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The role of internal CSR in guiding the digitalisation of work

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Abstract

In the context of the increased use of digital technologies at work and the various reported positive and negative outcomes for workers, this paper deals with the effects of internal corporate social responsibility (ICSR) and the digitalisation of work. The findings are based on a structured literature review identifying and synthesizing extant knowledge. A total of 57 papers are analysed regarding their contributions to the literature on digital transformation and ICSR. The results indicate that ICSR is partly implemented in a reactive way to mitigate negative effects of digitalisation at work, and partly in a proactive way to prevent them. The contributions relate (a) to the conceptualisation of digital work and its effects related to ICSR; (b) to the development of the concept of ICSR with a specific focus on digitalisation; and (c) to the derivation of a future research agenda. Finally, implications for research and practice are discussed to investigate further ICSR's essential role in the interrelation between digitalisation and sustainability at work.

Keywords Digitalisation, ICT use, Internal CSR, Sustainability, Systematic literature review, Work

Introduction

Digitalisation transforms human work. The digital transformation of the working world is frequently aimed at increased productivity or other instrumental work outcomes. However, beyond instrumental outcomes, the human factor is critical to understand and manage the positive and negative effects of digitalisation. The positive effects of digitalisation include increased flexibility of work. The negative effects include an increased workload, a blurring of the boundary between work and private life and difficulties to maintain work-life balance (Ayyagari et al., 2011). In this sense, digitalisation of work affects human workers as it changes their work context (e.g., autonomy, social embeddedness), their psychological state (e.g., experienced meaningfulness) and individual-level outcomes (e.g., attitudes, work-life-balance (WLB) and well-being) (Alfes et al., 2022; Donnelly & Johns, 2021; Humphrey et al., 2007; Richter et al., 2018). It is essential to consider employees to avoid the negative and amplify the positive effects of digitalisation.

Corporate social responsibility (CSR) is a concept that respects the effects of an organisation on its employees and other stakeholders. CSR measures go beyond an organisation's immediate economic interests and consider the public good, society and the environment (Du et al., 2011). CSR is related to sustainability because it broadens organisations' focus from economic considerations to ecological and social sustainability. In this way, CSR may affect an organisation's competitive advantage, reputation, ability to attract and retain employees, customers and investors, and the maintenance of employee morale, commitment and productivity (Brammer et al., 2007; Chaudhary, 2020; DIN-ISO26000:2010, 2022; Mory et al., 2016). A distinction can be made between an external and an internal dimension. This distinction is captured in industry standards (DIN-ISO26000:2010, 2022) and academic literature (Brammer et al., 2007; Mory et al., 2016; Zhang, 2010).

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Internal corporate social responsibility (ICSR) relates to the various facets of CSR that particularly impact employees. Thus, it is specifically ICSR that is required to manage the effects of digitalisation on employees.

It is unclear how digitalisation and ICSR are related in the ongoing digital transformation of organisations. However, it is essential to understand this interrelation to steer the twin transformation - i.e. the intertwined development of digitalisation and sustainability - towards a desirable world of work. Therefore, we aim to answer the following research question:

How do the digitalisation of work and ICSR interrelate?

Digitalisation is related to external CSR, for example, by affecting an organisation's effect on ecological sustainability. In this paper, we specifically focus on ICSR as this stream of CSR research is more heterogenous than external CSR (Mory et al., 2016; Turker, 2009). There is a need to clarify the state of knowledge regarding the interrelation between digitalisation and ICSR.

Digitalisation and ICSR research have been ongoing for over a decade. While there is already a significant amount of scientific knowledge in both areas research lacks in the conceptualisation of their interrelation. We use this knowledge to answer our research question. Consequently, we conduct a structured literature review to identify and synthesise extant knowledge (Henriette et al., 2015; Kitchenham & Charters, 2007; Okoli & Schabram, 2010). Specifically, we identify 57 papers relevant to our research question and analyse their contributions to the literature on digitalisation and sustainability.

We find that ICSR plays an essential role in the digitalisation of work. ICSR has an effect in determining how and to what extent digitalisation initiatives impact the social sustainability of working conditions. The literature on digitalisation and ICSR mainly considers WLB and health and safety issues whereas skill development, empowerment and involvement are only marginally addressed even though they seem to be important measures within the digital transformation.

The implications of these findings for future research are threefold. First, we investigate ICSR with a specific focus on the digitalisation of work. This should enable future research to do justice to the complexity of ICSR and digital transformation. Second, we synthesise extant knowledge on the intersection of digitalisation and ICSR. This may serve as an aggregate base and literature guide for fellow researchers in this field. Third, we identify potentially fruitful future research avenues and call for others to follow them to shed more light on the relevant and timely interrelation between the digital transformation of work and ICSR.

The remainder of the paper is structured as follows. The next section reviews the conceptual background of the digitalisation of work and ICSR. We then describe our data and the methodology of our structured literature review. The following sections present the summary of the findings, the discussion, and the conclusion.

Conceptual background

Digital work design

Digitalisation is the sociotechnical process of applying technologies to broad social and institutional contexts (Tilson et al., 2010; Wilkesmann & Wilkesmann, 2018). Digitalisation significantly changes the nature of work and workers' use of technology, affecting the relationship among workers, supervisors, technologies, and tasks. While many studies address digital work, they focus on diverse aspects of it. The digitalisation of work can be viewed at many different levels and touches on many phenomena independently studied by the scientific community. For example, digital transformation has been defined as a process that aims to improve organisations with changes that leverage a combination of digital technologies (Vial, 2019). Furthermore, this transformation includes employees' increasing use of digital technologies (Burton-Jones and Gallivan, 2007). Such major changes inevitably have positive and negative impacts (Vial, 2019).

In this respect, the nature of employees' interplay with digital technologies has fundamentally changed in recent years. Richter et al. (2018) emphasise this change by differentiating the traditional work design from the digital work design (DWD). While traditional work design refers primarily to the physical environment and is only augmented by digital technologies, the work in the context of current digital technologies is predominantly carried out digitally, with only a few remaining purely physical aspects (Richter et al., 2018). This provides individuals with new possibilities for information access and flexibility and extends their autonomy (Donnelly & Johns, 2021; Gregg, 2011; Symon & Pritchard, 2015). Moreover, the role of humans changes in such new work settings. Increasingly, employees are orchestrating digital tools rather than operating them (Richter et al., 2018). Since repetitive and routine tasks can be automated more and more, e.g. in shopfloors, human's role is less about executing the specific tasks but rather to coordinate their (automatic) execution (Wolf et al., 2019; Pauker et al. 2018). Thereby, digitalisation creates new possibilities to cognitively stimulate human workers with digital work that involves fewer routines, more efficient handling of tasks and more understanding and creative solving of unexpected complex problems, which requires continuous learning (Sima et al., 2020; Richter et al., 2018). In sum, Richter et al. (2018) state that the digital workplace can be considered human-centred in the sense that digital technologies augment human capabilities and not replace them.

However, research on digital work has long proposed that digitalisation has both a bright and dark side and may

elicit positive and negative impacts for both individuals and organisations (Vial, 2019; Gimpel, 2019; Califf et al., 2020; Alter, 2017). Frameworks and theories that explain these two sides of the coin are often based on stress theories (Tarafdar et al., 2019). They, therefore, include technological stimuli and user responses that may lead to long-term outcomes for individuals and organisations. The bright side of digital work may emerge when stakeholders understand the need for new IT and when the IT meets expectations (Alter, 2017). The bright side can also be associated with the usefulness of technologies and facilitating conditions, such as technical support or the involvement of workers in IT-related changes (Califf et al., 2020). These stimuli may then result in positive user responses, such as positive emotions, job satisfaction (Califf et al., 2020) or innovative behavior (Maier et al., 2021). Such individual-level outcomes may further translate into organisational-level outcomes, for example, reduced turnover intention (Califf et al., 2020).

Despite these potentials, DWD can also be demanding to employees and thus have negative effects on them – the dark side of digital work. These include a potentially increased workload and blurring of the boundary between work and private life (Ayyagari et al., 2011). Thus, there is not only the possibility for individual flexibility and autonomy but also the need for employees to cope with these aspects. Moreover, the DWD provides employers with new possibilities to monitor individual work processes and results (Ball, 2010; Donnelly & Johns, 2021; Fairweather, 1999; Kallinikos, 2011; Walter et al., 2020). Furthermore, digital technologies introduce new complexities in working life that require individuals to continuously acquire new knowledge and qualifications (Ragu-Nathan et al., 2008). From the organisations' perspective, those issues may result in adverse outcomes, such as their employees having reduced job satisfaction and organisational commitment (Ragu-Nathan et al., 2008) or increased absenteeism (Demerouti, 2022).

Given the bright and dark sides of DWD and the resulting challenges for organisations, DWD is not only related to the economic but also to the social dimensions of sustainability. In this respect, questions arise of how organisations manage the digital transformation to reap the economic benefits while avoiding its potential negative social impacts. To this purpose, Richter et al. (2018: 261) argue for an understanding of "digital work design as an agile participative, and interdisciplinary process of designing flexible workplaces by putting human work practices and their context in the center when investigating the potential of digital technologies". To navigate the process, however, they emphasise the need for a specific understanding of the respective work practices and the organisational context. Thus, DWD, according to Richter et al. (2018), is implicitly based on an individual perspective that does not (or hardly) allow for conceptual generalisation. In this respect, this paper suggests the concept of ICSR to be a fruitful addition to the approach of the DWD and to conceptually develop it by making social sustainability an essential element of it. Conversely, since ICSR has not been explicitly applied to digital work contexts (Knaut, 2017), addressing it in the context of DWD meets this gap in research as well.

Towards a sustainable digital work design

The concept of corporate social sustainability (CSR) captures the idea that organisations are commonly expected to meet financial and legal obligations and voluntarily respect specific social (and environmental) standards and practices (Ashrafi et al., 2018). Thus, organisations have a responsibility that goes beyond the pure maximisation of profits and obeying the law, as Friedman (2007) once famously stated. As the development of the CSR concept within the last decades reflects (Latapí Agudelo et al., 2019), organisations are expected more and more to meet the demands and needs of its stakeholders in general, the external ones – e.g. direct suppliers, customers and financiers – as well as the internal ones, which are first and foremost its employees (Jamali, 2008; Starik, 1995).

In order to describe the organisations' internal responsibilities, the concept of internal CSR has been developed and can be defined as the "socially responsible behaviour by a company towards its employees" (Mory et al., 2016, p. 1394). Compared to external CSR, ICSR is still a heterogenous concept (Mory et al., 2016; Turker, 2009), but it has experienced substantial development, especially in the last decade. An impactful study in this respect is that by Mory et al. (2016), which provides a conceptual development of ICSR and advances its measurement. Based on prior research, Mory et al. (2016) conceptualised and measured ICSR with seven dimensions: (1) employment stability "refers to the extent to which the company provides and secures stable jobs for its employees" (Mory et al., 2016, p. 1397); (2) the working environment covers health and safety at work issues; (3) skill development refers to the promotion of the employees by the organisation; (4) workforce diversity refers to gender equality and the prevention of social discrimination against minorities and marginalised groups; (5) WLB, which not only addresses the relationship between private life and work but also the absence of conflict between work and family life; (6) tangible employee involvement refers to the tangible or financial involvement of employees by their organisation as a demonstration of responsibility; and (7) empowerment addresses the degree of employee autonomy and self-determination of employees' operating work context. Beyond the broad and well-founded conceptualisation provided by Mory et al. (2016), Adu-Gyamfi et al. (2021) consider human rights as an essential dimension of ICSR. They also have a broader understanding of an organisation's responsibility regarding

training and developing its employees, which provides career development opportunities. These dimensions build the foundation of ICSR for our analysis.

However, referring to the DWD, those dimensions of ICSR address the already outlined crucial outcomes of work in digital contexts, such as health and safety issues, skill development, WLB, and empowerment. The scope of ICSR is wider than what Richter et al. (2018) have discussed. It includes crucial aspects of the relationship between an organisation and its employees, such as employment stability and employee involvement. Finally, the dimensions point to sustainability of the relationship between an organisation and its employees rather from a societal perspective, such as workforce diversity and human rights. DWD referring to those ICSR dimensions can be framed as *sustainable digital work design* (SDWD). However, although there is a substantial body of scientific knowledge on the digitalisation of work and ICSR, the exact interrelation is still unclear and poorly understood. This paper aims to fill this void by providing a systematic literature review referring to the ICSR dimensions above concerning digital work.

Data and method

This study investigates the interrelation between ICSR and the digitalisation of work and its current state of scientific knowledge by means of a systematic literature review. It helps facilitate theory development by aggregating knowledge and identifying areas where further research is needed. Following Kitchenham and Charters (2007), Okoli and Schabram (2010) and Henriette et al. (2015), the literature review consists of the following six steps:

1. Research area identification
2. Research strategy
3. Study selection
4. Study quality assessment
5. Data extraction
6. Data analysis

Research area identification

The research area has been identified in the previous section. The scope is to examine and evaluate research on ICSR concerning the digitalisation of work.

Research strategy

Our search strategy consists of first deriving essential concepts related to the research question, where we ask about the interrelation of digitalisation and ICSR. Therefore, we established the concepts of digitalisation and ICSR with its dimensions in the conceptual background. The relevant concepts we identified are: 'internal CSR,' 'work,' 'digital' and 'technology use.' Following Mory et al. (2016) and Adu-Gyamfi et al. (2021), we conceptualise ICSR with the following dimensions:

(1) Employment stability
(2) Working environment including health and safety
(3) Skill development or training and development
(4) Workforce diversity
(5) Work-life-balance (WLB)
(6) Employee involvement
(7) Empowerment
(8) Human rights

Second, with a pilot test, we identified relevant terms (including alternative spellings and synonyms) for these concepts and dimensions. The respective terms for each concept and dimension are listed in Table 1.

Connecting the terms by using the Boolean operators AND and OR and using the wildcard operator *, we structured the following search string for an automated search in titles, abstracts and keywords of papers:

('internal CSR' I' OR 'employment stability' OR 'employee health' OR 'occupational health' OR 'safety' OR 'working environment' OR 'skill development' OR 'training and development' OR 'workforce diversity' OR 'workplace diversity' OR 'diversity, equity and inclusion' OR 'DEI' OR 'DE&I' OR 'work-life balance' OR 'worklife balance' OR 'work-home balance' OR 'work-family balance' OR 'employee involvement' OR 'empowerment' OR 'human rights')

AND (work OR 'employee')*

AND (digit OR 'information and communication technology' OR 'technology use' OR 'ICT')*

The search for papers was conducted using the Web of Science database with a time limit between 1 January 2012 and 26 September 2022. Web of Science is a major global citation database with 1.9 billion cited references from over 171 million records in multiple disciplines. Within the database, all papers are interconnected via citations, so in that sense, the keyword search efficiently finds all the relevant literature (Clarivate, 2022). After consideration and assessment of other relevant databases in our field, we concluded to use Web of Science as sole source. The search for articles was started and carried out on 26 September 2022.

Study selection

In this step, we defined selection criteria to determine which papers to include or exclude. Papers meeting the following criteria were included:

Table 1 Relevant concepts and terms for the literature review

Concept	Terms
Internal CSR	Internal CSR
	(1) employment stability
	(2) working environment, occupational health, employee health, safety
	(3) skill development, training and development
	(4) workforce diversity, workplace diversity, diversity, equity and inclusion, DEI, DE&I
	(5) work-life balance, work-home balance, work-family balance
	(6) employee involvement
	(7) empowerment
	(8) human rights
Work	Work, employee
Digital and technology use	Digit, information and communication technology, technology use

- Papers are written in English.
- The document type is article, review article or early access.

This produced a total of 1,539 results. Next, the search was restricted to the research areas: Computer Science, Public Environmental Occupational Health, Environmental Sciences Ecology, Business Economics, Science Technology other Topics, Operations Research Management Science, Social Sciences other Topics, and Sociology. This reduced the number of results to 580. In the next step, the search results were limited to the following Web of Science categories: Public Environmental Occupational Health, Environmental Sciences, Computer Science Information Systems, Management, Green Sustainable Science Technology, Computer Science Interdisciplinary Applications, Environmental Studies, Operations Research Management Science, Business, Sociology, Social Sciences Interdisciplinary, Economics, Computer Science Theory Methods, Psychology Applied, Psychology Multidisciplinary. The final list of publications resulting from this process contained 507 results.

Study quality assessment

After exporting the 507 publications from the Web of Science database, the titles, abstracts and keywords of each article were analysed to determine whether at least one dimension of ICSR and digitalisation or technology use is met (c.f. Appendix). Furthermore, only articles published in peer-reviewed journals were considered. Therefore, the overall quality of the article for our research purpose with regard to rigorousness, credibility and relevance was assessed. This assessment process produced a final list of 57 results directly related to the research question of the interrelation of ICSR and digitalisation for further investigation (Appendix).

Data extraction

This step retrieved the full text of the 57 selected papers (Appendix).

Data analysis

The 57 selected papers were analysed to derive results and to suggest areas for further investigation. Figure 1 shows the literature search, selection, and assessment process.

Findings

Timeframe of the publications

Looking at the year of publication of the 57 papers identified, it becomes evident that ICSR is currently receiving much attention. The number of publications per year shows a substantial increase in publication activity in 2018–2022 (Fig. 2). Preoccupation with the topic seems to have substantially increased. This development also becomes apparent when comparing 2013–2017, in which engagement with the topic was comparatively constant. An analysis of the papers' focus suggests that the increase in the treatment of the topic is partly due to the COVID-19 pandemic.

Dimensions researched

We analysed the dimensions of ICSR considered in the 57 papers. It was striking that there is a substantially uneven distribution of ICSR dimensions investigated. For example, 'work-life-balance' and 'health and safety,' especially with a focus on 'occupational health,' represent a large share of the dimensions studied. 'Human rights,' on the other hand, was not addressed at all, although the extent to which this category is inherent in other dimensions, such as 'diversity,' is unclear. Finally, 'skill development,' 'empowerment,' and 'involvement' are only marginally addressed in a few papers, although these aspects are discussed as being critical for successful digitalisation processes and considering the workers in this context.

Research methods employed

Regarding the research method employed, 42% of the papers investigated have a quantitative research design (e.g. Nam, 2014; Ninaus et al., 2021; Tennakoon, 2021), 12% use mixed methods (e.g. Bisht et al., 2021; Rani & Furrer, 2019; Stoian et al., 2022) and 46% have a qualitative research design (e.g. Howarth et al., 2018; Ladkin et al., 2016; Nagy, 2020). Hence, we see a primarily empirical approach to studying ICSR and its dimensions with respect to the digitalisation of work with a balance between qualitative and quantitative empirical approaches.

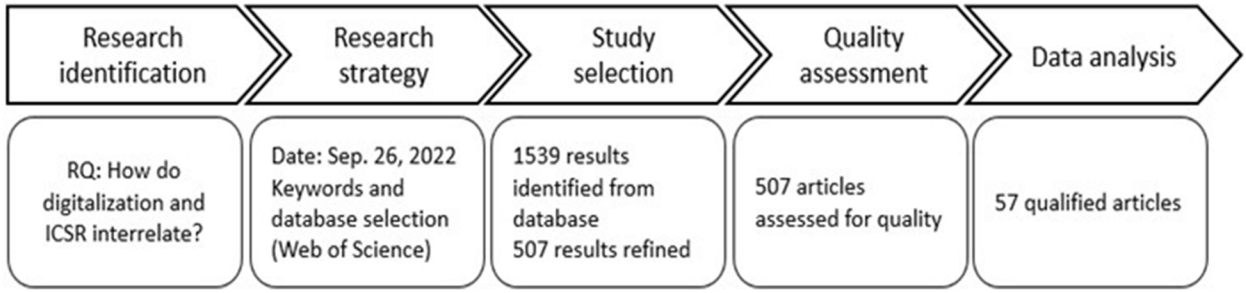

Fig. 1 Systematic literature review process

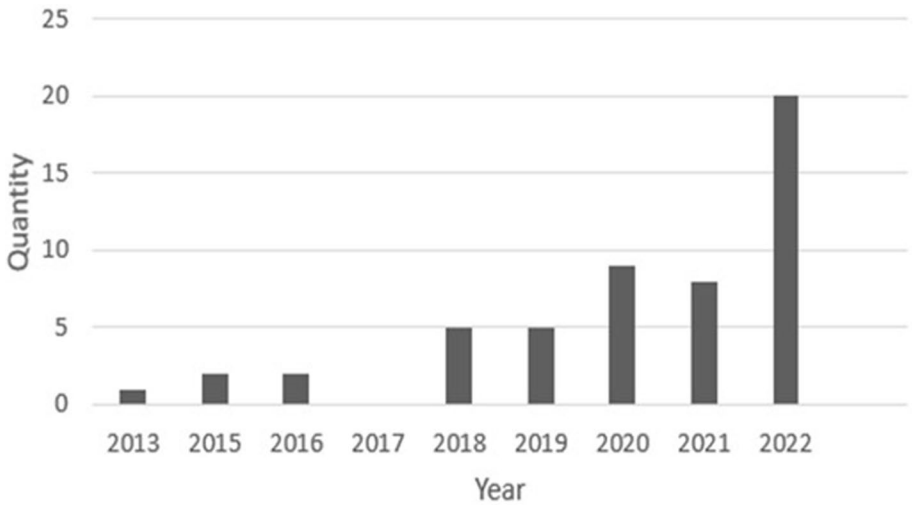

Fig. 2 Exponential growth in the number of scientific papers dealing with ICSR

Topic categories

Overall, the topics of the papers investigated fall into two categories: (1) digitalisation and ICT use at work with ICSR as a reactive approach and (2) ICSR as a crucial requirement for the use of ICT as a proactive approach. Only three papers could not be assigned to either category (see Appendix).

Category 1 focuses on the introduction of ICSR measures with the main aim of counteracting the negative effects of digitalisation. This category highlights how the digitalisation of work is changing traditional organisational contexts. Digitalisation is a transformative process that changes activities, services, and processes both quantitatively and qualitatively. This has an effect on the WLB, health and safety, and job satisfaction. For example, Rodriguez-Modrono & Lopez-Igual (2021) quantitatively show that for teleworkers and mobile workers, the more mobile a job based on digital technology is, the worse the WLB is. The authors show that the increasing spread of teleworking, reinforced by the COVID-19 pandemic, brings both opportunities and challenges. A differentiated view reveals that different forms of teleworking have different effects on job quality and WLB. It is particularly striking that certain groups, such as women working from home, benefit from flexible working hours but can be disadvantaged in terms of career opportunities and income. These findings call for reactive strategies that take social and gender-specific aspects into account. Reactive measures therefore aim both to improve working conditions and to overcome traditional gender roles. This includes the development of policies specifically designed to address inequalities arising from different teleworking models. Laws and administrative regulations are adapted to ensure the protection of teleworkers while promoting a healthy WLB. The aim of this reactive relationship is to maximise the benefits of teleworking while minimising its potential disadvantages, especially in terms of work intensity and gender inequality. This approach requires targeted, adaptive strategies that consider both the technological and social dimensions of digital transformation in the workplace. Niebuhr et al. (2022) discover an inverse relationship between the weekly working time spent at home and stress-related symptoms. In view of the findings of the study, which emphasise the importance of working from home (WFH) and hybrid working models even after COVID-19

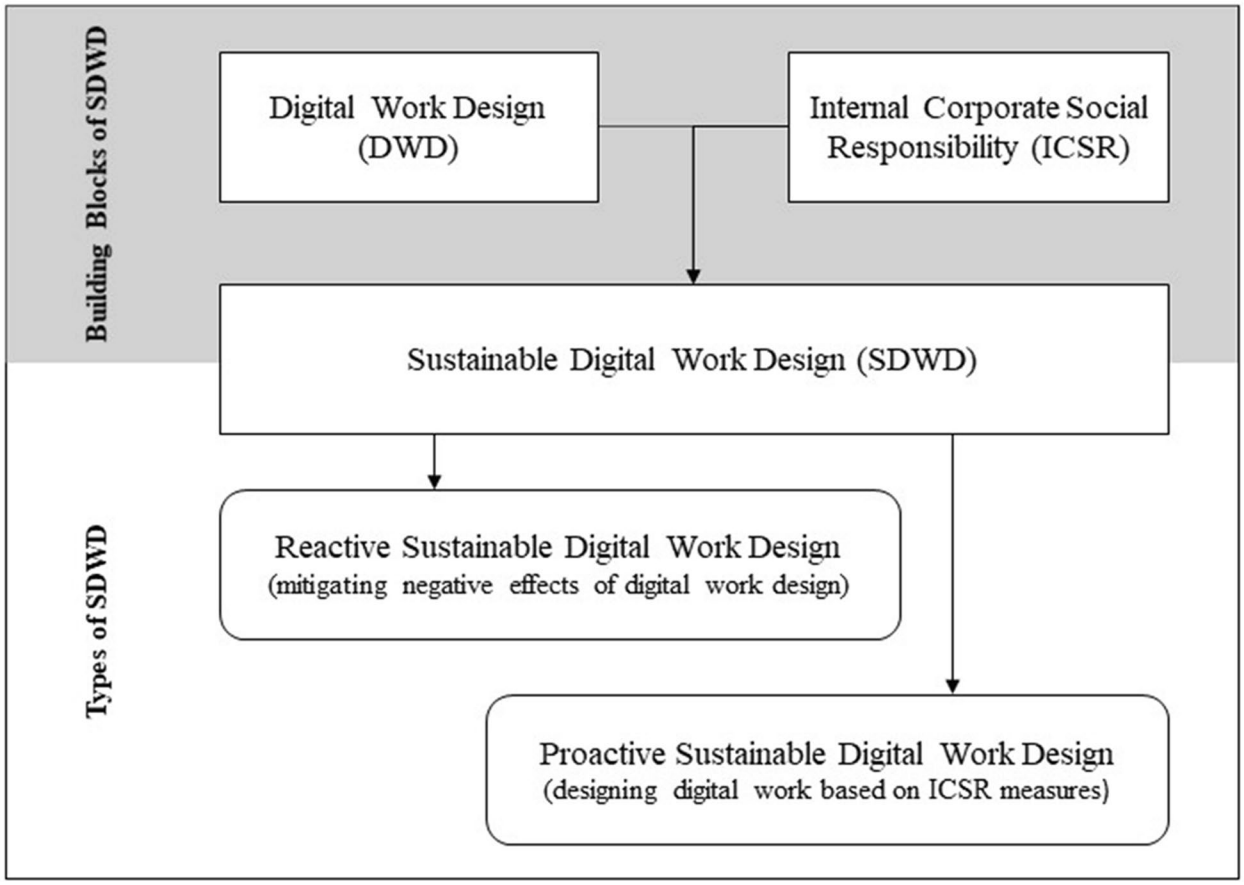

Fig. 3 Reactive and proactive SDWD

pandemic, organisations targeted reactive measures. These measures aim to overcome the resulting challenges caused by the rapid switch to WFH. Improving the technical equipment and ergonomics of WFH workstations is crucial. The study shows that inadequate technical equipment can have a negative impact on employees' health and job satisfaction. Organisations therefore invest in high-quality, ergonomically designed equipment and regularly ensure its functionality. At the same time, the development of specific legal regulations and guidelines for WFH covers aspects such as workplace safety and insurance. These regulations are tailored to the specific needs of WFH in order to protect the health and well-being of employees. Niebuhr et al. (2022) also emphasised the importance of employee autonomy. Organisations therefore support flexible working arrangements that enable WFH and hybrid working models and offer employees a certain degree of technical flexibility. This strengthens employees in times of crises and helps to protect their health. In summary, the findings call for a specific, reactive transition to WFH and to ensure the well-being and job satisfaction of employees. Nam (2014) analyses technology use and its effects on the WLB. In his sample, individuals struggle with blurred boundaries between work and life, and, unlike previous studies, individuals show little imagination in developing coping strategies. The measures described by Nam (2014) illustrate how organisations are reactively responding to the challenges of digitalisation, particularly in relation to the WLB of employees. These adjustments are a sign that ICSR is being used to respond to the changes induced by digitalisation. Organisations are evaluating and responding to employees' perceptions and needs regarding WLB in an increasingly digitalised world of work. This includes managing the blurring of boundaries between work and private life due to information technology and responding to employees' individual preferences regarding work-life integration. All of these measures reflect a reactive approach that aims to mitigate the negative impact of digitalisation on employees and promote a supportive work environment. Ninaus et al. (2021) investigate whether employees perceive information and communication technologies more as resources or demands and measure their impact on work life, perceived burnout, job satisfaction and the work-family balance. Interestingly, while ICTs are perceived more strongly as resources than as demands, only ICT demands have a strong negative impact on the dimensions mentioned above. The positive effects of ICT

resources, on the other hand, are almost negligible. The results described by Ninaus (2021) on the effects of digitalisation on employees provide valuable insights for reactive measures as part of the ICSR. Raising awareness of the negative effects of ICT use, such as an increased risk of burnout and a disrupted WLB is crucial. Organisations should reactively introduce clear availability guidelines to reduce the pressure of constant availability and improve WLB. IT support and training can help employees use ICTs more efficiently and reduce associated stress factors. It is also important to carefully plan the introduction of new technologies and consider their impact on employee health. Organisations should also encourage employees to take responsibility for their own WLB. These reactive approaches help to mitigate the identified negative consequences of digitalisation and create a healthier working culture. Category 1 also sheds light on digital work in the context of platform organisations and gig work. It was expected that this type of work, which is primarily organised through ICT, would be better able to address known ICT-related problems due to its current development and interest in ICSR. With regard to digital platform organisations, Rani and Furrer (2019) argue that they mostly are characterised by less employment stability, high work intensity and a lack of possibilities to develop skills even for established workers. Therefore, despite the digital nature of these organisational forms, they produce negative outcomes in terms of working conditions related to dimensions of ICSR, which, too, are crucial criteria to identify problems in digital work. Based on these issues identified by the authors on digitalisation in the platform economy, specific reactive ICSR measures are conceivable, for example: the improvement of working conditions, including the introduction of fair wage standards and working time regulations to combat low wages and high work intensity. In addition, the promotion of professional development through training programmes and further training opportunities is relevant in order to reduce the skill mismatch and offer employees more interesting tasks. It also emphasises the need for improved regulation, which can be achieved through increased dialogue between platform operators and worker representatives to develop appropriate standards and guidelines. Adapting social protection systems to ensure a basic level of protection for all employees is also an important approach. Finally, the introduction of feedback and evaluation systems could promote continuous performance improvement and professional development of workers. These measures could be seen as direct responses to the problem described, such as low wages, lack of career development opportunities and inadequate social protection. ICSR measures to address those problems are particularly needed to make digital work sustainable. However, this category is characterised by its focus on reactive elements, i.e. on mitigating the negative effects of digitalisation. It emphasises the need for ICSR measures to create sustainable digital working environments. This category thus represents a response to the challenges of the digital transformation and highlights a reactive approach to reconcile technological progress and social responsibility. The category can therefore be conceptualised as *reactive SDWD*.

Category 2 covers ICSR as a crucial requirement to establish the use of ICT. Unlike the previous category, the literature on this category recognises ICSR not as something that mitigates the negative effects of ICT use. Instead, it shows the positive effects of ICSR measures on digital work in terms of dimensions. For example, Low and Bu (2022) reveal a positive connection between established ICSR practices, digitalisation and employee engagement and commitment. The measures described by Low and Bu (2022) are an example of a proactive approach in organisational leadership, especially in relation to ICSR and digitalisation. These measures are proactive because they take a forward-looking and proactive stance towards the challenges and changes in the modern business world, especially in the context of the COVID-19 pandemic. First, the approach integrates ICSR practices with digitalisation strategies to promote employee engagement and strengthen organisational resilience. This integration is a proactive step as it aims to mitigate the impact of external crises by strengthening internal structures and cultures. By combining CSR and digital technologies, work processes are not only made more efficient but also more people-centred, which directly addresses employee well-being and satisfaction. The authors emphasise the relevance of affective engagement, which is strengthened by the organisation's attention to employee comfort, support, safety and stability. This attitude goes beyond the reactive fulfilment of basic needs and demonstrates a proactive effort to create a positive and supportive work environment. The related measures aim to make the organisation more resilient by strategically reallocating resources and promoting digital skills. Furthermore, the proactive nature of these measures can be seen in their ability to promote a sense of vocation and higher purpose among employees. By valuing internal CSR practices and seeing their work as a calling, employees become more engaged, which in turn promotes the organisation's capacity for innovation and resilience. Overall, these measures reflect a strategic, forward-looking and people-focused approach that aims to strengthen both the resilience of the organisation and the well-being and engagement of employees in a rapidly changing world of work. Efimov et al. (2020) reveal the importance of health-oriented leadership behaviour in promoting positive outcomes in virtual teams. The authors highlight proactive ICSR measures in relation to health-centred leadership in these contexts. These measures emphasise the importance of managers' awareness of their own health and that of their employees. Behaviours such as regular

physical activity and boundary management, which aim to improve personal well-being, are underlined. In the area of employee management, confidence building and health-orientated communication are identified as key elements. These proactive approaches aim to create sustainable and healthy working conditions and emphasise the importance of leadership and culture for employee well-being. Overall, the paper shows how health-centred leadership in digital work contexts contributes to sustainability and performance and can be considered an important part of a comprehensive ICSR strategy. Ladkin et al. (2016) emphasise the specific needs of business travellers in terms of WLB. They discuss the possibilities for business travellers to use ICT to improve their WLB. These ICSR measures are partly also digital by themselves. This is especially the case when it comes to digital health measures. The authors illustrate how organisations actively and proactively promote the WLB of their mobile employees through the use of ICT. This proactive approach manifests itself in various areas. Organisations place a strong emphasis on flexible working hours and WFH, demonstrating a forward-looking attitude by anticipating employees' needs and acting before problems arise. The use of ICT for mobility and flexibility underlines organisations' desire to enable sustainable working practices and reduce the need for physical business travel. It also emphasises the importance of considering individual employee needs. This is reflected in the proactive willingness of organisations to provide flexible and customised solutions rather than simply responding to requests. Overall, the measures described reflect the organisations' commitment to improving WLB and thus sustainability in digital work concepts through forward-looking and adaptable strategies. Howarth et al. (2018) discuss in their literature review the overall positive impact of pure digital health interventions in the workplace with respect to sleep, mental health and even physical activity. The study focusses on digital health interventions in the workplace and their impact on employee health. The results show that such interventions, especially when targeting specific behaviours during working hours, such as reducing sedentary activities, are effective. Programmes such as "Exertime" and "Get Moving" (Howarth et al., 2018, p. 15), which aim to activate employees, were particularly successful in terms of engagement and health improvements. These results can be seen as an example of proactive ICSR measures. Such measures are proactive because they actively improve employee well-being and promote a healthy working environment rather than just reacting to problems. They integrate health promotion directly into everyday working life and use digital tools to support positive behavioural changes. In this way, they contribute to a holistic CSR strategy that puts employee well-being at the centre. However, proactive ICSR measures are the focus of studies in this category and the effects of implementing them are analysed with respect to sustainable work. This category refers to a *proactive SDWD*. Figure 3 gives an overview with respect to the building blocks and found types of SDWD.

Discussion

Summary of findings

Against the background of the ongoing twin transformation in the world of work and the resulting challenges for organisations, this paper has aimed to analyse the interrelation between the digitalisation of work and ICSR. We conducted a systematic literature review and analysed 57 papers. The findings show that ICSR is critical in the digital transformation determining how and how much a DWD impacts the social sustainability of working conditions. We have shown that ICSR plays different roles, which can be grouped in the following categories. Category 1 as reactive ICSR covers changes in the organisation of work in which digitalisation affects activities, services and processes as well as digital work by means of digital technologies. In this category, ICSR is necessary to mitigate the negative impact of ICT use. The measures derived can be characterised as reactive because they are developed in response to problems and challenges that have already been identified or have arisen in the context of digitalisation and the use of ICT in the workplace. In contrast to this are proactive measures, which aim to prevent potential problems. Category 2 as proactive ICSR conceptualised as a crucial requirement to establish the use of ICT and therefore shows positive effects on digital work. Proactive measures refer to strategies or actions that aim to anticipate potential problems or needs and respond to them before they occur. The emphasis is on proactively anticipating and preventing challenges, rather than simply reacting to problems. Proactive action often involves careful planning, early intervention and taking initiatives to achieve positive outcomes or minimise negative impacts. In organisational contexts, proactive measures can cover a wide range of aspects, from employee health and safety to environmental responsibility and customer satisfaction. They are an essential part of effective corporate governance and contribute to the long-term sustainability and success of an organisation.

Contributions

This paper has made several conceptual and empirical contributions. First, ICT are used to a varying extent in jobs that can work remotely and in jobs that are only facilitated by the use of digital technologies (Dengler et al., 2022; Nagy, 2020; Nam, 2014; Van Fossen et al., 2022). This differentiation is profound when it comes to conceptualising the digitalisation of work, and it is expected that there will be a huge difference when it comes to work that is changed through the use of digital technologies (e.g. mobile work) or whether organisations and their work only exist because of digital technologies (e.g. platform work). In this context,

we differentiate between ICSR measures that reactively respond to changing working conditions due to digitalisation and proactive ICSR measures actively contribute to designing the working conditions and processes.

Second, the findings contribute to further developing the concept of ICSR and its dimensions and measures. ICSR is a heterogenous concept (Mory et al., 2016; Turker, 2009). It involves employment stability, health and safety at work, skill development, workforce diversity, WLB, employee involvement and empowerment. The human rights aspect of ICSR (Adu-Gyamfi et al., 2021) receives no explicit attention in the studies investigated. This could be related to the fact that the papers mostly focus on Western countries with fairly stable and secure environments. In this respect, Preuss et al. (2009) already pointed to differences between the US-American and European understanding of CSR while Koleva et al. (2010) highlights differences in the use of CSR between Western market economies and less developed market economies in central and eastern Europe. Thus, it seems to be only likely that (maybe even broader) differences exist when we take into account understandings of CSR in further non-Western countries. Regarding measures of ICSR, we observe a focus on specific management practices addressing the working environment with a focus on health and safety issues and WLB. Measures promoting skill development, tangible employee involvement, and empowerment have been under-investigated. These aspects are discussed as being critical for the acceptance of ICT at work and the success of digitalisation processes and are highly related to ICSR but not in focus yet.

Third, our findings allow formulating points for a future research agenda regarding the following issues: (a) ICSR measures in different working contexts: There are working contexts that changed through digital technologies (e.g. mobile work) and other ones which are based on digital technologies (e.g. platform work). While ICSR measures can be expected to have an effect in both working contexts, it is an open question so far as how the context influences the use, the necessity, and the impact of ICSR measures. This also refers to a need for elaboration on how to conceptualise digital work. (b) Design of ICSR measures: Conversely, the design of ICSR measures should be considered more systematically for their potential to moderate the effects of ICT use whether they are rather reactively or proactively applied. (c) ICSR concept: As the literature review reveals, ICSR is a heterogeneous concept. Previous research shows diverging conceptualisations of ICSR leading to an infinite number of dimensions. While this approach allowed us to bring in new thoughts and insights, we might now be at a level of conceptual research where that heterogeneity of the concept might turn from being an asset into an obstacle that hinders identifying a reliable body of relevant core dimensions. This is reflected in the finding that only the working environment and WLB are addressed regularly, while other dimensions relevant to (digital and sustainable) working environments gain less attention. Thus, an effort should be made to identify the core dimensions of ICSR in order to point out existing research gaps more clearly and, thus, to promote respective research. However, it should be the aim to elaborate a concept of ICSR which is applicable to different research contexts and cultural contexts. Therefore, we also deem it necessary to reflect on existing cultural biases to identify relevant dimensions.

Limitations and implications

The findings of this paper should be considered against the background of the study's limitations. First, the structured literature review was conducted to investigate the field of digitalisation and ICSR at a particular time. We focused on papers published in ten years until 2022. Although we observed that, especially since 2020, the number of publications on the topic increased, a more extended time frame could have revealed more relevant studies. Second, we focused on publications written in English, which implies a bias in favour of countries where English is well-established as the language for the scientific discourse, potentially limiting the dimensions of ICSR. Third, we used established dimensions of ICSR as keywords in the search for relevant literature. This could also lead to blind spots regarding the concept of ICSR. Future studies are recommended to use a more extensive set.

The key implication for practice is that digitalisation and ICSR should be thought through, planned, and managed jointly in a proactive way. Prior research and our results highlight the moderating role of ICSR in determining relevant employee-level outcomes of digital transformation initiatives. Joint consideration of the two fields allows the substantial effort and resources put into digital transformation to be harnessed towards living up to organisations' social responsibility.

Conclusion

This paper has been dedicated to the emerging field of ICSR and has focused on the highly relevant context of the digitalisation of work. More concretely, the paper has aimed to analyse how digitalisation and ICSR interrelate. The structured literature review resulting in 57 relevant papers has revealed the different functions of ICSR in the digital work context since it can serve as a prerequisite and fulfilment criterion. In any case, ICSR has a profound impact on the relationship between digitalisation and sustainability – the so-called twin transformation – since it promotes social sustainability in work contexts. In this sense, ICSR is a central lever for designing the future of work and essential for the development of sustainable digital work.

Appendix

Authors	Publication Year	Article title	Dimension of Internal CSR	Digitalisation/ technology use	Assigned category	Journal title	Peer-review process	DOI
Adamovic	2018	An employee-focused human resource management perspective for the management of global virtual teams	Workforce diversity, training and development	Digitalisation	2	International Journal of Human Resource Management	yes	https://doi.org/10.1080/09585192.2017.1323227
Alieva, Powell	2022	The significance of employee behaviours and soft management practices to avoid digital waste during a digital transformation	Work-life balance, employee involvement, skill development, training and development	Digital work	2	International Journal of Lean Six Sigma	yes	https://doi.org/10.1108/IJLSS-07-2021-0127
Aloisi, De Stefano	2022	Essential jobs, remote work and digital surveillance: addressing the COVID-19 pandemic panopticon	Empowerment	Digital work	1	International Labour Review	yes	https://doi.org/10.1111/ilr.12219
Annunziata, Bourgeois	2018	The future of work: how G20 countries can leverage digital-industrial innovations into stronger high-quality jobs growth	Skill development	Digitalisation	2	Economics – The Open Access Open-Assessment E-Journal	yes	https://doi.org/10.5018/economics-ejournal.ja.2018-42
Apostolidis, Devine, Jabbar	2022	From chalk to clicks – the impact of (rapid) technology adoption on employee emotions in the higher education sector	Empowerment	Technology use (ICT)	1	Technological Forecasting and Social Change	yes	https://doi.org/10.1016/j.techfore.2022.121860
Bahl, Kiran, Sharma	2022	Impact of drivers of change (digitalization, demonetization, and consolidation of banks) with mediating role of nature of training and job enrichment on the banking performance	Skill development	Digitalisation	1	Sage Open	yes	https://doi.org/10.1177/21582440221097393
Bartel, MacEachen, Reid-Musson, Meyer, Saunders, Bigelow, Kosny, Varatharajan	2019	Stressful by design: exploring health risks of ride-share work	Working environment	Digital work	1	Journal of Transport & Health	yes	https://doi.org/10.1016/j.jth.2019.100571
Baseman, Revere, Painter, Stangenes, Lilly, Beaton, Calhoun, Meischke	2018	Impact of new technologies on stress, attrition and well-being in emergency call centers: the NextGeneration 9–1-1 study protocol	Working environment	Technology use (ICT)	1	BMC Public Health	yes	https://doi.org/10.1186/s12889-018-5510-x
Bisht, Trusson, Siwale, Ravishankar	2021	Enhanced job satisfaction under tighter technological control: the paradoxical outcomes of digitalisation	Work-life balance	Technology use (ICT)	1	New Technology Work and Employment	yes	https://doi.org/10.1111/ntwe.12222
Cetrulo, Guarascio, Virgillito	2022	Working from home and the explosion of enduring divides: income, employment and safety risks	Employment stability	Digital work	1	Economia Politica	yes	https://doi.org/10.1007/s40888-021-00251-7
Chafi, Hultberg, Yams	2022	Post-pandemic office work: perceived challenges and opportunities for a sustainable work environment	Work-life balance	Digital work	2	Sustainability	yes	https://doi.org/10.3390/su14010294

Authors	Publication Year	Article title	Dimension of Internal CSR	Digitalisation/ technology use	Assigned category	Journal title	Peer-review process	DOI
Chatterjee, Gupta, Upadhyay	2020	Technology adoption and entrepreneurial orientation for rural women: evidence from India	Empowerment	Technology use (ICT)	2	Technological Forecasting and Social Change	yes	https://doi.org/10.1016/j.techfore.2020.120236
Chen, McDonald	2015	Do networked workers have more control? The implications of teamwork, telework, ICTs, and social capital for job decision latitude	Skill development	Technology use (ICT)	1	American Behavioral Scientist	yes	https://doi.org/10.1177/0002764214556808
Ciolfi, Lockley	2018	From work to life and back again: examining the digitally-mediated work/life practices of a group of knowledge workers	Work-life-balance	Technology use (ICT)	1	Computer Supported Cooperative Work – The Journal of Collaborative Computing	yes	https://doi.org/10.1007/s10606-018-9315-3
Costantino, Falegnami, Fedele, Bernabei, Stabile, Bentivenga	2021	New and emerging hazards for health and safety within digitalized manufacturing systems	Working environment	Digitalisation	1	Sustainability	yes	https://doi.org/10.3390/su131910948
Coun, Peters, Blomme, Schaveling	2022	To empower or not to empower, that's the question. Using an empowerment process approach to explain employees' workplace proactivity	Empowerment	Technology use (ICT)	2	International Journal of Human Resource Management	yes	https://doi.org/10.1080/09585192.2021.1879204
de Wet, Koekemoer	2016	The increased use of information and communication technology (ICT) among employees: implications for work-life interaction	Work-life balance	Technology use (ICT)	1	South African Journal of Economic and Management Sciences	yes	https://doi.org/10.17159/2222-3436/2016/v19n2a7
Dengler, Hiesinger, Tisch	2022	Digital transformation: the role of computer use in employee health	Working environment	Digitalisation	1	Economics & Human Biology	yes	https://doi.org/10.1016/j.ehb.2022.101137
Efimov, Harth, Mache	2020	Health-oriented self- and employee leadership in virtual teams: a qualitative study with virtual leaders	Working environment	Digital work	2	International Journal of Environmental Research and Public Health	yes	https://doi.org/10.3390/ijerph17186519
Grabowska, Saniuk, Gajdzik	2022	Industry 5.0: improving humanization and sustainability of Industry 4.0	Skill development	Digitalisation	2	Scientometrics	yes	https://doi.org/10.1007/s11192-022-04370-1
Haile, Kirk, Cogan, Janssen, Gibson, MacDonald	2020	Pilot testing of a nudge-based digital intervention (Welbot) to improve sedentary behaviour and wellbeing in the workplace	Working environment	Technology use (ICT)	2	International Journal of Environmental Research and Public Health	yes	https://doi.org/10.3390/ijerph17165763
Hauke, Flaspoeler, Reinert	2020	Proactive prevention in occupational safety and health: how to identify tomorrow's prevention priorities and preventive measures	Working environment	Digitalisation	2	International Journal of Occupational Safety and Ergonomics	yes	https://doi.org/10.1080/10803548.2018.1465677
Howarth, Quesada, Silva, Judycki, Mills	2018	The impact of digital health interventions on health-related outcomes in the workplace: a systematic review	Working environment	Technology use (ICT)	2	Digital Health	yes	https://doi.org/10.1177/2055207618770861
Karlsen, Svendsen, Abildgaard	2022	A review of smartphone applications designed to improve occupational health, safety, and well-being at workplaces	Working environment	Technology use (ICT)	2	BMC Public Health	yes	https://doi.org/10.1186/s12889-022–13821-6
Ladkin, Willis, Jain, Clayton, Marouda	2016	Business travellers' connections to home: ICTs supporting work-life balance	Work-life balance	Technology use (ICT)	2	New Technology Work and Employment	yes	https://doi.org/10.1111/ntwe.12071

Authors	Publication Year	Article title	Dimension of Internal CSR	Digitalisation/ technology use	Assigned category	Journal title	Peer-review process	DOI
Leesakul, Oostveen, Eimontaite, Wilson, Hyde	2022	Workplace 4.0: exploring the implications of technology adoption in digital manufacturing on a sustainable workforce	Working environment	Technology use (ICT)	2	Sustainability	yes	https://doi.org/10.3390/su14063311
Low, Bu	2022	Examining the impetus for internal CSR Practices with digitalization strategy in the service industry during COVID-19 pandemic	Internal CSR	Digitalisation	2	Business Ethics, the Environment & Responsibility	yes	https://doi.org/10.1111/beer.12408
Nagy	2020	"Mummy is in a call": digital technology and executive women's work-life balance	Work-life balance	Technology use (ICT)	1	Social Inclusion	yes	https://doi.org/10.17645/si.v8i4.2971
Nam	2014	Technology use and work-life balance	Work-life balance	Technology use (ICT)	1	Applied Research in Quality of Life	yes	https://doi.org/10.1007/s11482-013-9283-1
Niebuhr, Borle, Boerner-Zobel, Voelter-Mahlknecht	2022	Healthy and happy working from home? Effects of working from home on employee health and job satisfaction	Working environment	Digital work	1	International Journal of Environmental Research and Public Health	yes	https://doi.org/10.3390/ijerph19031122
Nielsen, Laursen, Dyreborg	2022	Who takes care of safety and health among young workers? Responsibilization of OSH in the platform economy	Working environment	Digital work	1	Safety Science	yes	https://doi.org/10.1016/j.ssci.2022.105674
Ninaus, Diehl, Terlutter	2021	Employee perceptions of information and communication technologies in work life, perceived burnout, job satisfaction and the role of work-family balance	Work-life balance	Technology use (ICT)	1	Journal of Business Research	yes	https://doi.org/10.1016/j.jbusres.2021.08.007
Ninaus, Diehl, Terlutter, Chan, Huang	2015	Benefits and stressors – perceived effects of ICT use on employee health and work stress: an exploratory study from Austria and Hong Kong	Working environment	Technology use (ICT)	1	International Journal of Qualitative Studies on Health and Well-Being	yes	https://doi.org/10.3402/qhw.v10.28838
Orzel, Wolniak	2022	Digitization in the design and construction industry – remote work in the context of sustainability: a study from Poland	Employment stability	Digitalisation	2	Sustainability	yes	https://doi.org/10.3390/su14031332
Ostmeier, Strobel	2022	Building skills in the context of digital transformation: how industry digital maturity drives proactive skill development	Skill development	Digitalisation	2	Journal of Business Research	yes	https://doi.org/10.1016/j.jbusres.2021.09.020
Palumbo	2022	Does digitizing involve desensitizing? Strategic insights into the side effects of workplace digitization	Employee involvement	Digitalisation	1	Public Management Review	yes	https://doi.org/10.1080/14719037.2021.1877796
Palumbo, Casprini, Montera	2022	Making digitalization work: unveiling digitalization's implications on psycho-social risks at work	Working environment	Digitalisation	2	Total Quality Management & Business Excellence	yes	https://doi.org/10.1080/14783363.2022.2055458
Phillips, Gordeev, Schreyogg	2019	Effectiveness of occupational e-mental health interventions: a systematic review and meta-analysis of randomized controlled trials	Working environment	Technology use (ICT)	1/2	Scandinavian Journal of Work Environment & Health	yes	https://doi.org/10.5271/sjweh.3839

Authors	Publication Year	Article title	Dimension of Internal CSR	Digitalisation/ technology use	Assigned category	Journal title	Peer-review process	DOI
Rani, Furrer	2019	On-demand digital economy: can experience ensure work and income security for microtask workers?	Skill development	Digital work	1	Jahrbücher für Nationalökonomie und Statistik	yes	https://doi.org/10.1515/jbnst-2018-0019
Rey-Merchan, Lopez-Arquillos	2022	Occupational risk of technostress related to the use of ICT among teachers in Spain	Working environment	Technology use (ICT)	1	Sustainability	yes	https://doi.org/10.3390/su14148746
Robelski, Sommer	2020	ICT-enabled mobile work: challenges and opportunities for occupational health and safety systems	Working environment	Technology use (ICT)	1	International Journal of Environmental Research and Public Health	yes	https://doi.org/10.3390/ijerph17207498
Rodriguez-Modrono, Lopez-Igual	2021	Job quality and work-life balance of teleworkers	Work-life balance	Technology use (ICT)	1	International Journal of Environmental Research and Public Health	yes	https://doi.org/10.3390/ijerph18063239
Rohwer, Flother, Harth, Mache	2022	Overcoming the dark side of technology – a scoping review on preventing and coping with work-related technostress	Working environment	Digitalisation	2	International Journal of Environmental Research and Public Health	yes	https://doi.org/10.3390/ijerph19063625
Rohwer, Kordsmeyer, Harth, Mache	2020	Boundarylessness and sleep quality among virtual team members – a pilot study from Germany	Working environment	Technology use (ICT)	1	Journal of Occupational Medicine and Toxicology	yes	https://doi.org/10.1186/s12995-020-00281-0
Saura, Ribeiro-Soriano, Saldana	2022	Exploring the challenges of remote work on Twitter users' sentiments: from digital technology development to a post-pandemic era	Working environment, Work-life balance	Technology use (ICT)	1	Journal of Business Research	yes	https://doi.org/10.1016/j.jbusres.2021.12.052
Schreibauer, Hippler, Burgess, Rieger, Rind	2020	Work-related psychosocial stress in small and medium-sized enterprises: an integrative review	Working environment, Working environment	Digitalisation	1	International Journal of Environmental Research and Public Health	yes	https://doi.org/10.3390/ijerph17207446
Selimovic, Pilav-Velic, Krndzija	2021	Digital workplace transformation in the financial service sector: investigating the relationship between employees' expectations and intentions	Working environment	Digitalisation	2	Technology in Society	yes	https://doi.org/10.1016/j.techsoc.2021.101640
Siegrist, Bollmann	2022	Promoting good and sustainable work in occupational health education	Working environment, Skill development	Digitalisation	2	Occupational Medicine-Oxford	yes	https://doi.org/10.1093/occmed/kqac018
Stoian, Caraiani, Anica-Popa, Dascalu, Lungu	2022	Telework systematic model design for the future of work	Work-life balance	Digital work	2	Sustainability	yes	https://doi.org/10.3390/su14127146
Tennakoon	2021	Empowerment or enslavement: the impact of technology-driven work intrusions on work-life balance	Work-life balance	Technology use (ICT)	1	Canadian Journal of Administrative Sciences Revue Canadienne des Sciences de L'Administration	yes	https://doi.org/10.1002/cjas.1610
Van Fossen, Baker, Mack, Chang, Cotten, Catalano	2022	The moderating effect of scheduling autonomy on smartphone use and stress among older workers	Working environment	Digital work	1	Work Aging and Retirement	yes	https://doi.org/10.1093/workar/waac017
Vereycken, Ramioul, Desiere, Bal	2021	Human resource practices accompanying industry 4.0 in European manufacturing industry	Employee involvement, Skill development	Digitalisation	2	Journal of Manufacturing Technology Management	yes	https://doi.org/10.1108/JMTM-08-2020-0331

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Waldkirch, Bucher, Schou, Grunwald	2021	Controlled by the algorithm, coached by the crowd – how HRM activities take shape on digital work platforms in the gig economy	Skill development	Digital work	1/2	International Journal of Human Resource Management	yes	https://doi.org/10.1080/09585192.2021.1914129
Wanasinghe, Trinh, Nguyen, Gosine, James, Warrian	2021	Human centric digital transformation and operator 4.0 for the oil and gas industry	Working environment	Digitalisation	2	IEEE Access	yes	https://doi.org/10.1109/ACCESS.2021.3103680
Wong, Fieseler, Kost	2020	Digital labourers' proactivity and the venture for meaningful work: fruitful or fruitless?	Work-life Balance	Digital work	1	Journal of Occupational and Organisational Psychology	yes	https://doi.org/10.1111/joop.12317
Yassaee, Mettler	2019	Digital occupational health systems: what do employees think about it?	Working environment	Digitalisation	1/2	Information Systems Frontiers	yes	https://doi.org/10.1007/s10796-017-9795-6
Yassaee, Mettler, Winter	2019	Principles for the design of digital occupational health systems	Working environment	Technology use (ICT)	2	Information and Organization	yes	https://doi.org/10.1016/j.infoandorg.2019.04.005

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