The bright and dark side of smart working in the public sector: employees’ experiences before and during COVID-19

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Abstract
Purpose – The paper aims to understand how the spread of coronavirus disease 2019 (COVID-19) influenced public employees’ perception of smart working and how this approach was used during the pandemic. The authors asked about smart working’s positive and negative aspects and how these changed during the pandemic.

Design/methodology/approach – The authors explored the strengths and weaknesses of smart working before and after COVID-19. The authors interviewed 27 Italian public employees who had experienced smart working before the pandemic. The questions and discussion aimed to broadly explore the strengths and weaknesses of smart working and smart working’s impact on working performance, work relationships and work–life balance (WLB).

Findings – Smart working had a widespread and positive impact on organizational flexibility. Smart working improved the response and resilience of Italian public organizations to the pandemic. However, some critical factors emerged, such as the right to disconnect and the impact on WLB.

Research limitations/implications – The authors suggest that the pandemic exposed the need for public administrations to consolidate work flexibility practices, such as smart working, by paying more attention to the impact of these practices on the whole organization and human resources management (HRM) policies and practices.

Originality/value – This study makes an important contribution to the literature on the public sector by discussing the positive and negative aspects of smart working. The study also provides managerial and policy implications of the use of smart working in public administrations.

Keywords Smart working, Organizational flexibility, Public administration, Digital transformation, New forms of work

Paper type Research paper

Introduction
The spread of coronavirus disease 2019 (COVID-19) has been a challenging test for organizations and their organizational arrangements (e.g. workflow, teamwork, leadership styles and organizational culture) (Schuster et al., 2020; Välkkangas and Lewin, 2020; Yang, 2020). The pandemic was also a considerable challenge to human resources management (HRM) at a time of organizational crisis (Van der Wal, 2020; Wang et al., 2009). The rapid shift from office to home working, to limit the spread of COVID-19, made it possible to accelerate organizational transformation processes (e.g. digitalization) that were previously underused or resisted (Bunker, 2020; Mascio et al., 2020). New digital tools favored the diffusion of more flexible forms of work to manage during the pandemic. These new forms of work include...
smart working, which has been widely adopted and has rapidly revolutionized work practices. It is an entirely flexible way of organizing work activities and allows organizations to adapt to rapidly changing contexts (Ellerton, 2015; Torre and Sarti, 2019). McEwan (2016, p. 1) defined it as a working approach based on activities that “are agile, dynamic, and emergent. They are the outcomes of designing organizational systems that facilitate customer-focused, value-creating relationships that are good for business and good for people”.

Due to technology, smart working employees (or “smart workers”) agree with their managers that they will carry out their work for a specified period outside the organization’s physical workplace and following a schedule adapted to individual needs. Working “smart” means workers have no specific time or workplace constraints, while technologies cover a key role to create and shape a resilient and flexible organizational model (Ellerton, 2015).

In just a few weeks at the start of the pandemic, smart working was transformed from an alternative way of working, viewed with suspicion by many public managers, into a resource enabling public administrations to continue their activities during a crisis. This study started from an ongoing research project focusing on the adoption of smart working in the public sector. We wished to extend this analysis to explore the impact of COVID-19 on smart working. The paper integrates interviews from the ongoing project on the strengths and weaknesses of smart working with interviews with the same public employees during the pandemic, to explore their perceptions of smart working before and after the initial spread of COVID-19. Some previous studies employing a quantitative approach (e.g. Jamal et al., 2021; Prodanova and Kocarev, 2022) have already tried to verify, in general, the impact of the pandemic on employees’ work activities. Instead, here we adopt a qualitative approach considering its explorative nature as useful for a more in-depth analysis of the opportunities and complexities of smart working emerging from the direct voice of smart workers. Furthermore, a research area on the transformation of public work due to the pandemic is still at the beginning of its formation. In this sense, the paper may contribute to provide further suggestions for quantitative as well as qualitative studies regarding public employees and public managers in the light of the evaluation of some experiences presented by the interviewees.

We, therefore, aim at answering the following main research questions: What are the strength and weaknesses of smart working? How did these change after the arrival of COVID-19? Consequently, to these key questions, secondary research questions of interest were related to the role and impact of technology and communication, the impact of smart working on individual well-being and work-family conflict and the impact on human resource management. We interviewed 27 public employees from Italian local and central administrations, to discuss the strengths, weaknesses and main problems related to the use of smart working. The public employees interviewed were participants of an advanced training course (an executive master on public administration and management). There were two waves of interviews, one about the period of the smart working pilot project launched by the Italian Government in 2017 and one related to the period after the start of the pandemic in March 2020. We chose to interview these public employees since they were already carrying out smart working activities during the pilot project. Therefore, while before the pandemic they were free to opt for “working smart”, after the spread of COVID-19 they were forced to do smart working and, therefore, were able to provide an interesting point of view to compare the “pre” and “post” working conditions.

The paper has many theoretical, practical and policy contributions and implications. First, it contributes to the literature on the public sector and its organizational arrangements by providing insights on the positive and negative aspects of smart working and its use. The originality of the paper resides in the fact that the literature on smart working in the public sector is still at its beginning and this paper can be of support for further exploration of the theme in the future. Also, the specific contribution relies in the qualitative exploration of the
positive and negative aspects related to smart working, differently from some recent studies that, although interesting, limited their analyses to quantitative aspects (e.g., Prodanova and Kocarev, 2022). Indeed, we believe that a qualitative exploration can provide insights that are particularly useful in practical and policy terms, and, at the same time, suggest some actions that public managers and policymakers can take to introduce smart working, improve organizational flexibility and reduce the impact on human resources by revising HRM policies and practices. More specifically, in addition to the aspects highlighted from previous studies mainly quantitative in their nature, we analyze some aspects directly related to work–life balance (WLB) and work–family conflict in the public sector.

The paper is structured as follows. The next section provides an overview of previous studies on technological transformation and organizational flexibility, as the premise for the introduction of smart working. The third section describes the research design. The fourth presents the findings, with specific subsections on public employees’ perceptions of smart working before and after the pandemic. The last two sections discuss the findings and set out concluding remarks, the contributions and implications of the research and possible avenues for future research.

Theoretical background

Technological transformation and organizational flexibility: the premise for smart working

Technological transformation is connected to greater organizational flexibility and contributes to the evolution of work activities and the improvement of production processes and organizational structures (Hjelmar, 2021; Leonardi and Treem, 2020; Todisco et al., 2021). However, technologies cannot be considered separately from their relationship with the people who give them meaning. It can be argued that the term “technological transformation” refers to both the introduction of new technologies and a cultural revolution that enables a new approach to and way of thinking about technologies. This in turn creates new human relationships in organizations and more flexible models thanks to the experience of job design (e.g., job rotations and the enrichment of tasks). The greater organizational flexibility enabled by technologies has prompted an increased attention to understand the conditions to ameliorate individual well-being for employees. On the one hand, space-time flexibility has allowed working in fairer and healthier daily working conditions, reducing a problem related to high-stress levels (Grant et al., 2013; Wicks, 2002; Xiao et al., 2021). On the other hand, however, many authors (Adisa et al., 2021; Choi, 2018; Möhring et al., 2021) have highlighted how some employees show resistance related to the effective use of technology that has an essential impact on well-being, reducing the positive role of flexibility and WLB because of an augmented level of technostress (Salanova et al., 2014; Suh and Lee, 2017). Closely related to the theme of well-being is that of relationships in the family context. The spread of flexibility and remote working impacts the habits and behavioral practices that regulate family relationships. Some studies (Eddleston and Mulik, 2017; Allen et al., 2013) have highlighted how the integration between work activities at home and family, determined by greater flexibility, increases the work–family conflict due to the inability to disengage from work. Remote working would lead to an increase in the work done with an exacerbation of conflicts in the family. Other studies (Anderson and Kelliher, 2020; Shockley and Allen, 2007), on the other hand, have highlighted how work flexibility improves the conditions for WLB and favors family relationships with a positive impact on individual well-being.

However, the increased organizational flexibility poses a challenge of trust between workers within organizations (Berkery et al., 2017). Bal and Izak (2021) noted that workplace flexibility has become a central paradigm in contemporary organizations. The search for flexibility through remote working models, in which workers have more delegated
responsibility, has been related to the topic of trust in recent studies. These have considered trust as one of the required conditions for improving organizational effectiveness and efficiency (Boin and Van Eeten, 2013; Bunker, 2020). The search for increased organizational flexibility has been prompted by the spread of increasingly innovative technologies capable of accelerating transformative processes. Technologies can satisfy an increasingly central requirement in the labor market, the attractiveness of being able to work anytime from anywhere (Stich, 2020). Teleworking introduced a work configuration that allows organizations to improve employees’ work–family balance and enables organizational flexibility (Anderson et al., 2015; Peters et al., 2009). However, over the last 2 decades, the advancement of digital technologies has further supported increased work flexibility. The spread of technological devices, the opportunities arising from data management and the development of the Internet of Things have profoundly transformed the relationship between production and consumption and between workforce and markets. Digital technologies also allowed the development of new and more flexible organizational models (Medeiros and Maçada, 2022). Organizations abandoned the old single (and quite stable over time) organizational model. Instead, they moved toward multiple models with a common characteristic of organizational change and the ability to adapt (Baldwin et al., 2012; De Vries et al., 2019). The creation of a pluralistic and flexible organization made it possible to examine more closely how employees’ work performance was evolving. This functional and organizational flexibility also results in highly versatile skills among workers, offering greater autonomy to both managers and employees (Bednar and Welch, 2020; Brunetto and Beattie, 2020; Crowley and Doran, 2020; Kratzer, 2005), improve conditions for WLB and employee well-being (Grant et al., 2013; Sewell and Taskin, 2015), decentralized decision-making processes (Tomo et al., 2020) and empower workers by sharing clear and defined objectives and increasing their responsibilities (Sewell and Taskin, 2015). However, some authors have highlighted some critical aspects concerning employees’ satisfaction deriving from the flexibility, guaranteed by remote working: a productive employee who is not satisfied with the conciliation possibilities in terms of WLB provided by organizational flexibility is less inclined to remain in the same workplace (Rainero and Modarelli, 2021, Tessema et al., 2022).

Since the early 1990s, the public sector has used digitalization projects (including smart working since the early 2000s) to support the re-organization of its activities. The focus has been to make public administrations more flexible, modern, efficient, transparent and to better respond to the needs of citizens and public workers (e.g. Neumann and Schott, 2021; Schwarz et al., 2020; Todisco et al., 2021). These digitalization projects to move public administrations towards increased flexibility and adaptability can be framed more explicitly through three key expected results: planning and providing more immediate and easily accessible services to citizens, making public employees’ work activities more efficient and designing more flexible and efficient organizational models (Baldwin et al., 2012; Schuppan, 2009; Williamson and Pearce, 2022). However, the degree of flexibility given to workers implies a remarkable ability to adapt to managing the necessary work, solving problems, sharing and continually updating knowledge (Schmidt and Groeneveld, 2021; Schwarz et al., 2020). This flexibility may enrich roles but may also lead to burnout phenomena due to an increased burden of activities, excessive work tasks and may, therefore, produce anxiety. It may also threaten or overcome the boundaries between work and private life.

**Features of smart working**

Smart working has revolutionized working methods and organizations as a managerial approach to the performance of work activities. It is based on redefining individuals’ boundaries and social bonds with the introduction of greater flexibility and autonomy in the choice of space, time and technological tools for working (Bednar and Welch, 2020;
Previous studies (Bednar and Welch, 2020; Ellerton, 2015; Torre and Sarti, 2019) identified three factors characterizing smart working. The first factor is the use of Information and Communication Technologies (ICT) tools. Building an organizational model focused on smart working requires focusing on the digitalization of processes and the use of new technologies, with investments in improving organizational technology and training employees to use new digital devices (Bednar and Welch, 2020; Ellerton, 2015). Individual behaviors, approaches and ability to use new organizational technology are essential for its success (e.g. Bednar and Welch, 2020). Furthermore, new digital technologies play an essential role in simplifying information sharing and facilitating real-time interactions between employees. The second factor is workplace redesign. The transition towards more flexible organizational structures has changed the traditional concept of “workplace” (Azasu and Babatunde, 2020; Coenen and Kok, 2014; Hardill and Green, 2003). Smart working requires a redesign of both the organizational model and physical spaces in offices and homes (Bloom et al., 2015; Garrett et al., 2017; Jeyasingham, 2016). The COVID-19 pandemic forced the reconfiguration of domestic environments to allow smart working, accelerating adoption but imposing changes in the organization of home spaces to fit work needs (Carroll and Conboy, 2020). Homes have become a fluid and ever-changing space hosting the (increased) complexity of people’s lives: private life, work, well-being and socialization (Bin et al., 2021; Crowley and Doran, 2020; De Vita et al., 2022; Kodama, 2020). The third factor is a new cultural approach to HR management. Digital transformation has significantly affected organizational processes, transforming how managers organize, train and motivate employees (Kratzer, 2005; Stone et al., 2015). Furthermore, according to different authors (Felstead and Henseke, 2017; Mari et al., 2021), smart working has revolutionized the concept of Tayloristic work. Space-time flexibility has allowed employees to autonomously organize when and where to carry out work activities with a positive impact on the management of their physical and mental well-being. The spread of smart working has raised more attention to “digital well-being” (Prodanova and Kocarev, 2022; Vanden Abeele, 2021) that considers smart workers’ well-being in terms of the impact technologies and digital environments have on individual mental and physical health. This is a significant challenge for public managers since they must increase employee empowerment, design a goal-based organization and define competency management (Schmidt and Groeneveld, 2021; Stone et al., 2015). Smart working also sheds light on the relationship between leadership and technology and opens organizations to critical reflection on the need for new knowledge and skills to respond to digital challenges (Park, 2013).

On these grounds, it is quite clear that the literature on smart working shows at least three gaps that we aim to fill with this study. First, there is a great focus on the use of smart working in the private sector, while there is still scant research concentrating on its use in the public sector. Second, studies mainly adopted a quantitative approach while the literature could benefit from an in-depth exploration of the smart working phenomenon from a qualitative point of view. Third, too many studies focused only on the positive aspects of flexibility and WLB supported by smart working: instead, we believe that it is important also to explore the dark side of these aspects in order to support the real employee well-being and possibly reduce the eventual resistances to the use of modern agile work practices.

Research context and design

Smart working in Italian public administration

Smart working in the Italian public sector was introduced and designed to fit a clear regulatory framework defined by law n. 124/2015 (art. 14) and law n. 81/2017 (articles 18–24).

The Directive of the Presidency of the Council of Ministers (PCM) n. 3/2017: “Guidelines concerning the organization of work aimed at promoting the employees’ work-life balance”
launched smart working pilot projects in some public administrations (e.g. the Ministry of Economics and Finance). The directive clarified objectives to develop a more innovative way of organizing work, based on greater working flexibility and public employees’ needs to reconcile work and their private lives. Italy was the first European country to need to react to COVID-19, at the end of February 2020. It was, therefore, the first country that had to take action to ensure the continuation of public service provision to citizens through remote operations. The COVID-19 pandemic began while the smart working pilot project was still in its first phase in a limited number of public administrations. This forced the government to accelerate the implementation phase. Within a very short time, all other public administrations had to introduce smart working for all public employees and offices. On 4 March 2020, the Ministry for Public Administration institutionally declared smart working to be the main approach for work activities. This study started from ongoing research analyzing the adoption of smart working in public administrations during the pilot project (before the pandemic). We, therefore, integrated that first phase with the analysis of the impact of COVID-19 on smart working. Our aim was to explore the strengths and weaknesses of smart working and understand public employees’ perception of its application before and after the start of the pandemic.

Research method
The original project involved interviews with 27 public employees experiencing the application of smart working in their administrations during the pilot project in 2017. We also drew on secondary data sources such as reports, documents and internal regulations to better understand participants’ organizational contexts. Interviews were carried out over the period May–October 2019 with employees from different public administrations (e.g. local administrations, central administrations, social insurance institutes and fiscal agencies).

We chose to adopt this qualitative approach to provide an in-depth exploration of the positive and negative aspects related to smart working from the direct voice of those directly involved in the use of smart working, thus differentiating our contribution from that of previous studies (especially in the public sector) that are mainly quantitative in their nature (e.g. Doberstein and Charbonneau, 2022; Prodanova and Kocarev, 2022) with the aim of providing not only theoretical but also useful practical and policy insights.

The public employees interviewed were identified and selected among the participants to training courses on managerial topics related to the public sector. The selection of the interviewees was based on picking public employees who, unlike others, were already carrying out smart working activities by individual choice before the pandemic during the pilot project (2017–2020). The interviews lasted between 45 and 60 min, with questions following a broad outline of topics rather than a predefined set of questions. The questions and discussion aimed to broadly explore the strengths and weaknesses of smart working and its impact on working performance, work relationships and WLB. Some examples of the questions asked were: Has smart working improved collaboration and communication between colleagues? Has smart working improved trust between colleagues? In your organization, do you believe that technologies are used adequately for smart working? Participants were assured of anonymity to encourage them to provide transparent, complete and clear data and information.

When COVID-19 had spread and smart working had been widely adopted, we were interested in the effects of the rapid adoption of smart working on both work and public employees’ private lives. We then repeated the interviews with the same public employees who had been interviewed during the first phase and who, in this case, were in smart working due to the pandemic emergency and could, therefore, compare the different conditions experienced while “working smart” before and during the pandemic. The second phase was carried out between September and November 2020. These interviews focused on
understanding how smart working adoption had affected private life and how the strengths, weaknesses and other issues changed after the arrival of COVID-19. At the time of the interviews, we considered the topics emerging from the 27 public employees interviewed concerning smart working as enough saturated as they were recurrently emerging from the answers given by participants.

Table 1 provides an overview of participants in this study, including their age, education, years of service and public administration. It shows that we guaranteed enough coverage by variation among the participants (Alvesson and Ashcraft, 2012; Saunders and Townsend, 2016).

Interviews were recorded and transcribed by the authors. We also followed up with participants when any clarification was needed. Before analyzing the data, participants were asked to review the transcripts and make any corrections. We went back and forth between data, literature and emerging theory, using an inductive and open-ended approach (Locke, 2001). Following a process of gradual abstraction, we manually categorized raw data, linked categories to themes and aggregated them (Pratt et al., 2006) to identify recurring patterns and issues about smart working adoption and the effects of its application.

We also manually coded the interview transcripts by differentiating passages of text describing smart working strengths and weaknesses and its impact on working performance, work relationships and WLB. We took notes from the transcripts and identified different themes, highlighting positive and negative aspects of smart working adoption. We then extracted the emerging aspects into a new file to identify the most common and whether they were associated with strengths or weaknesses. These will be later summarized in Table 2 at

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Table 1. Overview of participants to the study
the end of the findings section and provide an overview of the positive and negative sides of smart working before and after the arrival of COVID-19.

**Exploring smart working before and during COVID-19**

The analysis of the interviews identified many aspects of smart working in public administrations, including some similarities and differences across administrations. This section explores the positives and negatives of smart working in two subsections highlighting participants’ comments from the pilot project (before COVID-19) and after the start of the pandemic. Because of our interest in understanding how the perception of Smart Working has changed before and after the spread of COVID-19, the interviews touched upon the same topics in both the pre- and post-pandemic interviews.

**Smart working adoption during the pilot project**

The interviews before the pandemic highlighted how smart working was related to a change in cultural approach to technology. This change aimed to re-organize public administrations to use more flexible and participatory models. Technologies were seen as valuable tools to support employees’ work performance and effectiveness. The correct and consistent use of technologies in organizations often forced changes that helped employees to do their jobs better.

Digitalization certainly serves to simplify and rationalize some administrative procedures that would otherwise be too long. (Participant #12)

ICT devices have allowed us to improve the entire work process, accelerating how we carry out work activities. Today, thanks to ICT technologies, we can carry out work activities more quickly and effectively. (Participant #24)

One of the most critical aspects concerned training. Participants complained about the lack of training on the use of technology related to smart working. Participants maintained that their organizations were adequate, although this level of satisfaction had been achieved through the “art of making do” rather than through strategies planned by the administration.
I strongly believe that administrations have to invest in staff training and IT tools provided to allow smart working. At this stage, the level of investment is inadequate. (Participant #3)

The technological gap is still quite high. People must be trained in the use of technological tools. (Participant #15)

Technology produces and introduces significant improvements in organizations, including in organizational culture. It, therefore, cannot be disentangled from organizational planning. Technology enables the creation of new requirements for working remotely or for using spaces elsewhere. However, its positive impact on organizational flexibility can affect internal relationships among colleagues.

The actual issue I see is not necessarily related to the use of technologies to perform work activities and to accept the challenge of working in a new way. Instead, I believe that the excessive reliance on technology can lead to individual isolation, creating dysfunctional dynamics in the relationship with other people. (Participant #9)

The pilot project on smart working used technologies to increase temporal and spatial flexibility, employees’ well-being and WLB. Many participants enthusiastically underlined these aspects during the first wave of interviews.

I truly believe that smart working has a positive impact in that it reduces the need to commute and provides environmental benefits from this . . . and allows a more efficient personal allocation of time that people can spend on other activities. I asked to use smart working so that I could spend some days each week with my children. (Participant #3)

Smart working is an opportunity because it allows everyone to match personal needs with work requirements. I personally benefited from reduced stress and costs of travelling to work. (Participant #5)

However, the adoption of flexible models may not necessarily lead to advantages in the medium or long term. Some participants highlighted the positive aspects of working in an office. They reported finding it more stimulating and better for communication with colleagues and managers. Others suffered an increase of conflicts between family and work or noticed a decrease in their work efficiency. The following quotes from two participants provide good examples.

Paradoxically, I think that communication is penalized. In general, I think that smart working has not affected collaboration . . . but I found it harder to communicate . . . sometimes it is easier to say something to your colleagues when you are physically standing next to each other. (Participant #6)

I find working in the office stimulating. It does not negatively affect my relationship with my family. I feel more responsible working this way, and I don’t feel the burden of not having free time at home. This is one of the reasons why I decided not to participate in the smart working pilot project. (Participant #26)

The interviews did not identify any different themes by gender. It is therefore possible to argue that, at least within our sample, men and women experienced the same advantages and disadvantages from smart working before the pandemic.

**Smart working during the pandemic**

The arrival of COVID-19 forced the switch from office to home working to limit the spread of the pandemic. This was the first experience of this way of working for many workers, including many public sector employees. Investments in technology at the beginning of the lockdown (from 9 March 2020 in Italy) were, therefore, very high, to allow employees working from home the same access as in the office. However, the first weeks were quite tough because
of the adjustment required to the new way of working. Many employees had to develop the necessary technological and digital skills in a very short time. Many participants complained that they found themselves unprepared for the massive use of smart working because of the lack of training that they had discussed before the pandemic. After the initial adjustment, interviewees saw an improvement in organizational processes, productivity and provision of services.

At the beginning, digitalization was improvised, despite the existence of new tools and methodologies. In the following days and weeks, things progressively improved. (Participant #4)

There has been a growing awareness of the use of digital technologies. In this sense, the pandemic has accelerated the diffusion of smart technologies that would have been impossible in other contexts. (Participant #12)

However, some participants commented that the level of investment was inadequate. They complained about the necessity of using personal devices and tools to cover for their administrations’ failure to make devices available. Despite this, the results in terms of flexibility have surprised both employees that were already in favor of smart working and those that were not completely convinced.

I have dreamed of my organization as a hybrid one: half in presence, half in smart working. Yes, I wanted it, but I didn’t think it was possible in such a short time. (Participant #8)

I think smart working could be a great way to change my approach to work and I think that the pandemic has made it clear that smart working is possible . . . I never thought that my job could be done through smart working . . . (Participant #22)

Compared to the pilot project, the pandemic meant a much more intensive use of technologies and digital processes. This intensification had varying impacts on public employees’ WLB and well-being. Some participants remained strongly convinced of the positive effects even during the pandemic. Others, however, described smart working during the pandemic as a cage, breaking all boundaries between work and private life because of blurred and prolonged working hours and the lack of a “right to disconnect”.

In my opinion, there is no doubt about the positive impact smart working is having. (Participant #2)

I think that smart working could work only if regulated properly and in detail; to date, it appears more like a cage for some, and an opportunity for others. (Participant #6)

My experience says there has been considerable blurring between work and private life. [There is] no right to disconnect. WhatsApp notifications were raining down continuously. Working hours have increased. (Participant #9)

Another prominent theme was interaction and communication with colleagues and managers. Some participants reported improved levels of collaboration, communication, trust and autonomy. Others felt that interactions remained the same and some highlighted worsened levels compared to the period before the pandemic. Negative feelings varied from “isolation” to “good collaboration but missing social moments”. Positive comments described increased availability to collaborate and listen to each other, proactiveness and purposefulness.

Technology ought to improve communication, but I found it created greater difficulties . . . perhaps because the possibility of physically seeing each other was missing . . . it would have solved some issues through direct communication . . . (Participant #17)

I found greater availability to listen to each other and collaborate. I believe this could be the case in the future as well, perhaps alternating online and live meetings. (Participant #19)
Some of the critical comments made by participants may be influenced by the imposition of the new way of working and the lack of clarity about how long it would be required. The pandemic created a peculiar condition that differs from what might be called “classic” smart working because it forced employees to work from home every day instead of leaving them free to choose where, when and how they should work smartly. This clearly had more impact on employees with small children and limited space in their homes, which often increased those employees’ stress. Other employees, especially those living further from the office, had more positive experiences because of the reduced time and cost of commuting. However, it is worth noting that smart working was generally seen positively. Interviewees suggested that the experience of smart working during the pandemic was not “lost.” Instead, once organizations had mitigated the critical issues highlighted and made it a key organizational resource soon. Participants suggested several suggestions to promote training on digital tools, improve the connection conditions and digital equipment available to employees and find solutions to digitalize activities that could only be carried out in person.

Finally, there were some interesting gender differences in views of some specific aspects of smart working during the pandemic. Women seemed slightly more likely than men to want to continue with smart working in the future, mainly because it seemed to improve their WLB. This suggests that keeping smart working as an organizational model would support public administrations and employees to improve their WLB.

Table 2 provides an overview of the positive and negative aspects of smart working before and during the COVID-19 pandemic. It includes several minor points that, for reasons of space, have not been discussed in the text.

Discussion
We explored the benefits and critical aspects emerging from the adoption of smart working before and after the spread of the COVID-19 pandemic. The interviews showed that both before and during the pandemic, smart working enabled the public sector to respond to the need for flexibility. During the pilot project (2017–2019), many participants enjoyed being able to reduce the time and costs related to commuting, have more free time for their private lives and choose where, when and how to work (Bunker, 2020). This was possible because of technologies that enabled them to remain productive although working outside the office (Bednar and Welch, 2020; Schmidt and Groeneveld, 2021). Productivity and efficiency were achieved through the positive effects of smart working on employees’ well-being (Grant et al., 2013) and WLB (Anderson and Kelliher, 2020; Ellerton, 2015). Study participants highlighted that smart working allowed them to autonomously manage the time spent on both work and leisure or family life (Prodanova and Kocarev, 2022).

One critical aspect that emerged was communication. Some participants remarked that communicating through technology was less stimulating, and sometimes less immediate, than being physically close to other people. Clearly, this poses a challenge to the future organization of activities and the use of smart working (Molino et al., 2020).

However, the main critical aspect concerned employees’ training, even before the start of the pandemic. Participants complained about the lack of training on the use of devices and how to carry out their activities remotely. Previous studies have also noted the need for new specific knowledge and skills to respond to digital challenges (Torre and Sarti, 2019). This aspect was important because it made public employees feel unprepared at the beginning of the pandemic. Many public administrations and private organizations were still conducting pilot projects on smart working. Others were starting from scratch.

After the first period of adjustment, work activities generally met fixed goals in terms of organizational efficiency. Many participants confirmed these positive effects of smart working continued after the start of the pandemic. However, the intensive use of smart
working broke down the boundaries between work and private life that were clearer before COVID-19. This led to negative experiences in terms of increased stress, an absence of WLB and reduced well-being. The interviewees underlined the paradox of having less time to perform specific tasks and complete the goals because “continuous and hammering messages and meetings” did not leave space for what several described as the “right to disconnect”. Many participants also complained about communication with colleagues and managers, although some of them reported increased collaboration and proactiveness. Several confirmed the views from the first wave of interviews about the need and positive effects of face-to-face discussions with colleagues. Others remarked that this aspect made them feel isolated and “abandoned” by the office.

Previous studies have discussed in limited way of these negative effects (e.g. Prodanova and Kocarev, 2022). This is partly because they were unpredictable and partly because during the early period of adoption of smart working, only the positive effects were emphasized by either academics or practitioners. Probably, the positive view of smart working was also influenced by the fact that, before the pandemic, only those who really wanted to work remotely applied to be part of the pilots. They, therefore, had a vested interest in showing that it worked. As a result, these groups welcomed smart working as the solution to many organizational issues, while overlooking possible negative effects.

Our paper has shown, partly in line with previous studies, how pressures from the pandemic influenced work arrangements and affected organizational, psychological and social aspects around the adoption of smart working (Prodanova and Kocarev, 2022). We have also shown that COVID-19 has pushed smart working to the extreme and exposed both positive aspects and the limits of this mode of working, especially around the isolation of employees and the lack of communication with managers (Doberstein and Charbonneau, 2022). However, in addition to previous studies, our qualitative approach allowed us to remark that work-family conflict and WLB are key aspects in determining the success of smart working application. Indeed, in future, the strengths emerging during the pilot project around flexibility, autonomy, employee well-being and WLB must be supported, but they must also be accompanied by a series of additional policy and organizational interventions to mitigate these negative aspects. Also, concerning work-family conflicts, some interviews, both before and after the pandemic, highlighted how, in the long-term, smart working could increase family conflicts. This aspect appears to be compounded, partially, during the pandemic in which workers have been forced to “work from home”. Indeed, continued and excessive control of employees in smart working can undermine WLB (Anderson and Kelliher, 2020) and can negatively affect the productivity of remote workers and fuel family conflicts (Bin et al., 2021). The exponential spread of smart working has clearly repercussions on HRM in the public sector, and therefore, HR managers must invest in planning social support actions for remote workers and increase the delegation in carrying out specific tasks, thus also improving the general level of satisfaction related to organizational flexibility (Rainero and Modarelli, 2021). This will necessarily entail a cultural revolution, and therefore, public management is forced to reflect on the aspects connected to cultural changes related to the use of technologies. One of the aspects concerns the need to implement managerial levers that favor “digital well-being”, ensuring a healthy relationship with technology and more significant consideration for the “right to disconnect”.

Finally, if correctly applied, smart working allows the development of two relevant HR dimensions: individual performance and engagement, recovering the individuals’ potential before they damage the entire organization.

The considerations emerging from our analysis allowed us to design a scheme, shown in Figure 1. This covers the key features to be considered when adopting smart working. Flexibility acts as an umbrella over organizational efficiency, employee well-being and WLB and aspects related to communication, interaction and relationships with colleagues and
managers. The arrows connecting these aspects show the mutual influence of these features, meaning that the positive or negative impact of any one factor could affect the whole smart working project.

Conclusions
This paper has sought to shed light on the phenomenon of smart working. We explored the bright and dark side of this approach by interviewing 27 Italian public employees before and after the spread of the pandemic. The use of smart working increased 17 times following the beginning of the pandemic (Osservatorio Smart Working Politecnico di Milano, 2020). Therefore, it is important to explore this phenomenon for both academics and policymakers in the short and long term because of many negative aspects emerged during the pandemic. COVID-19 revealed the low level of digitalization in many administrations and their unpreparedness in terms of digital skills and tools.

By doing so, the paper contributes not only to the literature on smart working in general, but specifically to its use in the public sector, a stream of research that is still emerging. However, the implications of this paper go beyond the application of smart working in a period of emergency. They suggest a way to improve the experience of smart working, which will be important in the future, not only because the pandemic is still present across the entire world, but also because of improving ways of working and HRM systems. We explored the effects of smart working on organizational, technological, psychological and social aspects and found that much remains to be done in both policy and practice. Therefore, the study contributes to the literature on the organization of the public sector by discussing the key features and positive and negative aspects of smart working as an organizational model.

The paper has also practical and policy implications, mainly deriving from the qualitative exploration of the key aspects related to the use of smart working, differently from previous studies that have mainly used quantitative approaches (e.g. Prodanova and Kocarev, 2022). A qualitative analysis based on interviews with those directly involved in the use of smart working practices can help gaining an in-depth assessment of the positive and negative aspects that might be of support for the present and future of work practices. This is clearly an important step that integrates results from quantitative studies that, although interesting, can only present a partial picture of the whole phenomenon. In more detail, the paper reports strengths on which organizations and policymakers can rely to improve the experiences of smart workers by mitigating the weaknesses of this approach. We suggest that the pandemic exposed the need for public administrations to consolidate work flexibility practices, such as smart working, by paying more attention to the impact of these practices on the whole organization and HRM policies and practices. Furthermore, as previously mentioned, some studies (e.g. Jamal et al., 2021; Prodanova and Kocarev, 2022) have already analyzed the impact that the pandemic has had on employees’ work activities, although adopting a quantitative approach. Instead, we contend that the effects of the pandemic, especially those related to the smart working, should be, at least as a first step, analyzed through a qualitative approach given the sensitive individual dimensions that it might affect. Therefore, an explorative and qualitative approach may support the identification of the opportunities and

Figure 1. Smart working key features

Smart working in the public sector
complexities of smart working useful to a further qualitative and quantitative analysis both for private and public organizations, thus supporting managers in responding to moments of crisis and improving communication and leadership to involve smart workers avoiding the risk of isolation (Van der Wal, 2020; Wang et al., 2009).

Another challenge is also important to consider how public organizations will manage the transition from the physical to the virtual office. This would allow public organizations to reduce their costs and reconsider using physical spaces, favoring social interaction and promoting employee empowerment.

We recognize that the results in this paper are not directly generalizable to other settings. However, this study’s qualitative and explorative nature allowed a preliminary discussion of the effects of smart working. The aim was not necessarily to generalize from our findings but to explore and provide useful insights on a timely topic. Therefore, we have contributed to the literature with a deep understanding and articulation of a specific case that may provide insights into the issues examined (Parker and Northcott, 2016). Despite the purposive selection of the Italian setting, we believe that the findings emerging from this analysis still provide valuable insights on the effects of adopting smart working. Italy is experiencing significant growth in the use of smart working in public organizations, which provides a valuable context for in-depth qualitative research (Yin Robert, 2017).

The study did have some limitations. These include that the issues discussed could be only a part of a wider spectrum of effects of the use of smart working. This provides an opportunity for future researchers to continue exploring the effects of smart working. In an era in which digitalization has become increasingly important to public administrations, it is essential to capitalize on the experience gained from the COVID-19 pandemic. We must use what has emerged to inform the so-called “new normal” (Valikkangas and Lewin, 2020; Yang, 2020).

References


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