

## **The Future of Work: Implications for the Frontline Manager's Role in HR Implementation**

Kathy Monks  
Edel Conway

Kathy Monks is Emeritus Professor of Human Resource Management at DCU Business School, Dublin City University, Ireland. Her research interests include HR systems, HRM in knowledge intensive firms and HRM in the public sector.

Edel Conway is Full Professor of Human Resource Management and Organizational Psychology at DCU Business School, Dublin City University, Ireland and leads the Future of Work theme at the Irish Institute of Digital Business. Her research interests include: HRM and employee well-being, HRM in the public sector, and the future of work.

# **The Future of Work: Implications for the Frontline Manager's Role in HR Implementation**

## **Abstract**

This chapter uses Morgan's (1997) metaphor of 'organizations as organisms' as a lens through which to understand how both new technologies and the impact of Covid-19 are changing the ways in which work is both organized and experienced. The role of frontline managers in managing the interaction between the technical, the social and the environmental consequences of both technological change and Covid-19 are considered regarding various aspects of HR implementation, including the design and organization of work and the management of employee performance. Consideration is also given to the ways in which the very nature of frontline management itself is changing as a result of technological advances and considers whether this will be automated. The chapter concludes with a focus on what the future holds for frontline managers.

## **Introduction**

The future of work is a topic that has long been of interest to researchers in an array of disciplines. These researchers have often focused on trying to predict the impact that new technologies may have on the design and nature of work and the consequent ramifications for the work and non-work lives of individuals. This chapter started life in a similar vein. Its original aim was to explore the impact of new 21<sup>st</sup> century technologies on the ways in which line managers implement HR practices. These new technologies, underpinned by artificial intelligence (AI), have led to the introduction of performance initiatives such as electronic monitoring and surveillance (EMS) and gamification which have the potential to disrupt fundamentally the nature of the social arrangements that have traditionally characterized work (Kaplan, 2015; Spencer, 2018). However, our plans for the chapter were overtaken in March 2020 by the Covid-19 pandemic that has fundamentally disrupted life throughout the world. At the time of writing in 2021, huge jobs losses have been recorded and many organizations and industries are under threats that are far greater than those predicted to occur because of technological change. For those who still have jobs, the nature of their work and where it is undertaken has in many cases altered dramatically.

This chapter draws on both the academic and grey literatures to consider how both new technologies and Covid-19 are changing the nature of work and how these changes then impact the ways in which frontline managers implement HR policies and practices. To contextualize these changes, the chapter first draws on Morgan's (1997) work on organizational metaphors, in particular the notion of organizations as organisms and its attention to socio-technical and open systems theories. We then examine some of the new technologies of the 21<sup>st</sup> century and the ways in which they shape working arrangements. The implications for the role of frontline managers in managing the interaction between the technical, the social and the environmental consequences of both technological change and Covid-19 are then discussed, with particular emphasis on various aspects of HR implementation, including the design of work and the management of employee performance. Consideration is also given to the ways in which the very nature of management itself is changing as a result of technological advances.

## **Contextualising the Future of Work: Organizations as Organisms**

Gareth Morgan (1997) proposed a range of metaphors for understanding the nature of organizations. One metaphor, that of organizations as organisms, views them as ‘living systems, existing in a wider environment on which they depend for the satisfaction of various needs’ (Morgan, 1997: 33). These various needs encompass both the human and technical aspects of work, a duality captured in socio-technical systems theory. This theory originated from the work of the Tavistock Institute in the UK during the 1950s, in particular from research conducted in the coal mines (Trist and Bamforth, 1951). From a socio-technical systems perspective, the work system is viewed as comprising both social and technical elements that need to work together to produce both physical products and social/psychological outcomes. It proposes that higher performance can be achieved by leveraging workers’ intimate knowledge about how the technology operates and their ability to deal with technological uncertainty, challenging workers to have greater input into how their work is designed and giving them greater control over the work process (Pasmore et al., 2019). The aim is to design work so that the outcomes for both the technical and the social elements of the system are positive (e.g., increasing job variety, goal-directed behaviour, teamwork and taking responsibility for performance), while considering that the socio-technical system operates within the larger organizational and environmental system. In this regard, Morgan points to the role of open systems theory as a way of recognising the interdependence of socio, technical and environmental requirements and how organizations, in common with organisms, can be viewed as sets of interacting subsystems. Thus, it is not just technologies that can impact working arrangements, but a major environmental shift such as Covid-19 can alter fundamentally the ways in which individuals interact with technology and with each other. Such changes have implications for both HR policies and practices and for the ways in which frontline managers implement them.

## **New Technologies and the Future of Work**

Speculation about the future of work is not new; in fact, debates on the impact that new technologies will have on the nature of jobs have raged throughout history. Core to these debates has been the question of whether the introduction of new technologies will lead to job losses, thus substituting for workers, or whether they will create new openings, thereby creating new complementarities between individuals and machines (Autor, 2015; Petterson, 2019). The predictions as to which outcome will prevail are underpinned by two opposing theories of continuity and discontinuity (Shestakofsky, 2017). Continuity theories argue that the dynamic interaction between humans and machines will continue and that, while some existing jobs may disappear, new types of jobs will be created through enhanced complementarities between humans and machines (Autor, 2015; Mokyr, Vickers and Ziebarth, 2015). In contrast, discontinuity theorists suggest that innovations such as machine learning and artificial intelligence (AI) signal a major break in the link between technological innovation and job creation (Jaharri, 2018). At the same time, there is also the possibility of discontinuity in continuity (Shestakofsky, 2017). Thus, technology may rationalize work and decrease the dependence on human knowledge, skills and abilities; it may also increase the information content of tasks to reconfigure work and social relationships, including the management of workers.

The technologies that are at the heart of contemporary debates on the future of work encompass *inter alia* artificial intelligence (AI), data analytics, including HR analytics, robotics, social media, blockchain and digital platforms. Lupushor and Fradera (2017: 481) propose three classifications for these future changes: datafication – ‘the conversion into bits and bytes of activities, interactions and relationships between entities participating in the world of work, making it easier to understand the workflow and work dynamics’; digitization: ‘the transformation of work, knowledge distribution, and workplace itself through the use of tools and apps, devices, sensors, robotics, artificial intelligence etc.’; and disintermediation: ‘the decomposition of the value chain of work and removal of intermediaries driven by disruptions introduced by cross-chain players, reshaping how work gets done and reconfiguring the work ecosystem around the consumer’s experience versus the traditional value chain’. These shifts are dramatically changing the ways in which work is both organized and experienced (European Group on Ethics in Science and Technologies, 2018; Global Commission on the Future of Work, 2019; OECD, 2019; Servoz, 2019). Emerging technologies are becoming increasingly intelligent with capabilities for learning and decision-making and at the same time for storing and analysing vast quantities of information that enable employers to track and monitor the behaviour and performance of their employees. The claims for what this might mean for managers range from predictions about the demise of their administration and coordination roles (Kolbjørnsrud, Amico and Thomas, 2016), to the emergence of robots as leaders (Samani, Koh, Saadatian and Polydorou, 2012). Before examining some of these developments in more detail, we first consider evidence on the role of the frontline manager in implementing HR policies and practices.

### **Frontline Managers and the Implementation of HR practices**

There is now an extensive literature on the role that frontline managers play in enacting the HR practices that are critical to organizational performance (e.g., Guest and Bos-Nehles, 2013; Kehoe and Han, 2019; Kuvaas, Dysvik and Buch, 2014; Trullen, Bos-Nehles and Valverde, 2020). This enactment can encompass many responsibilities that include interviewing prospective employees, engaging in performance management and delivering and supporting training and development (Wright and Nishi, 2013). The process of enactment is not straightforward. Differences between intended and implemented HR practices can emerge as the HR policies designed by an HR department are translated (and sometimes reinterpreted) by frontline managers into practices which are first implemented and then experienced by employees. One recent study suggests that frontline managers engage with HR policies and procedures in three ways: ‘they can decide and propose a decision within the remit of their formal role, they can ask and negotiate an outcome outside of formal policies and procedures, and they can avoid and circumvent policies and procedures’ (López-Cotarelo, 2018: 266). Most research suggests that HR managers should be involved in HR policy formation and then retain a quality assurance role, remaining distanced from the actual implementation of HR practices (Guest and Bos-Nehles, 2013). However, the study undertaken by López-Cotarelo (2018) suggests that HR managers cannot simply design HR processes and then hand over their implementation to frontline managers but may need to engage in day-to-day HR decision-making to foster, shape and control the discretion of frontline managers.

While the skills of the frontline manager in the implementation process are crucial to the success of initiatives, they may not always possess the necessary implementation abilities (Bos-Nehles, Van Riemsdijk and Kees Looise, 2013). For example, there is evidence that managers are more likely to plan work for others that is poorly rather than well-designed and to blame the worker, rather than the design of the job, for poor performance (Parker, Andrei

and Van den Broeck, 2019). This finding resonates with the earlier Tavistock research, which found that coal mines in which management believed that poor performance was due to workers' failure to follow direction had lower productivity and higher accident rates compared to coal mines where management trusted workers and respected their advice and input regarding how new technology should work (Pasmore et al., 2019; Trist and Bamforth, 1951). This brings to the fore the central role of frontline managers in the design of work and the management of employee performance.

The original studies of line manager implementation of HR practices were conducted within organizations where most employees were located together. However, a combination of political, cultural and institutional forces, as well as technological advances, together with the necessities of social distancing created by Covid-19, have created a situation where work is no longer bound by time or place. In tandem, the widespread use of personal laptops, mobile phones and the availability of high-speed broadband connections have created the technical capacity to underpin a work culture of ever-increasing connectivity and instantaneity (Aroles, Mitev and de Vaujany, 2019). These changes have led to the emergence of a wide variety of alternative work arrangements with increasing flexibility in the employment relationship, in the scheduling of work, and in where work is accomplished (Spreitzer, Cameron and Garrett, 2017). The next section examines the implications for frontline managers of one aspect of these alternative working arrangements: the shift to remote work.

### **The Management of Remote Work**

The literature distinguishes between telecommuters who work at home or another location between 1 and 3 days each working week, and remote or virtual workers who rarely or never work within an organizational setting (Eddleston and Mulki, 2017). Virtual work has been viewed as 'any work interaction with others that is not conducted in person (face-to-face) and that uses technology tools to transfer thoughts and ideas' (Makarius and Larson, 2017: 160). A further distinction has also been made between workers who work in the same country as their employer and those who work in another country – the notion of geographic flexibility (Choudhury, Foroughi and Larson, 2019). While there are a variety of terms to describe this type of work, the distinction between them is one of degree rather than one of substance. For the sake of clarity, in this chapter we use the term remote work as a hypernym to constitute those who work away from a traditional workplace setting either some or all of the time.

While the notion of remote working is not new, it is important to take account of the large numbers of employees and their managers across the globe who were transformed – willingly or otherwise - into remote workers because of the lockdowns associated with Covid-19. A recent European survey estimates that almost 40 per cent of employees started working remotely in March 2020 with around 60 per cent of employees working from home in Finland, followed by over 50 per cent in Denmark, Belgium and the Netherlands (Eurofound, 2020). However, many of these employees now worked at kitchen tables, rather than office desks, and given the suddenness of lockdown restrictions, there was little time to prepare either employees or their managers to adapt to this mode of working.

In traditional working arrangements, communication is face-to-face and there are opportunities for both the sharing of information and informal interaction between work colleagues and between managers and their staff. While the implementation of HR practices by frontline managers is already complex even when employees and managers are co-located, this implementation becomes much more complicated where managers and employees interact

remotely. These difficulties are compounded by the fact that managers are dealing with employees not just as virtual workers, but frequently also as members of virtual teams.

Some research suggests that the separation of manager and subordinate decreases the quality of their relationship due to poorer communication (Cummings and Haas, 2012) and in the social and informal interactions that enable the building of rapport and trust (Hinds and Cramton, 2014). For example, problems with trust among workers emerged as an issue for supervisors in a survey of federal employees in the USA (United States Office of Personnel Management, 2019). This rapport and trust seem to be particularly important in regard to the line manager's ability to engage with their subordinates in relation to issues such as performance management and skill development, crucial aspects of the remote implementation of HR practices. Research in the software maintenance centre of a global consulting and technology firm (Bonet and Salvador, 2017) suggests that the potentially negative impact on performance that results from the separation of managers and workers depends on factors such as task complexity, co-location of workers with experienced peers, and manager experience. In some cases, remote supervision was found to lead to superior worker performance suggesting that a manager's physical presence can exert unnecessary interference on work processes, thereby inhibiting employees from experimenting with new ways of working. This was particularly so when managers were less experienced and therefore less willing to trust employees to undertake responsibility for their own performance. Other research on remote workers points to the fact that perceived supervisor support is positively related to job satisfaction and negatively related to psychological strain (Bentley et al., 2016). There is also evidence that remote workers are more likely to perform better, to experience less work-family conflict, and to help their colleagues where managers stay in close contact by sharing information, rather than tightly monitoring work schedules (Lautsch, Kossek and Eaton, 2009).

A review of the literature on remote work (Makarius and Larson, 2017) suggests that there is a range of managerial processes that can support remote workers. These include creating predictable patterns of communication to facilitate interpersonal interactions; clarifying the performance management process; and setting and enforcing the ground rules for using technology, while at the same time allowing for some degree of flexibility. The same review also identified key elements in work design such as empowering employees and building their psychological control through greater autonomy as some of the factors that enable successful remote working. The importance of these areas of HRM are also relevant in the management of remote teams. For example, a recent evidence-based analysis of the processes required to build effective remote teams (CIPD, 2020) identified the encouragement of rich media, such as video conferencing, to enhance communication; the synchronising of work schedules for team members to ensure the overlapping of working hours leading to communication enhancement; and the sharing of information about issues relevant to specific locations or teams, rather than the wider organization. Most of these activities can be considered as part of the frontline manager's HR portfolio which is broadly encapsulated under the themes of communications, performance management and the design of work. This suggests that the people management responsibilities of frontline managers are no different in the virtual or physical workplace, however it is thought that management processes and interactions are required to be much more explicit and deliberate in virtual or remote settings (Geister, Konradt, and Hertel, 2006; Kasper-Fuehrer and Ashkanasy, 2001).

One of the problems that may arise in regard to remote work is the blurring of work and non-work boundaries. The rapid increase in remote working following Covid-19 led to reports of employees increasingly working in their free time due to problems in balancing

caring and housework responsibilities (CIPD, 2020; Eurofound, 2020). Earlier research also identified issues with maintaining work-life balance while working remotely (Felstead and Henseke, 2017). Problems with the intensification of work and with the propensity for remote workers to overwork have also been noted (Eddleston and Mulki, 2017; Felstead and Henseke, 2017; Kelliher and Anderson, 2010). The term ‘autonomy paradox’ (Mazmanian, Orlikowski and Yeates, 2013) has been coined to describe the dilemma of professionals’ remote working lives where reliance on mobile devices both increases and diminishes their autonomy. Thus, professionals who manage their work through such devices find that while they provide flexibility and control in the short term, simultaneously they intensify their availability to management, thereby reducing their ability to disconnect from work. Support by frontline managers for employees regarding the management of both work schedules and work/non-work boundaries seems to be particularly critical elements in HR implementation where remote working takes place. There is also evidence to suggest that frontline managers who are more involved in the development of work-life balance policies are more likely to engage with such policies; at the same time, frontline managers can be inconsistent in their enactment of these policies (McCarthy, Darcy and Grady, 2010).

For managers who themselves work remotely, evidence from one US study suggests that the work experiences of subordinates regarding feedback, professional development, empowerment and workload are less positive than in traditional working arrangements, which can lead to lower job satisfaction and higher turnover intentions (Golden and Fromen, 2011). There are also deficits reported in the training provided to frontline managers in the management of remote employees, including line managers’ ability to manage and assess employees’ performance (United States Office of Personnel Management, 2019). The need for frontline managers to develop management styles that both empower employees in self-management and are at the same time supportive, as well as the practicalities of managing virtual teams, appears particularly crucial (Eurofound, 2020). There is also the need for line managers to identify the training required to develop the types of skills that employees need in order to engage in remote work.

Table XX provides a summary of the key features of the frontline manager’s HR portfolio to support remote working.

**Table X.X The Frontline Manager’s HR Portfolio to Support Remote Working**

Elements of HR Portfolio	Employee Needs	Manager Behaviours
<b>Communications</b>	<ul style="list-style-type: none"> <li>• Predictable/regular patterns of communications to facilitate interaction and information sharing.</li> <li>• Rich media sources for communications.</li> <li>• Sharing of information relevant to their teams.</li> </ul>	<ul style="list-style-type: none"> <li>• Setting and reinforcing the ground rules for new technology – while allowing for some flexibility.</li> <li>• Communicating to workers the importance of managing their work schedules and the boundaries between home and work.</li> </ul>
<b>Performance Management</b>	<ul style="list-style-type: none"> <li>• Clear performance management processes,</li> </ul>	<ul style="list-style-type: none"> <li>• Empowering leadership styles.</li> </ul>

	<p>especially for new employees.</p> <ul style="list-style-type: none"> <li>• Skills development to work remotely (e.g., conflict management skills, self-management skills etc.).</li> </ul>	<ul style="list-style-type: none"> <li>• Avoidance of tight performance monitoring, allowing for flexibility and the development of trust.</li> </ul>
<b>Work Design</b>	<ul style="list-style-type: none"> <li>• Empowerment through greater autonomy.</li> <li>• Synchronized work schedules.</li> </ul>	<ul style="list-style-type: none"> <li>• Awareness of the pressures inherent in remote work and the need for flexibility to promote employee work-life balance and well-being.</li> <li>• Monitoring of work schedules for employee well-being.</li> </ul>

### **The Management of Employee Performance in the Digital Age**

The management of employee performance is a long-established, if somewhat flawed, practice in organizations. However, in addition to changes in the location of work, technological advances, particularly the use of algorithms to enable increased electronic monitoring and surveillance (EMS) of employees, can have a major impact on how frontline managers manage employee performance (Bales and Stone, 2020; Holland and Tham, 2020; Leonardi, 2020; Wood, Graham and Lehdonvirta, 2018). EMS currently takes many forms that include but are not limited to the following: video recordings of staff, smart cards, computer logins and activity, email checks, use of company smart phones, GPS tracking of employees in company-owned vehicles, fingerprint and facial scans and recording of telephone calls and idle time. Recent developments have seen the expansion of EMS to encompass non-performance data that includes health and safety information. This capability has been enhanced by the advent of sensor technology embedded in smart phones and what have been described as ‘smart wearables’ (Bernstein, 2017; European Commission, 2017) which enable the tracking of individuals in real time. EMS can also be used to block employee access to social networking platforms or certain websites and may be extended to surveillance outside the organization with the accessing of postings on social media sites such as Twitter and Facebook, as well as the monitoring of personal blogs.

The growth in the monitoring and surveillance of employees raises all sorts of ethical issues about how digital data is owned and governed (European Group on Ethics in Science and New Technologies, 2018). Such practices may also be at odds with human resource (HR) practices that emphasize empowerment, involvement and relationship building (Jensen and Raver, 2012) and which, with their underpinnings of trust, are at the heart of the frontline manager-employee relationship. There is also the added complexity of the reshaping of public-private boundaries (McDonald and Thompson, 2016) that is incurred as a result of the extension of EMS to the private domain. There is a good deal of research that indicates the negative impact of EMS and how this may affect different types of employees. For example, research based on the Australian workplace survey (Holland and Cooper, 2015) found that in the case of employees engaged in manual work, EMS was negatively related to overall trust in management and that, as the number of EMS practices increased, employees perceived that they had less trust in managers to make competent decisions and they were more likely to report

them as deceptive. However, trust did not emerge as an issue in regard to non-manual employees. This difference was linked to factors such as the number and greater use of EMS practices such as video cameras and electronic tracking in manual work, which are much more overt than the potentially more insidious EMS practices that may be used to monitor clerical work (e.g., time and attendance). A study based on a factorial survey that required individuals to react to hypothetical descriptions of situations (Abraham et al., 2019) found that respondents were more likely to accept monitoring if it increased work efficiency and if the coordination of tasks gave rise to greater productivity. However, respondents were more likely to reject these technologies if they were used to monitor health and performance. The focus on metrics that is associated with the growth in EMS also means that line managers' assessment of performance will shift towards a primarily quantitative analysis and so elements of the manager-employee relationship that are qualitative, such as helping others or informal sharing of knowledge, are eroded from performance evaluation. Indeed, experiments have found that in jobs that require frequent monitoring, leaders prefer to engage with their subordinates via avatars because they feel socially threatened (Raveendhran, Fast and Carnevale, 2020). Thus, avatars might provide a 'psychological safety net' for managers when interacting with employees because it reduces their social presence, and this distance protects them against negative evaluation. This could possibly give rise to the increased use of avatars in the management of employees in the future.

In their efforts to create fun working experiences and to enhance employee engagement and well-being, many frontline managers are increasingly engaging in work design principles based on advanced gamified technologies (Mitchell, Schulster, and Jin, 2020; Robson, Plangger, Kietzmann, McCarthy, and Pitt, 2016). Gamification can be described as 'a process of enhancing a service with affordances for gameful experience to support users' overall value creation' (Huotari and Hamari, 2017: 25). Gaming initiatives can include electronic leaderboards, escape rooms or awarding points for exceeding work targets. While increasingly popular across a range of sectors, relatively little research has considered how gamification has altered the frontline employment experience (Hammedi, Leclercq, Poncind and Alkire, 2021). It is suggested, for example, that where employees feel coerced by frontline managers to participate, the influence on engagement and well-being can be derailed (e.g., Oppong-Tawiah et al., 2020; Vesa et al., 2017). Recent research by Hammedi et al. (2021) highlights the potential negative impacts of gamified work on employee engagement and well-being, although their findings also suggest that these negative impacts may be reduced when employees are willing to participate. These findings therefore suggest that frontline managers need to consider the implementation of gamified technologies in work designs. In particular, they need to strike a balance between enhancing engagement levels and placing additional pressures on employees. At the same time, frontline managers must ensure that such gamified technologies will fit with the climate of the organization; since their use is intended to create fun and playfulness, established rules will need to be abandoned and employees will need to be completely willing to participate.

### **The Automation of Leadership**

The discussion has so far concentrated on the role of frontline managers in managing the interaction between technology, work, structures and people. However, one final scenario requires consideration: the automation of the leadership embedded in the frontline manager role. While such a scenario might once have been dismissed as both impossible and undesirable, advancements in human-computer interaction (HCI) have made this a reality. HCI was originally confined to situations in which computers performed tasks decided by humans. But technological advances have seen computers move from initially subordinate

positions as tools to having more equal roles as partners or teammates and, more recently, to leadership relationships (Chamorro-Premuxic and Ahmetoglu, 2016; de Winter and Hancock, 2015; Höddinghaus, Sondern and Hertel, 2021; Parry, Cohen and Bhattacharya, 2016; Wesche and Sonderegger, 2019). Wesche and Sonderegger (2019) label this as computer-human (CH) leadership, defining it as: ‘a process whereby purposeful influence is exerted by a computer agent over human agents to guide, structure, and facilitate activities and relationships in a group or organization’ (p. 9). The basis for this leadership is algorithmic management: ‘a system of control where self-learning algorithms are given the responsibility for making and executing decisions affecting labour, thereby limiting human involvement and ownership of the labour process’ (Duggan et al., 2020: 119). The notion of self-learning is particularly crucial: algorithms do not require human intervention. As a result, algorithms increasingly make decisions that have until now been made by line managers or HR specialists. Algorithmic management is at the heart of what is described as app-work, a variant of gig work ‘wherein the offering of traditional work activities in local markets is conducted through apps, managed by intermediary digital platform organizations, that intervene in setting minimum quality standards of service and in the selection and management of individuals who perform the work’ (Duggan et al., 2020: 116). Wesche and Sonderegger (2019) give an example of how Uber Technologies automates leadership functions such as task allocation, shift planning, performance feedback and compensation and makes decisions that were previously the remit of frontline and middle managers. With further advances in technology expected, Wesche and Sonderegger conceptualize computers taking over many of the leadership functions one hierarchy level higher. Thus, the possibility of computers leading humans without the intervention of human leaders becomes increasingly possible (Ferràs-Hernández, 2018). In addition, it is likely that algorithmic management will extend well beyond app-work. The existence of CH leadership therefore raises questions regarding its advantages and disadvantages and particularly regarding how different leadership functions might be assigned between human and computer leaders and the likelihood of acceptance by employees. This assignment of leadership functions regarding HR practices is particularly complex as HR implementation requires an underpinning of trust. All these factors have significant implications for frontline managers as well as their subordinates, in addition to ethical implications (European Group on Ethics in Science and New Technologies, 2018).

### **The Future of Work for Frontline Managers**

The issues identified above indicate the possibility for several tensions between employee performance and well-being regarding the management of work and workers in the future. At a strategic level, there is a growing body of research signalling the important role that employee attributions about management’s strategic intentions can have in shaping employee and organizational outcomes. These attributions reflect what employees think the organization’s motives are for particular practices (Nishii et al., 2008). For example, employees may consider external attributions (e.g., the organization is adopting a practice to comply with legislation), or internal attributions (e.g., the practice is in place to protect employee well-being). These attributions have been associated with important outcomes such as organizational citizenship behavior (OCB; Nishii et al., 2008), commitment, job strain and emotional exhaustion (Shantz et al., 2016; Van de Voorde and Beijer, 2015), turnover intentions and task performance (Chen and Wang, 2014). These studies show that ‘employee-centred’ attributions are associated with desirable outcomes while performance or control-centred attributions are generally related to undesirable outcomes (Hewett et al., 2018). Recent research by Beijer, Van De Voorde and Tims (2019) highlights the key role that frontline managers can play in shaping employees’ attributions and the role that employees play in reinforcing those attributions among each other.

This highlights a need for clarity about both the intentions of HR practices and the types of behaviours that are valued and rewarded to be clearly communicated from the senior level managers to the frontline to ensure that there are no ‘implementation gaps’.

One of the fallouts of Covid-19 may be an increase in disengagement among employees who become more detached from their organizations. Frontline managers will therefore need to be more ‘hands-on’ in managing the employment relationship, possibly placing additional pressures on their own time. This may give rise to some of the tensions that were apparent with the growth of strategic HRM in the 1980s, where there was resistance from frontline managers to taking on greater management responsibilities (McGovern et al., 1997). Given recent reports of the negative impacts of remote working on employee well-being (CIPD, 2020; Eurofound, 2020), a renewed focus on work-life balance will be crucial in maintaining a healthy employment relationship. This will require re-doubling efforts to maximize supports available to employees i.e., those from the organization, from frontline managers and from colleagues. These forms of ‘social’ support, in addition to practical supports, will therefore be critical in engaging workers in the future. Recent research points to the increased use of social media platforms by employees to voice dissatisfaction with aspects of their working lives (Conway et al., 2019). This study noted the high incidence of individuals tweeting about the behaviour of their immediate managers, which raises issues about their ability to voice this dissatisfaction directly with their line manager within the confines of the organization, rather than feeling that the only forum available to them is the public domain. At a practical level, while remote working is a completely new phenomenon for many organizations, there is already an established body of knowledge on the topic which can help organizations to navigate this new terrain. There are also lessons to be learned from the many organizations already ‘ahead of the curve’ regarding remote working particularly in the global tech sector (e.g., Microsoft, Twitter and Facebook).

Finally, an important question regarding the future of work concerns the types of competencies that frontline managers will need in the future. One study of managers (Kolbjørnsrud, Amico and Thomas (2016) noted that skills regarded as particularly important were focused on digital and technology, creative thinking and experimentation, data analysis and interpretation, strategy development and planning and administration. This was followed by a focus on people management skills including social networking, people development and coaching and collaborating. This primary focus on technical and strategic capabilities rather than on people management skills resonates with some of the tensions inherent in models of strategic HRM regarding whether the focus should be on the pursuit of strategic goals or in becoming an ‘employee champion’ (Ulrich and Brockbank, 2005). Other research by Kane et al. (2019) suggests that the most important requirements for managers in the future will be to have a transformative vision, a forward-looking perspective (i.e., knowledge of how technology is transforming the business), and to be change-oriented. While frontline managers will not need to engage in high level data analytics, they will play a key role in providing data about people management initiatives and activities that demonstrate their value to the organization. They will also play an important role in supporting employees to engage with new technology in their work.

## **Conclusions**

This chapter has considered some of the changes that are taking place in the world of work and their implications for the role of the line manager in HR implementation. We situated our analysis within the notion of organizations as organisms (Morgan, 1997), focusing on the relationship between the social and the technical, in examining the impact of new technologies, as well as considering the environmental impact of Covid-19 from a systems perspective. The analysis suggests that HR functions may need to rebalance their HR activities and to rethink the ways in which frontline managers might be enabled to enact HR policies and practices to support employees engaged in the new working arrangements that have emerged. Training and development appear key in this regard. For example, work design, traditionally a neglected aspect of HRM, is a critical feature of new working arrangements but there is evidence that frontline managers lack skills in work planning and design (Parker, Andrei and Van den Broeck, 2019). Similarly, the management of employee performance is frequently difficult even in face-to face situations, but these difficulties become exacerbated in virtual environments. It is also evident that there are options for organizations and line managers in how technologies might be used. Underpinning their use will be the competencies of frontline managers themselves and their ability to adapt to these technologies. However, even greater challenges may be posed by the ongoing impact of Covid-19, as frontline managers grapple with not just new working arrangements but possibly also an economic recession and a reduced workforce that may bedevil their organizations for the foreseeable future.

## References

- Abraham, M., Neissen, C., Schnabel, C., Lorek, K., Grimm, V., Mosleinn, K. and Wrede, M. (2019). Electronic monitoring at work: the role of attitudes, functions and perceived control for the acceptance of tracking technologies. *Human Resource Management Journal*, 29, 657-675.
- Aroles, J., Mitev, N. and de Vaujany, F-X. (2019). Mapping themes in the study of new work practices. *New Technology, Work and Employment*, 34(3): 285-299.
- Autor, D. H. (2015). Why are there still so many jobs? The history and future of workplace automation. *Journal of Economic Perspectives*, 29(3): 3-30.
- Bales, R. and Stone, K. (2020). The invisible web at work: Artificial Intelligence and electronic surveillance in the workplace. *Berkley Journal of Employment and Labor Law*, 41(1): 1-62.
- Beijer, S., Van De Voorde, K. and Tims, M. (2019). An interpersonal perspective on HR attributions: Examining the role of line managers, coworkers, and similarity in work-related matters. *Frontiers in Psychology*, 10: 1-10.
- Bentley, T.A., McLeod, L., Tan, F., Bosua, R. and Gloet, M. (2016). The role of organizational support in teleworker wellbeing: A socio-technical systems approach. *Applied Ergonomics*, 52: 207-215.
- Bernstein, E.S. (2017). Making transparency transparent. The evolution of observation in management theory. *Academy of Management Annals*, 11, 217-266.
- Bonet, R. and Salvador, F. (2017). When the boss is away: manager-worker separation and worker performance in a multisite software maintenance operation. *Organization Science*, 28(2): 244-261.

Bos-Nehles, A. C., Van Riemsdijk, M. J., and Kees Looise, J. (2013). Employee perceptions of line management performance: Applying the AMO theory to explain the effectiveness of line managers' HRM implementation. *Human Resource Management*, 52(6), 861–877.

Chamorro-Premuzic, T. and Ahmetoglu, G. (2016). The pros and cons of robot managers. *Harvard Business Review*, December 12.

Chen, D. and Wang, Z. (2014). The effects of human resource attributions on employee outcomes during organizational change. *Social Behavior and Personality*, 42(9): 1431-1444.

Choudhury, P., Foroughi, C. and Larson, B. (2019). Work-from-anywhere. The productivity effects of geographic flexibility. *Working Paper 19-054*, Harvard Business School.

CIPD (2020). *Developing Effective Virtual Teams: Lessons from Research*. London: CIPD.

Conway, E., Rosati, P., Monks, K. and Lynn, T. (2019). Voicing job satisfaction and dissatisfaction through Twitter: employees' use of cyberspace. *New Technology, Work and Employment*, 34(2), 139-156

Cummings, J.N. and Haas, M.R. (2012). So many teams, so little time: Time allocation matters in geographically dispersed teams. *Journal of Organizational Behavior*, 33(3): 316-341.

de Winter, J.C. F., and Hancock, P.A. (2015). Reflections on the 1951 Fitts lists: do humans believe now that machines surpass them? *Procedia Manufacturing*, 3: 5334-5341.

Duggan, J., Sherman, U., Carbery, R. and McDonnell, A. (2020). Algorithmic management and app-work in the gig economy: A research agenda for employment relations and HRM. *Human Resource Management Journal*, 30: 114-132.

Eddleston, K. and Mulki, J. (2017). Towards understanding remote workers' management of work-family arrangements: The complexity of work embeddedness. *Group and Organization Management*, 42(3): 346-387.

Eurofound (2020). *Telework and ICT-based mobile work: Flexible working in the digital age*. New Forms of Employment Series, Publications Office of the European Union, Luxembourg.

European Commission, Directorate-general for communications networks, content and technology (2017). *Smart wearables: Reflection and orientation paper*. Luxembourg: Publications Office of the European Union.

European Group on Ethics in Science and Technologies (2018). *Future of work, Future of Society*. Luxembourg: Publications Office of the European Union.

Felstead, A. and Henseke, G. (2017). Assessing the growth of remote work and its consequences for effort, well-being and work-life balance. *New Technology, Work and Employment*, 32(3): 195-212.

Ferràs-Hernández, X. (2018). The future of management in a world of electronic brains. *Journal of Management Inquiry*, 27, 260-263.

Geister, A., Konradt, U. and Hertel, G. (2006). Effects of process feedback on motivation, satisfaction, and performance in virtual teams. *Small Group Research*, 37(5): 459-489.

Global Commission on the Future of Work (2019). *Work for a Brighter Future*. Geneva: International Labour Office.

Golden, T. and Fromen, A. (2011). Does it matter where your manager works? Comparing managerial work mode (traditional, telework and virtual) across subordinate work experiences and outcomes. *Human Relations*, 64(11): 1451-1475.

Guest, D. E., and Bos-Nehles, A. C. (2013). HRM and Performance: the role of effective implementation. In D. E. Guest, J. Paauwe, and P. Wright (Eds.), *HRM and Performance: Achievements and Challenges* (pp. 79-96). Chichester: Wiley-Blackwell.

Hammedi, W., Leclercqb, T., Poncind, I. and Alkire, L. (2021). Uncovering the dark side of gamification at work: Impacts on engagement and well-being. *Journal of Business Research*, 122: 252-269.

Hewett, B., Shantz, A., Mundy, J. and Alfes, K. (2018). Attribution theories in Human Resource Management research: A review and research agenda. *International Journal of Human Resource Management*, 29(1): 87-126.

Hinds, P.J. and Cramton, C.D. (2014). Situated co-worker familiarity: How site visits transform relationships among distributed workers. *Organization Science*, 25(3): 794-814.

Höddinghaus, M., Sondern, D. and Hertel, G. (2021). The automation of leadership functions: Would people trust decision algorithms? *Computers in Human Behavior*. <https://doi.org/10.1016/j.chb.2020.106635>

Holland, P. and Cooper, B. (2015). Electronic monitoring and surveillance in the workplace. *Personnel Review*, 44(1): 161-175.

Holland, P. and Tham, T. (2020). Total surveillance: Electric monitoring and surveillance in the 21<sup>st</sup> century. In P. Holland and C. Brewster *Contemporary work and the Future of Employment in Developed Countries*, London: Routledge, 135-150.

Huotari, K. and Hamari, J. (2017). A definition for gamification: anchoring gamification in the service marketing literature. *Electronic Markets*, 27: 21–31.

Jaharri, H. H. (2018). Artificial intelligence and the future of work: Human: AI symbiosis in organizational decision-making. *Business Horizons*, 61(4): 577-586.

Jensen, J. and Raver, J. (2012). When self-management and surveillance collide: consequences for employees' organizational citizenship and counterproductive work behaviors, *Group and Organization Management*, Vol. 37, pp. 308-346.

Kane, G. C., Palmer, D., Phillips, A. N., Kiron, D., and Buckley, N. (2019). Accelerating digital innovation inside and out: agile teams, ecosystems, and ethics: Findings from the 2019 digital business global executive study and research project. *MIT Sloan Management Review*, June 4.

- Kaplan, J. (2015). *Humans Need Not Apply: A Guide to Wealth and Work in the Age of Artificial Intelligence*. New Haven, C.T.: Yale University Press.
- Kasper-Fuehrera, E. and Ashkanasy, N.M. (2006). Communicating trustworthiness and building trust in interorganizational virtual organizations. *Journal of Management*, 27(3): 235-254.
- Kehoe, R.R., and Han, J.H. (2019). An expanded conceptualization of the line manager's involvement in human resource management. *Journal of Applied Psychology*, 105(2): 111-129.
- Kelliher, C. and Anderson, D. (2010). Doing more with less? Flexible working practices and the intensification of work. *Human Relations*, 63(1): 83-106.
- Kolbiørnsrud, V., Amico, R. and Thomas, R.J. (2016). How artificial intelligence will redefine management. *Harvard Business Review*, 2 November: 1-6.
- Kuvaas, B., Dysvik, A. and Buch, R. (2014). Antecedents and employee outcomes of line managers' perceptions of enabling HR practices. *Journal of Management Studies*, 51, 845-868.
- Lautsch, B., Kossek, E. and Eaton, S. (2009). Supervisory approaches and paradoxes in managing telecommuting implementation. *Human Relations*, 62(6): 795-827.
- Leonardi, P. (2020). Covid-19 and the new technologies of organizing: Digital exhaust, digital footprints and artificial intelligence in the wake of remote work. *Journal of Management Studies* doi:10.1111/joms.12648
- López-Cotarelo, J. (2018) Line managers and HRM: a managerial discretion perspective. *Human Resource Management Journal*, 28: 255-271.
- Lupushor, S. and Fradera, A. (2017). The future of work. In G. Herrel, D. Stone, R. Johnson and J. Passmore (eds) *The Wiley Blackwell Handbook of the Psychology of the Internet at Work*. John Wiley and Sons, Chichester, pp. 481-506.
- Mazmanian, M., Orlikowski, W. and Yates, J. (2013). The autonomy Paradox: the implications of mobile email devices for knowledge professionals. *Organization Science* 24(5): 1337-1357.
- Makarius, E. and Larson, B. (2017). Changing the perspective of virtual work: Building virtual intelligence at the individual level. *Academy of Management Perspectives*, 31(2): 159-178.
- McCarthy, A., Darcy, C. and Grady, G. (2010) Work-life balance policy and practice: Understanding line manager attitudes and behaviours. *Human Resource Management Review*, 20: 158-167.
- McDonald, P. and Thompson, P. (2016). Social media(ation) and the reshaping of public/private boundaries in employment relations. *International Journal of Management Reviews*, 18, 69-84.
- McGovern, P., Gratton, L., Hope-Hailey, V., Stiles, P. and Truss, C. (1997). Human resource management on the line? *Human Resource Management Journal*, 7(4): 12-29.

Mitchell, R., Schuster, L. and Jin, H.S. (2020). Gamification and the impact of extrinsic motivation on needs satisfaction: Making work fun? *Journal of Business Research*, vol. 106: 323-330.

Mokyr, J., Vickers, C. and Ziebarth, N.L. (2015). The history of technological anxiety and the future of economic growth: Is this time different? *Journal of Economic Perspectives*, 29(3): 31-50.

Morgan, G. (1997). *Images of Organization*. London: Sage Publications, 2<sup>nd</sup> edition.

Nishii, L.H., Lepak, D.P. and Schneider, B. (2008). Employee attributions of the 'why' of HR practices: Their effects on employee attitudes and behaviors, and customer satisfaction. *Personnel Psychology*, 61(3): 503-545.

OECD (2019). *OECD Employment Outlook 2019: The Future of Work*, OECD Publishing, Paris, <https://doi.org/10.1787/9ee00155-en>. Accessed 15 May 2020.

Oppong-Tawiah, D., Webster, J., Staples, S., Cameron, A.F., Ortiz de Guinea, A., and Hung, T.Y. (2020). Developing a gamified mobile application to encourage sustainable energy use in the office. *Journal of Business Research*, 106: 388-405.

Parker, S. K., Andrei, D. M., and Van den Broeck, A. (2019). Poor work design begets poor work design: Capacity and willingness antecedents of individual work design behavior. *Journal of Applied Psychology*, 104(7), 907-928.

Parry, K., Cohen, M. and Bhattacharya, S. (2016). Rise of the machines: A critical consideration of automated decision making in organizations. *Group and Organization Management*, 42, 571-594.

Pasmore, W., Winby, S., Albers Mohrman, S. and Vanasse, R. (2019). Reflections: Sociotechnical systems design and organization change. *Journal of Change Management*, 19(2): 67-85.

Petterson, L. (2019). Why artificial intelligence will not outsmart complex knowledge work. *Work, Employment and Society*, 33(6): 1058-1067.

Raveendhran R., Fast N.J. and Carnevale P.J. (2020). Virtual (freedom from) reality: Evaluation apprehension and leaders' preference for communicating through avatars, *Computers in Human Behavior*, doi: <https://doi.org/10.1016/j.chb.2020.106415>.

Robson, K., Plangger, K., Kietzmann, J.H., McCarthy, I., and Pitt, L. (2016). *Business Horizons*, 59(1): 29-36.

Samani, H.A., Koh, J.T., Saadatian, E. and Polydorou, D. (2012). Towards robotics leadership: An analysis of leadership characteristics and the roles robots will inherit in future human society. In J.S. Pan, S.M. Chen, N.T. Nguyen (Eds.), *ACIIDS 2012 Part II*, LNAI 7197, Springer-Verlag, Berlin, pp. 158-165.

- Servoz, M. (2019). *AI The Future of Work? The Work of the Future!* EU Commission. <https://ec.europa.eu/digital-single-market/en/news/future-work-work-future>. Accessed 15 May 2020.
- Shantz, A., Arevshatian, L., Alfes, K. and Bailey, C. (2016). The effect of HRM attributions on emotional exhaustion and the mediating roles of job involvement and work overload. *Human Resource Management Journal*, 26(2): 172-191.
- Shestakofsky, B. (2017). Working Algorithms: Software automation and the future of work. *Work and Occupations*, 44(4): 376-423.
- Spencer, D. (2018). Fear and hope in an age of mass automation: debating the future of work. *New Technology, Work and Employment*, 33(1): 1-12.
- Spreitzer, G., Cameron, L. and Garrett, L. (2017). Alternative work arrangements: Two images of the world of work. *Annual Review of Organizational Psychology and Organizational Behavior*, 4: 473-499.
- Trist, E.L., and Bamforth, K.W. (1951). Some social and psychological consequences of the longwall method of coal-getting, *Human Relations* (4:1): 3-38.
- Trullen, J., Bos-Nehles, A. and Valverde, M. (2020). From intended to actual and beyond: A cross-disciplinary view of human resource management implementation. *International Journal of Management Reviews*, 1-27. DOI: 10.1111/ijmr.12220
- United States Office of Personnel Management (2019). Status of Telework in the Federal Government. Report to Congress. <https://www.telework.gov/reports-studies/reports-to-congress/2018-report-to-congress.pdf> Accessed 22 May 2020.
- Van de Voorde, K. and Beijer, S. (2015). The role of employee HR attributions in the relationship between high-performance work systems and employee outcomes. *Human Resource Management Journal*, 25(1), 62-78.
- Vesa, M., Hamari, J., Harviainen, J. T. and Warmelink, H. J. G. (2017). Computer games and organization studies. *Organization Studies*, 38(2): 273-284.
- Ulrich, D. and Brockbank, W. (2005). *The HR Value proposition*. Harvard: Harvard Business School Press.
- Wesche, J. and Sonderegger, A. (2019). When computers take the lead: the automation of leadership. *Computers in Human Behavior*, 101: 197-209.
- Wood, A., Graham, M. and Lehdonvirta, V. (2018). Good gig, bad gig: Autonomy and algorithmic control in the gig economy. *Work, Employment and Society*, 33(1): 56-75.
- Wright, P. M. and Nishii, L. H. (2013). Strategic HRM and organizational behaviour: Integrating multiple levels of analysis. In J. Paauwe, D. Guest, and P. Wright (Eds.), *HRM and Performance: Achievements and Challenges* (pp. 97-110). Chichester, UK: Wiley.