% of employees' work is ICT-enabled and can be completed regardless of their location [28]. In year 2018, a vast majority (91%) of employees in Finland used IT in their work [22], but only a third used social media for work purposes [29]. Nevertheless, social media use has increased steadily in organizations in recent years [30–32]. In 2018, the main purposes of social media use of Finnish employees were knowledge sharing (86%), information retrieval (83%), networking and collaboration (73%), customer service (53%), sales and marketing (43%), and product and service development (38%). Moreover, employees aged under 25 (32%) and employees aged 35–44 (33%) used social media at work most actively, although the difference was not considerable compared to employees aged 45–54 (30%) [29].

Social media provides numerous advantages for organizations. Internal social media platforms such as Microsoft Teams can improve organizational information and knowledge sharing and enhance internal communication practices [10,11,31]. Social media use can have an encouraging influence on collaboration and can enhance a sense of community across the company irrespective of physical location [30,33–35]. It can also have positive consequences for work performance and productivity [34,36]. Employees also utilize public social media platforms such as Twitter for professional development purposes, networking, and stakeholder management [30,37]. Moreover, organizations use these

external platforms for marketing and branding, which enables them to reach diverse client audiences easily [9,38].

However, new forms of technology use can jeopardize employees' well-being and induce psychosocial risks such as communication problems and leadership challenges in the creation of affective and cognitive processes for teams [39]. Moreover, the formation of in-groups, discrimination [10], and workplace cyberbullying [40] are becoming more common. As social media applications are nearly ubiquitous, they can erode boundaries between people's private and professional lives because employees can access their work anywhere and at any time. Thus, work can easily spill over to free time [41] and challenge individuals to manage their work time and workload [8] and can have negative influence on employee productivity and organizational effectiveness in general [42]. Social media can increase communication, information, and social overload [32]. In particular, constant connectivity is induced by social media push notifications and messages, which can distract people from their work and lead to concentration and sleep problems, exhaustion, burnout and technostress [41,43–45]. Employees experience technostress when technology use challenges their ability to cope with the technology related demands [46,47]. This can lead to negative consequences such as strain and reduced well-being [46,48]. Indeed, a third of Finnish employees stated that digital devices and applications have increased their strain at work [22].

Overall, contemporary work life is ever more demanding, which has severe consequences for organizations. A third of Finnish employees aged 18–35 consider their work mentally and physically straining [29]. In contrast, older employees' ability to work has improved in terms of mental and psychical strains since 2002 [29]. Concentration and memory problems are more common among employees aged 25–45, and women aged 25–34 experience the most stress [22]. Stress is produced by stressors, which elicit the employee's negative psychological response to the stressor (i.e., strain) [48]. Anxiety, fear, and depression are examples of stress consequences [49]. Moreover, burnout is a more severe consequence of diminished job resources due to high demands at work, such as time demands or work overload [50]. Burnout comprises three dimensions: exhaustion, cynicism, and reduced professional efficacy [51]. Burnout also predicts longer sick leaves from work [52]. Consequently, in recent years, stress and burnout have become significant problems in work life.

Although technical skills are almost a necessity in the modern work life, the motivations of use can vary from employers to highly encouraging employees to use social media in professional context to employees utilizing it from their free will [53–55]. To this point, the motivations for social media use at work have been studied mainly by utilizing TAM [56,57], gratifications theory [58,59], and affordance lenses [11,60]. Furthermore, studies are conducted from hedonistic and utilitarian perspectives [36,61] and by discovering intrinsic, extrinsic, and apathetic motivations for social media use at work [55,62]. However, studies on self-determination theory (SDT) in work-related social media context are still scarce [63–65].

SDT is a theory that demonstrates individuals' psychological development and goal-oriented motivational behavior [66], which is differentiated by intrinsic motivation (doing something that genuinely interest) and extrinsic motivation (doing something on the grounds of certain outcome) [67]. SDT provides a good framework for understanding the more innate motivations behind social media use, taking into account users' basic needs for competence, autonomy and relatedness, and the relationship to well-being in work context [68] (p. 4). The SDT theory encompasses three psychological needs people have: autonomy (i.e., a sense of volition), competency (i.e., the ability to use one's skills and capabilities), and relatedness (i.e., a sense of social belonging), which are affected by a person's social circumstances and individual differences [66]. Meeting these basic needs fosters intrinsic motivation, self-regulation, and mental well-being [69]. Intrinsically motivated people tend to become engrossed in tasks they genuinely enjoy rather than aiming to accomplish external outcomes or obtain rewards, which is more typical of

extrinsically motivated people [66]. However, extrinsic motivation as has its place. There are four regulation types of extrinsic motivation: external, introjected, identification, and integration, which represents the most autonomous behavior with assimilated regulations although the behavior itself is done on grounds of some instrumental value [67]. Because intrinsic motivation fulfills basic psychological needs, it is typically associated with positive well-being consequences, whereas extrinsic motivation may have the opposite impact and lead to negative well-being consequences e.g., [70–72].

1.2. Generations from Baby Boomers to Millennials

The term *Generation* may refer to either a familial generation or a social generation. The latter is a cohort of people born within the same date range. However, this population forms a generation only in a statistical sense. Being part of a generation in a social sense also requires people to share similar sociocultural experiences [73–75]. Shared experiences can include fundamental changes such as industrialization, cataclysmic events, or tragedies such as war [74].

Members of the generation born after the Second World War are called baby boomers; this name refers to the generation's massive size. Most sources identify baby boomers as people born between the early 1940s and the mid-1960s [76,77]. The baby boomers were followed by members of Generation X, who were born during the late 1960s and the 1970s [76,78]. Once again, there is no single time range for this generation, nor is there one for members of Generation Y, who are known as millennials. Some define millennials as people born from 1982 to 2004 [79]. Others define them as born between 1982 and 2000 [80], and some even use the years 1979 to 1994 [81].

The particular shared sociocultural experience that formed baby boomers was the postwar era, which was characterized by cultural radicalism and the rise of consumer society, whereas Generation X entered the workforce during an era of financial instability and recession [76,82]. In Finland, the deepest economic recession to date, which occurred during the early 1990s, also shaped the lives and careers of members of Generation X [83]. The most important event that has shaped millennial generation is rapid technological development. Millennials are digital natives who have used digital systems all their lives [84]. The Internet, mobile phones, and online social networks are also “millennials,” as they were evolved after the 1980s [85]. Digital technologies have high importance for millennials at work. For example, millennials perceive higher person–organization fit for a company with organizational policies that support employees' social media use [86].

1.3. Millennials at Work

Many studies have suggested that generations are distinctive in terms of how they behave in work life [77,81,87]. However, not all studies confirm these stereotypes [76,88]. Thus, the picture of millennials remains unclear. For example, millennials do not value traditional wage employment compared to previous generations [89]. However, millennials also report a high degree of preference for materialistic rewards [90] and seek meaningful and engaging work [91].

Furthermore, researchers have found that millennials are more positive and collaborative than previous generations. In addition, they are more willing to change jobs in search of increased leisure or a more challenging and satisfying work environment [92]. Furthermore, they have higher levels of overall company and job satisfaction, career development and advancement compared to baby boomers and members of Generation X [93]. Overall, millennials value organizational attributes such as humane and informal organization cultures that they can influence [94].

In some studies, millennials did not differ strongly from other generations. For instance, in a study of young people's work orientation in Finland over the past three decades, the value to employment showed signs of permanence and continuity among millennials. Thus, the results did not support the suggestion that young people's work orientation is weakening [88]. In addition, in a U.S. study, the effects of generational

membership on workplace behavior were not as strong as commonly held stereotypes suggest. According to this study, baby boomers exhibit fewer job mobility behaviors and more instances of compliance related behaviors compared to both members of Generation X and millennials. In addition, Generation Xers were less likely to work overtime compared to baby boomers and millennials. However, the effect sizes for these relationships were small [76].

Each generation has its own motivations, expectations, and career goals, which individuals bring to the workplace. This constitutes a challenge for managers in terms of understanding and balancing such differences, as well as avoiding intergenerational conflicts [95].

1.4. The Present Research

Although social media use has increased in organizations, there remains a gap in the current literature regarding how various generations use social media and what their motivations are for such use. Millennials are generally considered technologically savvy. However, is there a real difference in their technology use, and in particular social media use for work purposes, and do they actually cope better with technology compared to their older colleagues? This article is theoretically based on self-determination theory. We set the following two research questions (RQs) for our mixed-methods study:

RQ 1: How do millennials describe their motivations and social media use methods at work in qualitative expert organization employee interviews?

RQ 2: How are different motivations for social media use at work associated with technostress, burnout, and psychological distress in expert organizations and among Finnish employees?

Our findings supply important knowledge about social media use motivations and the association of well-being with employees of various ages. Our methodological triangulation and the two research goals provide diverse information on social media use at work among different generational groups and the connection to employee well-being.

2. Method

2.1. Participants

We based our study on three data samples collected for a research project investigating social media use at work and well-being at work. We used a sequential exploratory strategy for this mixed-method study as we first analyzed qualitative data followed by an analysis of the quantitative data in the second phase further building on the qualitative analysis [96]. We selected a mixed-method approach because the data sets complement each other and provide a multidimensional view on social media use at work. The qualitative data facilitates the articulation of explanations for social media use. In addition, we analyzed this use quantitatively and extended our scope to explore well-being implications for users of various ages first within the professional organizations and then nationally (see Table 1).

Table 1. Study participants, data, and design.

Details	Organizational Focus Group Interviews	Organizational Survey	National Survey
<i>N</i>	52	563	1817
Sample population	Millennials of five expert organizations (different industries)	Various aged respondents of five expert organizations (different industries)	Various aged Finnish employees across different industries
Purpose	To define social media use motivations	To analyze the associations between social media use motivations and well-being	To examine whether the results from expert organizations are replicated in the general workforce population
Point of time collected	February and March 2018	November and December 2018	March and April 2019

We conducted focus group interviews ($N = 52$) in five Finnish expert organizations (finance, telecommunications, personnel services, publishing, and retail occupational fields) during February and March 2018. In this article, we define expert organization as organization that employs highly skilled and educated employees, i.e., white collar knowledge workers and provides services or products related to knowledge or specific sophisticated solutions. The focus group interviews addressed 14 open-ended questions about social media use at work and well-being at work. The average duration of each interview was approximately 46 min. We recorded and transcribed all interviews. The respondents' mean age was 32 years, with a range of 25–38 years, and 69% of the interviewees were women. All interviewed employees were qualified professionals or supervisors.

Employees of five Finnish expert organizations (finance, telecommunications, personnel services, publishing, and retail occupational fields) completed the *Social Media at Work in Expert Organizations Survey* during November and December 2018. The ages of participants ($N = 563$) ranged from 21 to 67 years ($M = 40.7$, $SD = 10.9$); 67.7% of the respondents were female, 31.6% were male, and 0.7% were other. The survey response rate ranged from 3.2% to 34.2% ($M = 17.7$, $SD = 11.9$).

Finnish employees, both white collar and blue collar, from various occupational fields completed the nationally representative *Social Media at Work in Finland Survey* in March and April 2019 ($N = 1817$; 46.84% female; M , age = 41.75; SD , age = 12.19). We collected the data in collaboration with Norstat, whose panel was used. We applied sampling weights to correct minor biases related to gender and age in the analyses.

2.2. Research Design and Procedure

We collected focus group interviews at five expert organizations in various occupational fields in Finland to gain an in-depth understanding of millennials' social media use motivations at these organizations. A focus group interview is a facilitated group discussion focused on a certain research topic to gather a wide-ranging set of experiences and perspectives [97]. We recruited the selected companies via telephone and e-mail, and the companies participated free of charge. All focus group interviews were conducted on the respective companies' premises. The company contact person, who was frequently Human Resources Manager or equivalent, recruited the research participants with an invitation that introduced the research and the research group.

We held two focus group interviews at each company over the course of a single day, one following the other. An average of five interviewees participated in each focus group, and these ranged from four to six participants due to no-shows. The ideal focus group size varies from six to eight participants, but the group size can vary from five to 10 participants [97]. Nevertheless, focus groups can be successful even with three participants [98]. No-shows are unavoidable, and approximately 20% participant loss is acceptable [99].

Participants completed the surveys online using either computers or mobile devices. The research group designed the expert organization survey using the LimeSurvey program [100], which was administrated by the research group on the university server. Norstat collected the national survey by utilizing their panel working aged members [101]. The surveys were aimed at discovering the social media use and factors related to employee well-being. The participants were informed of the study's aims and their right to withdraw from the study at any point during data collection. Participation in the study was voluntary. The Academic Ethics Committee of Tampere region granted approved the research (90/2018).

Collecting responses to an identical survey in expert organizations and at the national level allowed us to establish a more extensive view on social media use and its well-being implications. The data sets used allowed us to compare and determine whether the results from expert organizations are replicated in the general workforce population. Our study design offers a novel perspective on the connections between social media use and well-

being and enables us to discover insights from professionals that can be generalized to the Finnish workforce.

2.3. Measures of Quantitative Data

Motivations for Social Media Use at Work. We asked the respondents to list 11 motivations for their social media use at work (see Appendix A). The respondents could select all applicable options. The five main motivations were used to match the results based on qualitative analysis. Our analysis categories were as follows: information seeking, communication (communication with the work community), content production, content sharing, and networking. All these measures were dummy variables. All measures are summarized in Table 2.

Table 2. Descriptive statistics on expert organization sample ($N = 563$) and national sample (T1, $N = 1817$).

Continuous Variables	Scale	Expert Organizations				National Sample			
		Millennials		Former Generations		Millennials		Former Generations	
		<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Technostress	0–24/6–42	7.46	0.28	5.59	0.25	14.53	7.25	11.6	6.8
Burnout	0–96	34.63	15.36	31.99	16.08	39.27	15.26	36.29	16.98
Psychological distress	12–48	25.04	5.62	24.62	5.83	25.73	6.51	24.74	6.15
Daily social media use	0–15	4.46	1.78	3.25	1.64	3.82	2.01	2.38	1.68
Age	22–68	31.51	4.8	49.66	6.88	29.02	5.6	50.4	7.22
Categorical variables	Coding	<i>n</i>	%	<i>N</i>	%	<i>n</i>	%	<i>n</i>	%
Information seeking	No	49	19.8	70	22.2	444.78	59.46	693.93	64.91
	Yes	199	80.2	245	77.8	303.22	40.54	375.07	35.09
Communication	No	79	31.9	94	29.8	450.24	60.19	711.89	66.59
	Yes	169	68.2	221	70.2	297.76	39.81	357.11	33.41
Information sharing	No	115	46.4	135	42.9	546.33	73.04	823.97	77.08
	Yes	133	53.6	180	57.1	201.67	26.96	245.03	22.92
Networking	No	108	43.6	164	52.1	571.63	76.42	840.43	78.62
	Yes	140	56.5	151	47.9	176.37	23.58	228.57	21.38
Content production	No	165	66.5	208	66	588.32	78.65	914.86	85.58
	Yes	83	33.5	107	34	159.68	21.35	154.14	14.42
Remote work	No	85	34.3	76	24.1	537.48	71.86	735.62	68.81
	Yes	163	65.7	239	75.9	210.52	28.14	333.38	31.19
Working hours	<35 h	21	8.5	14	4.4	203.02	27.14	190.96	17.86
	35–40 h	182	73.4	199	63.2	408.12	54.56	626.1	58.57
	>40	45	18.2	102	32.4	136.85	18.3	251.94	23.57
Higher education	No	54	21.8	140	44.4	380.05	50.81	582.16	54.46
	Yes	194	78.2	175	55.6	367.95	49.19	486.84	45.54
Lives alone	No	183	73.8	271	86	520.38	69.57	832.44	77.87
	Yes	65	26.2	44	14	227.62	30.43	236.56	22.13
Gender	Male	72	29.4	106	33.8	397.48	53.14	548.71	51.33
	Female	173	70.6	208	66.2	350.52	46.86	520.29	48.67

Social Media Use. We measured daily social media use utilizing items in which respondents were asked to indicate how frequently they used 15 social media platforms. The list included the most popular platforms such as Facebook, Twitter, and Instagram. See Appendix B for the full list and answer options. We report descriptive findings about these variables in the text. The models utilize daily social media use variable as a control variable. This measure was created by counting the total amount of different social media platforms used on daily basis. The scale ranged from 0 to 15.

Technostress. We measured technostress in the expert organization sample using four items adapted from [102] technostress scale to measure the invasive and addictive sides of social media use. The adapted items were “I feel tense and anxious when I work with social media,” “I feel I use social media excessively in my life,” “I seem to have an

inner compulsion to use social media in all places and at all times,” and, “It is difficult for me to relax after a day’s work using social media.” The scale for each item ranged from 0 (*never*) to 6 (*always*). The final scale had a good inter-item reliability of $\alpha = 0.81$. The scale ranged from 0 to 24. In the nationwide sample, we measured technostress using the six items related techno-overload and techno-invasion by Ragu-Nathan et al. (2008) [20]. We adapted the items to social media. Example items include “I am forced to do more work than I can handle due to social media,” “I must always be available due to social media,” and “I feel my personal life is being invaded by social media.” For all items, the scale ranged from 1 (*disagrees completely*) to 7 (*agrees completely*). The scale showed a good inter-item reliability of $\alpha = 0.89$. The scale ranged from 6 to 42.

Burnout. We measured burnout using the Maslach Burnout Inventory General Survey (MBI-GS) [103]. The original version of MBI-GS was validated with various occupational groups across nations [104]. The 16 items of MBI-GS scale were divided into three subscales of exhaustion, cynicism, and professional efficacy. They include questions such as “I feel tired when I get up in the morning and have to face another day on the job.” The answer scale ranged from 0 (*never*) to 6 (*every day*). The scale showed good inter-item reliability of $\alpha = 0.89$ in the expert organization sample, and $\alpha = 0.88$ in national sample). The scale ranged from 0 to 96.

Psychological Distress. We measured psychological distress using the 12-item General Health Questionnaire (GHQ-12) [105]. The questions included items such as “Have you recently been able to enjoy your normal day-to-day activities (*More so than usual–Same as usual–Less so than usual–Much less than usual*)?” and “Have you recently been thinking of yourself as a worthless person (*Not at all–No more than usual–Rather more than usual–Much more than usual*)?” The scale showed good to excellent inter-item reliability of $\alpha = 0.89$ in the expert organization sample, and $\alpha = 0.92$ in national sample. The scale ranged from 12 to 48.

Background Variables. We used remote work, weekly working hours, education attainment, living arrangements, age, and gender. The descriptive statistics for all samples are reported in Table 2. For the nationally representative data set, probability weights were used when calculating the descriptive estimates.

2.4. Analysis Techniques

The first part of our study (RQ 1) was qualitative. We divided the overarching motivations of social media use into intrinsic and extrinsic use motivations based on SDT [66], which we used as a theoretical framework for the analysis. Although the content analysis was initially based on SDT, our scope was developed during the analysis process more towards data driven analysis to also discover methods of social media use (active versus passive) and benefits and strains related to usage. The interview transcripts were coded deductively by two researchers and cross-checked to confirm the reliability. Coding results were discussed together in detail and concluded to mutual agreement on coding. The qualitative analysis provided a starting point for the quantitative analyses (RQs 2 and 3).

To analyze how different motivations for social media use at work associate with occupational well-being (RQ 2), we conducted linear regression models predicting technostress, burnout, and psychological distress. For each model, our independent variables were the motivations of information seeking, communication with work community, information sharing, networking, and content production. In addition to these variables, we controlled for remote work, weekly working hours, education attainment, living arrangements, age, gender, and the total amount of different social media platforms used on a daily basis. We conducted all models separately for millennials and other older employees. Assumptions of regression analysis were checked, and we found no issues with multicollinearity. Due to the heteroscedasticity of residuals, we report robust (Huber-White) standard errors. For each model, we report unstandardized regression coefficients, standard errors, statistical

significance of the estimates (p value), coefficients of determination (R^2). We utilized sampling weights in all models.

3. Results

3.1. Millennials' Social Media Use

The *intrinsic use motivations* were connected to pure personal choice and interest in using social media. Social media was used for professional development purposes and relationship building with both colleagues and other networks. Employees with *intrinsic social media use motivation* were genuinely interested in following and contributing to social media forums for the latest news and knowledge. One of our interviewees referred to their own choice in using social media without feeling any pressure:

"You might be reading, sharing, or familiarizing yourself with some content that is related to your work through social media (e.g., LinkedIn), but there is no pressure or conflict, but it's your own choice".

(Finance, Group 2).

The *extrinsic social media use motivation* was connected to work roles and organizations' work culture. For some interviewees, social media use was self-evident and part of their work role (e.g., in communication, marketing, and HR positions). Interviewees also used social media for personal and employer branding. Some stated that social media use is nowadays an evident work tool, especially in certain industries, as one must keep up with the latest trends and follow the actions of clients and competitors. Others, on the other hand, used it mainly due to social pressure from the company, work community, or stakeholders. Social media platforms were also used for organizing work; thus, presence to some extent is required. Externally motivated users used terms such as social selling with negative connotations: *"It creates certain pressure that you need to follow and know what is going on so that you don't miss anything essential"* (Retail, Group 1). In this quote, the interviewee expressed a fear of missing out on important information, which refers to the fact that social media is such an important tool in their field of work and that there is pressure for using it.

The interviewees had both *active and passive ways of using social media*. We defined active use as use that is visibly for other users and that can include active social interaction with others. Active users used social media for sharing work-related content and, for example, articles or news with their own insights and not merely for reposting, both internally and externally. Moreover, these users were actively starting and participating in discussions, thus aiming also to influence the followers. Instead, passive use, which we defined as not visible to others and having restricted social interaction, was limited to following the social media news feeds, retrieving and storing information, and occasionally reacting by liking and reposting other users' posts. Passive users rarely shared their own content, as one of our interviewees described,

"I just share everything, routinely—for example, if there are projects that I'm involved in and there are some positive news, I just share those links. That is basically how I use social media overall. I do not share anything personal".

(Publishing, Group 1).

We divided the consequences of social media use into *benefits and strains*. The consequences were not directly related to use motivation or if the use was active or passive: Also, those with strong intrinsic motivation reported strains, and those who were using social media more passively with more extrinsic motivation reported clear benefits of the use. The reported benefits of social media use included the rapidity of social media in terms of messaging and distributing knowledge, in addition to information accessibility, collaboration with the work community across the company, and internal and external networking. Interviewees reported that they can regulate the use themselves, which was seen very positively. In the following quote, social media is also seen as a tool for building trust in the work community:

“So, it’s easier to stay connected and create a sense of community and build trust—that way, everything improves”.

(Telecommunications, Group 1).

The perceived social pressure for using social media was stated as straining, for example, when clients are contacting any time of the day. In addition, time management issues were prevalent with endless social media feeds and the possibility for constant connectivity. Unclear social media rules and practices were also reported as a straining element. Furthermore, negative content and comments that people come across or are tagged into in social media were straining the respondents, especially if organizations did not have clear guidelines for such situations. The interviewees also reported psychological and physical strains such as fears (e.g., missing out, skills) and musculoskeletal disorders (e.g., neck pain). Social media may be connected with mental strain and, for example, insomnia. For instance, one of our interviewees reported bad feelings caused by social media: *“Of course, one straining element is that sometimes clients state their dissatisfaction in social media and you are kind of dealing with the same things at work, so it might feel bad”* (Publishing, Group 1).

Table 3 summarizes the previously presented millennials’ social media use motivations, types of use, and outcomes. Overall, millennials’ social media use can be crystalized into five user archetypes, which can also be mapped to contribute to fulfilling basic psychological needs, information seekers (autonomy and competence), communicators (relatedness), content sharers (autonomy), content producers (competence) and networkers (relatedness) that were also used as a basis for quantitative analysis.

Table 3. Millennials’ social media use at work.

Intrinsic Use Motivation	<ul style="list-style-type: none"> • Personal choice • Professional development • Genuine interest to follow trends, market, discussions • Relationship building 	Extrinsic Use Motivation	<ul style="list-style-type: none"> • Part of the role or business • Social pressure (company, stakeholders) • Personal and employer branding • Organizing work
Active Use	<ul style="list-style-type: none"> • Internal information sharing • Posting work content • Sharing news, articles, links • Participating discussions 	Passive Use	<ul style="list-style-type: none"> • Following feeds • Information retrieval and storage • Reacting, liking, reposting • Not publishing own content
Benefits	<ul style="list-style-type: none"> • Information • Rapidity • Collaboration and networks • Autonomy & self-regulation 	Strains	<ul style="list-style-type: none"> • Social pressure • Time management • Unclear rules • Psychological and physical symptoms

3.2. Associations between Social Media Use and Well-Being

Our analysis of expert organization workers and national workers showed that social media use at work was very common in Finland. Of the expert organization millennial respondents, 99.47% (560/563) used social media at work. In the national sample, 80.07% of millennials and 76.99% older employees had used social media at work. The difference between millennials and former generations was not statistically significant. Millennials reported higher technostress in both samples ($p < 0.001$). They also reported higher burnout in an expert organization sample ($p = 0.049$) and national sample ($p < 0.001$). Millennials also reported higher psychological distress in a national sample ($p = 0.002$).

We build our main analysis on user motivations of social media use that were grounded in qualitative research. The results based on expert organization workers showed that motivations of social media use were not associated with technostress, burnout, and psychological distress at the level of $p < 0.05$ among millennials (see Table 4). However, millennials who produced social media content reported lower technostress ($b = -1.16$, $p = 0.093$) and burnout ($b = -4.96$, $p = 0.083$). Information seekers among former generations reported lower burnout ($b = -4.10$, $p = 0.047$). Some of the control variables were significant in the millennial models. Millennial women reported more technostress than men, and daily social media use was associated with technostress. Those living alone had higher burnout scores. Among former generations, technostress was higher for females, younger workers, and those working less than 35 h per week. Daily social media use was associated with higher psychological distress.

We also found some differences among the national Finnish workers sample (see Table 5). Among millennials, networking ($b = 2.24$, $p = 0.001$) and content production ($b = 2.91$, $p < 0.001$) were associated with higher technostress and information seeking with lower technostress ($b = -1.28$, $p = 0.032$), and communication with the work community was associated with lower burnout scores ($b = -4.13$, $p = 0.001$) and psychological distress ($b = -1.58$, $p = 0.001$). Among older workers, information seeking ($b = 1.64$, $p = 0.001$), communication with the work community ($b = 1.19$, $p = 0.011$), and content sharing ($b = 2.19$, $p = 0.002$) were associated with higher technostress. Some of the control variables were also statistically significant within these models. Women reported higher psychological distress. Remote work had higher technostress in both millennials and others. Also, among former generations, the youngest respondents had higher technostress and burnout scores.

Table 4. Linear regressions on associations of social media use motivations on psychological well-being among expert organization workers (N = 563).

Variables	Former Generations																
	Millennials				Technostress				Psychological Distress								
	b	SE	p		b	SE	p		b	SE	p						
Information seeking	0.46	0.48	0.388	1.69	0.88	0.127	0.05	1.03	0.964	0.37	0.856	−4.1	1.44	0.047	−1.17	1.11	0.352
Communication	0.61	0.99	0.569	−0.88	3.61	0.82	0.19	1.3	0.888	0.12	0.43	−0.48	3.08	0.885	0.78	0.68	0.317
Information sharing	0.93	0.54	0.158	−0.64	1.6	0.71	−0.1	1.09	0.932	0.42	0.77	−4.43	2.4	0.139	−0.64	1.23	0.629
Networking	−0.68	0.58	0.311	−0.71	2.15	0.759	−0.02	0.63	0.978	0.97	0.53	0.57	2.59	0.837	1.02	0.5	0.11
Content production	−1.16	0.53	0.093	−4.96	2.16	0.083	−1.01	0.87	0.309	0.45	0.6	−1.08	2.2	0.649	−0.7	0.85	0.457
Remote work (ref. no)	1.6	0.27	0.004	1.03	0.94	0.335	0.46	0.96	0.655	0.55	0.31	1.68	1.98	0.444	0.16	0.64	0.81
Working hours (ref. < 35 h)	0.36	1.04	0.746	6.85	4.47	0.2	2.29	1.29	0.151	−2.77	0.87	−1.68	5.02	0.755	−0.31	0.98	0.766
>40	−0.03	0.82	0.972	2.04	3.67	0.608	0.96	1.25	0.485	−1.36	0.67	1.77	6.06	0.785	1.27	1.05	0.295
Higher education (ref. no)	1.09	0.44	0.067	−0.15	2.97	0.961	−1.39	0.79	0.156	0.09	0.62	−0.81	0.36	0.087	−0.45	0.3	0.208
Lives alone (ref. no)	−0.11	0.3	0.725	5.92	1.75	0.028	0.65	0.79	0.456	0.21	0.9	3.37	3.71	0.416	1.76	1.08	0.179
Age	−0.05	0.02	0.106	−0.07	0.3	0.827	0.02	0.07	0.76	−0.09	0.03	−0.14	0.2	0.514	−0.07	0.05	0.28
Female	2.21	0.66	0.028	3.9	2.72	0.225	2.22	0.81	0.052	1.95	0.49	1.95	1.71	0.319	−0.11	0.29	0.712
Daily social media use	0.41	0.12	0.026	0.99	0.88	0.32	0.26	0.28	0.401	0.35	0.17	0.91	0.52	0.155	0.41	0.14	0.042
Constant	3.01	1.18	0.063	23.59	10.57	0.089	20.56	2.81	0.002	8.34	2.11	40.27	10.32	0.018	26.92	2.71	0.001
R ²	0.15			0.1			0.07	0.19		0.19		0.07			0.06		

Note. Bold font indicates statistical significance ($p < 0.05$); R² = R-squared.

Table 5. Linear regressions on associations of social media use motivations on psychological well-being among Finnish workers (N = 1817).

Variables	Millennials						Former Generations								
	Technostress			Burnout			Psychological Distress			Technostress			Burnout		
	b	SE	p	b	SE	p	b	SE	p	b	SE	p	b	SE	p
Information seeking	−1.28	0.6	0.032	−1.5	1.24	0.226	−0.63	0.52	0.222	1.64	0.49	0.001	1.36	1.2	
Communication	−0.3	0.55	0.583	−4.13	1.21	0.001	−1.58	0.5	0.001	1.19	0.47	0.011	−0.15	1.17	
Information sharing	0.46	0.74	0.536	2.18	1.44	0.13	0.81	0.62	0.192	2.19	0.69	0.002	0.42	1.56	
Networking	2.24	0.68	0.001	1.01	1.53	0.51	0.49	0.66	0.456	0.71	0.62	0.257	−1.3	1.32	
Content production	2.91	0.81	<0.001	−1.9	1.62	0.241	0.49	0.66	0.456	0.46	0.81	0.573	−1.64	1.82	
Remote work (ref. no)	1.46	0.63	0.021	2.63	1.38	0.057	0.63	0.59	0.289	1.39	0.5	0.006	0.49	1.23	
Working hours (ref. < 35 h)															
35–40 h	−0.65	0.64	0.309	−1.44	1.42	0.311	−0.1	0.59	0.868	0.22	0.5	0.653	−1.31	1.45	
>40	0.18	0.82	0.824	−0.18	1.81	0.922	−0.36	0.77	0.638	0.7	0.65	0.283	−0.94	1.73	
Higher education (ref. no)	−0.12	0.54	0.82	−1	1.22	0.414	−0.81	0.53	0.125	0.05	0.42	0.91	−1.21	1.11	
Lives alone (ref. no)	0.19	0.57	0.742	0.97	1.3	0.455	0.77	0.56	0.171	0.02	0.45	0.96	1.27	1.3	
Age	−0.09	0.05	0.105	−0.08	0.11	0.48	−0.05	0.05	0.386	−0.07	0.03	0.014	−0.19	0.07	
Female	−0.6	0.53	0.257	0.37	1.17	0.751	1.23	0.5	0.015	0.41	0.39	0.287	−1.31	1.07	
Daily social media use	0.37	0.16	0.018	−0.17	0.28	0.551	−0.23	0.13	0.091	0.32	0.15	0.036	0.31	0.32	
Constant	15.77	2	<0.001	43.7	3.92	<0.001	26.68	2.02	<0.001	11.46	1.81	<0.001	48.22	4.57	
R ²	0.1			0.03			0.04			0.15			0.01		

Note. Bold font indicates statistical significance ($p < 0.05$). R² = R-squared.

4. Discussion

4.1. Millennials as Social Media Users

This mixed method study used both focus group interviews and survey data to examine the motivations of social media use among millennials and former generations and their associations with technostress, burnout, and psychological distress. Our results contribute to the existing literature on social media use motivations and provide new knowledge and comprehensively analyzed and elaborated insights of the use motivations in the professional context. Our findings demonstrated that millennials have various intrinsic and extrinsic motivations for social media use at work. Intrinsic motivations are based on employees' personal choice and their pure interest to follow the market, trends, and ongoing discussions in their own field. Employees are also personally motivated to use social media to enhance their skills and knowledge base and to build and maintain social relationships. These intrinsically motivated employees enjoy using social media for work purposes and see it as a benefit. Thus, the intrinsic motivation to use social media feeds the need to fulfill the basic psychological needs of autonomy, competence, and relatedness [67,68]. Our findings are aligned with the study by Demircioglu and Chen (2019) indicating that social media use is associated with employees need satisfaction and intrinsic use motivation [64].

By contrast, employees with extrinsic motivations for social media use at work are driven by external factors such as the fact that social media is an integral part of their work role or business or there is social pressure from the employer, colleagues, and stakeholders to use social media. The use may not always be pleasant, which may be since extrinsic motivations do not satisfy basic psychological needs [66]. This supports the findings of Panisoara and colleagues (2020) indicating that employees lack intrinsic motivation when they are not teaching online from their own will but are obliged to do so [18]. In the modern work life, employees increasingly use social media for personal and employer branding purposes [38,106]. Thus, the use is directed by external rewards such as maximized visibility and fame, enhanced career opportunities, and employer image, which are typical signs of extrinsic motivation [71]. Indeed, millennials have an urge for materialistic rewards in work life [90].

Furthermore, in our analysis, we divided social media use into active and passive use to elaborate the role of the user in more detail and to identify if the user activity is related to use motivations. Active use included internal communication and information sharing with colleagues, posting work-related content and sharing news, and articles and links with their own insights in internal and external social media platforms. Furthermore, active users participated in current discussions. Employees who stated that they use social media actively also normally enjoyed the use. Passive use was described as following social media feeds as well as reacting, liking, and reposting others' content. Compared to active use, reposting was done without their own insight on the content. Employees also used social media for information seeking, retrieval, and storage. The main distinguishing point in passive use was that employees did not publish their own content actively. Motivations for social media use at work as such did not explain the activity of the use. Both intrinsically and extrinsically motivated employees can be actively using social media, but it can be argued that, in general, intrinsically motivated people have their basic psychological needs nurtured, experience positive feelings and well-being, and value social interaction e.g., [66,70,71], which can impact their activity on social media as well.

Millennials stated various benefits of using social media for work purposes. Information can be accessed quickly and limitlessly. Creating and maintaining networks and collaboration is easy and fast. Overall, millennials stated that rapidity was one of the most positive aspects of social media because messaging and sharing information with others are effortless. These findings support prior literature on the positive implications of social media use for work purposes e.g., [10,30,33]. Importantly, millennials indicated that they could regulate their social media use themselves; thus, autonomy played a key role in their use and positive view on it. Autonomy boosts intrinsic social media usage, which is also

explored by Demircioglu and Chen (2019) [64]. The role of autonomy is critical to consider in organizations.

The results also showed that using social media for work was experienced as straining. Employees reported that they experience social pressure from the employer, colleagues, and stakeholders, which enhances their feeling of guilt if they are not active in social media, thus adding to the strain. Therefore, it is vital to consider that not all want to use social media, let alone become active users. Other mental and physical symptoms such as fears and sleeping problems contributed to employees' strain. Indeed, social media use has been associated with, for example, sleeping problems in prior studies [43,44,107]. Millennials also longed for clear social media rules and guidance, which can help them solve difficult social media situations, hence reducing the burden. To support our finding, study by Cho and colleagues (2013) revealed that social media is very important for millennials and they experience higher person–organization fit for a company that promotes social media use in their organizational policies [86]. These are theoretically essential findings and important signals for practice.

4.2. Millennials: All Stressed and Strained?

With our cross-sectional survey data, we were able to examine the associations between social media use motivations and well-being at work among millennials and older employees, which has been lacking in the prior literature. Furthermore, we compared these with organizational data and the representative national data set. In line with prior studies regarding younger employees experiencing higher levels of IT-related strain [19,20], our findings demonstrated that millennials used social media more for work purposes and experienced higher technostress and burnout in both samples as well as higher psychological distress in the nationwide sample compared to former generations. Especially women and those millennials who used social media daily experienced higher technostress in the expert organizations and those working remotely in the Finnish workforce data. The findings are aligned with prior research indicating that intensified social media use [107], remote work [18] and female gender has been associated with heightened technostress [108]. In contrast, those expert organization older employees that worked shorter workdays reported more technostress and millennials living alone, reported higher burnout. Thus, situational factors play important role in decreasing employee well-being, which broadens the current knowledge of social media use at work.

The analysis of expert organization data revealed that motivations for social media use at work were not associated with technostress, burnout, or psychological distress, which provided new knowledge to the existing theory and practice. Essentially, for millennials and older employees, various types of social media use can decrease technostress. Interestingly, millennials who produced social media content reported lower technostress and burnout (significant only with a 90% confidence level). For older employees, information seeking was associated with lower burnout. In contrast to our findings, previous studies have indicated that social media use for work purposes has been associated with increased burnout and technostress [21,41,43,109]. However, nearly a fifth of Finns have indicated that digitalization has decreased their work-related strain [22], which supports our findings. Our results imply that in the studied expert organizations, employees are fluent content producers indicating that their needs for competence have been fulfilled. Moreover, older employees rely on social media for information and solutions by satisfying their needs also for competence and autonomy. Therefore, these have buffering effect to the negative consequences of technostress. Indeed, former technological skills have been found to have an important role in accepting and utilizing new technologies [2,110]. Moreover, study by Molino and colleagues (2020) incited that personal resilience, possibilities for training and information enhanced the possibilities to accept new technologies into use and eventually fostered work engagement [8].

Among the Finnish workforce in general, remarkably, networking and content production were associated with higher technostress among millennials. Millennials are generally

perceived as more positive and collaborative than previous generations [92]. Furthermore, the findings are interesting because, in the organizational data, content production was associated with reduced technostress. Thus, employees in expert organizations seem to be more experienced social media content producers compared to Finnish workers in general. Information seeking, in turn, was associated with lowered technostress and communicating with the work community with lowered burnout and psychological distress among Finnish millennials. Hence, seeking information and social interaction can serve as a buffer for the negative effects and can contribute to better well-being by aiding the psychological needs of competence, autonomy and relatedness. For instance, social support received in social media has been associated with positive outcomes such as enhanced work performance and work engagement and decreased work-related stress [111–113].

Our results also contributed to prior research on older employees' social media usage and the related wellbeing implications. Among former generations, passive information seeking and content sharing and more active communication with the work community were associated with technostress. Therefore, older employees' needs for autonomy, competence and relatedness may not be fully fulfilled in social media. According to Morris and Venkatesh (2000), older employees tend to base their technology use on social and process factors, thus contradicting our findings [4]. Additionally, remote work was linked to higher technostress among both groups. Thus, our findings are in line with earlier findings on the positive relationship of social media use, technostress and remote work e.g., [18,41,43].

To sum up, organizational results are not directly transferrable to describe the motivations of social media use and the related well-being implications among Finnish workforce and our study provides diverse findings to the current literature. For organizations, it is vital to acknowledge that employees have diverse motivations to use social media, which can depend on the age, situational factors and the organization they are working for. Based on our analysis, social media use motivations in expert organizations actually decrease the well-being burden of social media use to some extent. This is also true for millennial Finnish workforce, except those producing content have higher technostress. In contrast, some of the older employees' social media use motivations are related to negative well-being consequences. Overall, however, our results indicate that millennials suffer more from the social media use although they may be more technologically equipped [24,84]. The underlying reason for this can be that their personal and work lives are currently overstimulated by social media, which can create fatigue, stress and strain for them [19,114].

5. Conclusions

Our research contributes to the theory and practice in several ways. It provides a multidimensional view on the motivations for social media use at work by different aged employees and the association to technostress, burnout, and psychological distress. With this study, we wanted to understand the motivations to use social media for work and the associated well-being implications by comparing millennials and former generations. The chosen sequential exploratory strategy [96] was sound and functional approach for this mixed-method study. The analyses were drawn from three different data sets consisting of qualitative and cross-sectional organizational survey data and a representative survey data of the Finnish workforce. We based motivation types for social media use at work on qualitative data and analyzed them cross-sectionally with two different data sets. Hence, the multiple data sets enabled us to provide a comprehensive view of the topic and provided important contribution to existing literature on social media use motivations and related wellbeing implications for different aged employees, which is our key strength.

Various theories and frameworks such as TAM e.g., [56], gratifications theory e.g., [59], affordances e.g., [11] and utilitarian and hedonistic motivations e.g., [36] have been used to study social media usage in work context. However, not much research is done [63–65] with SDT developed by Ryan and Deci [68,69] regarding social media use motivations in work context. Therefore, our findings provide a considerable contribution to the theory by considering also the generational differences of motivation driven social media usage

and the related wellbeing implications in addition to using SDT as theoretical framework. SDT suits well in social media use research because intrinsically motivated social media use stimulates the three basic psychological needs of individuals: autonomy, competence, and relatedness [68,69,115], which have been associated with enhanced well-being across nations [70].

Based on our analysis millennials have various intrinsic and extrinsic motivations for social media use at work. Intrinsic motivations include employees' personal choice and their pure interest to follow the market and discussions in their own field. Extrinsic motivations are related mainly to organizations' work culture and personal branding. Our survey results indicate that millennials experienced higher technostress and burnout. Moreover, the motivations for social media use at work differ among millennials and former generations and that the use motivations also varied in terms of their incising or decreasing impact on well-being.

Our results provide valuable insights for organizations to consider in their daily work practices; there is no single and right way to utilize social media for work purposes and individual differences must be acknowledged and respected. It is also important to recognize the mental burden related to social media usage and develop alleviating methods to support wellbeing and fight against the increasing contemporary problems of psychological distress, technostress and burnout at work. Furthermore, providing help and training to enforce employees' psychological needs of autonomy, competence and relatedness is crucial. Overall, it can be implied that employees tend to utilize social media more if they see the personal advantage of the use rather than the employer demanding they use it. When employees feel they have the required competence to use social media, they can regulate the use of it themselves and have the opportunity to make meaningful connections with other people, they are intrinsically motivated and in a good state of mental health.

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Informed Consent Statement: Informed consent was obtained from all subjects involved in the study.

Data Availability Statement: The data presented in this study are available on request from the corresponding author. The data will be later on made publicly available at the Finnish Social Science Data Archive.

Conflicts of Interest: The authors declare no conflict of interest.

Appendix A. For What Purposes Do You Use Social Media at Work? [Select All Applicable]

- I do not use
- Content following
- Content production
- Content sharing
- Information seeking for work-related issues

Professional networking
 Communication with the work community
 To learn something about your colleagues
 Keeping in touch with clients and other stakeholders
 To enhance own career and visibility
 To have a break at work
 Communication with friends and family

Appendix B. How Often Do You Use the Following Social Media Services for Work Purposes?

Facebook
 Facebook Messenger
 Workplace by Facebook
 Twitter
 LinkedIn
 Instagram
 Pinterest
 WhatsApp
 Snapchat
 YouTube
 Periscope
 MS Teams
 Yammer
 Skype
 SlideShare
 Slack
 Smarp
 Trello Blogs (e.g., Tumblr)
 Wiki-pages
 Discussion forums (e.g., Suomi24, Reddit)
 Some other social media service, which?

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III

Professional social media usage: Work engagement perspective

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Abstract

Social media enables information sharing and social interaction within organization. This research aims to analyze how both work- and nonwork-related communication with colleagues and the work community on social media is associated with work engagement among Finnish professionals. A total of five Finnish professional organizations ($N=563$) and a representative sample of the Finnish working population ($N=1817$) contributed to the survey data, which was analyzed with structural equation modeling. We found a direct positive association between work-related communication and work engagement among Finnish working population, and a positive indirect associations between both work- and nonwork-related communication and work engagement via organizational

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identification and social support. Findings suggest that communication in social media supports work engagement via organizational identification and social support. Organizations should pay more attention to social media communication practices and provide opportunities to build organizational identification and receive social support in social media.

Keywords

Communication, organizational identification, social media, social support, work engagement

New technologies set novel opportunities and challenges for working life and organizations. Social media use is changing communication, networking, and knowledge sharing at workplaces, and employees often use general social media and social networking sites (e.g. Facebook) on top of enterprise social media (ESM) platforms (e.g. Microsoft Teams [MS Teams]) to communicate both work- and nonwork-related matters. This has different implications to work and individuals. Past literature indicates that social media communication can provide opportunities for work engagement (Sharma and Bhatnagar, 2016; Van Zoonen et al., 2017; Van Zoonen and Banghart, 2018), that is, a positive motivational state of mind at work (Schaufeli et al., 2002) that can increase employees' performance and work productivity (Hakanen and Koivumäki, 2014). Communication in social media can also challenge employees to be and remain engaged due to conflicting demands, constant connectivity, interruptions (Bucher et al., 2013), and blurring boundaries between work and private life (Ayyagari et al., 2011).

Enterprise social media platforms, which combine numerous features, such as microblogging and document sharing in one integrated place, can contribute to improving information access and dissemination (Leonardi and Mayer, 2015). Social media usage provides opportunities for employees to collaborate and coordinate work (Gibbs et al., 2013). Social media can be supportive, particularly in inducting new employees (Leidner et al., 2018; Sharma and Bhatnagar, 2016). This can, in turn, positively influence employees to connect with colleagues, feel welcomed, and gain a sense of belongingness. Social media is not only used for work purposes, but also utilized more and more often for informal and relaxed communication with others in the work community (Mäntymäki and Riemer, 2016). However, nonwork-related social media usage is often considered as counterproductive working behavior (e.g. Andreassen et al., 2014; Berkelaar et al., 2015; Kowalski et al., 2018), which can lower employees' work engagement (Syrek et al., 2018).

This study examines the communicative purpose of social media usage in organizations and the association of this type of communication with work engagement. This communication can take place either on ESM platforms or on public social media platforms. Instead of concentrating on specific social media platforms, we consider all of these types of social media usage in our study; the only requirement is that they are used for communication with colleagues or the work community. More specifically, we analyze whether both work- and nonwork-related communication on social media are positively associated with work engagement and whether this association is mediated by increased social support and organizational identification.

Earlier research has suggested that professional social media use can support formal and informal communication within the work community (Gibbs et al., 2013; Mäntymäki and Riemer, 2016) and also offer various other job resources including increased sense of community and social support (Gibbs et al., 2013; Leidner et al., 2018; Olmstead et al., 2015) and work engagement (Sharma and Bhatnagar, 2016; Van Zoonen and Banghart, 2018). Both organizational identification, that refers to a feeling of oneness to the organization (Mael and Ashforth, 1992), and social support, that refers to an emotional, informational, and instrumental support from work community (Cohen and Wills, 1985), have been associated with enhanced work engagement in prior studies (see, for example, Demirtas et al., 2017; Hakanen et al., 2006; Othman and Nasurdin, 2013; Van Dick et al., 2020).

The results of our investigation contribute to prior research on social media usage in organizations and work engagement by providing further knowledge: First, on how social media usage for work- and nonwork-related communication is related to work engagement. Second, on the role of organizational identification and social support in that relationship, which have not been studied before. Third, this is the first study to elaborate the role of professional social media usage on work engagement, organizational identification, and social support. By analyzing separately work- and nonwork-related communication and the use of different social media tools for working purposes, we are able to infer whether social media communication with colleagues is associated with the expected outcomes, beyond the other affordances of professional social media use.

We utilized a nationwide sample of Finnish employees together with an organizational sample to examine both nonwork- and work-related social media communication. The study focuses on the communicative and social aspects of social media usage. The theory section starts with a literature review on past research on social media communication in organizations. Our hypothesis development is based on theories of work engagement, organizational identification, and social support.

Social media communication in organizations

Recent dramatic increase in professional social media usage have led organizations to utilize it more for both internal and external purposes (Koch et al., 2012; Leonardi et al., 2013; Treem and Leonardi, 2012; Yu et al., 2018). Social media, defined as a set of internet-based applications enabling user-generated content creation and exchange (Kaplan and Haenlein, 2010; Krämer et al., 2017), facilitates communication and interaction within a work community. Organization-specific applications include social media platforms, such as MS Teams, on which employees can communicate and share documents and information about work issues (Leonardi et al., 2013; Treem and Leonardi, 2012). Other applications include external public social media channels, such as Facebook, which can be utilized for personal development and self-promotion (Leidner et al., 2018; Van Dijk, 2013), branding and marketing purposes, and for collaboration with stakeholders (Kaplan and Haenlein, 2010; Sivertzen et al., 2018), in addition to collaboration with the work community.

In organizations, social media is often referred to as ESM, enterprise social networking sites (ESNS), or internal social media (ISM; Ellison et al., 2015; Leonardi et al., 2013). ESNS refer to social networking sites that mimic public social networking sites,

such as Facebook, but which can restrict membership and interaction by their implementation and management within an organization (Ellison et al., 2015). In addition to this function, ESM and ISM allow workers to reveal communication partners, view different forms of messages and material, and communicate with all or specific coworkers using functions similar to public social media (Leonardi et al., 2013).

Social media can help employees create robust forms of communication, sustain and grow knowledge over time (Treem and Leonardi, 2012). Thus, communication in social media can advance knowledge sharing across teams regardless of geographical location (Ellison et al., 2015; Leonardi et al., 2013; Pee and Lee, 2015) and can enhance organizational transparency and job performance (Olmstead et al., 2015). Social media allows employees to target their messages to certain audiences and modify, revise, and alter content afterwards, thus enhancing the content quality (Treem and Leonardi, 2012). Employees can satisfy their information needs by allowing information and sharing ideas in a conversational and autonomous manner, rather than just fulfilling certain task-oriented purposes (Leonardi and Mayer, 2015; Mäntymäki and Riemer, 2016).

Social media provides possibilities to reveal social ties, in other words, associations between people and between people and content. This can support forming social connections, identification with other experts and accessing relevant information, which in turn can enhance the social capital in organizations (Treem and Leonardi, 2012). Therefore, ESM usage can improve social support (Olmstead et al., 2015; Treem and Leonardi, 2012) and the sense of closeness and connectedness to colleagues and the company (Ehrlich and Shami, 2010). A few scholars (Sharma and Bhatnagar, 2016; Van Zoonen et al., 2017; Van Zoonen and Banghart, 2018) have shed light on the relationship between work-related social media communication and work engagement, indicating that there is a positive link between the two. Although social media usage in organizational context provides various benefits, employees can be skeptical about using social media for work purposes (Treem et al., 2015). Professional social media usage can also stimulate unwanted behaviors, such as cyberloafing (Andreassen et al., 2014), cybervetting (Berkelaar et al., 2015), and cyberbullying (Kowalski et al., 2018). Hence, professional social media challenges communication dynamics in organizations (Gibbs et al., 2013).

So far, it is also known that informal, nonwork-related discussions between colleagues in ESM can foster social capital and interpersonal relationships (Leonardi and Mayer, 2015; Mäntymäki and Riemer, 2016). Therefore, nonwork-related communication can enable to fulfill both work-related and private communication motives of the employees (Leonardi and Mayer, 2015; Mäntymäki and Riemer, 2016). Furthermore, collaboration with coworkers on Facebook is positively associated with higher job satisfaction (Robertson and Kee, 2016). Nonwork-related communication on social media knowledge management systems, such as organizational discussion groups, can enhance employees' interaction with diverse groups across organization. This communication can allow employees to improve their skills, such as problem-solving and knowledge sharing, which in turn, can foster organizational innovativeness and value (Mäntymäki and Riemer, 2016) and can subsequently lead to better organization performance (Nisar et al., 2019). As nonwork-related social media communication is associated with various positive organizational outcomes, it can be argued that it has a connection to work engagement as well, in addition to the suspected association of work-related communication and work engagement.

Work engagement in the context of social media communication

Work engagement is one of the central well-being themes in today's working life. Recent comparative 30-country study indicates a need to pay more attention to fostering work engagement, especially in organizations that have less educated employees, blue-collar jobs and nonpermanent contracts (Hakanen et al., 2019). Professional social media usage can work as a strategic tool for enhancing (Sharma and Bhatnagar, 2016) and even contributing to constructing work engagement in organizations (Van Zoonen and Banghart, 2018). However, the intensity of work together with social media usage challenge employees to balance their professional and private life, especially in situations where constant work presence is needed, because work tasks can be accessed anywhere at any time (Van Zoonen et al., 2017). Due to this, it is important to note that social media communication overload is also found to be one of the major stressors at work (Yu et al., 2018).

Schaufeli et al. (2002) introduced the concept of work engagement, which is one of the concepts used to describe positive aspects of well-being at work. Work engagement refers to a long-term and broad work-related state of mind that allows employees to express themselves physically, cognitively, and emotionally in their work roles (Schaufeli and Bakker, 2004a; Schaufeli et al., 2002). Vigor (e.g. high energy level), dedication (e.g. sense of significance), and absorption (e.g. positive immersion to work) are dimensions of work engagement (Schaufeli and Bakker, 2004a; Schaufeli et al., 2002). Thus, engaged employees generally enjoy, experience meaningfulness in, and are willing to put effort into their work.

Work engagement is a positive force that pushes employees forward with their work to perform their best. Work engagement has been associated with numerous positive aspects of work, such as enhanced initiative-taking (Hakanen et al., 2008), work performance and productivity on the task level (Hakanen and Koivumäki, 2014), and financial returns on the corporate level (Xanthopoulou et al., 2009). Work-engaged employees are also more eager to help colleagues achieve common goals (Xanthopoulou et al., 2009). Furthermore, work engagement can prevent burnout and absenteeism from work (Schaufeli et al., 2009).

Job resources, which are often described as significant drivers of work engagement (Bakker, 2011; Schaufeli and Bakker, 2004a), refer to salutary psychological, physical, social, and organizational characteristics of work, such as control over one's work and social support (Demerouti et al., 2001; Schaufeli and Bakker, 2004a). In turn, job demands, such as workload and time pressure, are work-related elements that require constant psychological or physical effort from employees and can decrease work engagement (Demerouti et al., 2001; Schaufeli and Bakker, 2004a). Bakker et al.'s (2007) findings revealed that job resources, such as organizational climate and supervisor support, can boost work engagement, even if job demands are high.

Communication through social media can either act as a resource or a burdening factor. Past researchers have discovered two important relationships to work engagement: one between social media usage and job resources, such as effective communication practices and wider information accessibility, and the other between social media and job demands, such as communication, information, and social overload (Van Zoonen and Banghart, 2018; Van Zoonen et al., 2017; Yu et al., 2018). Requests for professional social media usage can involve interruptions and conflicts in combining professional and

private lives. The usage can cultivate the need for employees to separate these two stronger and not utilize social media for work purposes as much, which can decrease their work engagement (Van Zoonen and Banghart, 2018). A body of research also highlights the fact that constant information availability and online connectivity can have negative well-being consequences for employees, such as decreased job performance (Yu et al., 2018), exhaustion (Van Zoonen et al., 2017), and technostress (Bucher et al., 2013), which can reduce work engagement. Therefore, employees are challenged to balance both the needs of their own and their employer and the positive associations that people easily make about social media usage can become counterproductive.

Nevertheless, prior studies indicate that there is a positive link between work engagement and those employees who are willing to integrate their professional and private lives using social media for work purposes (Van Zoonen and Banghart, 2018; Van Zoonen et al., 2017). In addition, the study by Syrek et al. (2018) demonstrated that nonwork-related social media usage is associated with lower work engagement between persons and within person straight after the usage. However, their study also revealed that nonwork-related social media usage can serve a microbreak, thus enhancing work engagement an hour after the usage.

Work engagement can be expressed physically, cognitively, and emotionally (Schaufeli and Bakker, 2004a; Schaufeli et al., 2002), but in our study, we were interested if the behavioral activities of using social media can have an impact on work engagement as an affective–cognitive state of mind. Thus, we hypothesize the following:

Hypothesis 1a. A direct positive association exists between work-related communication on social media and work engagement.

Hypothesis 1b. A direct positive association exists between nonwork-related communication on social media and work engagement.

Organizational identification and social support

The concept of organizational identification is based on social identity theory. This theory explains how group categorization helps people to build their positive self-concept, which subsequently increases social identification and belongingness to a certain group (Tajfel and Turner, 1985). Thus, organizational identification is a type of social identification within a specific organizational group, which is cognitively constructed, relational, and comparative. In short, organizational identification refers to oneness with an organization, which can result in an employee taking any successes or failures of the organization personally (Mael and Ashforth, 1992). Social identities become active depending on their accessibility and situational saliency meaning that even individuals with strong organizational identification can have other personal and group-based identities as well (Mael and Ashforth, 1992; Tajfel and Turner, 1985).

The association between organizational identification and work engagement has been established in past research. For example, the relationship between organizational identification and job satisfaction is mediated by work engagement (Karanika-Murray et al., 2015). The association between perceived organizational corporate social responsibility initiatives and organizational citizenship behaviors and work engagement is also

mediated by organizational identification (Van Dick et al., 2019). Furthermore, ethical leadership has also been related to higher organizational identification and work engagement (Demirtas et al., 2017).

Fieseler et al. (2015) suggest that the higher organizational identification in social media settings, the more it fosters employees to exemplify a unified identity with both work- and nonwork-related elements (Fieseler et al., 2015). Research evidence also suggests that employees are using multiple identities successfully to present themselves in social media depending on the fundamental purpose of the disclosure (Berkelaar et al., 2015; Ollier-Malaterre et al., 2013; Van Dijck, 2013). Possibility to combine private and professional boundaries can enhance feeling of togetherness (Leonardi et al., 2013).

Identity negotiation can also involve context collapse, as employees' communication audiences can be both private and professional (boyd, 2008). This context collapse and especially invisible audiences may lead in tensions between people and people to be anxious about privacy issues, resulting in them censoring themselves. The ability to segment audiences using advanced privacy features makes it easier for users to consider which audiences they wish to disclose themselves (Vitak, 2012). Nevertheless, people may not share the same motives for online disclosure (Ollier-Malaterre et al., 2013). Thus, employees may need policies and support from employers to develop their boundary management skills (Ollier-Malaterre et al., 2013).

Madsen (2016) underpinned the idea that organizational identity is socially and communicatively constructed, claiming that employees more strongly identify with an organization when they can discuss ideas with, negotiate with, and challenge each other on ISM platforms. This is also supported by Van Zoonen and Treem (2019) implying that work-related information sharing in social media is associated with organizational identification. Especially, vertical communication in organizations has been found to be associated with higher organizational identification, meaning that communication from and with top management is essential in forming organizational identification (Bartels et al., 2010; Larosiliere and Leidner, 2012). Collegial friendships, specifically the perceived authority of those friendships on Facebook, are associated with higher employee identification on the departmental and organizational level. Thus, managers are in key roles to enable a positive communication climate and to foster organizational identification (Bartels et al., 2019). In addition, horizontal (i.e. informal) communication with colleagues in Facebook is associated with organizational identification (Larosiliere and Leidner, 2012).

Based on the above-mentioned arguments, both types of communication, work- and nonwork-related, on social media are key to creating a sense of community and collaboration and eventually can help to build work engagement. On the grounds of previously presented research literature, we hypothesize the following:

Hypothesis 2a. Organizational identification mediates the relationship between work-related social media communication and work engagement.

Hypothesis 2b. Organizational identification mediates the relationship between non-work-related social media communication and work engagement.

Social support derives from the fundamental and comprehensive human motivation concerning the need to belong, which embraces forming and maintaining social relationships

(Baumeister and Leary, 1995; Kelly et al., 2017) and consists of emotional, informational, instrumental support, and social belonging (Cohen and Wills, 1985). Prior research indicates the job resource role of social support. A supervisor's support has been related to work engagement (Hakanen et al., 2006) and moderating the effects of job demands on work engagement (Othman and Nasurdin, 2013; Sawang, 2012). Therefore, the support received from supervisors is important for balancing job demands and fostering work engagement. In addition, Orgambidez-Ramos and De Almeida (2017) stated that collegial social support moderates the relationship between work engagement and job satisfaction. Thus, engaged employees are more satisfied with their work when they are surrounded by supportive peers.

By linking social support to social media usage, evidence suggests that both collegial and supervisor support are related to the usage of social networking sites. Study by Charoensukmongkol (2014) indicate that social media enables the formation and maintenance of social relationships and the ability to act supportive toward colleagues, which can intensify the use of social media, as advice and support is effortlessly available. Conversely, perceived supervisor support decreases employees' need to attach to social media. Both of these notions can have an impact on employee performance by mitigating work-related stress (Charoensukmongkol, 2014). ESM is also utilized in an e-learning context in organizations, and it allows employees to share experiences and give and receive peer support (Leino et al., 2013).

Lu and Hampton (2017) suggest that Facebook usage increases awareness of resources such as social support embedded in one's social network, which is perceived higher the more social ties, the larger and diverse the person's network is. Buehler et al. (2019) discovered that people use several verbal support-seeking strategies in their Facebook status updates. For example, asking help, indicating a stressor or alternatively, celebrating successes (Buehler et al., 2019). Moreover, private and informal Facebook discussion groups can enhance peer support, emotional support, and professional connectedness, which can have a positive influence on decreasing work-related stress (Gandy-Guedes et al., 2016). Besides, informal communication on ESM platforms can foster collaboration, social connectedness, and social capital, regardless of organizational boundaries (Ali-Hassan et al., 2015; Jarrahi and Sawyer, 2013). Based on the previous hypotheses and the literature, we hypothesize the following:

Hypothesis 3a. Social support mediates the relationship between work-related communication and work engagement.

Hypothesis 3b. Social support mediates the relationship between nonwork-related communication and work engagement.

Method

Participants

Investigation of the relationship between professional social media usage and work engagement involved conducting a social media at work survey at five Finnish professional organizations, which represented different occupational fields: finance, telecommunications, personnel services, publishing, and retail. The occupational fields were

Table 1. Responses provided by companies in sample 1 ($N=563$).

	Industry	Number of targeted employees	Number of responses	Response rate (%)
Company A	Personnel services	677	128	18.9
Company B	Retail	870	194	22.3
Company C	Publishing	152	52	34.2
Company D	Telecommunications	1026	102	9.9
Company E	Finance	2737	87	3.2

selected based on their recognized public social media visibility in Finland. We wanted a representation of different occupational fields that were not too similar to each other. In addition, the size of the organizations varied from bigger corporations with more than 10,000 employees to smaller companies employing under 2000 employees. The targeted audiences in these organizations varied from 152 to 2737 participants (see Table 1).

The social media at work in expert organizations survey was collected from employees of five professional organizations during November and December 2018. The sample 1 participants ($N=563$) were aged between 21 and 67 years ($M=40.7$, $SD=10.9$); 67.7% were female, 31.6% were male, and 0.7% other. The survey response rate ranged between 3.2% and 34.2% ($M=17.7$, $SD=11.9$). Participants were recruited by their company's human resources or communications departments, via email, or via ISM platforms (see details in Table 1).

After collecting data from expert organization employees, we conducted a national survey including the same measures to get a more diverse picture of the phenomenon. During March and April 2019, *the social media at work in Finland survey* was collected from Finnish employees of different occupational fields. The survey participants ($N=1817$) were aged between 18 and 65 years ($M=41.75$, $SD=12.19$); 46.84% were female and 53.16% were male. The survey response rate was 28.3%. Norstat organized data collection; it established a pool of volunteers from which participants were recruited. Our stratified sampling strategy, with corresponding sampling weights, allowed us to create a representative sample of the Finnish workforce population in terms of age and gender ($M_{age}=41.4$, $SD_{age}=12.4$; 47.9% female).

Conducting an identical national comparison survey allowed us to establish a more extensive view on the topic. This way we are able to compare the data sets to find out if the same results from expert organization employees will replicate in the general workforce population. Our study design offers a novel perspective on the linkages between social media use and work engagement and enables us to discover insights from professionals that can be generalized to the Finnish working population.

Procedure

Completion of both surveys involved using either computers or mobile devices. Sample 1 was designed with the LimeSurvey program and was administrated by the research group in the university server. Sample 2 was collected by Norstat. The surveys aimed to

discover the relevant professional social media platforms and the purposes of their use, as well as factors related to work engagement. The median response time for the survey was 18:08 minutes in sample 1 and 17:08 minutes in sample 2. Participants in both data samples were informed of the study's aims and advised of their right to withdraw from the study during data collection. Participation in the study was voluntary. The Academic Ethics Committee of Tampere region in Finland stated that the research does not pose any ethical issues.

Measures

Work engagement. We measured work engagement with the Utrecht work engagement scale (UWES), which covers the three dimensions of work engagement: vigor, dedication, and absorption. Initially, the UWES comprised 24 questions (Schaufeli et al., 2002), but currently a 9-item scale is recommended due to its construct validity (Seppälä et al., 2009). Here a Finnish 9-item version of the UWES is used (Hakanen, 2009; see Online Appendix A for the English translation). The answer options were *Never*, *A few times a year*, *Once a month or less*, *A few times a month*, *Once a week*, *A few times a week*, and *Every day*. The answers were given numerical values of 0 to 6, respectively. All three dimensions were summed up to composite variables. The composite reliability (CR) coefficient for vigor was .92 in sample 1 and .94 in sample 2, CR for dedication was .92 in sample 1 and .93 in sample 2, and CR for absorption .88 in sample 1 and .89 in sample 2. The average variance extracted for vigor was .85 in sample 1 and .88 in sample 2, for dedication .85 in sample 1 and .86 in sample 2, and for absorption .79 in sample 1 and .80 in sample 2. The discriminant validity was supported as, in both samples, the average variance extracted coefficient for each construct was higher than its squared correlations with other constructs (Farrell, 2010; see Online Appendices B and C).

Organizational identification. Organizational identification was measured with a 6-item scale (Mael and Ashforth, 1992). The items measuring perceived oneness with an organization included, for example, "I experience my employer's successes as my successes" and "I am very interested in what others think about the company I work at" (see full list from Online Appendix D). The answer options used a Likert-type scale ranging from 1 (*Strongly disagree*) to 7 (*Strongly agree*). These items were summed up to a composite variable with a scale of 6 to 42 and a Cronbach's alpha reliability coefficient of .80 in sample 1 and .87 in sample 2.

Social support. Social support defined as emotional, informational, and instrumental support, and social belonging (Cohen and Wills, 1985) was measured using four questions from interpersonal relations and a leadership dimension from the second version of the Copenhagen psychosocial questionnaire: "How often do you get help and support from your colleagues?," "How often do you get help and support from your nearest superior?," "Is there a good atmosphere between you and your colleagues?," and "Do you feel part of a community at your place of work?" (Pejtersen et al., 2010). The answer options were *Never/hardly ever*, *Seldom*, *Sometimes*, *Often*, and *Always*, with each answer given a numerical value of 1 to 5, respectively. These items were summed up to a composite

variable with a scale of 4 to 20 and a Cronbach's alpha coefficient of .74 in sample 1 and .77 in sample 2.

Work- and nonwork-related social media communication. The frequency of social media usage for work-related communication was measured with the question "How often do you use social media to keep in touch with your colleagues or work community regarding work-related matters (e.g. information sharing or agreeing timetables)?" The frequency of usage for nonwork-related communication was measured with the question "How often do you use social media to keep in touch with your colleagues or work community regarding nonwork-related matters?" The answer options were *I don't use it*, *Less than weekly*, *Weekly*, *Daily*, and *Many times a day*, with answers given numerical values of 0 to 4, respectively.

Social media platforms. To analyze usage frequency of different social media platforms for work purposes, we utilized a comprehensive list of 21 social media platforms (such as Facebook, Twitter, LinkedIn, and MS Teams) paired with the following question: "How often do you use the following social media platforms for work purposes?" The answer options were: *I don't use it*, *Less than weekly*, *Weekly*, *Daily*, and *Many times a day*, with answers given numerical values of 0 to 4, respectively. Answers to these questions were summed up to a composite variable with a Cronbach's alpha coefficient of .66 in sample 1 and .85 in sample 2.

Background variables. The sociodemographic variables used were age and gender.

Data analysis

For descriptive measures in samples 1 and 2, we counted means of our observed continuous variables, frequencies for our categorical variables, and correlations between our study variables (see Tables 2–4). Using sampling weights, we estimated univariate measures of the Finnish working-force population as a representative sample. Testing our hypothesized model (Figure 1) involved structural equation modeling, which was conducted with the lavaan package implemented in the statistical computing system R (Rosseel, 2012). The model included direct paths from both work- and nonwork-related social media communication to work engagement. In addition, indirect paths existed between both work- and nonwork-related social media communication and work engagement via organizational identification and social support. The model also included residual correlations between organizational identification and social support.

For all regression paths, we also included the social media use for work purposes, age, and gender (not reported in the figures). We used a scaled Yuan–Bentler test statistic and robust standard errors to adjust for multivariate nonnormality in our samples (Rosseel, 2012). Due to the nested structure of sample 1, the errors for this sample were estimated as being clustered within companies. The structural equation models did not use sampling weights calculated for sample 2, as age and gender were control variables in our models (see Winship and Radbill, 1994).

Table 2. Descriptive numbers of samples 1 and 2 results.

	Range	Sample 1 (N=563)		Sample 2 (N=1817)	
		M	SD	M	SD
Continuous variables					
Vigor	0–12	8.80	2.81	8.81	2.80
Dedication	0–12	8.57	3.10	8.57	3.10
Absorption	0–12	8.33	3.13	8.33	3.13
Organizational identification	6–42	20.11	4.48	24.38	8.28
Social support	4–20	15.81	2.59	14.60	3.00
Work-related comms	0–4	2.35	1.25	1.36	1.20
Nonwork-related comms	0–4	1.58	1.06	1.21	1.06
Social media use for work	0–84	12.51	6.86	5.57	7.16
Age	18–67	40.67	10.86	41.37	12.44
Categorical variables					
Female		n	%	n	%
		381	67.67	870	47.91

Nonwork-related comms = nonwork-related communication in social media; work-related comms = work-related social media communication.

Table 3. Pearson correlation coefficients of sample 1 variables (N=563).

Measure	1	2	3	4	5	6	7	8	9	10
1. Vigor	–									
2. Dedication	.82	–								
3. Absorption	.63	.65	–							
4. Organizational identification	.28	.35	.29	–						
5. Social support	.42	.44	.33	.19	–					
6. Work-related comms	.07	.11	.07	.11	.06	–				
7. Nonwork-related comms	.12	.11	.07	.20	.14	.33	–			
8. Social media use for work	.08	.14	.07	.19	–.02	.45	.33	–		
9. Age	.08	.06	.11	.08	–.02	–.02	–.10	–.03	–	
10. Female	.01	–.03	.03	.08	–.06	–.00	.12	.06	–.06	–

Nonwork-related comms = nonwork-related communication in social media; work-related comms = work-related social media communication. Statistically significant correlations ($p < 0.05$) highlighted in bold.

To estimate the model fit, we report the χ^2 statistic with degrees of freedom and a significance test, along with other widely used fit statistics that are not affected by the sample size to the same degree as the χ^2 statistic (Hu and Bentler, 1999). These statistics include the root mean square error of approximation (RMSEA), the comparative fit index (CFI), and the standardized root mean squared residual (SRMR). In calculating these statistics, we use the following cutoff criteria suggested by Hu and Bentler (1999): .06 for RMSEA, .95 for CFI, and .08 for SRMR.

Table 4. Pearson correlation coefficients of sample 2 variables ($N=1817$).

Measure	1	2	3	4	5	6	7	8	9	10
1. Vigor	–									
2. Dedication	.79	–								
3. Absorption	.64	.70	–							
4. Organizational identification	.32	.38	.38	–						
5. Social support	.42	.41	.33	.28	–					
6. Work-related comms	.13	.15	.15	.17	.14	–				
7. Nonwork-related comms	.12	.14	.13	.15	.15	.54	–			
8. Social media use for work	.02	.09	.10	.17	.07	.40	.34	–		
9. Age	.08	.11	.08	.02	–.06	–.12	–.15	–.13	–	
10. Female	.13	.12	.16	.08	.05	.03	–.00	–.07	.02	–

Nonwork-related comms = nonwork-related communication in social media; work-related comms = work-related social media communication. Statistically significant correlations ($p < .05$) highlighted in bold.

Results

Based on the descriptive statistics, Skype, MS Teams, Workplace by Facebook, Yammer, and WhatsApp were the five most used social media platforms in the expert organizations (sample 1). The frequency of use of MS Teams ($r = .38, p < .001$), Skype ($r = .32, p < .001$), Facebook ($r = .26, p < .001$), WhatsApp ($r = .24, p < .001$), and LinkedIn ($r = .22, p < .001$) were associated with communicating with colleagues via social media for work purposes the most. The same was true for Facebook ($r = .30, p < .001$), WhatsApp ($r = .29, p < .001$), MS Teams ($r = .24, p < .001$), and Facebook Messenger ($r = .22, p < .001$) and communicating with colleagues via social media for nonwork purposes.

In the estimated path model (Figure 2), work-related communication was not associated with either organizational identification ($\beta = -.01, p = .902$) or social support ($\beta = .04, p = .095$). On the contrary, nonwork-related social media communication with colleagues was positively associated with both social support ($\beta = .17, p < .001$) and organizational identification ($\beta = .15, p < .001$). Both organizational identification ($\beta = .25, p < .001$) and social support ($\beta = .44, p < .001$) were positively associated with work engagement. The frequency of social media use for work purposes was negatively associated with social support ($\beta = -.10, p = .012$) and positively associated with organizational identification ($\beta = .14, p = .048$).

Analysis showed a good fit between the hypothesized model and our data ($\chi^2 (df=14) = 26.01, p = .026, CFI = .99, RMSEA = .038, SRMR = .013$). No significant direct associations between work-related communication ($\beta = .02, p < .403$) or nonwork-related communication ($\beta = -.03, p < .438$) and work engagement were observed. However, significant indirect associations existed between nonwork-related social media communication with colleagues and work engagement, both via organizational identification ($\beta = .04, p < .001$) and social support ($\beta = .07, p < .001$; see Table 5). The total effect of nonwork-related social media communication on work engagement was found ($\beta = .08, p = .013$), and 88% of it was mediated via social support and 43% via organizational identification.

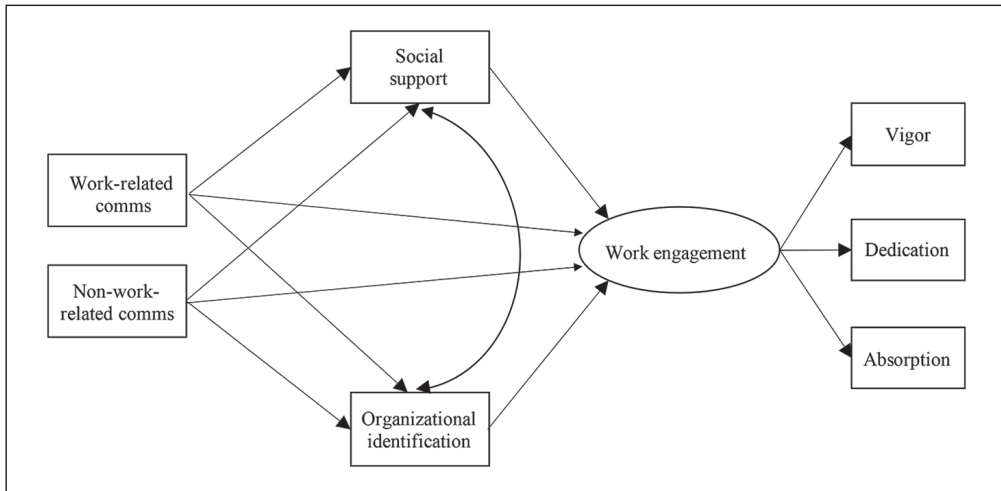


Figure 1. Proposed model based on hypotheses.

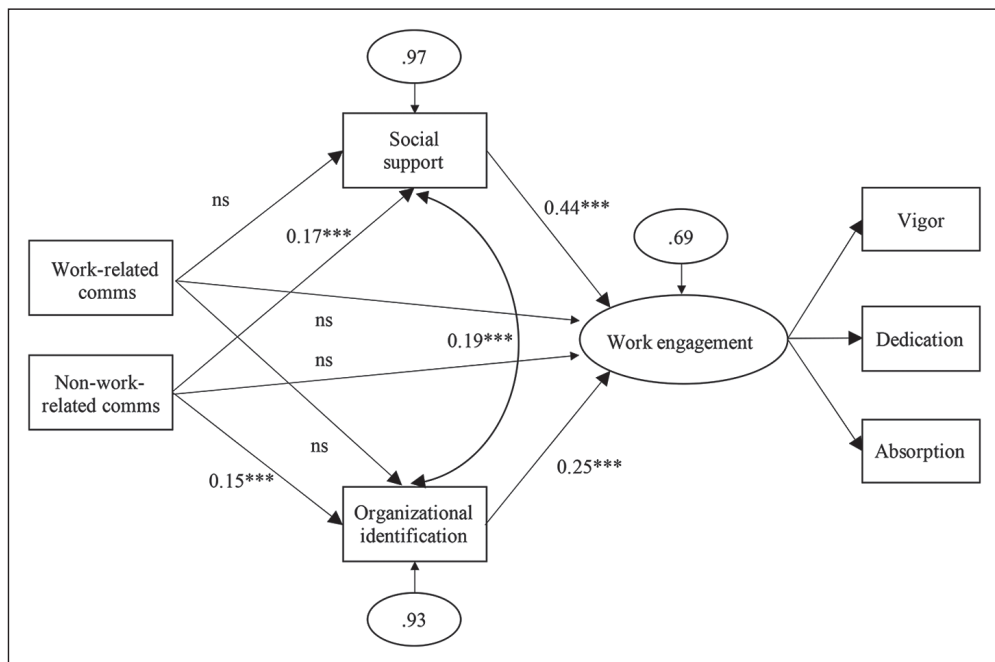


Figure 2. The estimated path model in sample 1 (N=563).

According to the descriptive statistics of sample 2, the most used social media platforms among the Finnish workforce were WhatsApp, Skype, Facebook, Wiki-sites, and YouTube. The frequency of use of WhatsApp ($r = .55, p < .001$), Facebook ($r = .32, p < .001$), Facebook Messenger ($r = .30, p < .001$), and Instagram ($r = .26, p < .001$) were associated with communicating with colleagues via social media for work purposes the

Table 5. Indirect effects of work- and nonwork-related communication in samples 1 (N=563) and 2 (N=1817).

Indirect effects	Sample 1		Sample 2	
	β	p	β	p
Work-related comms -> soc support -> work eng	.02	.110	.03	.006
Nonwork-related comms -> soc support -> work eng	.07	<.001	.04	<.001
Work-related comms -> org id -> work eng	-.00	.903	.03	.002
Nonwork-related comms -> org id -> work eng	.04	<.001	.02	.015

Social media use for work purposes, age, and gender in the models. Nonwork-related comms = nonwork-related communication in social media; work-related comms = work-related social media communication. Statistically significant correlations ($p < .05$) highlighted in bold.

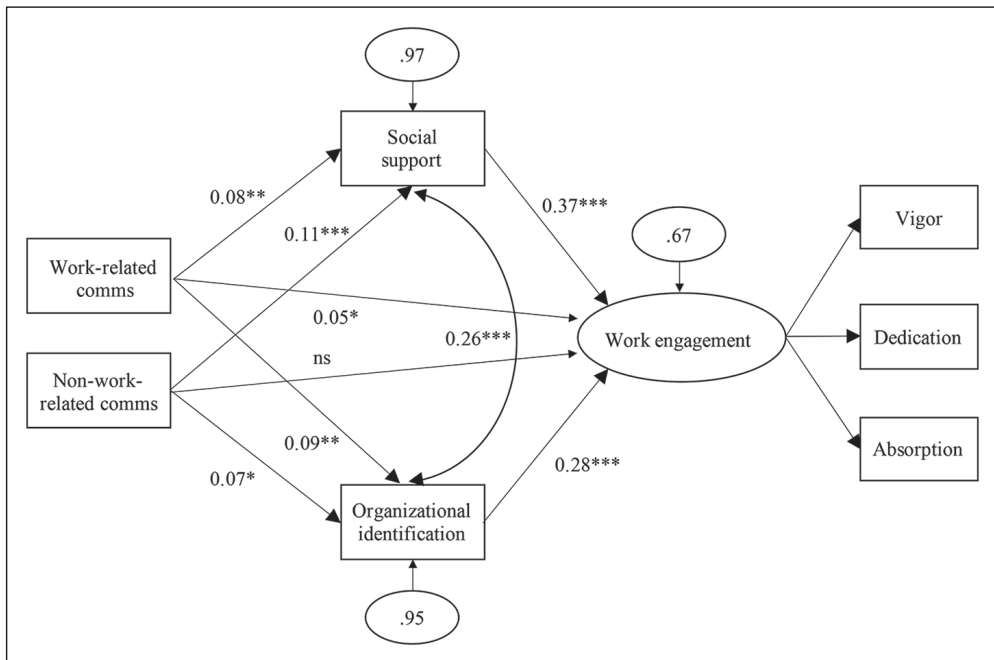


Figure 3. The estimated path model in sample 2 (N=1817).

most. The same was true for WhatsApp ($r = .36, p < .001$), Facebook Messenger ($r = .32, p < .001$), and Facebook ($r = .26, p < .001$) and communicating with colleagues via social media for nonwork purposes.

In the estimated path model (see Figure 3), work-related communication was positively associated with organizational identification ($\beta = .09, p = .002$) and social support ($\beta = .08, p = .005$). Nonwork-related social media communication with colleagues was also positively associated with organizational identification ($\beta = .07, p = .013$) and social support ($\beta = .11, p < .001$). Organizational identification ($\beta = .28, p < .001$) and social

support ($\beta = .37, p < .001$) were both positively associated with work engagement. The social media use for work purposes was positively associated with organizational identification ($\beta = .12, p < .001$). Of our background variables, female gender was positively associated with social support ($\beta = .05, p = .048$), organizational identification ($\beta = .08, p < .001$), and work engagement ($\beta = .10, p < .001$), and age was positively associated with organizational identification ($\beta = .05, p = .025$) and work engagement ($\beta = .14, p < .001$).

The analysis showed an acceptable fit between our hypothesized model and our data ($\chi^2(df=14) = 85.91, p < .001, CFI = .98, RMSEA = .053, SRMR = .015$). There was a direct relationship between work-related communication and work engagement ($\beta = .05, p = .043$), but not between nonwork-related communication and work engagement ($\beta = .04, p = .097$). An indirect association was revealed between work-related communication and work engagement via social support ($\beta = .03, p = .006$) and organizational identification ($\beta = .03, p = .002$; see Table 5). Of the total effect of work-related communication ($\beta = .11, p < .001$), 28% was mediated via social support and 24% via organizational identification. In addition, an indirect effect existed between nonwork-related social media communication and work engagement via social support ($\beta = .04, p < .001$) and organizational identification ($\beta = .02, p = .014$; see Table 5). Of the total effect of work-related communication ($\beta = .10, p = .001$), 39% was mediated via social support and 20% via organizational identification.

Discussion

This study examined the associations between social media usage for work- and nonwork-related communication in organizations and work engagement among Finnish professionals. Moreover, we explored how work- and nonwork-related communication in social media is further associated with specific job resources of organizational identification and social support that can enhance work engagement. Our study used two complementary samples to test our hypothesized model (Figure 1). The organizational survey gives specific knowledge on social media usage and its relation to work engagement in five professional organizations from different occupational fields (finance, telecommunications, personnel services, publishing, and retail), while the national data offer a more comprehensive view on these factors overall in Finland.

Our findings partly supported the first hypothesis (H1a), as there was a positive direct association between work-related social media communication and work engagement among members of Finnish workforce (sample 2). We did not find similar direct association between nonwork-related social media communication and work engagement (H1b). Other hypotheses concerned indirect effects via organizational identification (H2a and H2b) and social support (H3a and H3b). We found support for these among Finnish workforce (sample 2). In other words, we found a positive indirect associations between both work- and nonwork-related communication and work engagement via organizational identification and social support. Among professional organization workers (sample 1), these indirect effects were found only in nonwork-related communication.

Theoretical implications

Work engagement has recently been widely researched (e.g. Bakker, 2011; Bakker et al., 2007; Hakanen, 2009; Hallberg and Schaufeli, 2006; Schaufeli and Bakker, 2004a; Schaufeli and Bakker, 2010; Schaufeli et al., 2002). However, only a few studies have investigated the association between work-related social media communication and work engagement (Van Zoonen et al., 2017; Van Zoonen and Banghart, 2018) and the relationship between nonwork-related social media communication and work engagement (Syrek et al., 2018). We contributed to the lack of research by investigating the relationship between work engagement and both work- and nonwork-related communication in an integrated research model taking into consideration the mediation relations of organizational identification and social support. Therefore, our study builds on the existing literature and demonstrates that work-related social media communication is directly associated with work engagement among Finnish workers.

Our results are in agreement with the past literature denoting the importance of work-related communication with colleagues on social media, which can enhance communication practices and information accessibility (Van Zoonen et al., 2017) and play a key role in the construction of employees' work engagement (Van Zoonen and Banghart, 2018). These positive consequences apply especially for those employees who successfully integrate their professional and private life boundaries (Van Zoonen and Banghart, 2018), which is in line with our findings regarding positive association of nonwork-related communication and work engagement and provides further knowledge to the current literature. Syrek et al. (2018) discovered that nonwork-related communication can act as a microbreak and after the usage enhance work engagement. Based on our analysis, nonwork-related communication indicates even higher work engagement than work-related communication. Therefore, informal communication during work time increases employees' resources at work.

In addition to discovering direct relationship between work-related communication and work engagement, our study contributes to the theory by investigating the mediating role of organizational identification and social support in that relationship. As our results indicate, the relationship between work-related communication on social media and work engagement is mediated via organizational identification among Finnish working population. Thus, our results support the previous research findings, which claim that work-related social media communication can enhance organizational identification (Bartels et al., 2010; Madsen, 2016; Van Zoonen and Treem, 2019). The association between work-related communication on social media and work engagement was also mediated via social support on the national level. The findings are in agreement with previous studies by Charoensukmongkol (2014) and Leino et al. (2013) verifying that work-related social media communication is associated with social support.

Furthermore, we discovered that social media usage for nonwork-related communication with the work community is indirectly associated with employees' engagement with work via organizational identification. This result was found in both our samples. Study by Larosiliere and Leidner (2012) also found the positive link between nonwork-related social media communication and organizational identification. In addition, our results support the research by Fieseler et al. (2015), who suggest that employees may

successfully combine both private and professional identities in social media, which can enhance their organizational identification.

Both data samples also established the mediation relation of social support between nonwork-related communication in social media and work engagement. These results indicate that social media usage at work for nonwork-related matters is vital for socialization purposes and can enhance employees' engagement with their work. The results complement and extend prior research by Mäntymäki and Riemer (2016) and Nisar et al. (2019), which imply that nonwork-related communication enhances communication practices, such as knowledge sharing and collaboration and foster social capital and organizational performance. Overall, our results suggest that social media communication can foster work engagement via positive social ties, such as organizational identification and social support.

Practical implications

This study contributes to working life and has many practical implications. First, the study's findings revealed that social media usage between employees for work-related communication is directly associated with work engagement in one of the data samples, among Finnish workforce. Social media usage as such does not necessarily enhance employees' vigor, dedication, and absorption in their work and workplace. However, organizational identification and social support establish this type of association with work engagement. Our results indeed indicate that establishing organizational identification and social support in the organizations form a solid basis for social media communication to be successful and as a precondition, the potential to contribute to the employees' work engagement.

Second, social media should not only be a channel for sharing documents or a one-way information source. Instead, social media should be a two-way communicative channel that enables employees to express their feelings, relate to others and the workplace, exchange knowledge and expertise with colleagues, and give and receive support. This two-way communication idea concerns both work- and nonwork-related communication on social media. Consequently, one of our key findings for practice is to acknowledge that nonwork-related communication on social media can enhance work engagement more than work-related communication through organizational identification and social support. Thus, it is critical to allow and also promote nonwork-related discussions in ESM alongside work-related discussions. In addition, our results indicate that nonwork-related communication predicts higher work engagement, and this may be due to successful integration of professional and private lives as suggested by Van Zoonen and Banghart (2018), which organizations could consider in their working practices.

Third, we established some differences between the data samples. Nonwork-related social media communication is fully mediated via organizational identification and social support in both of our samples. However, we only discover this mediation relationship of organizational identification and social support to work-related communication in sample 2 among members of the Finnish working population. Thus, it might be good for the organizations we explored to regard this finding and consider how they can overcome this unused potential.

Fourth, our findings reveal that employees' social media usage for both work- and nonwork-related communication helps employees receive social support and identify with the organization online. This support and identification subsequently positively impact employees' engagement in their work. Support concerned not only collegial support but also supervisors' support; this is a key element revealed by our findings, confirming the findings seen in prior literature (Orgambidez-Ramos and De Almeida, 2017; Othman and Nasurdin, 2013; Sawang, 2012).

In times like these, in the middle of coronavirus disease (COVID-19) pandemic, the usage of social media for work purposes is essential among knowledge workers. New ways of working are explored rapidly. Feeling emotional connection to the work community and knowing that help is available are in central role when social distancing is required. Thus, supporting social media communication plays very crucial role in keeping work engagement high throughout the crisis.

Strengths, limitations, and future research directions

The use of national, representative data ($N=1817$) is a key strength of this study, along with the organizational data from five different industries; having two data samples is an asset, and they complement each other. The national sample gives a wide and more general view on social media usage in overall working life in Finland. In turn, the organizational sample ($N=563$) provides information on social media usage in the specific occupational fields of finance, telecommunications, personnel services, publishing, and retail; these fields are publicly active on social media. Thus, the comparison of these two data samples explains some of the differences in the samples. Moreover, the results contribute to previous literature and include practical implications for organizational use. The current research is interdisciplinary and contributes to various scientific research fields: social science, health, information and communication technology, and management.

Future crucial considerations regarding organizational surveys include ensuring management commitment to distribute, remind, and motivate people to respond to the survey. The channel of survey-request distribution is essential, as some organizations distributed the request only through social media channels. E-mails sent by supervisors were considered an effective way to receive responses. The timing of data collection is also important. Simultaneous survey distribution and layoffs in the organizations may influence the responsiveness, as discovered in some of the organizations.

As our results indicate, nonwork-related social media communication at work predicted higher organizational identification and social support and, in turn, work engagement. Therefore, for future research, more thorough investigation and concentration on nonwork-related social media communication in a work context is needed. In addition, examination of social support and organizational identification in that relationship has potential for future studies. These are important aspects also from COVID-19 pandemic perspective, as people are working from home using social media for work purposes more than ever before.

In conclusion, our findings provide evidence that among Finnish employees, both work- and nonwork-related communication on social media are indirectly associated with work engagement via organizational identification and social support. Organizations

should pay more attention to social media communication practices and provide opportunities for organizational identification and receiving social support in social media.

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Supplemental material

Supplemental material for this article is available online.

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PUBLICATION IV

Professional Social Media Usage and Work Engagement Among Professionals in Finland Before and During the COVID-19 Pandemic: Four- Wave Follow-Up Study

Reetta Oksa, Markus Kaakinen, Nina Savela, Jari Hakanen, & Atte Oksanen

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Original Paper

Professional Social Media Usage and Work Engagement Among Professionals in Finland Before and During the COVID-19 Pandemic: Four-Wave Follow-Up Study

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Abstract

Background: The COVID-19 pandemic has changed work life profoundly and concerns regarding the mental well-being of employees' have arisen. Organizations have made rapid digital advancements and have started to use new collaborative tools such as social media platforms overnight.

Objective: Our study aimed to investigate how professional social media communication has affected work engagement before and during the COVID-19 pandemic and the role of perceived social support, task resources, and psychological distress as predictors and moderators of work engagement.

Methods: Nationally representative longitudinal survey data were collected in 2019-2020, and 965 respondents participated in all 4 surveys. Measures included work engagement, perceived social support and task resources, and psychological distress. The data were analyzed using a hybrid linear regression model.

Results: Work engagement remained stable and only decreased in autumn 2020. Within-person changes in social media communication at work, social support, task resources, and psychological distress were all associated with work engagement. The negative association between psychological distress and work engagement was stronger in autumn 2020 than before the COVID-19 outbreak.

Conclusions: The COVID-19 pandemic has exerted pressure on mental health at work. Fostering social support and task resources at work is important in maintaining work engagement. Social media communication could help maintain a supportive work environment.

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KEYWORDS

COVID-19; engagement; mental health; moderator; predictor; psychological distress; social media; social support; support; task resources; usage; work engagement

Introduction

The rapid spread of the COVID-19 pandemic has affected our lives and work profoundly [1,2]. The COVID-19 pandemic has

pressurized organizations to make a rapid digital leap to remote work and thus challenged and cultivated employees' well-being [3,4]. In Europe, 37% of the employees began working remotely in March and April 2020, with Finland having the largest

proportion of remote workers (59%) [3]. In 2019, prior to the COVID-19 pandemic, only 23% of people in Finland worked remotely from home or other locations regularly, and 14% did so occasionally; therefore, the leap has been enormous [5].

In remote work conditions during the COVID-19 pandemic, the use of digital tools and social media platforms has increased at work for information and document creation, sharing, and exchange and for video meetings and discussions [6]. These tools are often used for both work and nonwork purposes among colleagues and have been found to enhance ways of working, foster innovation, allow for learning new skills, enhance performance, foster social relationships and social support, organizational identification, enable job satisfaction, and work engagement [6-11]. However, there is currently a lack of research on their role during the pandemic.

Work engagement, a key positive motivational state of well-being at work, is a comprehensive and enduring positive mental state that employees experience at their workplace and consists of three dimensions: vigor (ie, high energy levels, mental resilience, and persistence), dedication (ie, a sense of significance and pride), and absorption (ie, deep concentration on work and challenges detaching from work) [12,13]. Work engagement among employees in Finland was favorable before the COVID-19 crisis: 63% experienced vigor, 64% experienced dedication, and 56% experienced absorption in their work often or always [5].

According to job demands-resources model, work engagement is particularly driven by job resources, which are positive psychological, physical, social, and organizational characteristics of work, such as a good organizational climate and social support from colleagues and supervisors, which help employees accomplish work goals and foster learning and personal growth [13,14]. Social support defined as emotional, informational, and instrumental support, which describes not only the functional importance of relationships, but also the quality of those relationships and social belonging, can be a great reciprocal resource, for example, in coping stress and enhancing self-efficacy [15-18]. Engaged employees are more likely to be proactive and productive in their work [19]. Furthermore, autonomy, possibility to engage in meaningful work, and opportunities to leverage their strengths and experience at work are important factors influencing employee engagement [20-21].

Based on the Conservation of Resources (COR) theory, people tend to obtain and protect valuable resources, and loss of resources plays a significant role in the development of psychological stress [22]. Work engagement, as an energetic resource that employees may possess, should be a key priority in organizations, as it can increase life satisfaction and can prevent employees from psychological distress, depression, anxiety, sickness absenteeism, and burnout [23-26]. Furthermore, work engagement has been associated with healthy cardiac autonomic activity and a low likelihood of disability pensions [27,28]. Notably, high levels of work engagement have also been associated with increased short-term psychological distress and with decreased psychological stress over time [29]. At the societal level, work engagement predicts less unemployment in the general population [27].

The COVID-19 pandemic, along with its associated increase in digital and remote work, has potentially transformed ways of working for good [30]. Prior literature indicates that in the digital work environment, employees appreciate the opportunity to influence their work and enjoy the freedom and flexibility to complete their tasks; thus, they experience agency and higher self-esteem [31]. Resources such as support from managers received on social media can prevent work-related psychological distress [32,33]. Recent studies on the COVID-19 pandemic have reported that personal resilience and organizational and social support can sustain employee well-being and prevent anxiety [34]. Low supervisor support can, in turn, predict lower well-being, including stress, exhaustion, and burnout [35]. Furthermore, a study on adults in the United States reported that psychological distress increased from 3.9% in 2018 to 13.6% in 2020 during the COVID-19 pandemic [36]. Indeed, employees in the medical field have reported increased psychological distress and decreased well-being owing to heightened demands and workloads [34,37].

According to the COR theory [22] resource gains (such as supervisor support) in themselves have only a modest effect on well-being, but instead acquire saliency in the context of resource loss. Thus, prolongation of the COVID-19 pandemic can be considered a resource threat for employees. It can be argued that perceived social support and task resources have been particularly important in autumn 2020 as social distancing policies had been implemented since spring 2020 [1,2], and normal social interactions and working practices have been highly limited for a prolonged time. Among the basic psychological needs, particularly relatedness (lack of social contacts) and competence (eg, reduced possibilities to effectively bring about desired effects and outcomes) have been affected [38].

Social media communication at work has increased during the COVID-19 pandemic [6], and prior evidence has shown that work-related social media communication can enhance occupational resources such as social support and organizational identification and moreover work engagement [8]. However, previous studies have also indicated that psychological distress is associated with decreased work engagement before [39] and during the COVID-19 pandemic in spring 2020 [40]. Thus far, little is known about the longitudinal associations between professional social media communication and work engagement or how professional social media communication has affected work engagement and employees' mental well-being during the COVID-19 pandemic.

This longitudinal study analyzed changes in work engagement among employees in Finland before and during the COVID-19 pandemic. Our study investigated whether changes in social media communication at work, perceived social support, task resources, and psychological distress are related to changes in employees' work engagement, especially at a time of a prolonged pandemic. We proposed the following hypotheses: (1) increased social media communication predicts an increase in work engagement; (2) increased perceived social support and task resources at work predict an increase in work engagement; (3) increased psychological distress predicts decreased work engagement; and (4) the association between work engagement

and (i) social media communication, (ii) social support, and (iii) psychological distress have been stronger during rather than before the COVID-19 pandemic.

Methods

Participants and Procedure

Data from a 4-timepoint longitudinal survey on social media usage at work in Finland from 2019 to 2020 were acquired to represent the working population in Finland. The first survey was conducted in March to April 2019 (timepoint 1 [T1]; n=1817). The participants were recontacted in September to October 2019 (timepoint 2 [T2]; n=1318), March to April 2020 (timepoint 3 [T3]; n=1081), and September to October 2020 (timepoint 4 [T4]; n=1152). The fourth survey was sent to all original respondents, whereas the third survey was sent only to those who had responded to the second survey.

The final sample in this study (n=965; 45.08% female; mean age 44.97 years, SD 11.36 years) included respondents who answered all 4 surveys, and the response rate was 53.11%. We found no major bias when conducting nonresponse analyses and when comparing the sample with official census figures of the working population in Finland [8]. The sample encompassed all major occupational fields and covered all prominent areas of Finland [6]. Analyses focused on employees of working age (18-66 years) and those respondents who remained employed (n=868). Only those respondents who finished the whole survey were included in the final data set. The survey study involved no ethical issues according to the assessment of the Academic Ethics Committee of Tampere region in Finland. The survey was conducted in Finnish, and participation was voluntary. The research group designed the survey and collected data in collaboration with Norstat, whose web-based research panel was used to recruit participants.

Measures

Work-Related and Nonwork-Related Social Media Communication

We measured the frequency of social media usage for work-related communication by asking the question, "How often do you use social media to keep in touch with your colleagues or work community regarding work-related matters (eg, sharing information or agreeing on timetables)?" We measured the frequency of social media usage for nonwork-related communication by asking the question, "How often do you use social media to keep in touch with your colleagues or work community regarding nonwork-related matters?" Possible answers were 0="I don't use it," 1="less than weekly," 2="weekly," 3="daily," and 4="many times a day." Both social media communications were measured at every time point; that is, every 6 months.

Work Engagement

Work engagement is most often measured using the Utrecht Work Engagement Scale (UWES) [41]. The 9-item version of this scale, UWES-9, is used most often owing to its construct validity [42]. Example questionnaire items include the following: "At my work, I feel that I am bursting with energy"

and "I feel happy when I am working intensely." Responses are scored on a scale ranging from 0="never" to 6="always/every day." All 3 dimensions of the UWES were summed up to create a composite variable with a range of 0-54 and the Cronbach α coefficient was measured for all timepoints, ranging from .95 to .96. Work engagement was measured at every timepoint; that is, every 6 months.

Perceived Social Support

Perceived social support at work was measured using 4 questions on social support received from colleagues, supervisors, and the work community in general. These questions originate from the second version of the Copenhagen Psychosocial Questionnaire (Multimedia Appendix 1) [43], and they have been previously validated as a measure for social support at work [8]. Scores associated with these 4 items were summed to obtain a composite variable with a range of 4-20. Higher figures indicate higher perceived social support. The scale showed high reliability (Cronbach α =.74-.79). Perceived social support was measured at every timepoint; that is, every 6 months.

Task Resources

Task resources were measured using 4 questions from the work organization and job content dimension of the second version of the Copenhagen Psychosocial Questionnaire (Multimedia Appendix 2) [43]. Scores associated with the 4 questions were summed to obtain a composite variable with a range of 4-20. The scale showed adequately high internal consistency (Cronbach α =.67-.69). Task resources were measured at every time point; that is, every 6 months.

Psychological Distress

We measured psychological distress using the 12-item General Health Questionnaire [44]. Example questions included the following: "Have you recently felt constantly under strain?" and "Have you recently felt capable of making decisions about things?" Scores associated with all items were summed to obtain a composite variable with a range of 0-36. Higher scores indicate higher psychological distress. The scale showed high reliability (Cronbach α =.89-.92) between measurement points. Psychological distress was measured at every timepoint; that is, every 6 months.

Background Variables

Sociodemographic variables considered herein included age, gender, and education. All background variables were assessed at every timepoint; that is, every 6 months.

Statistical Analyses

As descriptive statistics, we expressed data as mean (SD) values for continuous study variables and frequencies and proportions for categorical variables (Tables 1 and 2). In addition, SD values between measurements were calculated for the within-person-level variables. We also assessed correlations among our study variables measured at different timepoints (Multimedia Appendix 3).

For all our hypotheses, we analyzed whether the within-person variation in social media communication, perceived social

support, task resources, and psychological distress predicted changes in work engagement. We tested our hypotheses using a hybrid (or within-between) linear regression model [45]. This method decomposes the association between the dependent variables and time-variant independent variables into within-person and between-person effects. This is carried out by adding the individual means of dependent variables (between-person effects) and individual deviations from the person means (within-person effects) into the model

simultaneously. Between-person effects are then estimated as associations between the individual means of the dependent and independent variables. Within-person effects are estimated as associations between the dependent variable and the observed deviation from the individual means. Thus, the between-person effects describe static differences between individuals, whereas within-person effects describe a dynamic relationship between the timely fluctuations in both the dependent and independent variables.

Table 1. Descriptive statistics of the study variables: continuous variables.

Variables	Time					Within-person differences, SD
	Range	T1, mean (SD)	T2, mean (SD)	T3, mean (SD)	T4, mean (SD)	
Work engagement	0-54	38.78 (12.13)	39.08 (12.15)	39.29 (11.64)	38.42 (12.04)	5.35
Work-related social media communication	0-4	1.27 (1.21)	1.31 (1.19)	1.52 (1.21)	1.51 (1.25)	0.69
Nonwork-related social media communication	0-4	1.16 (1.06)	1.10 (0.99)	1.24 (1.06)	1.18 (1.01)	0.59
Social support	4-20	14.65 (2.86)	14.56 (2.87)	14.68 (2.91)	14.65 (3.01)	1.49
Task resources	4-20	13.89 (2.76)	13.98 (2.74)	14.03 (2.63)	13.90 (2.70)	1.31
Psychological distress	12-48	24.89 (6.21)	24.14 (5.60)	24.26 (5.29)	24.19 (5.53)	3.32
Age in T1 (years)	18-64	43.52 (10.86)	N/A ^a	N/A	N/A	N/A

^aN/A: not applicable.

Table 2. Descriptive statistics of the study variables: categorical variables.

Variables	Values	
	Coding	Number of participants, n (%)
Females ^a	0/1	379 (43.7)
Basic education	0/1	26 (3.0)
Secondary degree	0/1	429 (49.4)

^aNumber of participants at each time point (T1-T4)=868; total number of observations (T1+T2+T3+T4)=3472.

Our analysis proceeded in 2 steps. Model 1 included all our within-person and between-person main effects and a random intercept. For work-related and nonwork-related social media communication, perceived social support, task resources, and psychological distress, the effects were estimated as within- and between-person effects. For time, we estimated only within-person effects. Time was included as binary variables (T2-T4) with T1 as a reference category. Gender, age, and education at T1 were added to the model as between-person variables, as they varied only between persons.

To test our hypothesized moderation effects, within-person interaction terms including work-related and nonwork-related

social media communication, perceived social support, task resources, and psychological distress at T4 were added to the model; Schunck [46] has described the estimation of within-person interaction terms. The significant interaction terms (95% CI) are reported in Model 2 in Tables 3 and 4. We report unstandardized regression coefficients (B), their estimated SE values, significance (*P* value), the variance of random intercept, and a log pseudolikelihood estimate in Tables 3 and 4. For effect size estimates, we reported Cohen *f*² coefficients for all the significant predictors. These coefficients were calculated using the approach described by Selya et al [47] and they can be interpreted as the proportion of explained variance associated with certain independent variables [48].

Table 3. Within-between models predicting changes in work engagement with time: fixed effects.

Variables	Model 1		Model 2	
	B (SE)	P value	B (SE)	P value
Constant	4.84 (3.82)	.21	3.99 (3.89)	.31
Within-person variables				
T2 (reference: T1)	0.08 (0.26)	.75	0.11 (0.26)	.68
T3 (reference: T1)	0.08 (0.28)	.77	0.10 (0.28)	.71
T4 (reference: T1)	-0.66 ^a (0.29)	.02	2.69 (1.31)	.04
Work-related social media communication	0.38 (0.15)	.009	0.38 (0.15)	.01
Nonwork-related social media communication	0.11 (0.17)	.50	0.12 (0.17)	.48
Social support	0.82 (0.09)	<.001	0.81 (0.09)	<.001
Task resources	0.91 (0.10)	<.001	0.92 (0.10)	<.001
Psychological distress	-0.28 (0.04)	<.001	-0.25 (0.04)	<.001
Between-person variables				
Females	4.02 (0.54)	<.001	4.02 (0.54)	<.001
Basic education	-1.97 (1.87)	.29	-1.97 (1.87)	.29
Secondary degree	-0.11 (0.54)	.84	-0.11 (0.54)	.84
Age at T1 (years)	0.08 (0.02)	.003	0.08 (0.02)	.003
Work-related social media communication	0.44 (0.39)	.26	0.44 (0.39)	.26
Nonwork-related social media communication	1.35 (0.45)	.003	1.35 (0.45)	.003
Social support	0.72 (0.14)	<.001	0.72 (0.14)	<.001
Task resources	1.89 (0.15)	<.001	1.89 (0.15)	<.001
Psychological distress	-0.57 (0.08)	<.001	-0.57 (0.08)	<.001
Within-level interactions				
Psychological distress at T4	N/A ^b	N/A	-0.14 (0.05)	.012

^aValues in italics are significant.

^bN/A: not applicable.

Table 4. Within-between models predicting changes in work engagement with time: random effects.

Variables	Model 1	Model 2
Intercept, variance (95% CI)	52.49 (45.37-60.73)	52.52 (45.40-60.76)
Log pseudolikelihood	-11753.96	-11748.44

Results

The results of descriptive statistical analysis are shown in Tables 1 and 2. There were no significant changes in work engagement in T1-T3; however, in T4, work engagement decreased (B=-0.66; P=.02) (Table 3). The effect size of this change was low (Cohen f^2 <.01). Among the other within-person variables, an increase in work-related social media communication (B=0.38; P=.009), social support (B=0.82; P<.001), and task resources (B=0.91; P<.001) were associated with increased work engagement. Increased psychological distress, in turn, was associated with reduced work engagement (B=-0.28; P<.001). The variance in work engagement was mainly explained by social support (Cohen f^2 =.06), task resources

(Cohen f^2 =.05), and psychological distress (Cohen's f^2 =.04), and the effect size for work-related social media communication was low (Cohen f^2 <.01).

Between-person differences in nonwork-related social media communication (B=1.35; Cohen f^2 <.01; P=.003), social support (B=0.72; Cohen f^2 <.01; P<.001), and task resources (B=1.89; Cohen f^2 =.01; P<.001) were positively associated with average work engagement, yet they only explained a marginal share of the variance in work engagement. Between-person differences in psychological distress, in turn, were negatively associated with work engagement (B=-0.57; P<.001). The effect size for this association was low (Cohen f^2 <.01). In addition, female gender (B=4.02; P<.001) and age (B=0.08; P=.003) were

associated with between-person differences in work engagement. This implies that females reported higher work engagement on average than males, and older respondents also had higher work engagement on average. However, the effect size was low both for gender (Cohen $f^2 < .01$) and age (Cohen $f^2 < .01$).

Among our moderations (model 2), only the interaction effect between T4 and psychological distress was significantly related to work engagement ($B = -0.14$; $P = .012$). As expected, the negative association between within-person differences in work engagement and psychological distress was stronger in autumn 2020 ($B = -0.39$) than at T1 ($B = -0.25$; $P < .001$). However, the overall proportion of the variance in work engagement explained by this interaction was low (Cohen $f^2 < .01$).

Discussion

Principal Findings

This study longitudinally investigated how social media communication at work predicts work engagement. Our theoretical and empirical model was based on the job demands-resources model and COR theory and considered the role of social support and task resources at work, along with psychological distress. Our results show that work engagement remained stable and only decreased in autumn 2020. Within-person changes in social media communication at work, social support, task resources, and psychological distress were associated with work engagement. Moreover, work engagement decreased during autumn 2020 when psychological distress had a stronger negative association with work engagement compared to that before the COVID-19 outbreak.

Our findings partly support hypothesis 1 and fully support hypothesis 2, thus demonstrating that more intensive work-related social media communication and higher perceived social support and task resources are associated with higher within-person work engagement. Nonwork-related communication with colleagues, perceived social support, and task resources were associated with between-person work engagement. However, within-person changes in nonwork-related social media communication did not predict changes in work engagement. Women and older people experienced higher work engagement, as reported previously for individuals in Finland and Europe [49,50].

Increased psychological distress was associated with reduced within-person work engagement, thus supporting hypothesis 3. Our results do not support hypotheses 4-i and 4-ii as the associations between work engagement and social media communication, perceived social support, and task resources did not change during the COVID-19 pandemic. The results partly support hypothesis 4-iii because the within-person association between psychological distress and work engagement was stronger during the COVID-19 pandemic (ie, autumn 2020).

Comparison With Prior Work

Our study is timely and the first one to offer longitudinal evidence regarding internal and external social media communication, both work-related and nonwork-related, in

organizations and the related well-being implications, before and during the COVID-19 pandemic. Our findings revealed that work engagement remained considerably stable at the onset of the COVID-19 pandemic during spring 2020. Hence, our results provide interesting insights and are in contrast with those of prior studies reporting that major disasters usually provoke stress and reduce resources [22,51]. However, prolonged uncertain situations have detrimental effects on well-being [52], which our results also confirm.

Increased psychological distress was associated with reduced work engagement in the within-person model, which is in line with prior reports on stress and social media use [53,54]. Individuals experienced higher psychological distress and lower work engagement during the autumn 2020, when COVID-19 was already well-known, and the crisis was underway. Therefore, our results contribute to the current literature on crises and the use of information and communication technologies [55,56], which indicate that a continued crisis has a negative influence on employee well-being and provides further knowledge, especially on professional social media use during the COVID-19 pandemic.

The significant role of various job resources in work engagement construction has been established in prior studies and in the context of social media [8,13,14]. Our findings strengthen the role of job resources in boosting work engagement during the pandemic by demonstrating that an increase in perceived social support and task resources fosters within-person and between-person work engagement.

Our findings have practical implications for organizations by demonstrating that work engagement decreased during autumn 2020, while psychological distress was stronger at that timepoint. Employees continued to work under uncertain conditions in autumn 2020 with no certain signs of future relief. Thus, providing mental health support for employees in such situations is crucial. The importance of supervisor support in alleviating employees' emotional exhaustion and feelings of uncertainty regarding COVID-19 has been previously reported [57], which our findings also emphasize. Furthermore, our results indicate that work-related social media communication is associated with enhanced work engagement, thus explaining within-person variation. Hence, communication with colleagues via social media can also serve as an important job resource that supports employees' resources and vigor, as well as their dedication to and absorption in their work.

Increased nonwork-related social media communication did not explain within-person variation in work engagement. We observed only between-person differences because those with high nonwork-related social media communication also had a higher level of work engagement on average. Employees who use social media actively for informal communication are also the ones who engage more in their work. This is because when engaged, employees invest energy into their work-related roles and therefore behave more proactively [58] and have higher contextual performance; that is, an individual's propensity to behave in ways that facilitate the social and psychological context of an organization [59]. Furthermore, the association between informal social media communication and work

engagement might be more complex. For example, prior literature has reported that the association between informal social media communication and work engagement is mediated through other factors such as social support and organizational identification [8].

Moreover, increased social support and task resources were related to enhanced within-person and between-person work engagement. The results emphasize the importance of supporting employees in using their expertise, maintaining a sense of meaningfulness, providing possibilities to influence their work content and load, and offering and receiving social support.

Strengths and Limitations

We used a longitudinal, nationally representative sample, which enabled the analysis of timepoints before and during the COVID-19 crisis and the related effects on well-being, which can regard as one of the strengths of this study. The response rate was high, and our survey included a very limited number of missing observations. The study design with work-related and nonwork-related social media communication was novel, and a similar longitudinal study has not been performed

before. The study was conducted with employed people in Finland and did not examine the COVID-19 crisis cross-nationally. Because this was an observational study, the associations reported herein should not be directly interpreted as causal relationships. Some effect sizes were low, but effect sizes for the main results remained significant even though our model was adjusted for a number of factors. This study was also limited to self-reported information.

Conclusions

Work engagement decreased during autumn 2020 at a time when psychological distress had a stronger negative association with work engagement. Social media communication at work, perceived social support, and task resources were also associated with higher work engagement. Overall, work engagement remained relatively stable during the COVID-19 crisis. However, providing mental health support during a prolonged crisis is crucial for organizations. Moreover, supporting employees' resources at work is important in maintaining employee work engagement, in which social media communication can be of help.

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Conflicts of Interest

None declared.

Multimedia Appendix 1

Copenhagen Psychosocial Questionnaire II Interpersonal relations and leadership dimension.
[DOCX File , 23 KB-Multimedia Appendix 1]

Multimedia Appendix 2

Copenhagen Psychosocial Questionnaire II Work organization and job contents dimension.
[DOCX File , 13 KB-Multimedia Appendix 2]

Multimedia Appendix 3

Correlation matrix.
[DOCX File , 100 KB-Multimedia Appendix 3]

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Abbreviations

COR: Conservation of Resources

UWES: Utrecht Work Engagement Scale

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