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SCOPE AND FORMS OF CONTROLLING TELEWORKERS

ZAKRES I FORMY KONTROLOWANIA TELEPRACOWNIKÓW

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Abstract: Controlling teleworkers is a complicated process, mainly due to the lack of direct contact between the manager and subordinate. The purpose of the article was to identify the most common forms of controlling teleworkers by their supervisors. In order to achieve the goal, a literature review was carried out within the given scope and a quantitative survey was conducted using an online questionnaire among a group of several hundred teleworkers from various industries. The survey showed that the main reason of the control of teleworkers by their supervisors includes verifying the results of their work. Usually the tele-employer evaluates the results of a subordinate's work in person or asks them to report on the results. The use of working time is generally verified by checking the teleworker's reports and the time spent logged into the system; these forms of control were considered by teleworkers to be the most motivating for the desired employee behaviour.

Keywords: teleworker, telecommuter, telework, telecommuting, teleworker control, forms of teleworker control.

Streszczenie: Kontrolowanie telepracowników jest procesem skomplikowanym przede wszystkim ze względu na brak bezpośredniego kontaktu pomiędzy menedżerem a jego podwładnym. Celem artykułu jest identyfikacja najczęściej stosowanych form kontrolowania telepracowników przez ich przełożonych. Aby osiągnąć wyznaczony cel, dokonano przeglądu literatury w podanym zakresie oraz przeprowadzono badanie ilościowe z wykorzystaniem ankiety internetowej w liczącej kilkaset osób grupie telepracowników różnych branż. Badanie wykazało, że główny zakres kontroli telepracownika przez przełożonego obejmuje sprawdzenie efektów pracy. Najczęściej telepracodawca ocenia wyniki pracy podwładnego osobiście lub prosi go o sporządzenie raportu z tychże wyników. Wykorzystanie czasu pracy weryfiko-

wane jest zazwyczaj poprzez sprawdzanie raportów telepracownika oraz czasu jego logowania się do systemu. Równocześnie właśnie te formy kontroli zostały przez telepracowników uznane za najsilniej motywujące do pożądanych zachowań pracowniczych.

Słowa kluczowe: telepracownik, telepraca, kontrolowanie telepracowników, formy kontroli telepracowników.

1. Introduction

The use of information and communication technology is one of the key elements influencing the effectiveness of the entire organisation, with a strong emphasis on areas related to innovation and creativity (Jelonek, 2018, p. 46). This was observed already in the second half of the 20th century, i.e. in a period of very dynamic technological development. The consequence of this development included the emergence of a new form of performing work duties – telework, often called remote work, flexible workspace, working from home and telecommuting. According to the original definition, telework means the replacement of commuting by using information and communication technology (Nilles, 2003, p. 21). Over the years, researchers have created a number of different definitions of telework. Most of them focused on two main aspects: the place of performing work and the use of information and communication technology during work. Taking these elements into account, telework can be defined as working outside the traditional workplace using electronic means of communication (Gray, Hodson, & Gordon, 1993, p. 2; Janiec, Czerniak, Kreft, & Piontek, 2006, p. 17). A *teleworker* means a person who performs their official duties in teleworking mode. Some researchers use the terms *remote work* and *mobile work* as synonyms for *telework*.

Telework is a considerable challenge for the employer, for example due to the lack of direct supervision over the employee. The supervisor may have several concerns – whether the teleworker makes optimal use of their working time (Dimitrova, 2003, p. 192; O'Neill, Hambley, Greidanus, MacDonnell, & Kline, 2009, p. 155) and if the company data they process are secure (Greenberg & Nilssen, 2008, p. 16).

The purpose of the article was to identify the most common forms of controlling teleworkers by their supervisors. In order to achieve the goal, the scope of control exercised over the employee depending on the place of performance of duties is presented first. Next, the Polish legal regulations related to the process of teleworker control and selected forms of such control are introduced. The empirical part of the survey includes the online survey covering questions related to remote employee control. The adopted research methodology is discussed and the results of the study presented.

Many scientific publications have already described the issue of telework, however the control function in the process of remote work was not a frequent area

of interest for the researchers. Telework was a field of research of particular interest to, among others, Sullivan and Lewis (2001), Dimitrova (2003) and Maruyama et al. (2009). This article adds to the already published studies by:

- examining what is the most frequently chosen purpose of control of teleworkers by employers;
- identifying the forms of control that motivate the remote employee to behave in a way that the employer considers appropriate.

2. Teleworker's place of work and control of their activities

Telework is performed outside the traditional office environment, using means of remote communication. In the literature, one can find various typologies of remote work. For example, when analysing the place where duties are performed, Taskin and Devos (2005, p. 16) point out the following:

- *home-based telework*, permanent or alternative,
- *ad hoc telework*, referring to a telework arrangement concerning less than one day per week,
- *mobile or nomadic telework*,
- *telework from telecentres or satellite offices*, where employees perform their duties in buildings/premises rented or created for the needs of the company,
- *independent telework*.

Szluz (2013, p. 256) also distinguishes these forms of telework, i.e. ad hoc telework, alternating home-based telework, home-based telework and mobile/nomadic telework. This division is presented in Table 1.

Table 1. Types of telework according to location

Types of telework	Description	Main place of work
Ad hoc telework	consists of occasional performance of business tasks outside the company office	traditional workplace (company office)
Alternating home-based telework	is performed mainly at home, but at certain intervals requires the teleworker to appear in the office	employee's home
Home-based telework	is only provided in the employee's home	employee's home
Nomadic telework	performing duties in various locations	different locations (e.g. when travelling, at the client's premises, etc.)

Source: own study based on Szluz (2013, p. 256).

The employer can have the greatest control over an employee performing ad hoc telework. The supervisor is then able to verify on an ongoing basis the activities performed by the subordinate in the office. However, this form can be considered

quite debatable due to the aspect of regularity. This aspect is included in some scientific sources as part of the definition of telework (e.g. Duxbury, Higgins, & Neufeld, 1998; Ustawa z dnia 26 czerwca 1974 r.). In the case of ad hoc telework, therefore, a purely semantic problem may arise: is 'ad hoc' regular? According to the Cambridge Dictionary, the meaning of this word is "*made or happening only for a particular purpose or need, not planned before it happens"* (Cambridge Dictionary). Thus, ad hoc telework may not meet the requirements posed for remote work by a large part of the academic community.

The forms of telework are mainly focused on performing work from an employee's home are home-based telework and alternating home-based telework, which gives the employer a much smaller spectrum of supervision over the teleworker. Obviously, there are technologies that support the process of controlling remote employees working from home, but often this relates mainly to verifying the effects of their work.

One of the most frequently used forms of remote work is teleworking from home (Karaszewska, 2009, pp. 182-183), described many times in the subject literature (e.g. Aguilera, Lethiais, Rallet, & Proulhac, 2016; Bathini & Kandathil, 2019; Ollo-López, Goñi-Legaz, & Erro-Garcés, 2020). Researchers focused on both the efficiency of the teleworker and the blurring of boundaries between work and private life (Aguilera et al., 2016; Delanoeije, Verbruggen, & Germeys, 2019; Martin & MacDonnell, 2012).

The least control over the activities of the teleworker is possible in the mobile/nomadic telework system. This type of work was described, among others, by Stiles and Smart (2020) and Hislop and Axtell (2007). Due to the possibility of movement of the person performing mobile/nomadic work, the supervisor is usually only able to control the results of such work. This may be problematic especially when the teleworker performs the task of processing sensitive data, which requires the employer to properly secure the tools used by the remote employee (e.g. antivirus software, additional passwords and security tools, etc.) and cyclical training of the teleworker on the principles of working with sensitive data in a public place. Naturally, this type of security must also be implemented for home-based telework, however, mobile/nomadic telework often entails a greater risk of theft of the data processed by the employee at a given time.

3. Main forms of teleworker control

Research shows that many managers are concerned about the lack of direct control over the behaviour of teleworkers. Some of them are posing the question: *How do I know that the teleworker hired by me is actually working?* Nilles (2003, p. 125), believes that the employer is not able to check at all times whether the teleworker is doing their job. He also claims that the greatest effectiveness for the company will be achieved not when it authoritatively supervises all the actions of teleworkers, but

when the relationship between the manager and the remote employee is based on trust and good mutual relations, and the supervisor is perceived by the subordinates as an authentic leader. The highly significant role of trust in the process of control of employees (both local and remote) is also described in other studies (e.g. Dimitrova, 2003; Gajda, 2015; Kukowska & Skolik, 2014).

Telework is associated with the very high autonomy of remote workers. Due to the physical distance between the teleworker and the supervisor, the persons actually controlling the process of performing given tasks are the teleworkers themselves. According to Jeran (2016, p. 51), the task-based nature of telework means that the supervisor is often not interested in the ongoing control of the activities performed by the teleworker; the results of their work are more important. The effectiveness of a given person can be verified by the employer, for example, by checking the outcome of the work, i.e. products or services that the teleworker creates or provides.

According to Polish legislation, the employer has the right to control the teleworker at the workplace. The issue of inspections at the workplace is regulated by Article 6714 of the Polish Labour Code. If a remote employee performs their duties at home, their supervisor may carry out an inspection (Ustawa z dnia 26 czerwca 1974 r., art. 6714):

- of whether they are working on the task;
- related to inventory stock-taking, equipment installation, maintenance, repair or servicing;
- concerning health and safety at work.

An inspection at the workplace is possible after obtaining the appropriate consent of the teleworker, which should be given in writing or by electronic means of distance communication. Additionally, § 3 art. 67^{14} explicitly states that the privacy of the remote employee and their family must not be violated during the inspection, and the inspection must not hinder the use of any rooms in the home.

The Polish Labour Code does not explicitly define the possible forms of control of a teleworker in the course of performing their business tasks. The supervisor may therefore require detailed reports about the work performed in a given period of time, monitor the partial outcome of work (product, service), or control the time when the teleworker was logged to the system. It is considered to be fairly controversial to control an employee with the use of cameras and record their calls. However, according to Polish legislation, these forms are not prohibited by law as long as they do not violate the employee's privacy, and the employee agrees to them (Kadry, 2016).

The employer (or an employee designated by them) may also visit the teleworker's home to carry out health and safety checks, e.g. to check the condition of the cabling on the computer they are using. However, the health and safety control of a remote employee's place of work is rarely used. In 2007, the Central Institute for Labour Protection conducted a survey which showed that over 77% of teleworkers have

never had a health and safety check at their workplace and less than 13% declared this type of check only occurred when they started teleworking.

Kurland and Cooper (2002, p. 110) also noted the control of the state of knowledge and skills of teleworkers. By checking the level of the employee's assimilation of knowledge, e.g. in the field of sales of a new product or protection of sensitive data, the employer can count on increasing the quality and safety of the work performed by the employee.

Telework can be considered a very convenient form of performing their work, as it generates a number of benefits for both the teleworker and the tele-employer. A person working from home does not have to spend time commuting to and from work, so that, theoretically, they can dedicate more time to their private life (Mann & Holdsworth, 2003, p. 197). However, many researchers emphasise that remote work is associated with many difficulties for the teleworker (cf. Greer & Payne, 2014; Greenberg & Nilssen, 2008; Taskin & Edwards, 2007, p. 197). These are, above all, difficulties of an organisational and emotional nature. The teleworker should organise their life (and that of their families) in such a way as to avoid the excessive merging of their professional and private life, and thus keep the work-life balance at an appropriate level. The unannounced check on a teleworker's work may be treated by them as additional stress, negatively affecting work efficiency. It is worth minimising this stress by setting clear criteria for supervision and informing the teleworker in advance about the intended inspections.

Already in 1927, one of the most important Polish management scholars, Karol Adamiecki, stated that there is no progress without control (Adamiecki, 1927, p. 187). However, it should be also remembered that if control involves too much bureaucracy and too many restrictions, it demotivates and destroys the creative potential of employees, and thus negatively affects the entire organisation (Kuc, 2009, p. 134). This rule applies both to employees performing their duties in the office and to teleworkers.

4. Research methodology

The presented survey was carried out in November 2020 among members of the "Praca zdalna" (Remote work) group on the social networking portal (www.facebook.com). The goal of the survey was to identify the most common forms of controlling teleworkers by their supervisors. The following research hypotheses were adopted:

H1: The area most often controlled by a tele-employer is the outcome of a teleworker's work.

H2: The direct control of a teleworker at the workplace implies that they will behave correctly in a professional context in the future.

The survey took the form of an anonymous Internet questionnaire, available at www.interankiety.pl. The author's intent was to reach individuals who have some

experience in telework, i.e. who work remotely now or have worked in the past. If a person without any experience in this subject joined the survey, the questionnaire was automatically completed after the initial part and the given respondent had no possibility to answer questions directly related to the research subject.

In order to avoid the risk of the same respondent filling in the survey multiple times, the option of checking cookies was enabled. The survey consisted of 18 single and multiple-choice questions. The studied characteristics were of an non-measurable nature. Excel and Statistica were used for data analysis and the graphical presentation of the results. It is assumed that the test results are statistically significant at $p<0.05$.

5. Results

A total of 94 individuals (n=94) participated in the study, of which 64% were women and 36% – men. The vast majority of the respondents (82%) have higher education (B.A., M.A. or an engineering degree); 62% were between 26 and 40 years old, 26% between 41 and 55 years old. Persons under 25 years of age and those aged 56 years and over made up 12%. The survey was completed by representatives of several industries. The most frequently mentioned sectors were: IT (20%), education (18%), accounting (9%), customer service/call centre (7%) and sales (7%). As many as 88% of all respondents were employed as teleworkers, whilst 12% of the respondents were not teleworking at the time of the survey but had worked in this mode in the past.

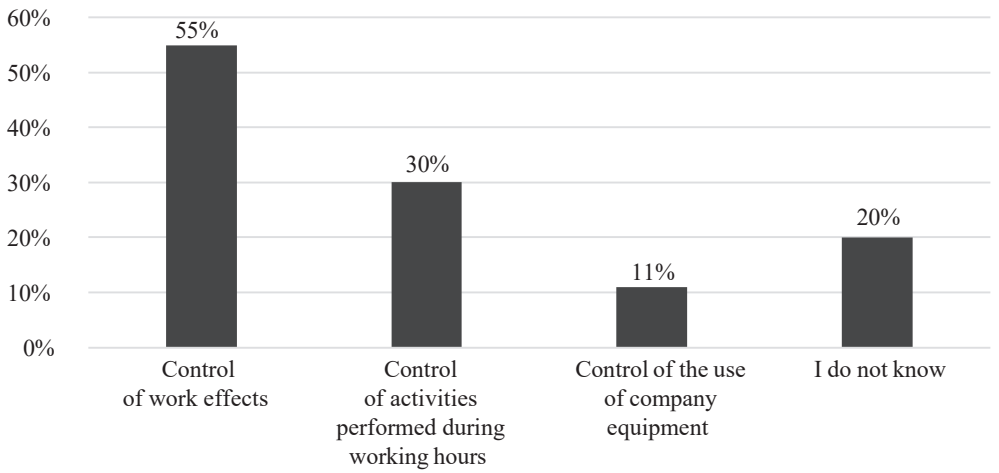

Fig. 1. Scope of control carried out by the tele-employer

Source: own study.

The survey showed that 50% of the respondents were employees of large companies. Another group consisted of employees of small companies with 11 to 50 employees (15%), followed by those working in state administration or education (14%), employees of micro companies (11%) and medium-sized companies (6%). Only 2% of the respondents declared that they ran their own business, while another 2% chose "other".

To verify the **H1** hypothesis (*The area most often controlled by a tele-employer is the outcome of a teleworker's work*), the extent to which the tele-employer controls their subordinates was analysed. The analysis did not take into account the respondents who were self-employed, as it was considered that these individuals did not have a direct supervisor. The results of the analysis are presented in Figure 1.

More than half of the respondents subject to control (55%) admitted that the employer checks the effects of their work; 30% of the controlled respondents were checked for activities performed during working hours, and 11% were subject to the control of the use of company equipment. At the same time, 20% of teleworkers who claim that the employer controls their work did not know the extent of this control.

In order to verify H1 the independent samples test (Statistica) was performed. The respondent's selection of a given scope of control was marked as 1, lack of selection – as 2. Mean values tests were performed for independent samples, examining the value of the mean between *Control of work effects* and the remaining characteristics. The obtained mean values are presented in Table 2.

Table 2. Mean values test for individual scopes of control

No.	Scope of control	Mean
1.	Control of work effects	1.6170
2.	Control of activities performed during working hours	1.7872
3.	Control of the use of company equipment	1.9255
4.	I do not know	1.8617

Source: own study.

In selecting 1, it was assumed that the lower the mean value, the higher the number of respondents admitting that they were controlled by the employer in the given scope. The lowest mean was found for *Control of work effects*: 1.6170 ($p<0.05$). H1 hypothesis: *The area most often controlled by a tele-employer is the outcome of a teleworker's work* was therefore confirmed.

At the same time, the study showed that the main forms of controlling the performance of a teleworker is checking the results directly by the supervisor or a designated person from the company, and verifying the reports on the effects of work carried out by teleworkers. On the other hand, the control of activities performed during working hours consists mainly in checking the reports prepared by the employee and the time spent logged in to the ICT system.

The second examined hypothesis (**H2**) refers to the forms of supervision over a teleworker: *The direct control of a teleworker at the workplace implies that they*

will behave correctly in a professional context in the future. The respondents were asked to assess to what extent individual forms of control motivate them to the desired behaviour during their work. The evaluation was provided on a scale from 1 to 5, where 1 meant *definitely not motivating*, 2 – *not motivating*, 3 – *I do not know*, 4 – *motivating*, 5 – *definitely motivating.* The responses are presented in Table 3.

Table 3. Forms of control and desired behaviour of teleworkers

Evaluation	1	2	3	4	5
My employer asks me to prepare reports on the effects of my work.	16%	19%	19%	31%	15%
My employer asks me to prepare a report on how I spend working time.	32%	19%	22%	20%	6%
My employer checks the time I spend logged in to the system.	28%	21%	21%	22%	7%
My employer uses programs to monitor the absence of activities performed using a computer keyboard/mouse, etc.	45%	16%	20%	14%	5%
My employer installs spyware to check which applications and websites I use.	61%	9%	18%	11%	2%
My employer checks my business mail.	62%	12%	14%	12%	1%
My employer records and listens to my phone calls.	66%	9%	13%	9%	4%
My employer uses a webcam to monitor my workplace.	72%	9%	14%	2%	3%
My employer comes to my place of work.	62%	5%	18%	9%	6%

Source: own study.

The highest scores were obtained for: *My employer asks me to prepare reports on the effects of my work* – 15% of the respondents considered this action to be *definitely motivating*, and as much as 31% – *motivating* to the desired behaviour in the workplace. Next was checking the time of the time spent by the teleworker logged in to the system: 7% of responses were *definitely motivating* and 22% *motivating*. Third place in this 'ranking' of teleworkers was occupied by reports on the use of working time *(definitely motivating:* 6% of the respondents, *motivating:* 20%).

The following forms of telework control were considered by the employees to be definitely not motivating: monitoring of the workplace by supervisors using webcams (72%), recording of telephone conversations of remote employees (66%), direct employer's visits to the workplace (62%), checking of company mail (62%) and use of spyware (61%).

In order to verify the hypothesis, a comparison of central measures: mean, median and mode (dominant value) was used. These were collected in Table 4 (from the highest mean to the lowest, the names of individual forms were also simplified). The calculations were made in Statistica, the data are statistically significant ($p<0.05$).

These calculations confirmed the conclusions already drawn on the basis of the analysis of Table 4, namely that among the presented forms of control, the most motivating form of telework control was considered to be the preparation of a report on the effects of work (mean 3.0957; median 3.0000; mode 4.0000 at 29). The control in the form of a direct visit of the employer to the teleworker's place of work was only

Table 4. Mean, median and mode of the various forms of control

	Mean	Median	Mode	Mode frequency
Report on effects	3.0957	3.0000	4.0000	29
Checking login time	2.6063	3.0000	1.0000	26
Report on working time	2.5000	2.0000	1.0000	30
Monitoring of inactivity (mouse/computer)	2.1915	2.0000	1.0000	42
Visiting the workplace	1.9255	1.0000	1.0000	58
Checking applications and websites	1.8511	1.0000	1.0000	57
Checking business mail	1.7872	1.0000	1.0000	58
Recording phone calls	1.7660	1.0000	1.0000	62
Camera at work	1.5531	1.0000	1.0000	68

Source: own study.

ranked fifth in the list (mean 1.9255). Thus, the hypothesis: *The direct control of a teleworker at the workplace implies that they will behave correctly in a professional context in the future* was verified negatively.

The scores awarded to particular forms of control by teleworkers are presented in Figure 2.

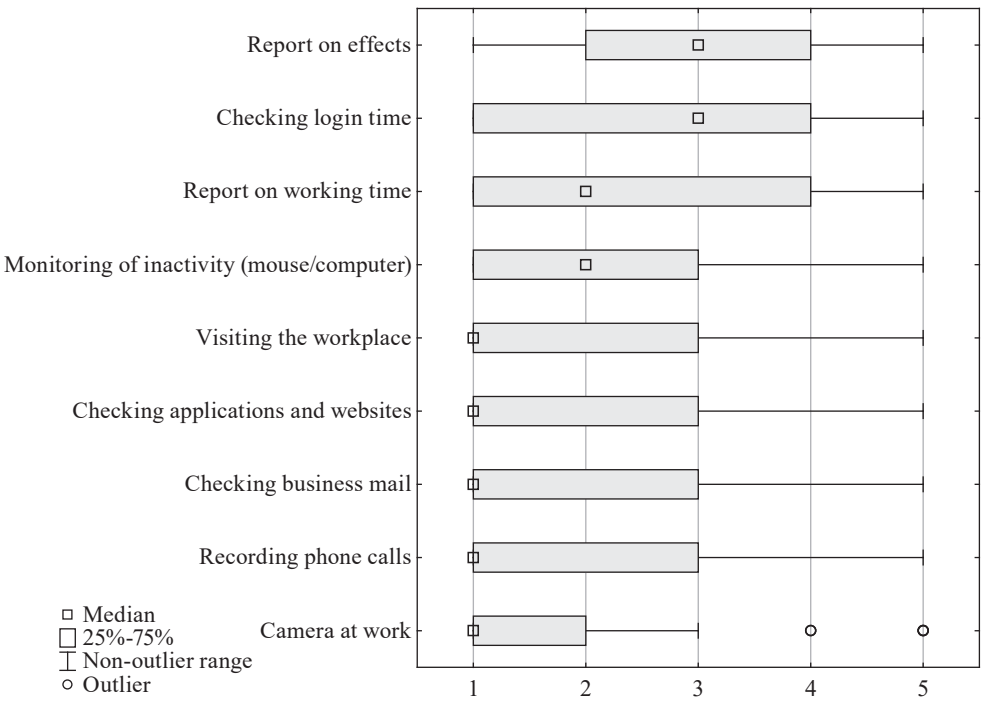

Fig. 2. The effect of particular forms of control on the desired teleworker behaviour

Source: own study.

The figure presented above clearly shows that the forms of control resulting from insufficient trust of the employer towards the teleworker are regarded by the majority of remote employees as not motivating. The main forms of this type include supervisor's visits at the workplace, checking the applications and websites visited by the teleworker, controlling their business mail, recording phone calls and – critically – using a web camera at the workplace.

The forms of control by supervisors presented above mainly focused on the supervision of the teleworker's workflow. The advisability of controlling the results of work was ascertained in a separate question. As many as 80% of teleworkers believed that their supervisor should check the outcome of their work. For comparison: the need to supervise the use of working time by a remote employee was confirmed by only 35% of the respondents, while more than half (52%) were against this type of control.

6. Conclusion

The study showed that t*he area most often controlled by a tele-employer is the outcome of a teleworker's work. T*he most common forms of controlling activities performed during the work were checking reports on the use of working time prepared by teleworkers and verifying the time spent logged in to the ICT system used by the company. These forms are also considered by remote employees to be the most motivating to maintain the desired professional behaviour in the future. *The majority* of the surveyed teleworkers stated that forms of control that interfere too much with the employee's autonomy do not motivate to desired behaviour in the future, e.g. the control carried out by the teleworker directly at the workplace was found to be definitely not motivating.

Before the check is carried out, it is worth informing the teleworker about the exact criteria for supervision and about the date of the control. It may be even better if the tele-employers focused primarily on building a culture of trust between the manager and the teleworker. This can help create an organisation in which the teleworker is not only not forced to engage in control activities, but even asks their supervisor of their own accord to perform such checks in order to improve the quality of their work.

The topic of controlling teleworkers is often discussed both in economic theory and in managerial practice. This has become particularly important in the face of the COVID-19 pandemic, which has necessitated remote work also in those areas that so far were mainly stationary, e.g. in education and public administration. In the near future, it would be worth examining how individual forms of control affect the effectiveness of the teleworker. For social reason, it would be interesting to find out whether the gender of the teleworker affects the form of the control carried out by the employer.

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