A Research Agenda for Social Innovation

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Elgar Research Agendas

6. Digital transformation of work: spillover effects of workplace innovation on social innovation

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Introduction

Citizens who want to be or become socially active acquire such an attitude not only in their youth or at school, but at least as much, if not more, in their working environment. In this chapter we argue two main ideas. First, that workplace democracy spills over onto society and is needed for social innovation to flourish. Secondly, workplace innovation (stimulating job quality and worker participation) encourages people to enter into social innovation, either in the community or politics (Akkerman 2017). Consequently, an important research question is whether Industry 4.0 or digitalisation enhances or reduces job quality and worker participation and hence increases or decreases participation in community and political activities. If the work environment helps the citizen make their own decisions and actively engage in change, it actively supports the citizen to intervene outside of work. Conversely, work in which the employee has to go through what others impose does not help the employee to develop the confidence wanting to change the own living environment, as has been illustrated by Blauner half a century ago when addressing the classical issue of 'alienation and freedom' (Blauner 1964).

This chapter addresses social innovation as the invention, development and implementation of new ideas to solve social problems faced by individuals, groups or communities (Oeij et al. 2019, p. 244). This definition sees the 'implementation' of innovation as an indicator of success in solving social problems. Social problems are any situation that prevents individuals, groups or communities from being included in society as is understood in 'inclusive-

ness' and 'participation'; or, conversely, any individual, group or community that is socially excluded from social welfare and well-being. Being 'socially active', then, refers to contributing to solving social problems in one way or another, as a form of social innovation.

Workplace innovation, according to the European Workplace Innovation Network (EUWIN), is defined as: 'new and combined interventions in work organisation, human resource management, labour relations and supportive technologies' (Dhondt 2012, p. 2). It is essential to recognise both process and outcomes. The term 'workplace innovation' describes the participatory and inclusive nature of innovations that embed workplace practices grounded in continuing reflection, learning and improvements in how organisations manage their employees, organise work and deploy technologies. As an organisational model, it champions workplace cultures and processes in which productive reflection is a part of everyday working life; it builds bridges between the strategic knowledge of the leadership, the professional and tacit knowledge of frontline employees and the organisational design knowledge of experts; and seeks to engage all stakeholders in dialogue in which the force of the better argument prevails. Workplace innovation works towards 'win–win' outcomes. A creative convergence (rather than a trade-off) is forged between enhanced organisational performance and enhanced quality of working life (Dhondt 2012, p. 2).

With Industry4.0 and digitalisation, we see a major impact on the working environment of employees. The Fourth Industrial Revolution (or Industry4.0) is the ongoing automation of traditional manufacturing and industrial prac-tices, using modern smart technology. Large-scale machine-to-machine com-munication (M2M) and the internet of things (IoT) are integrated for increased automation, improved communication and self-monitoring, and production of smart machines that can analyse and diagnose issues without the need for human intervention (Moore 2019). These latest digital technologies' possibilities bring opportunities and risks for how employees, citizens, will act in society. The options focus on upskilling and reskilling of employees. The risks focus on the content of the work, the type of contract someone can still get (future perspective) and how the distribution of value occurs. The digitalisation of the workplace may have unintended consequences. Frey et al. (2018) showed a correlation between regions in which digital technologies and globalisation had a negative economic impact and helped the rise of populist movements. Such populism is usually exclusive and we assume it is reluctant to embrace social innovation as defined in this chapter. There is a direct interest in better understanding the link between social innovation and the impact

of digitalisation of work and identifying challenges for a research agenda on social innovation.

We start with a discussion on the impact of democracy at the workplace and the relevance for social innovation. Next, we indicate what active work is, how it is created, and what (hypothetical) connection there is with being socially active. Being socially active is important for social innovation. In the next section, we elaborate on this connection. We point out the importance of implementing work organisations that support active work, commonly known as workplace innovation-driven work organisations (Oeij et al. 2017). Organisations can choose how they want to organise work. We look at the options available to companies. The chapter then addresses what organisations can do to create active workplaces. What stands in the way of such a decision? The chapter then focuses on the risks and opportunities of the digital transformation we face. What is the impact of digital technology and the platform economy on that choice? In particular, what are the consequences for socially innovative behaviour of citizens?

Spillover of democracy at work onto social innovation

There is a long tradition in political theory regarding democracy at work. Some have contended that democratising the workplace can improve society's overall democratic quality thanks to spillover effects. Others have noted that economic democracy is the necessary precondition for political democracy so that a democratic workplace is a means for achieving the ultimate goal of political democracy (Frega 2019). These spillover effects mean that having 'voice' in the work situation increases the probability of making one's voice heard outside the workplace, in the community or in politics (Pateman 1970; Akkerman 2017). Akkerman (2017) indicates that the workplace is an essential context for learning to act politically and support outside company social action. Godard (2007) draws on data from 750 Canadian and 450 English workers to systematically explore the implications of work for political partic-ipation, addressing whether 'good' work and recent trends identified in work and employment appear to be good for political participation. The results of Godard's study indicate that work does have implications for political partic-ipation. The maximum increase or decrease in the likelihood of voting that can be attributed to the nature and context of work is estimated to be only 11 per cent. However, the figure is 53 per cent for the likelihood of donating time to a political or social cause. This difference is likely to be because voting is an essentially passive and individualistic form of participation, requiring little

energy and remaining unrecognised by others. The opposite is the case for the donation of time.

Moreover, characteristics associated with 'good' work have negative and positive spillovers, suggesting contradictory effects and reducing good jobs' net positive effects. Task content and fairness rights have a positive spillover, job satisfaction a negative one. This is not a surprising result as the job satisfaction construct mainly measures the degree of adaptation to the situation and is not a good measurement for job quality (Kuipers et al. 2020, pp. 99–102).

Timming and Summers (2018) use structural equation modelling to find that workplace democracy is strongly positively associated with increased interest in politics and broader pro-democracy effect. This result holds even when controlling for reverse causality and the confounding influence of trade union membership. The results suggest that work can have an essential effect on wider governance at the level of the community and the state (Timming and Summers 2018). The impact on community activities was also found by Eldor et al. (2020). Utilising multilevel modelling analysis techniques on data from 554 employees in public and business sector organisations, they concluded that work engagement and employees' outcomes beyond work had positive and significant relationships on community activities.

Moreover, the relationship between work engagement and community involvement was stronger in public sector employees than in business sector employees. Another research project, using European Social Survey data, analyses the extent to which individual autonomy and participation in decision making at the workplace are linked empirically to individual political behaviours in civil society. The results, which are consistent with the hypothesis of a positive outward democratic spillover from the workplace on the political arena, point to the possibility of a learning effect. Much of the literature studies small samples in a single country, whereas more than 14 000 workers across 27 countries were analysed in this research. The results do not appear to be driven by specific countries, which suggests that this spillover effect is a general phenomenon across various institutional contexts, although some features of a country's electoral system moderate some of the results (Budd et al. 2018). The European Trade Union Institute also used European Social Survey data for their analysis of the spillover effect. Figure 6.1 shows the same positive relationship: employees with a greater voice, influence and democracy at work, vote more, consider themselves more able to influence politics, and also more often report that they are interested in politics. The message is clear: political democracy and democracy at work are mutually reinforcing. By consequence, failing to foster democracy at work risks jeopardising the future of our political

democracies. Policies to strengthen political democracy should thus not limit their focus to the political but should take into account how the economy, companies and public services are organised (De Spiegelaere et al. 2019, p. 72).
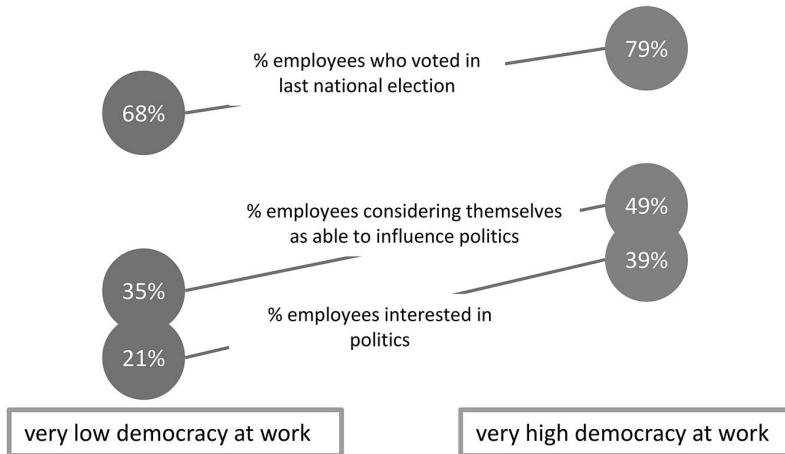
Notes: The figure consists of four variables. 'Voted in last national election' is the first one. 'Democracy at work scale' is based on the mean scores of the variables 'allowed to decide how daily work is organised' and 'allowed to influence policy decisions about activities of organisation'. The figure compares work situations with mean score for 'democracy at work' less than 2.5 and more than 7.5 on a scale of 0 to 10. For each of the situations, percentages of employees reporting 'ability to influence politics' (cumulating the responses 'completely', 'very' and 'quite') and 'interested in politics' (cumulating the responses of 'very' and 'quite') are compared between 'democracy at work' situations.
Source: De Spiegelaere et al. (2019).

Figure 6.1   Democracy at work and civic democracy

How are active workplaces created?

It is essential for social innovation whether a person is self-driven to be active or whether the environment activates them. Of course, education and training (i.e. socialisation) are crucial to how a person becomes active later in life, but the influence of working careers on how people think and act seems under-estimated. Part of this underestimation can be explained by the dominance of psychological theories on the relationship between work and person in current Human Resource management, so-called person–environment fit and person–job fit theories. Psychologists who adhere to the theory of planned

behaviour of Ajzen (1991) find that a person's actual behaviour is steered by three kinds of beliefs: beliefs about the usefulness of their intended behaviour, what they think others think of their behaviour ('social norm') and their expectation of how those intentions can be realised. A related psychological theory is the importance of a person's orientation towards work (the regulatory focus theory). A person may have a promotion or a prevention focus. People with a promotion focus are naturally very active and more individualistic in their behaviour and are more extrinsically motivated. People with a prevention focus are regulation-oriented, want to cooperate more and are intrinsically motivated (De Vries et al. 2016). A third theory, the Self-Determination Theory, has become very popular; this states that workers are motivated by basic psychological needs: autonomy, competence and relatedness (Deci et al. 2017). In these theories' reasoning, the characteristics of work and the organisation only fit specific individuals. HR policies are mainly about selecting the right person rather than developing the person, not so much creating good quality jobs by designing 'active work' (Karasek 1979; Karasek and Theorell 1990). Why? Because HR professionals advise their business partners ('HR to the business') in accordance with these kinds of theories, which neatly fit with management views that the deployment of employees should serve the business first. This seems to feed top-down management behaviour more strongly than bottom-up opportunities for employee participation (Karanika-Murray and Oeij 2017).

Beliefs, needs and regulatory focus may be critical psychological mechanisms, but their dominance leaves social movements little more left than selecting the right people. Since these approaches assume that people have fixed psychological profiles, people will be hard to change. If social movements predominantly select people with a prevention focus, not a lot will happen. Organisations advised by such HR professionals should hope that sufficient people with a promotion focus are available to achieve their goals. The strategic choice that social movements have to look for alternatives will remain underused.

Karasek (1979; Karasek and Theorell 1990) opposed this reasoning at an early stage. According to him, the working environment determines, to a large extent, how people develop in their lives. Karasek distinguishes two central dimensions in the work environment: 'job demands' and 'job control' ('decision latitude' or 'skill discretion'). A person does not start by making the working environment in which they end up. On the contrary, people have to deal with all kinds of demands imposed on them and they need to deal with those demands. In many work environments – think for example of a car factory's production line – the work rhythm is imposed, and the employee has hardly any choice. Such a person is guided by the rhythm of the conveyor belt

and undergoes the technological choices made for them by others (Berting 1995). Karasek goes further in his reasoning by assessing four types of work environment: low job requirements and low control (passive work); low job requirements and high control (pointless work); high job requirements and low control (stressful work); and high job requirements and high control (active work). He shows, as do many other researchers after him, that active work reduces stress experiences and supports strong learning from work (see Häusser et al. 2010; Houtman et al. 2020). Active work also makes someone active in life (Karasek 1979).

Managers who design organisations shape the employees' workplace and determine how these people develop and behave in their lives. Sometimes they consider the personal orientation a person may have. In the sociotechnical design theory, for example, organisations' design determines whether or not the work of employees is meaningful (Kuipers et al. 2020). People spend a large part of their lives in their workplace. What that workplace looks like certainly impacts the job content, thus on how a person thinks and lives: the workplace has a socialisation aspect. It is this mechanism that Akkerman (2017) referred to when she said that active work is also the context for learning to act politically. Only when employees are allowed to make decisions themselves, learn to make decisions, learn to negotiate and develop themselves, can this help to shape those skills and empowerment needed for empowered behaviour outside the organisation. We see political participation as a first step to becoming an active citizen and to start caring for their social environment. Research among European companies who excel in applying workplace innovation practices show there are mature employment relationships between management, employees and, often, employee representatives. When these companies implement innovations or changes in their organisations, there is sound cooperation between these agents. The result of such cooperation is better production performance, and that considering how to redesign the work, requirements for improving the quality of jobs are taken into account. The key is that the participation of employees in these processes results in successfully striving after both economic and social goals at the company level (Oeij et al. 2021). Workplace innovation is an important building block for social innovation.

Underused benefits of workplace innovation

Having organisational choice allows managers and workers to discuss the design of work (Child 1972; Karanika-Murray and Oeij 2017). Companies

do not always make these choices consciously or intentionally; they often do not even recognise the possibility of organisational choice as they feel technology and other external factors are outside their control. Van Reenen (2011) indicates that it is not the market that pushes managers to choose a suitable organisational model. Many organisations even survive a long time with underperforming organisational models (Van Reenen 2011). These organisational choices are also increasingly influenced by technology. Bloom et al. (2014) referred in earlier research to the centralising impact of communication technologies and the decentralising impact of information technology (Dhondt et al. 2020). Be that as it may, with increasing digitalisation, in the various forms we see of it, companies need to be aware of the effect of their organisational choices and use of digital technology on their employees' development opportunities. But also, employees themselves need to be mindful that they have a decision space to conquer. The European Company Survey (EUROFOUND and CEDEFOP 2020) shows that companies whose personnel have more voice also perform better as an organisation. Not only does the organisation benefit but society as a whole benefits as well. More empowered employees equals empowered citizens. The European Company Survey results should entice more companies to implement such 'voice-driven' or workplace innovative contexts. However, the question is, assuming that many organisations are insufficiently aware of the fact that they can positively influence the work of employees, and assuming that digitalisation can have various effects, what development in organisational choices and digitalisation can we expect in the coming years? This development of workplace innovation is our research programme (see for example Paradigms4.0 and BEYOND 4.0) (Warhurst et al. 2019).

What are the opportunities and threats to active work and social innovation?

We know from decades-long research that the way new technologies are being implemented results in changes in jobs or tasks. Some jobs improve in content; some become worse. Much stress exists in industries on the possibilities for reskilling and upskilling of work. The general trend seems to be that technology is skill-biased (Acemoglu 2002). More digital technologies require that companies do more training and develop T-shaped job profiles (EMPIRICA et al. 2020). T-shaped skills refer to both specialist and generalist knowledge. Most industrial sectors indicate they are confronted with personnel shortages and have great difficulties in attracting relevant staff. Our concern is to support

the implementation into more high-quality jobs and prevent the continuation or increase of bad jobs. As indicated, active jobs are needed to develop the right skills and attention to social innovation. Renowned authors of MIT call it 'the case for investing in job quality' (Autor et al. 2019). Referring to what is said above in the second section, this means also investing in people's capabilities for social innovation in their communities and politics (Dhondt et al. 2018).

At the same time, digital technologies are also a threat to active work. Digital technology has the potential to shape organisations. An example is the rise of platform work and click-work. Organisations driven by these technologies tend to centralise all decision making and reduce work to top-down assignments. The contribution of the worker (note they are not 'employees') to what they do and how they do it is very limited. Not only does the worker not get much out of work financially, but they also learn very little from their work situation. Long working days and bad work situations do not stimulate socially innovative behaviour (Warhurst and Dhondt 2020; Warhurst et al. 2017). Another threat is that digital technologies ensure a strong centralisation of decisions and standardisation of work in companies. Software developments such as Enterprise Application Integration (EAI) allowed companies to start integrating all company management domains. Technical integration was seen as a precondition for managerial and cultural integration in very large firms. Examples, although not always successful, of such companies are Barclays Bank (One Barclays: Salz and Collins 2013), Saab (One Saab: Lindeberg and Malmlöv 2011), and the Bank of England (One Bank: National Audit Office 2017). The EAI technologies allowed companies to eliminate differences in practices between parts of companies and all employees' work practices. Quality of work, use of skills and ownership of employees are affected negatively: instead of active work there was more passive and stressful work and sometimes pointless work. The Barclays Bank experience shows that this managerial and cultural integration also led to employees not taking any responsibility or initiative. Large-scale corruption (more specifically the Libor-rate manipulation) and deceiving customers are then a consequence (Salz and Collins 2013).

On top of that, an increase in the impact of digital technology is to be expected now and in the future. In general, the number of robots remains low in industry (Müller et al. 2019). But the application of Artificial Intelligence in worker management systems can have unforeseen consequences for employees' autonomy (Bailey and Barley 2020; Das et al. 2020; Zuboff 2019). Employees do not know what is driving them, and above all, they lose the opportunity to learn from work. Learning of the machine is part of the algorithm and the

unlearning of humans, so it seems. We are seeing Braverman's thesis of 'degradation of work' reappear (Lucas 2020).

What changes are needed?

In this chapter we regard active work as a prerequisite for an active society. It is precisely the fact that work is organised 'passively' in many parts of the world that causes many citizens to lose their sense of belonging and citizenship. Technology can reinforce this development, leading to further alienation instead of responsible action, exclusion instead of participation. To ensure a more active society through active work and challenging workplaces, several actions are needed:

1. Greater awareness is needed to impact technology's potential impact on organisational practices (Pot et al. 2019).
2. Companies also need to know better what the organisational design choices are that they can make. Research by EUROFOUND and CEDEFOP (2020) shows that in Europe, only about 20 per cent of companies choose the 'high road' (workplace innovation) to set up active workplaces. Many companies are not even aware of the choices available. Other research indicates close cooperation between management and employees improves both the business performance and work quality (Oeij et al. 2021).
3. New forms of organisation have unknown consequences. Therefore they should also be studied. In particular, how platform companies and network companies operate and what that means for the quality of work remains largely underexposed (Warhurst et al. 2017).
4. In addition to the fact that management has to make all kinds of choices, employees and their representatives need to take advantage of these choices. Trade unions in many countries still have the basic rule that they leave the organisation design and technological innovations to management. Reversing this attitude allows employees better to grasp their work (Meylemans et al. 2019) and to unfold the potential of new digital solutions at the workplace with their expertise (see Kohlgrüber et al. 2019).
5. In Europe, attention has already been paid to employee engagement and involvement.[1] The European Workplace Innovation Network (EUWIN) initiative is an opportunity to raise awareness of new ways of organising. Initiatives of this kind have limited impact because the knowledge they deliver remains underused (Oeij et al. 2017; Høyrup et al. 2012).

If we want to improve work, we will need to understand how digitalisation and organisational choices relate to the two core dimensions of work: job requirements and skill discretion. What are the barriers to improving these two elements, using these digital technologies? Management has to break down those barriers and conditions that limit employees to participate in the design of their work. The focus should be on replacing top-down approaches with more bottom-up voice (Karanika-Murray and Oeij 2017). Further, employees must learn to see the connection between what work does to them and how they act in general in society. Work has not only an economic purpose but also a social value. Meaningful relationships at work are crucial for the social domain (i.e. social innovation in general and workplace innovation in particular – Pot et al. 2012).

A separate field of research, also part of the H2020 Beyond4.0 project, is the relationship between digitalisation, quality of work and social security. Next to impacting the quality of work, digitalisation ultimately also transforms employment. Some fear a future of total unemployment (McAfee and Brynjolfsson 2016). The existing social security system should best convert to a universal basic income (UBI) in such a future. The research question addressed concerns the idea that in the case of a UBI, the knife ultimately cuts both ways: it removes the pressure on working people to end up in the stress quadrant of working; non-workers now have the means to contribute to social tasks. How realistic should we consider this path? First of all, the 'shock' of digitalisation on employment (even with the consequences of COVID-19) is not (yet) visible. The low unemployment rates limit the immediate need for a UBI. Secondly, a UBI does not alter the work's content and rather poses a risk to the active character of work: the incentive for employers to make the work attractive disappears. For UBI recipients, the question is whether there is still an urge to do something in the community. Research indicates that the social focus of UBI recipients does reduce, but not dramatically. This risk does remain (Kangas et al. 2019).

New questions for a research agenda

This chapter delivers a specific aspect of digital transformation and workplace innovation and its impact on citizen engagement. In this way, the chapter contributes to the Social Innovation Research Agenda proposed in this book. Developing new practices at the workplace enables new social practices and

engagement in civil society at the same time. With this elaboration, several questions emerge for further research:

1. What is the relationship between digitalisation, active work and social innovation (Pot et al. 2019)? Which organisational concepts are relevant regarding the relationship between work and social innovation, especially in the present time, in designing active jobs (Kuipers et al. 2020)?
2. Is digitalisation pliable? How can digital technology be used in such a way that it serves both active work and social innovation?
3. What determines this heterogeneity of management choices? How can managers be made aware that quality of work is central to their business interests? How can they learn that quality of work is a necessary social interest?
4. How can industrial relations improve work: shop floor consultation, formal co-determination, collective bargaining?
5. Which institutional context is appropriate for a change in work settings, to create active work?
6. What is the similarity between active citizenship and active employment?
7. Developing active workplaces requires major public–private programmes to achieve change. What kind of programme management is needed to conduct such larger campaigns to implement the change in work? (See Janssens 2015; Rodrik and Sabel 2019.)
8. What is the relationship between digitalisation, active work and social security?
9. How can social innovation, digitalisation, new technology, responsible innovation and ethics be aligned (Yaghmaei and Van de Poel 2021)?
10. How can new entrepreneurship models foster social innovation, and how can it be connected to the economic and technological development of entrepreneurial and innovation ecosystems (BEYOND4.0, Paradigms4.0)?

Acknowledgement

Notes

1.   https://ec.europa.eu/growth/industry/policy/innovation/workplace_en.
2.   https://paradigms.be/.
3.   https://beyond4-0.eu/.

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