The emergence and impacts of home office strategy during the pandemic scenario of COVID-19

Rick Carneiro de Menezes¹, Aline Castro Jansen²

¹Postgraduate Student in Labor Safety Engineering - Estácio de Sá Universities, Brazil.

Abstract—The pandemic outbreak of COVID-19 triggered a profound economic crisis of global proportions, due to measures to contain the transmission of the virus causing the disease, being social isolation and, in more severe situations, the complete closure of non-essential activities (lockdown). In order to survive this scenario, many organizations began to adopt remote work as an alternative to continue their activities. However, this new way of working could not be properly structured and planned due to the urgency of such adaptation. Thus, the aim of this study is to discuss the advantages and challenges of the home office emergence due to the pandemic outbreak of Coronavirus. Among the main benefits are the flexibility and digital learning of professionals, and the technological transformation of organizations. The prominent limitations were the lack of infrastructure, the extension of the working day and the tenuous limit between professional and personal life.

Keywords—Coronavirus, crisis, labor, lockdown, remote work.

I. INTRODUCTION

The first months of 2020 demonstrated that the year would be atypical on a global scenario. The current health and economic crisis that has been impacting this year's development has emerged from the rapid spread of Coronavirus, more specifically the evolution of the so called SARS-CoV-2, a highly transmissible virus that causes COVID-19 disease and originated in a live animal market in Wuhan, China [1]. The situation triggered an outbreak of the virus worldwide in a few months, severely affecting countries such as Italy, Spain, Germany, France, England, Iran, the United States, India and Brazil, being declared as a global pandemic by the World Health Organization on March 11, 2020 [2].

Lockdown has been applied in many regions and even in entire countries, with schools, universities, some public services, businesses considered non-essential, events and leisure activities (including games, artistic shows, cinemas, art exhibitions etc.) being totally shut down [3], in order to slow the advances of the disease caused by the Coronavirus and prevent collapses in the health system.

According to the International Monetary Fund [4], the world has plunged into an economic crisis as deep as the financial collapse of 2008, because of the measures taken to contain the transmission of the virus, such as social

isolation, which have been affecting not only the daily life of civil society, but also companies of various sectors and sizes all around the world. Illustrating this with some data, in only one month, 22 million people in the United States lost their jobs, unemployment rates more than doubled in Austria [3] and, in Brazil, the number of unemployed workers increased by 10.5% in the first quarter of 2020, when compared to the last quarter of 2019 [5].

To overcome the challenges created by any crises and, in particular, by a global impact event such as what is currently occurring, business organizations must seek to be resilient [6]. As an example of this in the current Coronavirus crisis. It was necessary a rapid adaptation of work activities by employers, managers, subordinates and self-employed workers due to the social isolation measure to stop the spread of COVID-19.

Considering this, a way to lessen the negative impacts on the results of companies and unemployment rates is remote work, thus the professional can continue working from home, without breaking the rules of social isolation imposed by the authorities. Therefore, in the current scenario, working from home emerges as an alternative to maintain the employment of many individuals in the labor market. However, it has its peculiarities that are not so easily overcome and, thus, showing significant and

²Doctoral Student in Business Management - Federal University of Rio Grande do Sul – UFRGS, Brazil.

exhausting challenges, especially for traditional organizations that used face-to-face control as the basis of working relations [7].

It can be highlighted that, in this work, the words home office, remote work and telework are considered synonyms and interchangeable. Thus, they are characterized as a new way of developing work activities, without the need to be physically in the workplace, which is made possible thanks to the evolution of Information and Communication Technologies (ICT), such as computers, smartphones and internet and its entire range of digital possibilities.

In this sense, even with work routines being affected by social isolation measures to contain COVID-19, it is necessary that the decision-making process continues to occur, and the flow of information is not interrupted [8]. For this to happen efficiently, it is essential that professionals know the available digital tools and know how to handle them to have the ability to make the necessary deliveries.

As much as the possibilities of remote work had already been developing in recent years through smartphones, computers and the entire wide range offered by digitalization, it was the emergence of the new Coronavirus and its consequent lockdown to which citizens were submitted that enhanced the adoption of the home office in order to enable certain routines and work activities to have continuity during the pandemic period.

From this scenario described, the following research question emerges: what transforming elements emerged from the instant adoption of the home office in the corporate context due to the health and economic crisis of COVID-19 that erupted in the first half of 2020? Based on this problematic, the aim of this article is to discuss the advantages and challenges of the home office emergency due to the pandemic crisis of Coronavirus. Therefore, to achieve this initial purpose, the work is divided into five sections, the first being this brief introduction. After that, the literature review will be intensified, raising the contributions in the literature about the possibilities and limitations of the home office and the use of digital tools in work activities. The third section will then expose the methodological procedures used to understand the research problem. In the following topic, the data will be explored through their analysis, crossing them with the theoretical framework. And finally, the final considerations of this study will be woven.

II. HOME OFFICE AS A PROFESSIONAL STRATEGY

Researches on the economic impact of previous pandemics has shown that countries, industries and companies suffer deeply from the consequences of a global pandemic, due to, in addition to health issues, the simultaneous shock that occurs on both sides, demand and supply of products and services [3]. In times of uncertainty and scarcity, organizations must seek creative and innovative solutions to the problems faced in the market. For this, they need to cultivate the necessary skills to transform, in an agile and dynamic way, their business and practices management oftheir material, financial, marketing, administrative and human resources and their knowledge bases[6].

The current pandemicof COVID-19, due to having social isolation as the main measure of containment of contagion – leading to some economic activities to be temporarily closed or suffer restrictions – has accelerated the spread of the home office. This term is related to the professional activities performed in an alternative space other than the company space, whether it is in the employee's residence [7]. Therefore, the lives of workers have undergone changes in various ways, ranging from job loss to the transformation of their work activity to telework.

To condense references and have a specific definition of the term, the home office - remote work and telework will also be used as synonyms in this article - is understood in this study as the development of work activities outside the physical facilities provided by the employer, being made possible by the use of digital tools for work [9]. For Brazilian legislation, in Law No. 13,467 of 2017, the expression telework means "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 external work" [10].

The first home office records are dated to the 1970s, due to the oil crisis. According to [11], telework was a strategy that sought to reduce the time spent in traffic with commuting to perform work activities in offices. However, according to the authors, only around two decades later, this format of practice of labour activities advanced and reached, mainly in developed countries, a considerable number of followers, mainly due to the influence of the exponential increase in the popularization of digital tools. Currently, due to the pandemic crisis of COVID-19, there is an even greater acceleration of the adoption of remote work at levels that were predicted until recently.

Under ordinary conditions, remote work is adopted by organizations for reasons such as allowing a good balance between work and personal life, increasing flexibility and reducing the waste of time in traveling from home to the office, which also decreases traffic in cities [12; 13]. However, in the current adverse circumstance, employers and employees of all hierarchical levels seek adaptation to remote work in record time, for which there was not enough structuring and planning time [7].

As a result, personal life began to be organized from the centrality of work. To maintain productivity, then, the days go beyond conventional schedules and tasks start to be performed after normal office hours and on weekends, invading the other spheres of the worker's life. Considering this, the greatest challenge is to find the appropriate measure of the distribution and execution of goals and deadlines that compete with family life, household chores and school activities [7].

Previous research has already highlighted the paradox of remote work, as it provides employees with a greater sense of autonomy, on the one hand, and, on the other hand, results in increased organizational control of subordinates and intensification of workload, especially in cultures dominated by competition and performance indicators [14; 15]. In the face-to-face performance in the organizational environment, the superiors, as a rule, control the time and effort dedicated by their subordinates with visual supervision, in addition to the establishment of goals, for example. However, in teleworking, these evaluation methods and their criteria must also be adapted, because monitoring can no longer be done equally, and motivation mechanisms do not work in the same way through virtual means. Reinforcing this, [7, p. 73] emphasize:

In the format based on the achievement of goals, the worker finds himself compelled to reassure the manager, literally taking control of him over his time. Despite the competition that household chores or family life can bring to the time of work effort, the individual remains online and responsive, recording the achievement of goals and deadlines and avoiding any impression of idleness about their hours.

Thus, because they are not under the face-to-face control of their superior, the professionals end up working more and having a more intense workday to deliver a satisfactory productivity. However, with the labour reform in Brazilian legislation for 3 years, the home office worker no longer has the guarantee of overtime pay [10], that is, even if he is submitted to develop his work activities

beyond the time of his contracted work day, the professional will not obtain additional financial gains.

Even with remote technologies and the possibility of virtualization of work relationships, the home environment is not structured to favour the productivity of the work activities, which makes it difficult to adapt quickly to the new working environment. In addition, with schools cancelling classes to avoid contagion of individuals by Coronavirus and life partners also working from home, all family members end up being forced to perform, in the same residence, tasks related to work, education, domestic and leisure.

In this context, women end up being more harmed, especially those who have young children, because they have been dedicating most of their time to educate them at home, assisting especially in remote classes, and also performing domestic functions [16], because of the lockdowns imposed. The data on the burden of women with children were deepened and a study done in Brazil by researchers – who are, also, mothers. Regarding being able to work, 15% of the male respondents with children answered that they follow their activities remotely, while only 4% of women in the same condition manage to continue working [16]. Within this universe, according to the researchers, when the analysis is related to the age of children, the disparity increases considerably, because 32% of women with children under 1 year were able to submit scientific articles as planned, compared to 61% of men with the same reality. These results show that the productivity of professionals with small children is affected and that women, in this scenario, end up being the most affected. Therefore, the attention given to these workers and the demanded amount of work to be made to them needs to be rethought, in order to understand the peculiarities of these routines.

Another issue related to remote work is the acceleration of digital transformation. According to [7], this is one of the main difficulties encountered by professionals forced to work remotely, since it emphasizes the urgency of learning new technologies in record time, the establishment of new forms of communication between teams and the new ways of doing their activities. As a result, remote workers need to be always up to date with new technological possibilities, developed in increasingly shorter periods.

Following in their understanding of the challenges and opportunities of teleworking for professionals, [11] listed in their study the greatest difficulties faced by teleworkers, being: lack of commitment, difficulty in having self-discipline, lack of contact with colleagues, inflexible organizational culture and stagnant contract model. On the

other hand, in this same research, the authors also list the main benefits of remote work, such as: agility in the delivery of tasks, increased quality of life, exclusion of regionality for professional work, reduction or extinction of time spent on commuting, possibility of spending more time with the family, greater concentration due to decreased noise from the work environment, greater autonomy and flexibility in activities. Therefore, it is understood that the adaptation, or not, to remote service is an individual issue, being accepted and defended by many, as well as, at the same time, rejected and criticized by others.

In this scenario, a common opinion prevails, as a result of this whole process of immediate adaptation to the pandemic period, the prediction is that organizations will be more open to various flexible forms of work [13] and look for digital tools to assist them in this process. [3], reinforcing this idea, emphasize that external shocks tend to accelerate the processes of innovation and digitization of companies, emphasizing the relevance of flexibility and responsiveness to changes. Consequently, this health and economic crisis resulting from COVID-19 highlighted, even more, the need for the development of digital skills. Therefore, professionals need to keep up with technological developments and adapt to the new post-pandemic socioeconomic context in order to remain competitive in the labour market.

III. DIGITAL TOOLS FOR REMOTE WORK

In the course of its development, humanity has undergone many changes, some of which have totally changed the way they live, relate and work, also other changes considered an increment, were developed to improve something that already existed. Thus, the human being always sought to improve tools that facilitate the performance of his activities, which greatly helped in the progress of society over time [8].

Information and Communication Technologies, translated into digital tools, have been developed for decades to assist citizens in different tasks, both professional, personal and leisure. The term ICT refers to all technical means used to handle information and assist in communication, including network and computer hardware, as well as their software [17]. Digital solutions support a wide variety of tasks that need to be performed in the routine of individuals.

Among the many benefits that digital technologies can offer to the sectors of a company, we highlight the possibilities of reducing cost and time and increasing productivity, agility, efficiency, flexibility and innovation [18], due to the greater ease in communication, in the management process and in the development of labour functions. New ICT often creates new ways to gather the information needed for business management. Thus, organizational processes are shaped by new technologies and, therefore, can reshape the use of technology [12].

ICT has revolutionized the work routine and the way the market operates in the 21st century, offering both new opportunities and new challenges. Although digital tools have really transformed the way in which organizational activities are carried out and remote work is facilitated, the home office is not yet a widespread practice in all segments [9], although the COVID-19 pandemic has accelerated the process of adopting teleworking in several organizations.

For [1], digital transformation is one of the most critical areas in organizations regarding the management of the crisis caused by Coronavirus, along with decision-making processes, the role of leadership and the relevance of the emotional intelligence of employees in this delicate period. However, with the urgency of adaptation to the home office, digitization among companies tends to help superiors in monitoring organizational activities, because these new technologies facilitate the collection and analysis of performance results [12].

[19] highlight the need for learning and adoption of existing digital technologies, emphasizing that there is already a wide range of tools to solve almost all communication problems and access to information, not requiring the development of new solutions for adaptation to the home office. Therefore, telework requires investments by organizations in digital platforms and flexible mechanisms for working hours. Some companies that did not yet use the home office had to establish internal standards for its implementation, in addition to having to invest in digital resources to operate remotely, although many have failed to structure themselves so quickly [7].

The current crisis has resulted in strategic changes in business template and the operational use of their resources in many organizations, as well as in the culture of digitization [3]. In this perspective, it is understood that companies that adapt more rapidly to times of crisis, technological transformations and consumer demands can present better results and achieve a higher level of competitiveness in the market [8].

Following this line of thought, while restrictive measures force work teams to adopt new flows of activities and digital technologies, this forced adaptation allows the opportunity to experience the functionalities of the tools,

which can convince previously resistant professionals of the benefits of digital platforms in work tasks [3]. Thus, despite the negative effects, the pandemic outbreak of 2020 accelerated digital learning and the adoption of telework in many cases around the world [13].

Currently, to master applications and digital mechanisms that facilitate organizational activities, contribute to increased productivity and allow performance in more flexible jobs is an indispensable skill for professionals to work in the labour market. Considering this, then, we highlight the relevance of the competencies that involve 'digital literacy', a term originally created by [20]. Digital literacy, according to the author, is considered as the ability to find, evaluate, understand, create and use information and content using digital tools, encompassing not only the technical skills for this use, but also cognitive aspects of the evaluation of virtually available elements. In summary, it is to understand how applications work and how their possibilities can be explored in personal and professional life [8].

Within this perspective, it is emphasized that the use of the Internet during the period of social isolation increased substantially, according to data collected. In Brazil, this use reached growth rates of more than 40%, according to data provided by the National Telecommunications Agency [21]. At the same time, monthly time spent on mobile apps worldwide grew 39% in the second half of 2020 compared to the same period in 2019 [22]. By the way, some of the most downloaded applications in the world since March, when quarantine began to be implemented in many countries, were precisely those that offer the possibility to make video calls, which are widely used for team meetings that are physically distant, such as Zoom, Google Meet and WhatsApp [23].

To demonstrate how much the use of ICT advanced in Brazil, a decade ago, 84% of the individuals had a cell phone in Brazil, and most of these devices were not smartphones, and 31% had a computer [24]. In that period, notebooks and tablets were not yet counted separately in the research 'ICT Domicílios'. Currently, the proportion of individuals with a cell phone has advanced to 93%, while those with a computer have decreased to 16%, but it is noteworthy that 26% of those surveyed have a notebook and 13% of the population has a tablet [25]. However, although the percentage of people using digital devices is increasing, these data do not necessarily show that individuals know how to use and/or take advantage of the numerous possibilities that these devices offer. At this point, then, the importance of digital literacy is emphasized again [20].

On the other hand, when a critical look is directed at this digital advance, the excessive use of digital technologies or even the frustration caused by the limitations that the individual carries for not being able to use or adapt to new technological tools can cause physical and psychological tensions, known as technostress [26], which tends to cause the reduction of the productivity of individuals. These negative effects of scanning occur, not only by the high load of information and activities offered, but also because of the notifications and alerts that accompany the individual all day long. Seeking to reduce these effects, it is noteworthy that organizations should seek to assist their professionals in the way possible in order to avoid possible negative psychological impacts.

On the other hand, [13] argue that remote work will be the main strategy of resilience of the labour market during and after the Coronavirus outbreak, which further highlights the relevance of digital skills for professionals from all sectors. In this regard, while there are a number of challenges in the use of ICT, there are also many opportunities related to the adoption of data analysis tools, project management, online commerce and social media [1].

Finally, to analyse the positive and negative points of the rapid change in professional work for remote work due to the pandemic crisis of COVID-19, with the need for these workers to adapt to the use of digital tools in the development of their activities, a qualitative approach will be used, which will be detailed in the next section referring to the research method.

IV. RESEARCH METHOD

To achieve the objective initially established in this study, which is to analyse the challenges and opportunities of the urgent change of professional activity to the home office due to social isolation measures, a research classified as descriptive was made, which, according to [27], has the purpose is based on the description, recording, analysis and interpretation of the data without their manipulation. The approach defined for this work is qualitative, because it allows to deepen particular issues and explore a level of reality that is difficult to be quantified [27].

4.1 Data collection and analysis

Figure captions appear below the figure, are flush left, and are in lower case letters. When referring to a figure in the body of the text, the abbreviation "Fig." is used. Figures should be numbered in the order they appear in the text. Data were collected for this research through deep-

founded interviews, documental analysis and bibliographical research. This type of data collection with multiple sources is advocated by [28] to increase the reliability of the results, especially when the qualitative approach is used in the work. For this paper, therefore, a bibliographical research was made to explore the state of the art on the challenges and opportunities of remote work and on the use of digital tools that allow the home office, thus having references from academic literature to support empirical study.

Regarding the collection of primary data, it was done through eight semi-structured interviews, conducted with workers from different sectors and with different profiles that had to adopt telework urgently in order to maintain professional performance during the period of June 17 from 2020 to August 06, 2020. In search of the definition of the number of interviews, the criterion of saturation sampling was used, which is used in qualitative research in order to delimit the closure of the study sample [29]. As a general criterion for the selection of the interviewees, it was defined that they should be people working in a remote work regime on an exceptional basis due to the restrictions imposed in order to contain the spread of COVID-19 and we sought representatives from various segments of activity. Table 1 presents the profiles of the interviewees in this study:

Table.1: Profile of respondents for the survey

Interviewed	Profile	
Interviewee 1	Financial advisor of a large company in the medical equipment industry	
Interviewee 2	Small entrepreneur in the graphic business	
Interviewee 3	Saleswoman in small clothing store	
Interviewee 4	Freelance food professional	
Interviewee 5	Teacher with online classes	
Interviewee 6	Manager of innovation projects in the public service	
Interviewee 7	Communication professional of a medium-sized company in the furniture manufacturing industry	
Interviewee 8	Accountant who has his own office	

The interview script was constructed from the initial objectives of this study, bringing the point of view of Brazilians and based on the issues of the themes: challenges and opportunities arising from remote work and digital tools used for work activities. On the other hand, the collection of secondary data, done through documentary analysis, occurred through access to the Eurofound report [9], which condenses data on the positive and negative impacts of the home office in several countries, with the exception of Brazil.

After the literal transcription of the interviews, the analysis of the results was performed, based on the data triangulation, which aims to increase their reliability [30] and offers a more comprehensive understanding of the phenomenon studied. For the treatment of the collected data, content analysis was used, which allows the interpretation of the responses of the respondents' statements [31]. The results of this research will then be discussed in the next topic, where the data obtained in this study will be detailed and explored.

V. RESULTS AND DISCUSSION

This section will analyse the data collected in this empirical research from the sources of evidence detailed in the previous chapter. Contextualizing the period in question is essential, because the moment is exceptional due to the pandemic crisis of COVID-19, which interferes in the form of adoption of both remote work and preparation for the use of digital tools that support it.

Regarding the disadvantages of remote work, workers highlighted the tendency to work beyond the predefined hours in the contract, create an overlap between work and personal life, with interference from one another, and result in intensification of work [9]. Another drawback reported by respondents who are subordinates and that does not appear in Eurofound's report is related to the fact that the organizations in which they operate simply transferred the structure costs to the employees. That is, they were assigned to remote work, but without being provided with any structure for this performance, such as digital devices, internet, light, equipment and office furniture, etc.

Within this structural issue, respondents also said that they often have to share digital tools with family members, as their children are taking remote classes and partners are also working in home office format. In addition, apart from cases like the one with the Interviewee 6: "the internet is very slow because we are making video calls all together, my husband is sometimes in a meeting at the same time as me and my son is studying, taking online classes". This question substantiates the study by [7], which states that adaptation had to occur so quickly that there was no time for planning and structuring the teleworking.

Another point that emerges is related to the separation between personal and professional life. In the home office, because employees are not linked to the employer's facilities as a fixed workplace, and because it is feasible to perform work-related tasks anywhere and at any time, the professional is more likely, in order to meet his goals

or by charges from his superior, to extend the hours he dedicates to work activities beyond what is in the contract [9]. On one side, the worker has greater autonomy to carry out his activities, being able to adjust his schedules according to personal needs, but, on the other hand, the individual tends to work longer and at times that would be dedicated to leisure, in other conditions.

To illustrate the increased time dedicated to work activities, the Eurofound's report [9] highlights the difference between the rates of professionals who report working more than 48 hours a week according to the way they work, and around 8% of employees working in the company's office compared to more than 30% of those who provide their services in a home office routine. In addition to these condensed data from several countries, it is emphasized that, within the universe of this empirical study, all interviewees confirmed their performance beyond their work day and the speech of Interviewee 3 illustrates this situation:"Working from home, for me, is much more exhausting than having to be in the store, because before people respected the time we were open and knew that we were online on Instagram, but there was the store for them to visit us. Not now, any time is time to work. If it takes a while, the customer no longer likes it or looks for another profile to make the purchase. So, I have to be online all the time. If I'm awake, I'm with my cell phone, I don't have time to goof around anymore."

The line that separates the professional and personal life of the individual becomes very thin. Interviewee 5 has a 3-year-old son and reports: "(...) he asks at all times to play and is always appearing in my classes. Me and my students think it's funny, but I feel like he wants me to pay more attention to him, because there's no school now, it's just us all day (...)". For her, class preparation and other complementary professional activities are impaired, because they have to be divided between domestic tasks, be present with the child and also work remotely at home, all of this adding, also, to the emotional and psychological issues that emerge in a period of uncertainty such as the pandemic crisis of COVID-19, which qualitatively illustrates the quantitative empirical research done by [16].

One of the factors restricting the adoption of the home office is the culture of the way of working, because the traditional style of management through very strict supervision and control does not allow flexible modes of action [9]. However, according to [12], scanning can help in this monitoring. In addition, other limiting factors include low level of trust between superiors and subordinates, fear of loss of control by managers, needs for interaction in the workplace, and lack of space and

equipment needed at home [9]. The statements of the interviewees in this empirical study also corroborate the data of the other countries described in the report, because both the entrepreneurs surveyed and the employees reported the same adversities related to monitoring.

Another barrier to home office adoption is the complexity and skills needed for the effective use of ICT [1]. Respondents 2 and 8, presenting the point of view of entrepreneurs, confess that they had difficulties to implement telework for two main reasons: first, because monitoring was always done in the traditional way, by face-to-face supervision and control of schedules and development of activities; and then, because they themselves did not have mastery of the necessary tools for this.

In this sense, one point needs to be highlighted: although the skills in digital tools are being more requested than ever, both in the interviews for this study and the Eurofound report [9], it was found that transformation and digital literacy [20] are still gaps in organizations. In quantitative data, only 58% of people in Europe had basic digital skills or above in 2019. On the other hand, the current economic crisis has accelerated digital learning [13] and, although some interviewees have less familiarity in the use of ICT, all indicated that they had increased their knowledge about the possibilities of using them and the use of at least one new software, due to the need to software adapt to remote work..

In this context, in order to adapt to adverse conditions, individuals had to adopt practices that were not part of their routines, such as: meetings per conference experience; sharing documents on drives in the cloud; remote access to other computers; project management in shared programs; digital signature of documents; management of routines and goals through applications. Based on the survey of the digital tools used by the interviewees, Table 2 was elaborated with this condensed information:

Table.2: Digitals tools used by the interviewees

Category	Tool	Description
Social networks	Whatsapp	Communication tool used in organizations for internal communication between teams and external with consumers and suppliers, and also for business dissemination and marketing
	Instagram	Photo and video sharing tool, used for dissemination of products/services and communication with consumers
	Facebook	Social media tool used by organizations to communicate with the public and in the dissemination of their products / services
Project management	Trello	Tool based on to-do lists and with direct correlation with Kanban
	Padlet	Tool for creating a mural or collaborative virtual framework for recording, saving, and sharing content between teams
	Asana	Tool to track and manage projects, and can be used for areas such as Marketing, Operations, Sales, Product Development, HR
Video conferencing	Zoom	Tool for visual communication, allows the exchange of instant messages and sharing of the screen
	Google Meet	Video calling tool, allows instant messaging and screen sharing
	Microsoft Teams	Multifunctional tool, which allows video conferences; storage and sharing of files; team management; project management
Design Platforms	Canva	Graphic design tool that allows you to develop social media graphics, presentations, flowcharts, posters, among others, integrating various types of images, fonts, templates and illustrations
	Miro	Collaborative online tool for simultaneous construction of mind maps, business modelling, diagrams and boards with notes
Remote access	Teamviewer	Tool for remote access, desktop sharing, online conferencing and cross-computer file transfer
	AnyDesk	Tool that provides remote access to personal computers running the host application
Task Organizer	FocusList	Tool for organizing and performing tasks through the pomodoro technique
	Any.Do	Task manager tool and activity lists, allowing you to insert new notes by typing or voice
Creating, Editing, and Storing Documents in the Cloud	Google Drive	File storage and synchronization tool, which allows you to upload any type of program or file
	OneDrive	Microsoft cloud storage tool, where you can store and host any file type
	Dropbox	Cloud file storage tool
Data collection	Survey monkey	Tool for the development of quantitative and qualitative research based on online data collection
	Google Forms	Tool for creating online forms, mainly used for data collection and satisfaction survey, and can assist in the decision-making process
Electronic signature	D4sign	Electronic signature tool that allows the generation of documents and creation of templates with form for the individual to fill out
	Adobe Sign	Document signature management tool

This evidence of the use of new tools due to social isolation measures in the Coronavirus pandemic shows individuals' recent learning about other ICT possibilities and the search for digital transformation, confirming the statement made by [3] that external shocks force companies to accelerate their innovation processes.

Regarding the benefits of teleworking, Interviewees 1 and 6 agreed that having more flexibility in their work and not having to waste time in traffic are the main privileges of the home office. Interviewee 2 pointed out that the possibility of being able to spend more time with the family is what has stood out in this scenario for him. These advantages, as well as greater—agility in the deliveries of activities, increased quality of life, exclusion of regionality for professional performance 1, greater concentration by reduction of noise from the work environment and greater autonomy in the execution of tasks, were listed in the results of the study by [11] as the

benefits pointed out by professionals in remote work. In addition to this, the [9] also points to the positive effect of teleworking, in addition to these, increased productivity [9].

A relevant point stands out here, employers with experience in the adoption of remote work observe its advantages more than individuals who have not yet experienced this experience, which suggests that there may be a certain prejudice against this form of execution of the service [9]. The Interviewee 7 agrees on this issue, stating that, in his opinion, the ideal scenario is a mixed model, in which he would develop his activities in the work environment during some days of the week and, in other periods, would work from home. [9]highlights similar results, emphasizing that satisfaction rates vary mainly, depending on whether the home office completely replaces the face-to-face work in the office or complements it. In addition, other variables also influence the approval of remote work, such as familiarity in the use of ICT, the workplace, the definition of the limits of professional life and the characteristics of each productive

Finally, when asked if they intend to follow a home office regime after the end of the pandemic period, the professionals did not give similar answers. Interviewees 3 and 4 stated that they intend to continue working on a teleworking basis, because they are managing to obtain higher financial returns, since they are self-employed professionals, they can answer to their customers at any time and do not need to spend on the rental of a physical space. Interviewee 1 was the only one who replied that he would like to return to his work schedule at the office, highlighting: "In my apartment I do not have a suitable space to work. And as a matter of fact, I don't even want to. For me, home is to rest and to be with my family." The other five Interviewees stated that they plan to work on a mixed basis, alternating days in remote work and others complying with the schedule in the organizational environment. Concluding, at this point, the analysis of the results, the following section will point out the final considerations of this article, in order to contribute to the advancement of academic literature.

VI. CONCLUSION

At the current stage, the rapid spread of COVID-19 has led decision makers around the world to adopt prevention measures to reduce the contagion of the disease, which include social isolation and, in many cases, total restriction of non-essential activities. Because of this, companies had to seek solutions on an emergency basis in

order to survive this health and economic crisis. One of the most widespread strategies to overcome these limitations was the adoption of remote work, which has many challenges, but also numerous opportunities. It is also noteworthy that the emergence of the home office, in this case, differs from the scenario in which the form of remote action is planned and structured, because the need for rapid adaptation to this regime, in most cases, occurred in an ungoverned manner.

As positive points of remote work, we highlight the increase in flexibility and autonomy in the execution of activities, the reduction of time spent commuting to the work environment, digital transformation, increased productivity and the possibility of spending more time with the family. On the other hand, the biggest challenges of the home office were the added working hours without their financial reward, the intervention of professional life in the person, the urgent adoption of new digital tools, the transfer of infrastructure costs to the employee and the forms of control.

This transformation of the way of working, using digital tools as support for the home office, is occurring more because of the need and, if perpetuated, will have a direct relationship with the change of mentality and not with technology, because the necessary technological mechanisms have been around for some time, not needing to be developed. In any case, in the data collection of this research, we observed the digital tools most used by the interviewed professionals and a list of them was made to support the development of tasks by teams that are working in a teleworking regime.

The reflection on this phenomenon of imposition of telework and acceleration of the use of digital tools so that work activities can be carried out at home is being carried out since the first weeks in which social isolation measures were taken. However, this is still a very recent discussion in the academic literature and it is necessary to move further, especially by analysing, at the end of the pandemic period, which transformations will be perpetuated and which will have been only punctual.

REFERENCES

- [1] Cortez, R. M. & Johnston, W. J. (2010). The coronavirus crisis in B2B settings: crisis uniqueness and managerial implications based on social exchange theory. Industrial Marketing Management, 88, 125-135. http://dx.doi.org/10.1016/j.indmarman.2020.05.004
- [2] WHO World Health Organization. (2020). WHO Director-General's opening remarks at the media briefing on COVID-19.
 Retrieved from

- https://www.who.int/dg/speeches/detail/who-director-general-s-opening-remarks-at-the-media-briefing-on-covid-19---11-march-2020.
- [3] Kraus, S. et al. (2020). The economics of COVID-19: initial empirical evidence on how family firms in five European countries cope with the corona crisis. International Journal of Entrepreneurial Behavior & Research.http://dx.doi.org/10.1108/IJEBR-04-2020-0214
- [4] IMF International Monetary Fund. (2020). The IMF and COVID-19 (Coronavirus). Retrieved from https://www.imf.org/en/Topics/imf-and-covid19.
- [5] IBGE Brazilian Institute of Geography and Statistics. (2020). PNAD Continuous - National Continuous Household Sample Survey. Rio de Janeiro.
- [6] Liu, Y. & Lee, J. M., Lee, C. (2020). The challenges and opportunities of a global health crisis: the management and business implications of COVID-19 from an Asian perspective. Asian Business & Management, 1.http://dx.doi.org/10.1057/s41291-020-00119-x
- [7] Brant, R. & Mourão, H. C. (2010). Desafios do teletrabalho na pandemia COVID-19: quando o home vira office. Caderno De Administração, 28(Edição E), 71-75. https://doi.org/10.4025/cadadm.v28iEdição E.53637
- [8] Hermogenes, R. et al. (2020). A importância das digital skills em tempos de crise: alguns aplicativos utilizados durante o isolamento social devido à pandemia do COVID-19. Revista Augustus, 25(51), 198-218.
- [9] Eurofound. (2020). Telework and ICT-based mobile work: flexible working in the digital age, new forms of employment series, Publications office of the European Union, Luxembourg.
- [10] Brazil. Law No. 13.476 of July 13, 2017, Art. 75-b. Retrievedfrom http://www.planalto.gov.br/ccivil_03/_ato2015-2018/2017/lei/l13467.htm.
- [11] Haubrich, D. B. & Froehlich, C. (2020). Benefícios e desafios do home office em empresas de tecnologia da informação. RevistaGestão&Conexões, 9(1), 167-184.https://doi.org/10.13071/regec.2317-5087.2020.9.1.27901.167-184
- [12] Miele, F. &Tirabeni, L. (2020). Digital technologies and power dynamics in the organization: A conceptual review of remote working and wearable technologies at work. Sociology Compass, 14(6), 2795.http://dx.doi.org/10.1111/soc4.12795
- [13] Zamfir, A. M. &Aldea, A. B. (2020). Digital skills and labour market resilience. Postmodern Openings, 11, 188-195.http://dx.doi.org/10.18662/po/11.1sup2/151
- [14] Sewell, G., Taskin, L. (2015). Out of sight, out of mind in a new world of work? Autonomy, control, and spatiotemporal scaling in telework. Organization Studies, 36(11), 1507– 1529.http://dx.doi.org/10.1177/0170840615593587
- [15] Wood, A. J., Graham, M., Lehdonvirta, V. & Hjorth, I. (2019). Good gig, bad gig: Autonomy and algorithmic control in the global gig economy. Work, Employment and Society, 33(1), 56–75.http://dx.doi.org/10.1177/0950017018785616

- [16] Staniscuaski, F. et al. (2020). Impact of COVID-19 on academic mothers. Science, 368(6492), 724-724.http://dx.doi.org/10.1126/science.abc2740
- [17] Eurostat. (2018). Information and Communication Technology (ICT). Retrieved from https://ec.europa.eu/eurostat/statisticsexplained/index.php?tit le=Glossary:Information_and_communication_technology_ (ICT).
- [18] Sordi, J. O. (2003). Tecnologia da Informação aplicada aos negócios. São Paulo: Atlas.
- [19] Xie, B. et al. (2020). When going digital becomes a necessity: ensuring older adults' needs for information, services, and social inclusion during COVID-19. Journal of Aging & Social Policy, 1-11.http://dx.doi.org/10.1080/08959420.2020.1771237
- [20] Gilster, P. (1997). Digital literacy. New York: Wiley Computer Pub.
- [21] ANATEL National Telecommunications Agency. (2020). Anatel Data Dashboards. Retrieved from https://www.anatel.gov.br/paineis/acessos/panorama.
- [22] Kristianto, D. (2020). Mobile apps usage reached an all-time high amidst stay-at-home measures due to COVID-19 pandemic. App Annie. Recuperado em: 20 de julho, 2020, de https://www.appannie.com/en/insights/market-data/mobileapp-usage-surged-40-during-covid-19-pandemic/.
- [23] Rank my app. (2020). App categories and user needs. Retrieved from https://www.rankmyapp.com/mobile-marketing/as-categories-de-apps-e-as-necessidades-dos-usuarios/.
- [24] Cetic.BR Regional Center for Studies for the Development of the Information Society (CGI.br/NIC.br). (2011). ICT Households 2010: Research on the use of Information and Communication Technologies in Brazilian households. Retrieved from https://cetic.br/pesquisa/domicilios/indicadores.
- [25] Cetic.BR Regional Center for Studies for the Development of the Information Society (CGI.br/NIC.br). (2020). ICT Households 2019: Research on the use of Information and Communication Technologies in Brazilian households. Retrieved from https://cetic.br/pesquisa/domicilios/indicadores.
- [26] Daruwala, N. A. (2020). Generation lockdown: exploring possible predictors of technology phobia during the Coronavirus self-isolation period. Aloma: Revista de Psicologia, Ciències de l'Educació i de l'Esport, 38(1).
- [27] Minayo, M. C. S. (2013). Pesquisa Social: teoria, método e criatividade. 33 ed. Petrópolis: Vozes.
- [28] Creswell, J. W. (2016). Reflections on the MMIRA:the future of mixed methods task force report. Journal of Mixed Methods Research, 10(3), 215– 219.https://doi.org/10.1177/1558689816650298
- [29] Fontanella, B. J. B., Ricas, J. & Turato, E. R. (2008). Amostragem por saturação em pesquisas qualitativas em saúde: contribuições teóricas. Cadernos de Saúde Pública, 24(1), 17-27.
- [30] Yin, R. K. (2015). Estudo de caso: planejamento e métodos. 5 ed. Porto Alegre: Bookman Editora.

[31] Bardin, L. (2016). Análise de conteúdo. São Paulo: Edições 70.