

THE DIGITAL WORK ENVIRONMENT AND WORKERS' HEALTH

O MEIO AMBIENTE DO TRABALHO DIGITAL E A SAÚDE DOS TRABALHADORES

Article received on: 05/24/2022

Article accepted on: 04/04/2023

Celso Antonio Pacheco Fiorillo

Universidade Nove de Julho (UNINOVE), São Paulo/SP, Brazil

Lattes: <http://lattes.cnpq.br/2325230608192870>

Orcid: <https://orcid.org/0000-0001-6969-7043>

celsofiorillo@uol.com.br

Natalia dos Santos Medeiros

Tribunal Regional do Trabalho da 1ª Região (TRT1), Rio de Janeiro/RJ, Brazil

Lattes: <http://lattes.cnpq.br/6652517737545098>

Orcid: <https://orcid.org/0000-0003-2603-552X>

nataliamedeiros@uni9.edu.br

The authors declare no conflict of interest

Abstract

With the spread of the home office, it is necessary to identify in which aspect the concept of work environment encompasses this type of service provision, in order to identify which constitutional and legal norms that regulate the environment can be applied. The aim of this research is to demonstrate the equivalence of face-to-face work and telework, identifying workers' health as an environmental good, based on the characteristics of a common use good of the people and an essential good for a healthy quality of life, in order to assign to the employer the responsibility for taking the necessary measures to reduce environmental risks. This responsibility of the employer can be extracted from the protection norms, including the provisions of arts. 1,

Resumo

Com a difusão do home office, faz-se necessário identificar em que aspecto o conceito de meio ambiente do trabalho engloba essa modalidade de prestação de serviço, a fim de identificar quais as normas constitucionais e legais que regulam o meio ambiente podem ser aplicadas. O que se pretende com esta pesquisa é demonstrar a equiparação do trabalho presencial e do teletrabalho, identificando a saúde dos trabalhadores como bem ambiental, a partir das características de bem de uso comum do povo e bem essencial à sadia qualidade de vida, para, a partir daí, atribuir ao empregador a responsabilidade pela adoção de medidas necessárias para redução dos riscos ambientais. Essa responsabilidade do empregador pode ser extraída das normas de proteção, incluindo as previsões



3, 7, XXII, 170, 196 and 225 of the Constitution, Law no. 6.938/81, art. 19, § 1 and § 3 of Law no. 8.213/90, and Chapter V of the CLT. The hypothetical-deductive method was primarily adopted, with qualitative research.

Keywords: environmental good; home office; digital environment; work environment; health

dos arts. 1º, 3º, 7º, XXII, 170, 196 e 225 da Constituição Federal, da Lei n. 6.938/81, do art. 19, § 1º e § 3º da Lei n. 8.213/90 e do Capítulo V da CLT. O método hipotético-dedutivo foi adotado precipuamente, sendo a pesquisa qualitativa.

Palavras-chave: bem ambiental; home office; meio ambiente digital; meio ambiente do trabalho; saúde

INTRODUCTION

Although telecommuting was already a reality for some workers, in 2020 the world was faced with the popularization of this modality of service provision, given the need to guarantee social distancing. In Brazil, Law no. 13,979/2020 was enacted, which provided for measures to deal with the public health emergency of international importance resulting from the 2019 coronavirus outbreak. It established that the authorities could adopt, within the scope of their competences, among other measures, isolation and quarantine.

Numerous economy sectors suffered restrictions and the expansion of telework was important for economic activities to be able to develop. Benefits were felt by both employers and employees. Some companies, based on the benefits felt during this period, especially with regard to reduction of infrastructure costs, intend to maintain this modality as a rule, passing over the face-to-face work modality.

In this sense, what we intend to discuss is the employer's responsibility for the environmental risks experienced by these workers, since recent research indicates an early psychological exhaustion of workers in telework. However, there is still no exact identification of the causal link between this type of service provision and the worker's illness, since the growth of telecommuting took place in a hasty way due to the advent of COVID-19.

Establishing this responsibility is necessary to avoid employers' unfair enrichment and distortions in the economic order to the detriment of teleworkers' health, considering the otherness and polluter-pays principles.

The method used in this research was the hypothetical-deductive one. The starting point was the problem of protecting teleworkers' health, who are exposed to environmental risks that are not yet well defined. The premise was established

that health is an environmental good, since it is essential for a healthy quality of life and because it is a common good for the people, and, as such, it suffers the incidence of the provisions displayed in art. 225 of the Federal Constitution.

Likewise, the premise was established that the legislation equates telecommuting with face-to-face work and, therefore, the digital work environment contains, in itself, the broadening of the work environment concept.

From such premises, this research sets as a solution to the aforementioned problem the employers' responsibility in identifying, eliminating and reducing the environmental risks resulting from telework, since employers are the ones who hold the powers of direction and inspection and the ones who benefit from economic activity.

It should be noted that, if the employer were not given any responsibility for the environmental risks arising from telework, the principles of otherness — which attributes the enterprise's risk to the employer — and polluter pays would not be respected and there would be an imbalance in the economic order, since the employer would benefit from the workforce without assuming the costs of its development.

The research was qualitative, with a bibliographical and legislative survey on health, on the work environment and on the employer's responsibility in identifying, eliminating and reducing environmental risks.

1 TELEWORK AND THE DIGITAL WORK ENVIRONMENT

1.1 Telework

With the high rates of illness caused by the COVID virus, Law no. 13,979/2020 provided for measures to deal with the public health emergency, allowing authorities to adopt, within the scope of their competences, social isolation, quarantine, among other measures, in order to guarantee community protection.

Most of the economic activities found themselves behind closed doors, as State and Municipal Decrees authorized the in-person continuity only of business activities considered essential. All others should be developed remotely.

Telecommuting, which was formerly developed in some segments, has been greatly expanded and workers, who previously performed their tasks at the employer's establishment, were working remotely and mixing their professional life with their personal life.

Since 2011, with the enactment of Law no. 12,551/2011, which changed the

wording of art. 6 of the Consolidation of Labor Laws (CLT), work carried out at the employer's establishment is no longer distinguished from that carried out at home or at a distance, provided that the legal factual elements of the employment relationship provided for in arts. 2 and 3 of the same Consolidation are fulfilled. That same article provides that "The telematic and computerized means of command, control and supervision are equivalent, for purposes of legal subordination, to the personal and direct means of command, control and supervision of other people's work" (BRASIL, 2011).

According to Leite (2022, p. 121),

Teleworking is a kind of distance work, not work at home. The reason is simple: teleworking is not limited to the home, it can be provided anywhere. In fact, telework takes place in a virtual environment and, as such, is located in space, therefore, the definition of location is not altered, which, in Labor Law, is established according to the effectiveness of labor law in space.

The CLT provides for the figure of telework in Chapter II-A and conceptualizes it in art. 75-B, as "the provision of services predominantly outside the employer's premises, with the use of information and communication technologies that, by their nature, do not constitute outside work" (BRASIL, 2022).

1.2 Digital work environment

Article 225 of the Federal Constitution accepted the concept of environment established in the National Environmental Policy (Law no. 6.938/81), as this envisages the environment as "the group of conditions, principles, influences and interactions of a physical, chemical and biological nature that enables, shelters and rules all forms of life" (BRASIL, 1981).

This concept has a multifaceted characteristic, since the object of protection includes five different aspects, namely: genetic heritage, natural, artificial, cultural and work environment. All of them are important for the concept of a healthy quality of life.

The work environment, included in the object of protection, as indicated above, has constitutional protection, as provided for in arts. 7, XXII and XXIII, and 200, VIII.

Fiorillo (2020, p. 83) conceptualizes the work environment as

The place where people carry out their work activities related to their health, whether paid or not, whose balance is based on the environment's healthiness and absence of agents that compromise workers' physical and mental safety, regardless of the

condition they hold (men or women, over or under age, subject to CLT, public servants, self-employed, etc.).

It is characterized by the complex of immovable and movable assets of a company or society, object of private and inviolable subjective rights of the health and physical integrity of the workers who attend it.

This concept has already been used numerous times by the Superior Labor Court¹, which established the scope of the concept to make the employers

1 As can be seen from the reading of Judgments Ag-AIRR-605-10.2015.5.17.0005, 1st Panel, Rapporteur Minister Walmir Oliveira da Costa, DEJT 09/04/20, Ag-RR-1139-80.2017.5.17.0005, 3rd Panel, Rapporteur Minister Mauricio Godinho Delgado, DEJT 09/13/2019, RR-0001677-12.2015.5.17.0141, 3rd Panel, Rapporteur Minister Alberto Luiz Bresciani de Fontan Pereira, DEJT 12/07/2018, AIRR-588-77.2016. 5.17.0121, 3rd Panel, Rapporteur Minister Mauricio Godinho Delgado, DEJT 08/24/2018, AIRR-1099-48.2015.5.17.0012, 8th Panel, Rapporteur Minister Dora Maria da Costa, DEJT 09/29/2017, AIRR – 1951 -02.2015.5.17.0003, 8th Panel, Rapporteur Dora Maria da Costa, DEJT 08/14/2017, AIRR 945-08.2015.5.17.0181, 2nd Panel, Rapporteur: José Roberto Freire Pimenta, DEJT 05/05/2017, AIRR 726-17.2015.5.17.0012, 2nd Panel, Rapporteur José Roberto Freire Pimenta, DEJT 04/28/2017, AIRR 566-39.2010.5.15.0071, 8th Panel, Rapporteur: Dora Maria da Costa, CEJT 04/28/2017, AIRR 896-63.2015.5.21.0016, 8th Panel, Rapporteur: Maria Cristina Irigoyen Peduzzi, DEJT 03/10/2017, AIRR 1124-38.2015.5.21.0016, 8th Panel, Rapporteur: Maria Cristina Irigoyen Peduzzi, DEJT 03/03/ 2017, AIRR 929-53.2015.5.21.0016, AIRR – 929-53.2015.5.21.0016, 8th Panel, Rapporteur: Marcio Eurico Vitral Amaro, DEJT 12/12/2016, ARR – 1099-48.2015.5.17.0012, 8th Panel, Rapporteur: Dora Maria da Costa, DEJT: 12/02/2016, AIRR – 2099-11.2014.5.12.0060, 8th Panel, Rapporteur: Dora Maria da Costa, DEJT: 10/28/2016, AIRR – 421-32.2015. 5.21.0041, 3rd Panel, Rapporteur: Mauricio Godinho Delgado, DEJT: 09/30/2016, RO – 327-27.2013.5.23.0000, Subsection II Specialized in Individual Disputes, Rapporteur: Alberto Luiz Bresciani de Fontan Pereira, DEJT: 05/08/2016, ARR – 157400-86.2011.5.17.0004, 8th Panel, Rapporteur: Maria Cristina Irigoyen Peduzzi, DEJT: 05/06/2016, AIRR – 11022-39.2014.5.18.0131, 8th Panel, Rapporteur: Dora Maria da Costa, DEJT: 03/04/2016, AIRR – 207-19.2012.5.19.0262, 1st Panel, Rapporteur: Luiza Lomba, DEJT: 12/18/2015, ED-RR – 2438-53.2012.5.03.0136, 2nd Panel, Rapporteur: Claudio Armando Couce de Menezes, DEJT: 11/27/2015, RR – 144000-40.2009.5.01.0062, 2nd Panel, Rapporteur: Claudio Armando Couce de Menezes, DEJT: 11/27/2015, RR – 1130 -69.2010.5.02.0462, 2nd Panel, Rapporteur: Claudio Armando Couce de Menezes, DEJT: 11/27/2015, ED-ARR – 988-20.2013.5.03.0143, 2nd Panel, Rapporteur: Claudio Armando Couce de Menezes, DEJT: 11/27/2015, ED-RR – 1050-43.2011.5.05.0024, 2nd Panel, Rapporteur: Claudio Armando Couce de Menezes, DEJT: 11/27/2015, RR – 651-78.2011.5.01.0071, 2nd Panel, Rapporteur: Claudio Armando Couce de Menezes, DEJT: 11/27/2015, ARR – 394-21.2012.5.01.0038, 2nd Panel, Rapporteur: Claudio Armando Couce de Menezes, DEJT: 10/29/2015, ARR – 988- 20.2013.5.03.0143, 2nd Panel, Rapporteur: Claudio Armando Couce de Menezes, DEJT: 10/09/2015, RR – 1050-43.2011.5.05.0024, 2nd Panel, Rapporteur: Claudio Armando Couce de Menezes, DEJT: 02 /10/2015, RR – 1768-86.2012.5.02.0089, 2nd Panel, Rapporteur: Claudio Armando Couce de Menezes, DEJT: 10/02/2015, RR – 135700-18.2009.5.01.0021, 2nd Panel, Rapporteur: Claudio Armando Couce de Menezes, DEJT: 10/02/2015, RR – 698-81.2012.5.09.0657, 2nd Panel, Rapporteur: Claudio Armando Couce de Menezes, DEJT: 09/25/2015, RR – 213-55.2013.5.24.0002 , 2nd Panel, Rapporteur: Claudio Armando Couce de Menezes, DEJT: 09/25/2015, AIRR – 20711-94.2013.5.04.0402, 2nd Panel, Rapporteur: Claudio Armando Couce de Menezes, DEJT: 09/25/2015, RR – 2438-53.2012.5.03.0136, 2nd Panel, Rapporteur: Claudio Armando Couce de Menezes, DEJT: 09/25/2015, RR – 734-11.2012.5.04.0028, 2nd Panel, Rapporteur: Claudio Armando Couce de Menezes, DEJT: 09/25/2015, RR – 482-42.2012.5.01.0076, 2nd Panel, Rapporteur:

responsible for maintaining a healthy environment and to demand that they promote all means capable of guaranteeing the safety of worker's physical and mental health.

The work environment, as it should be, brings the work activity as a cornerstone for its identification, since the place, without the worker carrying out their activities there, can be conceptualized either as a natural environment or as an artificial environment, but not as a work environment. The employer's establishment, when work is carried out there, can be identified as a work environment, but if there were no activities at that location, it would be classified as an artificial or, at most, cultural environment, depending on the historical value of the building.

It is clear, therefore, that human activity assumes an essential role in the conceptualization of the work environment. It should be noted that the social value of work is the foundation of the Republic provided for in art. 1 of the Constitutional Charter and foundation of the economic order, pursuant to art. 170 of the same constitutional diploma and the centrality of the worker is nothing more than the manifestation of human preponderance in the work environment.

It is not overlooked that workers are also holders of dignity, the same provided for in art. 1, III, of the Federal Constitution, to the exact extent that, before

teur: Claudio Armando Couce de Menezes, DEJT: 09/25/2015, AIRR – 1593-35.2011.5.02.0087, 2nd Panel, Rapporteur: Claudio Armando Couce de Menezes, DEJT: 06/26/2015, AIRR – 69800-37.2008.5.01.0017 , 2nd Panel, Rapporteur: Claudio Armando Couce de Menezes, DEJT: 05/29/2015, AIRR – 495-30.2010.5.01.0070, 2nd Panel, Rapporteur: Claudio Armando Couce de Menezes, DEJT: 05/08/2015, AIRR – 40301-47.2013.5.13.0001, 2nd Panel, Rapporteur: Claudio Armando Couce de Menezes, DEJT: 03/31/2015, RR – 12-35.2012.5.09.0093, 2nd Panel, Rapporteur: Claudio Armando Couce de Menezes, DEJT: 03/31/2015, RR – 886-07.2012.5.04.0304, 2nd Panel, Rapporteur: Claudio Armando Couce de Menezes, DEJT: 03/31/2015, AIRR – 1485-61.2012.5.15.0102, 2nd Panel, Rapporteur: Claudio Armando Couce de Menezes, DEJT: 03/31/2015, AIRR – 1120-34.2012.5.14.0005, 2nd Panel, Rapporteur: Claudio Armando Couce de Menezes, DEJT: 12/19/2014, AIRR – 36100-74.2009.5.19.0004, 2nd Panel, Rapporteur: Claudio Armando Couce de Menezes, DEJT: 12/19/2014, AIRR – 2419-28.2012.5.03.0110, 2nd Panel, Rapporteur: Claudio Armando Couce de Menezes, DEJT: 12/19/2014, RR – 211800-33.2006.5.02.0072 , 2nd Panel, Rapporteur: Claudio Armando Couce de Menezes, DEJT: 11/28/2014, RR – 2430-62.2012.5.02.0085, 2nd Panel, Rapporteur: Claudio Armando Couce de Menezes, DEJT: 11/28/2014, AIRR – 92-58.2012.5.02.0201, 2nd Panel, Rapporteur: Claudio Armando Couce de Menezes, DEJT: 10/31/2014, RR – 273000-93.2009.5.02.0053, 2nd Panel, Rapporteur: Claudio Armando Couce de Menezes, DEJT: 10/31/2014, RO – 9121-90.2011.5.02.0000, Special Body, Rapporteur: Guilherme Augusto Caputo Bastos, DEJT: 09/12/2014, AIRR – 63900-74.2009.5.19.0005, 2nd Panel, Rapporteur: Jose Roberto Freire Pimenta, DEJT: 06/20/2014, RO – 6250-87.2011.5.02.0000, Section Specialized in Collective Bargains, Rapporteur: Katia Magalhaes Arruda, DEJT: 02/21/2014, AIRR – 80600-56.2012.5.17.0012, 3rd Panel, Rapporteur: Alberto Luiz Bresciani de Fontan Pereira, DEJT: 09/20/2013, AIRR – 143100-90.2009.5.16.0013, 2nd Panel, Rapporteur: Jose Roberto Freire Pimenta, DEJT: 08/02/2013, RR – 125600-49.2005.5.15.0087, 4th Panel, Rapporteur: Maria de Assis Calsing, DEJT: 06/07/2013, ARR – 139000-97.2004.5.15.0077, 3rd Panel, Rapporteur: Mauricio Godinho Delgado, DEJT: 10/31/2012, RR – 167500-50.2004.5.15.0021, 8th Panel, Rapporteur: Marcio Eurico Vitral Amaro, DEJT: 12/02/2011.

being workers, they are human beings, the center of the entire legal system and holders of intrinsic qualities.

The concern with the worker figure materializes the humanization of work, without prejudice to the concern with the economic aspects since, according to the wording of arts. 1, IV, and art. 170, caput, of the Federal Constitution, the capitalist economic order privileges free initiative, which must harmonize with the social value of work.

The work environment has a diffuse nature, since it does not have an identifiable holder, and may include all people and not just workers. An unbalanced work environment corrupts the health not only of workers, but also of customers, business partners and, ultimately, of the entire community.

Based on art. 225 of the Federal Constitution, it is possible to state that everyone has the duty to preserve it, considering the principle of ubiquity; although it is possible to identify in the service taker the preponderant role in this protection before the existence of the employers' power of direction and inspection.

Thus, due to the breadth of the role of work in a person's life, the work environment also includes interpersonal relationships. This is because, according to the aforementioned concept of Fiorillo (2020, p. 83), its "balance is based on the environment's healthiness and absence of agents that compromise workers' physical and mental safety".

Therefore, the duty to ensure a healthy work environment must also include interpersonal relationships that may compromise workers' physical and mental health.

The whole set of physical, chemical and biological conditions, laws, influences and interactions that surrounds the worker and may interfere with their quality of life and which, therefore, is included in the concept of work environment, suffers the incidence of constitutional provision of art. 225.

The work environment includes not only employees, who are those who provide services in a subordinate manner, but also other types of workers, such as the self-employed, casual workers, as well as public servants. This is because not only employees have the right to have a healthy quality of life, but all those who provide their services to others, since the provision of art. 225 of the Federal Constitution is clear in the sense that everyone has the right to a balanced environment.

Traditionally, the performance of tasks happened in the place where the service taker had their production goods, when they directly exercised their power of direction and supervision. With the modernization of life, however, this labor relationship suffered the impacts of virtualization and the telematic means of

communication began to be used as instruments for labor manifestations.

Here comes the digital environment which, according to Fiorillo (2016, p. 6), is about

[...] a specific dimension of the cultural environment, that is, the digital environment, as it is an instrument for expressing the identity and values of the Brazilian people. Furthermore, this environment is at the same time an object of law and an instrument for the realization of human rights.

The cultural environment finds a constitutional seat and is conceptualized by the constituent in art. 216 of the Federal Constitution (BRASIL, 1988):

Art. 216. The Brazilian cultural heritage consists of the assets of a material and immaterial nature, taken individually or as a whole, which bear reference to the identity, action and memory of the various groups that form the Brazilian society, therein included:

- I – forms of expression;
- II – ways of creating, making and living;
- III – scientific, artistic and technological creations;
- IV – works, objects, documents, buildings and other spaces intended for artistic and cultural expressions;
- V – urban complexes and sites of historical, natural, artistic, archaeological, paleontological, ecological and scientific value.

From the perspective of the digital environment, the forecast on forms of expression, ways of creating, making and living stand out, since the use of telematic means of communication has altered human relationships and their way of living, creating and expressing themselves, being, in the same measure, object and instrument of human creation. It is clear, therefore, that the digital environment is a manifestation of true human creation and its free expression, with all its characteristic fluidity.

According to Fiorillo (2015, p. 156):

The digital environment, as a consequence, establishes within the scope of our positive law duties, rights, obligations and regime of responsibilities inherent to the manifestation of thought, creation, expression and information carried out by the human person with the help of computers (art. 220 of the FC) within the full exercise of the cultural rights guaranteed to Brazilians and foreigners residing in the Country (arts. 215 and 5 of the FC) guided by the fundamental principles of the Federal Constitution (arts. 1 to 4).

Digital development has changed the way of life and the work relationship has not been oblivious to this change. The work, which was once carried out on the service taker's property, can now be performed from anywhere, at any time.

However, alongside the difficulty of satisfactorily identifying the digital work environment, its limits and characteristics, there is the difficulty of identifying to what extent this environment is a cause of illness and what is the cost of illness caused by remote work.

It is necessary to repeat, however, that the legislation makes no distinction between work carried out inside or outside the employer's establishment, since it is not up to the interpreter to distinguish where the legislators have equated. Especially because when they wanted to create distinctions, they did it clearly, for example, the provision of art. 62 of the CLT, which excluded home office workers from the legislation that regulates working hours. Even though the constitutionality of the device is discussed in view of the provisions of art. 7, XIII, of the Federal Constitution, the fact is that the device remains valid in the Brazilian legal system.

In this sense, there seems to be no doubt that telecommuting causes the concept of the work environment to spread to every place where the workers perform their tasks, and reaches the digital work environment, with no distinction being made if this takes place in the establishment or remotely. This is due to the provisions of art. 6 of the CLT and art. 3, I, of Law no. 6,938/81.

It should be noted that, due to the need to guarantee maximum constitutional effectiveness, such expansion of the concept is necessary, since this is the only way to guarantee the appreciation of human work and the dignity of the human person, grounds provided for in arts. 1 and 170 of the Constitutional Charter.

Having established this premise, that telework is not distinguished from work within the employer's establishment for the purpose of identifying the work environment, it is certain that the constitutional regulation provided for in art. 225 must be observed, as well as the other norms that regulate the use of environmental goods.

2 HEALTH AS AN ENVIRONMENTAL GOOD

Workers' health is a fundamental right that makes up the minimum vital floor and finds its constitutional seat in arts. 6 and 196. Right linked to the right to a dignified life, it assumes importance as an environmental good, since the Federal Constitution, in its art. 225, provides that "All have the right to an ecologically

balanced environment, which is an asset of common use and essential to a healthy quality of life, and both the Government and the community shall have the duty to defend and preserve it for present and future generations” (BRASIL, 1988).

Thus, the healthy quality of life envisaged in the system erects the human being as a gravitational point and states that health is a fundamental good for a dignified life to be guaranteed, using the concept of health not only as the absence of disease or infirmity, but the complete physical, mental and social well-being, a concept brought by the WHO.

According to Fiorillo's understanding (2018, p. 1):

Thus, envisaged as a constitutional right that is part of the Minimum Vital Floor (Article 6 of the FC) and framed within the scope of the plural concept of the environment accepted by the Federal Supreme Court (ADI 3540), environmental health has its legal framework structured by constitutional environmental law and evidently by its general and specific principles.

This classification of health as an environmental good, subject to all the legal framework typical of this legal nature, has already been recognized in judgments by the STF, for example, in Extraordinary Appeal 627,189, in which the Constitutional Court adopted the precautionary principle to limit the fruition of the initiative concessionaires of public electricity distribution service in view of the possibility of damage to the health of the population.

The classification of health as an environmental good, according to the teachings of Celso Fiorillo, can be extracted from its characteristic of being a diffuse right, which cannot be attributed to a single person, not being a private right, nor a public right, but in the common use of the people; as well as being essential for a healthy quality of life.

Health is included in the conceptualization of diffuse rights made by Law no. 8.078/90, in its art. 81, I: transindividual, indivisible rights, owned by undetermined persons connected by factual circumstances. The Federal Constitution also provides, in its art. 196, that it is everyone's right.

Furthermore, the dignity of the human person was erected as the foundation of the Republic, as provided for in art. 1, III, of the FC, and the objective of that same Republic is to promote the good of all. From this perspective, it is not possible to think of a quality life without the rights provided for in art. 6 of the Federal Constitution, including health, being present. They are the minimum vital floor for human beings to assume, indeed, their prominent role in the legal system.

According to Fiorillo (2020, p. 162):

In Brazil, however, and this is a curious aspect in the historical development of our

law, the Federal Constitution of 1988, in a paradigmatic way, not only defines what is an environmental good, but also allows its legal nature to be verified.

Indeed.

Article 225 of the Federal Constitution establishes, as we have already had the opportunity to state, that the ecologically balanced environment is a good for common use by the people and essential to a healthy quality of life. Thus, by enunciating it as essential to quality of life, the device accepted the concept of environment established in the National Environmental Policy (Law no. 6.938/81), that is, “the group of conditions, principles, influences and interactions of a physical, chemical and biological nature that enables, shelters and rules all forms of life” (art. 32, I), within a concept that determines a close and correct connection between environmental protection and the defense of the human person.

The expression “healthy quality of life” makes the interpreter safely associate the right to life with the right to health (to the exact extent of what Malinconico maintains in his classic work 210 and even Ruiz 211), within a vision of Brazilian legislation intended to prevent the environment from becoming just a matter of survival, but effectively “something else” within a parameter, linking the right to life in the face of health protection with quality and dignity standards.

It should be noted that OIT Convention 155, in its art. 3, “e”, provides that “the term health, in relation to work, indicates not merely the absence of disease or infirmity; it also includes the physical and mental elements affecting health which are directly related to safety and hygiene at work” (OIT, 1981). It is clear, therefore, that the worker’s mental health must also be protected.

In fact, workers’ safety and health has been the object of concern of the International Labor Organization since its Constitution, in 1919, and this concern is clear when reading the preamble of the Constitution of the International Labor Organization, when it mentions

And whereas conditions of labor exist involving such injustice, hardship and privation to large numbers of people as to produce unrest so great that the peace and harmony of the world are imperiled; and an improvement of those conditions is urgently required; as, for example, by the regulation of the hours of work, including the establishment of a maximum working day and week, the regulation of the labor supply, the prevention of unemployment, the provision of an adequate living wage, the protection of the worker against sickness, disease and injury arising out of his employment, the protection of children, young persons and women, provision for old age and injury, protection of the interests of workers when employed in countries other than their own, recognition of the principle of equal remuneration for work of equal value, recognition of the principle of freedom of association, the organization of vocational and technical education and other measures (OIT, 1946).

Likewise, decent work is essential for a healthy quality of life, as, for most workers, the time spent in the work environment far exceeds the time devoted to other activities.

For a long time, work has been a factor in illness, and Brazil is the 4th country in the number of absences due to work-related illnesses, according to data from the Digital Observatory of Occupational Health and Safety developed by the Public Ministry of Labor together with the ILO. Traditionally, these diseases were related to the worker's physical illness. However, currently, an increase in the rate of absences due to work-related mental illnesses has been noticed.

Sick leave has a major economic impact. According to data from that same report, annually, the economy loses 4% of the Gross Domestic Product due to work-related illnesses and accidents, without prejudice to human loss. In the Municipality of Rio de Janeiro, in 2020, the expenditure with the granting of sick pay for accidents at work reached the level of \$ 46.8 million *reais*.

In addition, a degraded work environment reduces productivity, increases absenteeism and job instability.

Thus, the need to ensure a healthy working environment, alongside privileging quality human life, the ultimate goal of the entire system, guarantees economic development, insofar as it generates savings in public resources. Thus, if workers' health is an environmental good for common use by the people and essential to a healthy quality of life, its use is not free, with serious restrictions in the Federal Constitution, in particular by art. 7, XXII and by art. 225. Furthermore, art. 19, § 1, of Law no. 8.213/91 provides that "The company is responsible for the adoption and use of collective and individual measures for the protection and safety of the worker's health" and § 3, that "It is the duty of the company to provide detailed information on the risks of the operation to be carried out and of the product to be manipulated" (BRASIL, 1991).

Indeed. If recent research indicates that telework, especially that which depends on the use of telematic means of communication, acts as a factor that causes illness at work, it is necessary for companies to be held accountable not only for these illnesses, when they have already happened, but also for the prevention of its occurrence.

For this to be possible, it is necessary to accurately identify which illnesses are caused by this type of work and to what extent the work is its cause. The difficulty currently found is that, according to the research indicated above, the main illnesses that arise with this type of work are psychological illnesses, such as anxiety and depression.

These diseases are not listed by the National Institute of Social Security as occupational diseases, given their multifactorial character and their characterization as such depends on the application of the rule provided for in art. 20, § 2, of Law no. 8,213/91. But such characterization depends on technical expertise, which ends up leading to underreporting of work-related psychological illnesses.

3 EMPLOYER'S RESPONSIBILITY

The Federal Constitution of 1988, in its art. 225, § 3, clearly provides that “Procedures and activities considered as harmful to the environment shall subject the infractors, be they individuals or legal entities, to penal and administrative sanctions, without prejudice to the obligation to repair the damages caused” (BRASIL, 1988). Along the same lines, according to art. 3 of the National Environmental Policy, it is understood by

III – Pollution: the degradation of the environmental quality resulting from activities that directly or indirectly:

a) Harm society's health, security and well being;
and it is understood by

IV – Polluter: The physical or legal person, of public or private right, that is directly or indirectly responsible for any activity resulting in the degradation of environmental quality (BRASIL, 1981).

Being work a factor of illness, by constitutional and legal provision, pollution must be recognized and the employer – as a polluting agent – will be responsible for the costs that this environmental degradation caused or causes. This is not to say that the employer is allowed to drain all of their workers' health and ultimately pay for such use, as if health could be identified as a consumable input. On the contrary.

What is advocated is that the employer be held responsible for all costs of preventive measures. But if, despite all the measures existing in the state of the art are adopted and it is not possible to prevent the degradation of health, the employer should be held responsible for the repair costs. This is the best interpretation that can be extracted from articles 7, XXII, art. 225 of the Federal Constitution, art. 19, § 1 and § 3 of Law no. 8,213/91.

In this sense, Fiorillo's lesson (2020, p. 200), for whom

[...] at first, the polluter is obliged to bear the costs of preventing damage to the environment that their activity may cause. It is up to them to use the instruments necessary to prevent damage. In a second scope orbit, this principle clarifies that, *in*

the event of damage to the environment due to the activity carried out, the polluter will be responsible for repairing it.

Furthermore, the polluter-pays principle has been officially provided for since 1972, in OECD Recommendation C(72)128², when it was identified, at that time, as an economic principle, insofar as the polluter, when not held responsible for the costs of its degradation, ends up winning the competition in an unfair way, because the costs of its production will be lower.

Thus, if there is no attribution of responsibility to the employer for the costs of studying environmental risks and health protection measures, it is certain that the principle of free competition provided for in art. 170, IV, of the Federal Constitution, in its loyalty sense, will be threatened, since production costs will be lower.

The principle of free competition

[...] is an instrumental freedom insofar as it is necessary for free enterprise to be exercised in accordance with the constitutional economic order. Free competition, as a constitutional principle of the economic order, is a freedom considered as essential for the legitimacy of freedom of economic initiative. That is, the Constitution presumes that free enterprise only acts towards the purposes of the economic order when the principle of free competition is respected. [...]. This principle means that the market must be governed by a capable competitive logic and allow the economic order to produce positive social effects; the effects that the Constitution declares to be the necessary purpose of the economic order it enshrines (COSTA, 1998, p. 4).

With regard to companies, this principle would act in a positive way, since economic agents would be prohibited from acting against the regular game of the free market and, here, the doctrine usually considers that the provision of art. 173, § 4, of the Federal Constitution acts as a guideline. Thus, economic agents must abstain from any practice aimed at dominating markets, eliminating competition and arbitrarily increasing profits.

Free competition is also considered a facet of the right to freedom, insofar as it guarantees the economic agent free action, choosing the necessary means, among those legally available, to attract its clientele. On the other hand, this

² The principle to be used for allocating costs of pollution prevention and control measures to encourage rational use of scarce environmental resources and to avoid distortions in international trade and investment is the so-called "Polluter-Pays Principle". This principle means that the polluter should bear the expenses of carrying out the above-mentioned measures decided by public authorities to ensure that the environment is in an acceptable state. In other words, the cost of these measures should be reflected in the cost of goods and services which cause pollution in production and/or consumption. Such measures should not be accompanied by subsidies that would create significant distortions in international trade and investment.

clientele is also free to consume from the supplier that suits them best, without any interference from the State in this choice.

It is necessary, here, to make a parallel between this principle and the foundation of valuing human work, provided for in the caput of art. 170 of the Federal Constitution and with the principle of full employment.

This is because, undeniably, the cost of labor greatly impacts the development of economic activity and is perhaps the point of greatest economic tension, as it puts two important social actors in an antagonistic situation: the employee and the employer.

Thus, it is common for entrepreneurs to intend to reduce the economic impact of labor relations, intending that the State deregulate and make labor relations more flexible. Furthermore, in certain cases, there is even evasion of existing rights.

The Constitution itself imposes the limit of this deregulation and flexibility, insofar as the original Constituent intended to guarantee decent work to workers and the pursuit of full employment, the former only being possible when all the minimum rights provided for in art. 7 of the Federal Constitution are guaranteed.

In addition, the economic order erects the valuation of human work as a foundation and art. 1 of the Constitutional Charter, the dignity of the human person as the foundation of the Brazilian Republic.

Withholding labor rights is capable of interfering with free competition, as it creates distorted advantages, as those who withhold labor rights produce more at a lower cost, impacting the competitive economic balance. It is for no other reason that the WTO has identified the evasion of labor rights as a practice of social dumping.

Otherness is one of the most important factual-legal elements of the employment relationship, since art. 2 of the CLT conceptualizes the employer as “the company, individual or collective, which, assuming the risks of economic activity, admits, remunerates and directs the personal provision of service” (BRASIL, 1943). These risks of the enterprise cannot be attributed to the employee, under penalty of injury to the foundations of the Economic Order provided for in art. 170 of the Constitutional Charter, especially the foundation of valuing human work.

Indeed. If the risks of the enterprise are borne by the employer and if, according to the Brazilian constitutional order, those who pollute must be held responsible for the costs of this pollution, there is no doubt that it is up to the employer to investigate and identify the risks borne by teleworkers; as well as it

is up to the employer to adopt all the necessary measures to eliminate and reduce environmental risks. The purpose is clear: to ensure that the workers' health is preserved, so that they have a healthy quality of life.

CONCLUSION

The constituent was careful to establish what are the fundamentals of the Republic (art. 1 of the FC), what are its objectives (art. 3 of the FC) and how the Brazilian Economic Order is oriented (art. 170). Thus, the employer is free to carry out their activities, since free initiative is the foundation of the Republic (art. 1, IV, FC) and a principle of the Economic Order (art. 170, IV, FC), but it cannot fail to observe that the social value of work and the dignity of the human person (art. 1, III and IV, FC) are also foundations of the Republic and that the Economic Order aims to guarantee a dignified existence for all (art. 170, caput, FC).

Health boasts the quality of being an environmental good and its use finds restrictions in the foundations of the Republic (art. 1 of the FC), its objectives (art. 3 of the FC), in the foundations of the Economic Order and its objectives (art. 170, caput, FC), in its principles (art. 170, I to IX, FC); and notably in the dignity of the human person (art. 1, III, FC).

Therefore, it is certain that the function of the company is the production of goods and services, with the specific purpose of generating profits and wealth, for itself or for others, according to the limits established by the Federal Constitution, especially by the foundations and objectives of the Republic and by the foundations, purposes and principles of the Economic Order.

The defense and preservation of the environment is one of the limits established by the constituent itself (art. 225 of the FC) for business activities; the employers being responsible for adopting measures that favor the protection of the health of their employees, since, through the employers' power of direction and inspection, they have the power to organize the work environment, creating conditions for eliminating any environmental risk that may compromise the workers' health. Even if it is not possible to eliminate, protective measures must be adopted. This is the constitutional provision contained in art. 7, XXII, FC.

In addition, when the work environment contains agents capable of compromising workers' health, the concepts of pollution and polluter provided for in Law no. 6,938/81 apply, since art. 3 of the aforementioned Law identifies the environment as the "the group of conditions, principles, influences and interactions of a physical, chemical and biological nature that enables, shelters and rules all forms of life" (BRASIL, 1981).

Therefore, it is up to the employer to create conditions for all environmental risks to be well identified and for all preventive measures to be adopted, with the aim of safeguarding workers' health.

It should be noted that the legislation does not create a distinction between face-to-face work and telework and the Federal Constitution is clear in stating that a balanced environment is everyone's right (art. 225, FC).

In order for the health of all workers to be guaranteed, it is important to identify which environmental risks are perceived by teleworkers and which occupational diseases are related to this type of employment.

Thus, in order to ensure a healthy quality of life for workers, as provided for in art. 225 of the Federal Constitution, it is first necessary to guarantee their right to health, an environmental asset par excellence.

Furthermore, the cost of labor is an important aspect considered for increasing or decreasing the profits perceived by the companies, and not attributing to the polluter-employer the responsibility for the adoption of studies capable of identifying the environmental risks and measures to protect worker's health is to compromise free competition and fair competition, a principle of the Economic Order enshrined in art. 170, IV, of the Constitutional Charter.

REFERENCES

ADERALDO, I. L.; ADERALDO, C. V. L.; LIMA, A. C. Aspectos críticos do teletrabalho em uma companhia multinacional. *Cad. EBAPE.BR*, Rio de Janeiro, v. 15, edição especial, artigo 8, set. 2017.

BARROS, A. M.; SILVA, J. R. G. Percepções dos indivíduos sobre as consequências do teletrabalho na configuração home-office: estudo de caso da Shell Brasil. *CADERNOS EBAPE. BR*, Rio de Janeiro, v. 8, n. 1, artigo 5, mar. 2010.

BOONEN, E. M. As várias faces do teletrabalho. *E & G Economia e Gestão*, Belo Horizonte, v. 2-3, n. 4-5, p. 106-127, dez. 2002/jul. 2003.

BRASIL. [Constituição (1988)]. *Constituição da República Federativa do Brasil de 1988*. Brasília, DF: Presidência da República, [2021]. Available from: http://www.planalto.gov.br/ccivil_03/constituicao/constituicao.htm. Access on: Nov. 30, 2021.

BRASIL. *Lei n. 13.979, de 6 de fevereiro de 2020*. Dispõe sobre as medidas para enfrentamento da emergência de saúde pública de importância internacional decorrente do coronavírus responsável pelo surto de 2019. Available from: http://www.planalto.gov.br/ccivil_03/_ato2019-2022/2020/lei/l13979.htm. Access on: Nov. 30, 2021.

BRASIL. *Lei n. 12.551, de 15 de dezembro de 2011*. Altera o art. 6º da Consolidação das Leis do Trabalho (CLT), aprovada pelo Decreto-Lei n. 5.452, de 1º de maio de 1943, para equiparar os efeitos jurídicos da subordinação exercida por meios telemáticos e informatizados à exercida por

meios pessoais e diretos. Available from: http://www.planalto.gov.br/ccivil_03/_ato2011-2014/2011/lei/l12551.htm. Access on: Mar. 23, 2023.

BRASIL. *Lei n. 6.938, de 31 de agosto de 1981*. Dispõe sobre a Política Nacional do Meio Ambiente, seus fins e mecanismos de formulação e aplicação, e dá outras providências. Available from: http://www.planalto.gov.br/ccivil_03/leis/l6938.htm. Access on: Nov. 30, 2021.

BRASIL. *Decreto-Lei n. 5.452, de 1º de maio de 1943*. Aprova a Consolidação das Leis do Trabalho. Available from: http://www.planalto.gov.br/ccivil_03/decreto-lei/del5452.htm. Access on: Nov. 30, 2021.

BRASIL. *Lei n. 14.442, de 2 de setembro de 2022*. Dispõe sobre o pagamento de auxílio-alimentação ao empregado e altera a Lei n. 6321, de 14 de abril de 1976, e a Consolidação das Leis do Trabalho, aprovada pelo Decreto-Lei n. 5454, de 1º de maio de 1943. Available from: https://www.planalto.gov.br/ccivil_03/_Ato2019-2022/2022/Lei/L14442.htm. Access on: Mar. 23, 2023.

BRASIL, *Lei n. 8.213/91, de 24 de julho de 1991*. Dispõe sobre os Planos de Benefícios da Previdência Social e dá outras providências. Available from: https://www.planalto.gov.br/ccivil_03/leis/l8213cons.htm. Access on: Mar. 17, 2023.

BRASIL. SUPREMO TRIBUNAL FEDERAL. *RE 627189 / SP – SÃO PAULO RECURSO EXTRAORDINÁRIO* Relator(a): Min. DIAS TOFFOLI. Julgamento: 08/06/2016 Órgão Julgador: Tribunal Pleno Publicação ACÓRDÃO ELETRÔNICO. REPERCUSSÃO GERAL – MÉRITO DJe-066 DI VULG 31-03-2017 PUBLIC 03-04-2017.

CANOTILHO, J. J. *et al. Comentários à Constituição do Brasil*. 2. ed. São Paulo: Saraiva, 2018.

COSTA, M. M. O Princípio Constitucional De Livre Concorrência *Revista do IBRAC – Direito da Concorrência, Consumo e Comércio Internacional*, São Paulo, v. 5/1998, p. 8 – 27, Jan / 1998, DTR\2011\4888.

FILARDI, F.; CASTRO, R. M. P.; ZANINI, M. T. F. Vantagens e desvantagens do teletrabalho na administração pública: análise das experiências do Serpro e da Receita Federal. *Cad. EBAPE.BR*, Rio de Janeiro, v. 18, n. 1, jan./mar. 2020.

FIORILLO, C. A. P. *Princípios constitucionais do Direito da Sociedade da Informação*: a tutela jurídica do meio ambiente digital. São Paulo: Saraiva. 2015.

FIORILLO, C. A. P.; WALDMAN, R. L. Fundamentos Constitucionais do Meio @mbiente Digit@l no Direito Brasileiro em face da sociedade da informação e sua relação com os Direitos Humanos. *CONPEDI*, Florianópolis, 2016. Available from: <http://conpedi.danilolr.info/publicacoes/910506b2/1z17fce5/43Vvaa9UGn4j8l15.pdf>. Access on: Mar. 20, 2023.

FIORILLO, C. A. P. Tutela Jurídica da Saúde Ambiental em Face do Sistema Econômico Constitucional Brasileiro. *RJLB*, Lisboa, ano 4, n. 5, 2018. Disponível em: https://www.cidp.pt/revistas/rjlb/2018/5/2018_05_0605_0633.pdf. Access on: Mar. 20, 2023.

FIORILLO, C. A. P. *Curso de Direito Ambiental Brasileiro*. 20. ed. São Paulo: Saraiva, 2020.

LEITE, C. H. B. *Curso de Direito do Trabalho*. 13. ed. São Paulo: Saraiva, 2021.

LEMOS, A. H. C.; BARBOSA, A. O; MONZATO, P. P. Mulheres em home office durante a pandemia da Covid-19 e as configurações do conflito trabalho-família. *Revista de Administração de Empresas. FGV-EAESP*, São Paulo, v. 60, n. 6, p. 388-399, nov./dez. 2020.

MACHEMER, T. 'Fadiga do Zoom' pode perdurar por anos. Veja como lidar. *National Geographic*, 26 abr. 2021. Disponível em: <https://www.nationalgeographicbrasil.com/ciencia/2021/04/fadiga-do-zoom-pode-perdurar-por-anos-veja-como-lidar>. Access on: Mar. 20, 2023

MARANHÃO, N. A ideia de solidariedade intergeracional aplicada ao meio ambiente do trabalho – reflexões e possibilidades. *Revista dos Tribunais*, São Paulo, v. 1007/2019. p. 143-162. set. 2019.

MPT; OIT. *Observatório de Segurança e Saúde no Trabalho: Promoção do Meio Ambiente do Trabalho Guiada por Dados*. Available from: <https://smartlabbr.org/sst>. Access on: Aug. 6, 2021.

OECD – ORGANIZAÇÃO PARA A COOPERAÇÃO E DESENVOLVIMENTO ECONÔMICO. *Recommendation of the Council on Guiding Principles concerning International Economic Aspects of Environmental Policies*. 26 May 1972. Available from: <https://legalinstruments.oecd.org/en/instruments/OECD-LEGAL-0102>. Access on: Nov. 30, 2021.

OIT – ORGANIZAÇÃO INTERNACIONAL DO TRABALHO. *Convenção 155 – Segurança e Saúde dos Trabalhadores*. Available from: https://www.ilo.org/brasilia/convencoes/WCMS_236163/lang--pt/index.htm. Access on: Aug. 4, 2021.

OIT – ORGANIZAÇÃO INTERNACIONAL DO TRABALHO. *Constituição da Organização Internacional do Trabalho e seu anexo (Declaração de Filadélfia)*. Available from: https://www.ilo.org/brasilia/conheca-a-oit/WCMS_336957/lang--pt/index.htm. Access on: Mar. 20, 2023.

OLTRAMARI, A. P.; PICCININI, V. C. Reestruturação produtiva e formas de flexibilização do trabalho. *O&S*, v. 13, n. 36, p. 85-106, jan./mar. 2006.

SILVA, L. A. M. G; ROLEMBERG, J. C. A proteção ao meio ambiente do trabalho: o direito ao bem-estar do trabalhador. *Revista de Direito do Trabalho*, São Paulo, v. 146/2012, p. 375-386, abr./jun. 2012.

TOBIAS, P. B. Brasileiros estão mais estressados no home office. *LinkedIn*. Available from: <https://www.linkedin.com/news/story/brasileiros-est%C3%A3o-mais-estressados-no-home-office-4836924/>. Access on: Nov. 30, 2021.

ABOUT THE AUTHORS

Celso Antonio Pacheco Fiorillo

PhD and Master in Social Relations Law from the Pontifícia Universidade Católica de São Paulo (PUC-SP), São Paulo/SP, Brazil. Full professor and researcher at the Doctorate/Master's Program in Business Law at the Universidade Nove de Julho (UNINOVE), São Paulo/SP, Brazil and at the Specialization Course in Agribusiness Law at the Universidade Federal do Mato Grosso (UFMT), Cuiabá/MT, Brazil. Academic Director of the Congreso de Derecho Ambiental Contemporáneo España/Brazil at the Universidad de Salamanca (USAL), Salamanca, Spain. Visiting Professor at the Escola Superior de Tecnologia do Instituto Politécnico de Tomar (IPT), Tomar, Portugal. Militant lawyer in the field of Environmental Business Law.

Natalia dos Santos Medeiros

Master's student in Law at the Universidade Nove de Julho (UNINOVE). Graduated in Law from the

Universidade Estadual de Londrina (UEL). Labor Judge of the Regional Labor Court of the 1st Region (TRT1), Rio de Janeiro/RJ, Brazil.

Authors contributions

Both authors actively participated in research and discussions for the preparation of this article, as well as its review.

How to cite this article (ABNT):

MEDEIROS, NS; FIORILLO, CAP The digital work environment and workers' health. *Veredas do Direito*, Belo Horizonte, v. 20, e202359, 2023. Available from: <http://www.domhelder.edu.br/revista/index.php/veredas/article/view/2359>. Access on: Month. day, year.