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Old Normal, New Normal, or Renewed Normal: How COVID-19 Changed Human Resource Development

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Introduction

At the time of writing (January 2022), December 2019 seems one age ago. The name of the age, for the purpose of this chapter, is the ‘New Normal’ or the COVID-19 situation. Before 2020, no one paid real attention when some scientists predicted the possibility of an ‘asymptomatic virus’—those ideas were considered as ‘science-fiction,’ or even exposed in novels. However, as it many times happens, ‘life is stranger than fiction,’ and suddenly, in February and March of 2020, the way most of the people of the world lived changed considerably.

In this context, from a point of view of HRD, the COVID-19 pandemic poses at least four very big challenges because it creates four very big problems and raises four very big questions. Namely:

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- (a) How is the new work environment composed?
- (b) What are the individual competences that are needed in this ‘new’ work environment?
- (c) Because these competences must be acquired, how may organizations, be them companies and other types, such as the public sector or the non-governmental sector, prepare and train the population for these new competences?
- (d) Finally, and because the institutionalization of competences is an important aspect of the working life, how can organizations translate the new competences into skills?

These questions are still open nowadays. In this chapter, we want to compare the three ‘phases’ (Old Normal, New Normal, and Renewed Normal) in terms of work environment, competences, training, and skills.

The chapter will have the following structure: Concepts, Methodology, Findings, Discussion, and Conclusions.

Concepts

Normal

First, there was the Old Normal which lasted until February 2020 and in which face-to-face meetings were the rule and virtual contacts were only the exception and sometimes an elitist one. Second, in March 2020 with lockdowns and other forms of social distancing, the New Normal became to exist, in which remote work was the norm and in which face-to-face meetings and work mainly took only place among the low skilled workers and in low skilled jobs, with increased health risk or in very crucial sectors, such as the health sector. This situation began in March 2020 and has been existing in some harder or milder forms ever since. Thirdly, since October 2021, and in some countries, and despite the Omicron variant, governments and citizens have been trying to mitigate the damage that the COVID-19 pandemic does to everyday life, and some ‘hybrid’ solutions have been put in place. In this third situation, presence meetings exist when possible and necessary, but quite crucially, online meetings

exist if needed and if judged more efficient or safe. The big difference between this Renewed Normal and the New Normal is that remote work is not obliged anymore, but it is a possibility. And also, the big difference between the Renewed Normal and the Old Normal is that in the Renewed Normal, remote work is seen as much more Normal and useful and doable because, in first place, people experienced and learn how to do it during the New Normal phase. We must note that due to Omicron, some countries that had entered Renewed Normal had to go back to the New Normal during some weeks. But it seems that as soon the Omicron restrictions will be lifted, those societies will re-enter the Renewed Normal phase.

HRD

HRD has been defined as any activity enacted by organizations to enhance the situation of the workforce. In organizational theory, HRD is usually defined as “the organizing term for discussion and analysis of workplace learning” (Gibb, 2008, p. 4) or as “a process of developing and unleashing human expertise through organizational development and personnel training and development for the purpose of improving performance” (Swanson & Holton, 2008, p. 8). Also, HRD has been analysed as having the following four interrelated functions: (1) organizational development (OD); (2) career development (CD); (3) training and development (T&D); and (4) performance improvement (PI) (Abdullah, 2009; McGuire & Cseh, 2006; Wang & McLean, 2007).

Our analysis will focus on the work environment, competences, training, and skills, respectively. Our conceptual model is the following: (1) the work environment changed because of COVID-19; (2) in this new environment, new competences are needed; (3) those competences implied the need for new training situations; and finally, (4) the new training generated new recognized skills. In the context of this paper, virtual development relations (VDRs) are forms of HRD that are made virtually. These relations existed in lesser forms before COVID-19, became extensive with COVID-19, and are becoming routine in the hybrid world of ‘the post-COVID-19.’

Methodology

The research, conducted in January 2022, used papers from the SCOPUS database published in 2020, 2021, and 2022, or in print. The papers were selected using the following combination of keywords: (a) ‘work environment’ and ‘COVID-19,’ (b) ‘competences’ and ‘COVID-19,’ (c) ‘training’ and ‘COVID-19,’ and finally (d) ‘skills’ and ‘COVID-19,’ respectively. We ended up with a very significant number of papers in all the four formats: 548, 969, 3058, and 830. What we present next is a summary of the main messages we came across using the four combinations of keywords mentioned above, based on more recent work and ‘saturation.’ We believe that by exposing what we found, we may contribute to understand HRD and VDR after the COVID-19 pandemic.

Findings

Work Environment and COVID-19

Parts 1 and 2 in Tables 10.1 and 10.2 present studies conducted on the influence of the COVID-19 pandemic in the work environment. We did not include (with one exception) work related to hospitals, which in fact was the major part of the pieces we found, because we consider that hospitals are a very particular type of work in a particular type of organization particularly in times of a pandemic—these people were feeling the strain like no other and could not run away—and we wanted to find studies that could relate to a broader setting.

Based on Table 10.1, we can see that the studies we refer to were done in a multiplicity of countries and settings, and for a very large group of people. In general, the studies indicated that anxiety, stress, and isolation increased during The New Normal and mentioned opportunity and flexibility as characteristics of hybrid working, The Renewed Normal. The two situations were completely different from The Old Normal in which presence was the norm. These findings mean that the work environment

Table 10.1 Description on studies on work environment and the COVID-19 pandemic

Phase	Author	Method	Sample	Organization	Country
<i>New Normal</i>					
	Bryan et al. (2021)	Survey, occupational risk indicator	Disabled people	Employed	UK
	Malinowska-Lipień et al. (2021)	Courtauld emotional control scale (CECS), trait anxiety scale (polish: SL-C) and the authors' survey questionnaire	158 nurses	Hospitals	Poland
	Latorre et al. (2021)	Survey	386 and 281 teleworkers	Telework	Brazil
	Rao et al. (2021)	Self-administered survey	106 Respondents	Homeless shelter	USA
	Patjas et al. (2021)	Survey	121 primary and secondary school teachers across	Primary and secondary schools	Finland
<i>Post-COVID</i>					
	Tsui (2021)	Survey		Hospitality	Taiwan
	Babapour Chafi et al. (2021)	Qualitative	53 employees, staff managers, and service/facility providers	Public service organizations (primarily healthcare and infrastructure administration).	Sweden
	Crizzle et al. (2021)	Quantitative online questionnaire August 2020 and March 2021	146 drivers	Long-haul truck drivers (LHTD)	Canada

Table 10.2 Relevant content of the mentioned studies

Text	Conclusions	Implications
Bryan et al. (2021)	Disabled people in employment in the UK were significantly more likely to be going out to work during the pandemic rather than working from home and were working in occupations that were more exposed to COVID-19 than the occupations of non-disabled workers.	Are there sufficient safeguards for disabled people in the workplace? Are there long-term implications for a labour market where COVID-19 is a persistent health issue?
Malinowska-Lipień et al. (2021)	Infection with COVID-19 results in a higher level of anxiety and depression, as well as a feeling of increased work load.	
Latorre et al. (2021)	Recovery experiences moderated the relationship between i-deals and patterns of sustainable wellbeing at work.	Employee behaviours must deal with stress.
Rao et al. (2021)	Homeless shelter workers may be at risk of being exposed to individuals with COVID-19 during the course of their work. Frequent close contact with clients was associated with SARS-CoV-2 infection.	Protecting critical essential workers by implementing mitigation measures and prioritizing for COVID-19 vaccination is imperative during the pandemic.
Patjas et al. (2021)	Distance teaching has affected teachers' voices in a positive way compared with regular teaching.	This difference is likely to be due to better acoustics and indoor air quality in distance teaching conditions.

Matisāne et al. (2021)	Work from home has shown how different working conditions can be for the same type of work (office work). Therefore, the promotion of personalized workplace risk assessment should be encouraged.	Even if virtual workplace visits using photos and videos are not the traditional way of behaviour, the workplace risk assessment should be done, and is effective. Workers who report that their employers assessed their working conditions report fewer health effects. The experience of workers in participation in workplace risk assessment for telework might change the level and role of worker participation in the management of health and safety hazards at work in general.
Tsui (2021)	Significant relationship between organizational-climate job stress with wellness. Personal background factors, organizational climate, and job stress would affect the wellness of employees.	Reference for hospitality business owners to design better organizational environments for their employees, plan human-resource-related strategies, and provide training for their employees during a pandemic.
Babapour Chafi et al. (2021)	Main benefits of remote work: Increased flexibility, autonomy, work-life balance and individual performance; major challenges: Social aspects such as lost comradery and isolation. Hybrid work provides the best of both worlds of remote and office work, given that employees and managers develop new skills and competencies to adjust to new ways of working.	Employers are expected to provide support and flexibility and re-design the physical and digital workplaces to fit the new and diverse needs of employee.
Crizzle et al. (2021)	LHTD worked significantly more hours and consumed more caffeine; and more than 50% reported being fatigued	Improving the working condition of LHTD is critical to support their health and wellbeing, both during and after the pandemic.

effectively changed, and, as a consequence, new competences, training modes, and skills are required. This is what we are going to analyse in the remaining part of the paper.

Competences and the COVID-19 Pandemic

The COVID-19 pandemic has been seen as an accelerator of changes which were already occurring due to the Fourth Industrial Revolution and its digital features (Ivaldi et al. 2021). Ivaldi et al. (2021) described ambivalences regarding the competences required in post-COVID-19 times, and the need for more articulated and complex view changes generated by the COVID-19 pandemic. Quite decisively, Staniec et al. (2022) compared digital natives (who had experience working remotely before the pandemic) and digital immigrants (who started working remotely during the pandemic) and did not find that the profession, age, gender, and length of experience from previous work with remote work explained differences in the experience of remote work during the COVID-19 pandemic. This implies that both groups had to deal with the same emotions. Crucially, the same authors found that the growth of competence in employees is determined by having to work remotely. As a consequence of forced remote working, the new and difficult working conditions compelled employees to cooperate, even across company boundaries, and increase each other's competencies. Finally, according to the mentioned authors, in such situations, management is required to be emotionally involved and needs to be 'closer' to the employee, cognitively and emotionally rather than physically.

Within this context, Bejar and Vera (2022) found that in universities, the COVID-19 pandemic generated the need to improve the digital competence of teachers and students. De la Calle et al. (2021) confirmed this idea and placed it in the context of social sustainability, underlining the importance of social elements such as access to resources, heritage culture, intergenerational transmission, employability, or gender equality. This generic idea was described more into detail by Sharata et al. (2022) who hypothesized that the following competences were developed using student thematic online debates: readiness to work in a team;

ability to generalize, analyse, and adequately perceive information; ability to communicate according to language norms; and, finally, reasoned and clearly build oral and written speech. This hypothesis was validated when an experimental group had an increase in the value-orientation, cognition, and communicative-activity. Also related with academics, and probably with many other professions that had to work remotely during the COVID-19 pandemic and who perhaps began working remotely as a possibility in the post-COVID-19 pandemic, Mousa and Samara (2022) found that during the COVID-19 pandemic, employees were more interested in their level of relatedness (sense of belongingness) and their level of competence (sense of competence), than in their level of autonomy (ability to choose and/or participate in decision-making processes) in the workplace, as defined by the Self Determination Theory. Moreover, quite crucially, those people that developed a 'sense of purpose' for their duties in a time of crisis had less mental health disorders. Therefore, according to Mousa and Samara (2022), it can be expected that also in the post COVID-19 pandemic period, people need to feel a continuous sense of relatedness and find ongoing opportunities to work and learn to have a better mental health. In the same order of ideas, competence was found to be one of the predictors of job satisfaction, with motivation, coping, and conflict resolution (Szabó et al., 2022). More specifically, experience in online teaching methods was found to enhance self-efficacy, which contributes to higher job satisfaction.

Bierema (2022) compared basically remote VDRs with traditional developmental relationships (TDRs) based on in-person interaction. VDRs imply both technological and human or social considerations. On the technological side, it is important to set priorities for the relationship, manage technical logistics, develop telepresence, and use emerging technologies, such as bug-in-ear tools and artificial intelligence. On the human and social side, it is important to build sensitivity and capacity to address justice, equity, diversity, and inclusion issues, and to navigate diverse situations where misunderstanding and distrust may challenge mutuality in the mentoring or coaching action. Crucially, Bierema (2022) considers that technology must serve the VDR to ensure that mentors and coaches facilitate and support optimal development of mentees and coaches.

In a quite different setting (i.e., construction operations), Kukoyi et al. (2021) found that stakeholders should be able to develop policies and strategies to promote risk control and foster compliance to COVID-19 safety measures. Also, in the health sector, safety training and the safe teaching of this competence have been proposed (Llamas et al., 2021).

The studies we just mentioned allow us to say that the COVID-19 pandemic increased the change to more digital settings. This led to new competences, which were consolidated through collaboration between workers. In this context, the ‘sense of purpose,’ the ‘sense of belongingness,’ and the ‘sense of capability,’ seemed to become more important than the ‘sense of autonomy.’ Given the risk inherent to the COVID-19 virus, safety, risk, and control measures became to matter of course. And, all this was summarized in a nutshell by Bierema (2022), which used a rather socio-technical setting to describe the technological and social issues of the competence model in the post COVID-19 era, and within a VDR setting.

Training and the COVID-19 Pandemic

Many training initiatives were developed during the COVID-19 pandemic. Chanana (2021) found that organizations promoted a vast number of training activities based in work-from-home regimes and remote settings during the pandemic, such as online family engagement practices, virtual learning and development, online team building activities, webinars with industry experts, online conduct weekly alignment sessions, team meet-ups over video conference for lunch, short online game sessions, virtual challenges and competitions, online courses, appreciation sessions, communication exercises, live sessions for new-skill training, online counselling sessions, recognition and acknowledgment session, webinars dealing with anxiety and stress, providing online guidance for exercise and meditation, social interactions in a virtual office, classrooms training modules digitally, e-learning modules, and many more creative learning sessions. Moreover, these activities were found to have a positive impact on the engagement and commitment of workers, and to be fruitful for both employees and organizations.

However, it is undisputable that the COVID-19 pandemic put serious problems to training. Eickemeyer et al. (2021), for example, found that training for individuals and groups is important to manage digitization efficiently: the most important fact was that older individuals tend to have negative attitudes toward digital transformation, and, as a consequence, appropriate counter measures were needed to help them become more tech-savvy. Moreover, Yarnykh (2021) found that for generations Y and Z in the labour market, there is a problem with the ability to think critically across multiple modalities of media, which makes it necessary to develop a corporate model of media education based on activities of micro-learning, mobile education, and development of project management skills. Therefore, corporate education needs to be both inclusive and reflexive. In this context, Arora and Patro (2021) explained how the PRISM methodology (i.e., Projects Integrating Sustainable Methods) may foster the agility and flexibility needed by companies to pivot from providing face-to-face training and advice to online courses, webinars, and wellness programmes during the COVID-19 pandemic. Furthermore, Chaves et al. (2021) stated that learning the main theoretical concepts is facilitated by the adoption of the so-called inductive training methods, which would be centred on the student. Furthermore, they presented a remote, low cost, open-source network platform to be used in training. That model would be capable of reproducing the behaviour of non-guided, low-power links under different configurations. Anyway, Roseley et al. (2021) found that the COVID-19 pandemic did not have a severe impact on the effectiveness of industrial trainings in the perspective of the students. In addition, comparing the self-evaluation of performance before and after industrial training, they found a significant increase in generic skills, especially regarding workers' personal attitude and professionalism aspects, a fact that is in itself very important in organizational terms. Regarding effectiveness, Bartnicka et al. (2021) found that in Polish manufacturing companies, doing Occupational Health and Safety (OHS) trainings, using the platform Moodle, gave organizations the possibility to conduct training at a distance, maintaining workers' effectiveness. The mentioned authors also found that mandatory feedback of the trainees ensured the possibility of continuous improvement and quality enhancement of both the program and the form of training. All these

detailed results made it possible to perform a precise adaptation of the training that was provided to other plants and even industries.

The socio-technical aspect already described by Bierema (2022) surfaces again regarding training. In this context, Mora-Ochomog et al. (2021) found that successful projects are based in transgression—meaning, in mixing of school and workspaces, and more precisely, in the students' social interactions with the company's training partner and with the teacher in the conceptual and procedural development of a specific disciplinary content.

Summing up, the studies we mentioned led us to the conclusion that successful training in remote settings depends largely on how to maintain intense and deep social relations. This result may place the COVID-19 crisis in the context of the 'Socio-Technical School' of the mid-twentieth century. Hence, times may change but important ideas remain actual.

Skills and the COVID-19 Pandemic

Crucially, the so-called soft skills have become even more important in the Industry 4.0 era, where the foundation of the whole system is based on an intelligent use and interpretation of data (Markowski et al., 2021). As an example of that need of use and interpretation of data, and to self-assess the decisive level of commitment of the top leaders in the process of safety management, Markowski et al. (2021) proposed a checklist approach, combined with a quantitative, weighted evaluation based on the relative efficiency indicator (REI). In the analysis, a positive value of REI may ensure the effectiveness of process safety management in major hazard industries and their appropriate adaptation to the corporation community.

Due to the new competences that the COVID-19 pandemic required, the pandemic generated many skills shortages; the fact was that all of a sudden, persons with qualifications adjusted to remote or hybrid work were needed, and what existed (basically), were people that new how to work in presence; so, quite surprisingly, the unexpected crisis created a gap between demand and supply of skills: and for societies and economies to survive, supply had to increase and adapt; in a way the crisis

created opportunities. Due to the implementation of remote work and the new costs with safety and health, it also generated an increase in costs and a reduction of productivity in some sectors. Regarding the construction sector, for example, Olanrewaju et al. (2021) found that compliance costs of health and safety regulations to prevent the COVID-19 virus to spread likely increased project costs by more than 20%, while the site productivity was reduced by up to 50%. Moreover, a 40% increase in skill shortages would occur because of the COVID-19 pandemic; this shortage happened because the demand of skills changed and therefore for a moment much shortage in supply existed, until supply adapted.

Chigbu and Nekhwevha (2021) considered that more than before the COVID-19 pandemic, in the automobile sector, workers have to treat their careers as if they were businesses, for which basic economic calculations and reasoning apply. Consequently, workers have to invest in skills under the umbrella of non-automatable technical and non-technical job families. These authors considered that retraining and reskilling may increase the workers' readiness to face and deal with job automation. However, retraining and reskilling do not lead to job security. Therefore, the tension over job security was increased by the COVID-19 pandemic.

Much in line and adding to this, Peña-Jimenez et al. (2021) found that, due to the challenges faced by ongoing digitalization, cognitive, functional business, strategic, and managing people skills are considered important resources for the Industry 4.0. That is, all those four types of skills are more needed post-COVID-19, given the accrued importance of digitalization post-COVID-19 pandemic. Finally, Anholon et al. (2022) suggested that for the management of innovation and employee skills, the International Organization for Standardization standards are an important knowledge base for developing an information management system that is provides high credible information that can be debated by experts.

Summing up, the changes in work environment which produced the need for new competences and new training needs led to an increase in new skills, which were linked with hybrid or remote form of work and with the need for the successful implementation of digital solutions. So, a big change happened in the skills market, and the 'renewed normal' seems to be an acceleration and deepening of the tendencies that were emerging in the 'old normal.'

Summary of Key Findings

It is said that ‘one cannot take a bath twice in the same river.’ This phrase used to be mentioned refereeing to change. The COVID-19 pandemic was a massive change in our lives. We have been hearing discussions about ‘how big’ and ‘how deep’ that change was. However, sometimes, people and analysts tend to forget that our reaction to that change and the nature of the change itself will be related to the ‘bath’ we took. In other words, ‘the renewed normal’ will be mostly linked with the experiences we had during The New Normal. In what relates to the topics addressed in this chapter, this means during the COVID-19 pandemic, the work environment changed completely and abruptly for most of the services sector, and only disadvantaged people and sectors had to continue working in basic face-to-face work mode, with big safety and health risks. ‘The Renewed Normal’ will offer a mixed working environment in which digitalization will be fostered. However, the implementation of that new work environment as a remote one is limited by the need for presence and face-to-face meetings people feel. Having said that, the changed new work environments required new competences—mostly related with working and commuting at a distance. These new competences, in turn, required new training moods, which were put together through new and more developed and intense VDRs. Again, the existence of those new VDRs is not questioned. However, its efficiency and extended use is. Finally, the change in the work environment produced a change in the skills that were used and demanded, and again, the extent of the change depends on the way in which ‘the renewed normal’ will differ from the ‘old normal.’ Although the technological dimension of ‘the renewed normal’ would imply more distance, and although distance could provide workers with more wellbeing and job opportunities, the human basic need for presence and belonging may limit the use of new skills; on the one hand, people may not be interested, whereas, on the other hand, organizations may find that, in the end, the old way of working are more efficient than the new ones, and therefore the old skills are preferred to the new ones.

Discussion

The findings presented in this chapter must be discussed in a larger and deeper setting. In this context, some concluding remarks are very relevant:

1. The COVID-19 pandemic generated fears of a new long-lasting recession and financial collapse (Nicola et al., 2020). This ensured the need for resilient and strong leadership in healthcare, business, government, and wider society. Immediate relief measures had to be implemented. After that, medium- and longer-term planning was needed to re-balance and re-energize the economy following this crisis. Broad socioeconomic development plans, including sector-by-sector plans, and an ecosystem that encourages entrepreneurship were developed, so that robust and sustainable business models could flourish. Governments and financial institutions had to constantly re-assess and re-evaluate the state of play in order to mitigate the recession. The fact that the unemployment rate in 2021 came back to low levels after a rise in 2020, and that only inflation rose, seemed to point out that the government actions were rather successful. However, in the beginning of 2022, the war in Ukraine put a new stress in the world economy.
2. When analysing the fourth industrial revolution (Industry 4.0) through a theoretical and practical perspective, Ivaldi et al. (2021) found that the agile approach to work is the more suitable way to place humans at the centre of technological progress. This finding fits very well with the findings of the previous section, which indicates that the new working environment, in which VDR will exist, and its efficiency, will depend of the centrality of humans in the technological process and organizations.
3. Corporate social responsibility also became more important. More specifically, companies had to support workers during the COVID-19 pandemic as this had increased the pressure on organizations' accountability regarding workers' health and well-being (Chen, 2021).
4. Worker health was analysed as a modifiable spectrum (Brigham et al., 2021). Non-occupational factors (including age, race/ethnicity, sex, education, health care access) are associated with disparities in health

- outcomes. Occupation is related to these factors, but it may also independently affect and further expand the spectrum of outcomes through exposure and income disparities. The onset of the COVID-19 pandemic compounded pre-existing workplace hazards, shifting the spectrum of outcomes to harm in the absence of compensatory worker protections. Shifting the spectrum away from poor outcomes in worker health requires population-level interventions that reduce health disparities and improve workplace conditions and protections.
5. The analysis presented in this chapter were essentially based on data from private companies. Concerning public administrations, however, D'Avanzo (2021) found that public administrations have now to manage a new way of working. However, they do not have an adequate organization, because they are not 'smart' enough; within this context and given that work itself is in a phase of full transformation, opting for flexible and intelligent forms of work is crucial. Therefore, it is necessary to rethink its traditional forms.
 6. Finally, it should be mentioned that, mostly, the analyses presented in this chapter are adapted to the Northern and more developed and affluent countries of the world, in which a knowledge-based and service-led economy exists. Even so, in these countries, many disparities and inequalities exist, which COVID-19 pandemic only reinforced and underlined.

The findings of the chapter may be of interest for practitioners because we put together some information that usually is dispersed. The findings may also be of interest to scholars because within the socio-technic reality, we describe there is space for a lot of applied research on the topics we addressed.

Conclusion

Humans tend to forget quickly. Before the pandemic, the world was balancing between digitalization and climate catastrophe. Then came COVID-19. COVID-19 was the first big shock the 'New Economy' had to endure. It was so big because it was exogenous (a virus) and it was

unexpected. And it was so general and abrupt that people began to compare with World Wars I and II. Two years on, when we were entering ‘the renewed normal,’ a new and very complicated started, in Ukraine.

Before the COVID-19 pandemic, there was the question about the power relations in organizations between artificial intelligence and humans. Quite extraordinary, the COVID-19 pandemic increased the importance and the use of technology but also showed its limits more than ever—it is nowadays more evident than before that people are and should stay being the central element of organizations. Also, there was the question about sustainability—and the COVID-19 pandemic increased the urgency of sustainability, not only in environmental grounds, but also in economic, social, and political ones.

It is within this context that VDRs were developed, as a way to provide new forms of training, which refer to new competences, whose need was created by the instalment of new work environments, and that require new skills. All this change is ongoing and will not stop. And quite crucially, the biggest and defining element in that change will be the way people will relate to technology. Life changed, and will remain different, given that presence will become hybrid after having been remote. In this context, this chapter analysed changes in the work environment, competences, training and skills, according to academic research published in the past two years. The general idea is of a big and complex flow, which will lead humanity to a better even if unexpected future.

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