



# Exploring Work and Organizational Psychology in the Metaverse: A Critical Research Agenda

REVIEW

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## ABSTRACT

The metaverse has the potential to contribute to the constitution of society, organizations, and workers. Thanks to augmented and virtual reality technologies, including simulated environments, avatars, and algorithms, psychology needs to address new meanings of subjectivity and reality within occupations and organizations in the metaverse. Following this impetus, the article reflects on aspects of dignity and individual well-being in the metaverse, concentrating on three major areas of interest: 1) psychological issues faced by individuals, 2) psychological issues in relation to organizations, and 3) psychological issues at the societal level around the work environment. The article builds on a critical perspective to propose a vision of Work and Organizational Psychology (WOP) of the metaverse and presents a research agenda with suggestions and recommendations for WOP research. Furthermore, it highlights the evolving role of psychologists in understanding and addressing the psychological challenges arising in the metaverse. By critically examining the intersection of technology, society, and individual experience, this study contributes to a deeper understanding of the metaverse's potential implications for the dignity of people.

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## 1. INTRODUCTION

“[...] at a time when it is becoming increasingly difficult to live there. It looks, indeed, as if we are approaching a period of crisis in urban life; and Invisible Cities is like a dream born out of the heart of the unlivable cities we know.”

– Italo [Calvino, 1972](#), Invisible Cities.

In October 2021, Facebook chairman Mark Zuckerberg renamed its venture Meta Platforms to emphasize its commitment to developing the metaverse. Described as the next wave of the Internet, as an embedded form of the virtual where people are not only looking at content but are also inside the Internet, Zuckerberg has recently envisioned the metaverse as a space predominantly dedicated to work, where the individual could engage in various professional activities ([Zuckerberg 2021](#)). This is akin to acknowledging the actual future of living and working. Recalling the quote of the famous Italian novelist Italo Calvino, we are probably witnessing the approach of imaginary worlds while our ‘time is becoming increasingly difficult to live’ ([Calvino 1972/2012](#)).

The metaverse is an integrated, immersive ecosystem within the virtual world. Users have avatars and holograms to interact, work, and socialize within this simulated shared experience ([Zuckerberg 2021](#)). Scholars (e.g., [Damar 2022](#); [Dwivedi et al. 2022](#)) defined the metaverse as a layer between people and reality, where such a layer is constituted by 3D virtually shared worlds thanks to augmented and virtual reality (VR) services ([Lee et al. 2021](#)). Antecedents of the metaverse are previous experiments of virtual environments, such as Second Life and Roblox, yet the metaverse distinguishes itself in several ways. According to [Dwivedi and colleagues \(2022\)](#), the metaverse is a) experienced more naturally, b) offers a full immersion into the virtual world accessible through PC-based and mobile devices, ensuring continuity, and c) demonstrates improved economic efficiency and stability due to advancements in blockchain and security technologies development. Lastly, d) interest in virtual worlds and the metaverse has been growing for the last three years ([Dwivedi et al. 2022](#)).

Recent literature reviews have explored how the metaverse is going to be part of individuals’ lives, ‘creating new forms of communication and interactions through immersive experiences, potentializing a development of new means of services and entertainment’ ([Cruz et al. 2023, p. 8](#)). Notably, since November 2022, Meta and Microsoft have been making deals to support the spread of the metaverse, which led to the proclamation of the metaverse as the future of work and organizations ([Emergen Research 2023](#); [Teper 2022](#)), in which workers use VR headsets, avatars, and blockchain technology to live new physical and virtual experiences. Moreover, the

international survey collectively conducted by Ernst & Young Global Limited and Nokia’s survey revealed that up to 58% of Brazil, Germany, Japan, South Korea, the US, and the UK businesses in key industries have integrated aspects of the metaverse into their organizations ([Nokia Corporation 2023](#)). Microsoft’s Work Trend Index Annual Report ([Microsoft Corporation 2022](#)) indicated that 52% of employees are open to using digital immersive spaces in the metaverse for working. Similarly, Gartner Inc. predicts that 25% of people worldwide are expected to spend a minimum of one hour per day in the metaverse by 2026, and 30% of organizations in the world are operating with work and products in the metaverse ([Gartner Inc. 2022](#)). Taken together, these showcases and forecasts on the metaverse illustrate not only the boundless possibilities but also set the idea of new challenges associated with virtual workspaces in the metaverse.

Equating the metaverse with the future of work gives impetus to us, as Work and Organizational Psychology (WOP) researchers, to understand the ever-extending new ways of working life, including issues involved at the individual, the organizational, and the societal level in the metaverse. The metaverse is capable of shifting the constitution of work, workers, organizations, and society ([Dwivedi et al. 2022](#); [Emergen Research 2023](#)). Private and public organizations are looking at the metaverse as a way to adapt their business models and operational capacities to its novel functions ([Li 2020](#)). The transformation we are witnessing is as fast as the evolution of technology that enables the creation of the metaverse (e.g., VR headsets, haptic gloves, and suits, AR, Extended Reality (XR)) ([Emergen Research 2023](#); [Lee et al. 2021](#)). What is more, the metaverse reflects the innovative imagination of multinational technology conglomerates as economic players (e.g., Microsoft, Google), particularly by Meta platforms, which are investing in new ways of working, reflecting capitalistic logic and fantasies of growth. Likewise, the centralized nature of the metaverse reminds us of the ideas of power and control over work and organizations, such as the way work and organizations appear to reflect the way Meta or Microsoft realize opportunities for working and organizing in the metaverse. The metaverse can broaden the scopes and possibilities of work life and organizations, many of which are perhaps beyond our current understanding ([Dick 2021](#); [Dwivedi et al. 2022](#); [Mystakidis 2022](#)), yet it can also exaggerate societal, organizational, and individual issues of power and control, growing neoliberal absurdity and its hypernormalization in contemporary society and workplaces ([Bal et al. 2022](#)).

This paper presents a research agenda for WOP in the metaverse. In the absence of empirical and theoretical discussions in the literature of WOP, the agenda contains a series of reflections and focuses on issues related to working life in the metaverse on all its levels: individual, organizational, and societal ([MacLachlan &](#)

McVeigh 2021). Then, the agenda concentrates on three major areas of interest to offer a vision of WOP in the metaverse: 1) psychological issues faced by individuals, 2) psychological issues in relation to organizations, and 3) psychological issues at the societal level around the work environment.

To pursue this objective, the agenda draws on critical perspectives of WOP (Islam & Sanderson 2022) as a heuristic framework to approach work and organizations in the virtual world by proposing a critical and reflexive side of current developments, thanks to which maintaining the dignity of the individual and of work and the workplace is at heart (Bal 2017). Critical perspectives of WOP are future-oriented: namely, they may be anchored in the classical critical tradition (e.g., Horkheimer 1972), but they also help to imagine new ways of knowing and suggest alternative possibilities for the field (Bal et al. 2019; Islam & Sanderson 2022). Exploring a new issue in working life, such as in the metaverse, requires imagination and reflexivity for interrogating the ideological underpinning of a WOP of the metaverse while also acknowledging traditional and lesser-understood issues of working life (e.g., instrumentality and vulnerability). Then, we critically approach the metaverse and proceed with our research agenda for proposing recommendations for theoretical and methodological grounding to engage with the metaverse.

## 2. A CRITICAL RESEARCH AGENDA FOR WOP IN THE METAVERSE

### 2.1 APPROACHING THE METAVERSE IN WOP VIA A CRITICAL LENS

For a critical research agenda, the following sub-sections refer to different research strands within psychology, among which the particularistic and problematizing lens of critical perspectives (Islam & Sanderson 2022) is used to reflect on the psychology of work and organizations in the metaverse. In this, we maintain our focus on dignity to explore how work in the metaverse can lead to violation or suppression of dignity while also perpetuating social power structures that recreate and reinforce social injustices. As noted above, the metaverse reflects the imagination of multinational technology conglomerates as economic players, and while they advance new ways of working, they also reflect specific ideological logic (e.g., capitalism/neoliberalism) and fantasies of growth. Scholars have widely warranted the role of these ideologies in affecting the organizing of work and society, resulting in dignity violations and the perpetuation of political-economic logic in the workplace (Bal & Dòci 2018). In contrast to such a condition, dignity is invoked as a principle to postulate that everything in the workplace (e.g., people, animals, and resources) has an intrinsic worth and should be treated as such (Bal

2017). Then, our work is not meant to be an exhaustive definition of the various possibilities of theory and research of WOP in the metaverse. Conversely, this work results from a critical position, according to which we aim to realize a roadmap for alternative thinking in the study of work organization. In this, we warrant risks on dignity violations, that is, violations of the intrinsic worth of subjects, as well as the risks of perpetuating social inequalities while reinforcing dominant instrumental logic.

Centering higher values, such as humanism, which highlights issues of dignity and respect (Bal 2017; Seubert et al. 2023), represents our reflexive approach in this image of a humanist WOP in the metaverse. Our work centered on dignity follows critical reflexivity as a heuristic framework to engage in a continuous process of critical reflection on the components of life and work while continuing to reflect on theoretical and methodological assumptions, including the responsibility of researchers. That is, critical reflexivity comes in a double role, reflecting on the conditions of life and work, as well as on the impact of the responsibilities of our own research and practice. In analyzing the nature of digital architecture and the societal, economic, and political nature of the metaverse, we engage with a problematization of traditional theory within the psychology of work and organizations, as well as on the role of our profession as psychologists (O'Doherty et al. 2019). Our empirical and conceptualizing effort realizes a continuous endeavor in the value of people and work and aims at protecting the dignity of work and the workplace (Bal 2017), occupational health, and employee well-being (Sparks et al. 2001) in the metaverse. Epistemologically and methodologically, we take the vantage point of Critical Theory (Horkheimer 1972) and that of critical perspective highlighting issues of dignity (Bal 2017; Islam & Sanderson 2022) as lenses to the three points of psychological issues at the individual, organizational, and societal level for analytical aim. These lenses can help us broaden the discussion and aim for integrative understandings beyond narrow traditional psychological perspectives (e.g., work motivation, work meaning, well-being, job analysis). Rather, our critical exploration of the role of WOP in the metaverse maintains a social concern for human dignity but also strengthens our analysis to reflexive, systemic, and emancipatory concerns for interrogating traditional and unconventional issues of working life. Moreover, we can create space for discussion on the role of psychological theorizing and empirics in understanding questions on work and organizations in the digital future of the metaverse. Such a space represents an opportunity for our scholarly community to engage with the metaverse.

In the following subsections, we examine each level of analysis separately (i.e., individual, organizational, and societal). Some initial ideas for concepts and

directions of future research are advanced; implications and recommendations concerning the metaverse as a workplace are suggested. Lastly, these insights pave the way for some final observations on theory, methods, and our practice as psychologists, which may subtly inform initiatives to start a new psychological perspective.

## 2.2 THE PSYCHOLOGICAL ISSUES AT THE INDIVIDUAL LEVEL

Scholars in WOP follow empirical and theoretical treatments of individual aspects spanning from individual characteristics to behavioral-cognitive and emotional-affective dimensions (Islam & Zyphur 2006). At the core stand classical WOP interests in individuals at work, such as individual differences (e.g., work motivation and job attitudes), behaviors at work (e.g., vocational behavior), emotions at work (e.g., affect and emotions), and individual processes associated with work (e.g., recovery process) (Mathieu & Chen 2011). Both classical and contemporary discourses consider a plethora of stable and changeable individual aspects in relation to occupational health, employee well-being, and organizational proficiency by employing different theoretical lenses, among which prominent ones are the Job Characteristics Model (Hackman & Oldman 1976), the Job Demands-Job Resources Model (Bakker & Demerouti 2007; Bakker et al. 2023), and the Efforts-Rewards Imbalance Model (Siegrist 2016).

Far from making any judgments of value on theoretical perspectives within the literature of WOP, there are certainly a few points that scholars from classical and contemporary psychological approaches can be aware of when facing a development like that of the metaverse. As noted, the metaverse has as one characteristic the fact of offering individuals options for self-expression and, more precisely, novel and possibly unexpected changes for individuals to create representations and projections of life and relations (e.g., via avatars) (Dwivedi et al. 2022). Employees use their avatars to move around virtual offices to ‘experience’ sociality with virtual colleagues, with a specific and restricted (in terms of embodiment) sense of space complemented by technological solutions (e.g., as footsteps sound changing in the virtual offices according to distance) (Kshetri 2022). Categories of gender, identity, and human character can be subverted by the metaverse on a cognitive level, which has no limits on the type of available avatars one can choose: male, female, everything in between or without gender, non-binary, feminine or masculine, oneself or a famous person, human or non-human. Colleagues at work could be real-life colleagues, while others could be governed by algorithms. The work in the metaverse reduces the physical and mental efforts of accessing an extra system, suggesting different processes of recovery from work. Meeting and talking with colleagues are facilitated by immersion in social media, with exceptional forms of

communication that renovate team climate and team building (Kozinets 2023; Popescu et al. 2022; Voinea et al. 2022). The metaverse comes as materialized action, interconnecting subjectivity, sociability, and materiality (Degen et al. 2023; Schraube 2024).

It appears that the metaverse presents a workspace where traditional categories of the individual are treated, mediated, or changed through the creation and use of avatars, algorithms, and virtual environments (Prince 2022; Zhang 2022; Zhang et al. 2018). To account for the dignity of people in the metaverse, a less strict view is needed in order to grasp the rich experience of a subject in the metaverse. Prototypical studies in psychology aiming at understanding individual differences associated with specific outcomes, e.g., job performance, cannot have the same paradigmatic valence. For example, the psychology of individual differences cannot explain how workers establish a different relation to themselves with avatars. Empirical evidence on virtual profiles has shown that such profiles might lead users to manipulations of their identities and representations. Grounded in the metaverse and embedded in avatars, the employees working in the metaverse may also continue to engage in the establishment of themselves beyond the working context itself. This is not to avoid approaching the individual in the metaverse by considering certain differences that can have a representative function and propose valid and reliable guidance, yet it also remains an interface of the lived experience of individuals. Intriguingly, the metaverse might let humans express their own potential, which might expand fixed terms. A more dynamic and projective notion of the self (Islam & Zyphur 2006) may help to understand how individuals develop and maintain their identity and relations in these new workspaces. This approach can allow for maintaining a critical position due to the interest in protecting the intrinsic worth of people while also allowing for taking into account structural differences among people due to social class, ethnicity, or gender.

Nevertheless, the psychology of the individual must interrogate itself on how the metaverse will change the lived experience and how we can understand it to promote (well-)being in this novel environment (Dwivedi et al. 2022). The risk of full immersion in virtual reality is one of the main mental health risks for people working in the metaverse (Kozinets 2023; Park & Kim 2022a; Park & Kim 2022b). Using avatars may subvert the concept of work-related stress with individuals constantly engaged within a rich, stimulating, and never-ending working office. Likewise, the presence of a reality characterized by infinite possibilities may challenge the psychic processes of individuals to confront such an imaginary world. Similarly, existing theories and models within the literature of psychology may be refined regarding concepts of work motivation, job attitudes, emotional-affective processes, and organizational behaviors as

they are realized (Park & Kim 2022a; Park & Kim 2022b). What changes in the metaverse are certainly the human nature of relations and the mental account of virtual reality. Framed as such, variants of motivations are expected as a way to capture the richer opportunity to self-actualize or even more to transcend themselves by establishing a new identity and a new self within the sense of growth and characteristic possibilities of the metaverse. The constitutive relations with work and other subjects in the metaverse might lead individuals to experience new forms of engagement with one's work, as well as with meaning in work in the separate forms of virtual reality. For example, considering the lived experience of the employee in the metaverse using a dynamic and projective notion of the self, one's individual characteristics can no longer be real, and their aspects in the particular context of the metaverse can show different properties with individuals attributing meaning to different entities. Cognitive-affective processes reflect the way in which individuals grasp meaning in their everyday actions, which can be revealed and understood differently in the virtual world. It is perhaps worth warranting that employees might also feel a separation between the meaning of work in the real world and the one in the virtual world, with a sense of meaninglessness, decreased motivation, isolation, or social alienation (Orhan et al. 2016). Moreover, this process can happen simultaneously with the way employees experience relationships.

Employees in the metaverse have the possibility to establish parasocial relationships with algorithmic co-workers and leaders (Tambe et al. 2019; Tarafdar et al. 2023), as well as possible new jobs that are part of and defined by the metaverse. In this, trust in artificial intelligence (AI), i.e., algorithmic co-workers, is not the only innovative element. Interacting with algorithmic co-workers and leaders can comprise substantive and procedural rules of the organization that might lead to informational asymmetries in the organization, thanks to controlling and assessing the effectiveness of job roles (Orhan et al. 2022). This suggests that the involvement of employees in relationships in the virtual world can take and mean different things, calling for understanding how aspects of data protection and discrimination can influence the way individuals relate to each other and with algorithmic characters. What is more, it is not only the way the metaverse forces employees to negotiate their identity and relationships but also the fact that the virtual world comprises a series of pervasive elements and risks of exploitation and discrimination, which might be hard to detect. Considering these aspects, we can easily expect renovated ways of experiencing and behaving in the workplace. Questions on how individuals perceive and experience algorithmic jobs, colleagues, clients, and leaders (Tarafdar et al. 2023) cannot be fully represented via traditional psychological models but

rather invite WOP to deviate from potential instrumental topics (e.g., work motivation) and formulate perspectives on what dignity can mean in the metaverse.

Approaching the metaverse in this way could lead to interrogating the underpinning ideologies in virtual work and organizations but also help to acknowledge lesser understood issues of the work-life in WOP, such as the vulnerability of the employees and the risk for social alienation in the interaction with algorithmic entities. In turn, WOP's theoretical and empirical work on the individual in the metaverse may compare, integrate, and evaluate existing psychological theories by establishing improved intra-psychic and inter-individual models. To address psychological issues at the individual level in the metaverse, psychology may be realized as a first stance in the comprehension of the lived experience of workers, which can certainly falsify, extend, or contextualize existing theories. Questions on established concepts of psychology might be reduced to the investigation of the human needs, actions, and beliefs in the metaverse, i.e., to the study of the dynamic and projecting nature of humans in the metaverse. Applying a critical agenda to understand the work life of subjects in the metaverse can help to find the elements to protect and sustain the dignity of the employee. One way to do this is to engage with traditional qualitative approaches, which are more appealing to pursue such objectives. However, even quantitative approaches involving different measurement tools might support the comprehension of cognitive, emotional, and relational aspects and their biological characters. Indeed, the alliance between Meta and Microsoft recently announced has been realized with the launch of VRs capable of tracing eye movements (Emergen Research 2023; Teper 2022). This, in combination with other measurement tools such as electroencephalogram (EEG) to record brain activity, could be used to study biological and physiological aspects underpinning psychological processes at work.

## 2.3 THE PSYCHOLOGICAL ISSUES AT THE ORGANIZATIONAL LEVEL

In WOP, classical and traditional focuses have long regarded organizational aspects considered from an individual-based perspective (Mathieu & Chen 2011). Notably, this refers to the employment of an individualistic approach in which the environment (e.g., the organization) is reduced to the experience, perception, and responsibility of the individual (Islam & Sanderson 2022). In turn, this perspective has made the use of a psychological analytical lens to identify the conditions that can lead to organizational proficiency with organizational issues of interest spanning from selection to recruitment, from organizational needs analysis to skills and competencies of the workforce, and from training to social engineering. Situated as such, scholars have referred to multiple psychological



and managerial models for the comprehension of the collective dimensions of the organization (Troth & Guest 2020).

In the metaverse, this formal lens may find limits in the new virtual organizations. The first examples of the metaverse applied to gaming and working (Fernandez & Hui 2022) have already remarked on the risks for power relations and discrimination of the Internet (Douglas 2009). Likewise, risks to the security of the organizations increase the quest for new forms of stocking information and information exchanges within the metaverse. Moreover, with algorithmic jobs, colleagues, clients, and leaders, the question for organizational scholars is whether formal ways of organization and organizing can be applied in the metaverse as well as which forms of recruitment, selection, training, and socialization can take part. It appears that a strict individualistic approach can risk accounting for power relations and discrimination and dignity violations in the metaverse. Such an approach to the study of the organization may be lost in the evaluation and exploration of the very separate forms of the psychological dimensions of an organization and how occupational health and employee well-being can be at the core (Gordo & De Vos 2010).

In the metaverse, the balance of power and control between employer and employees shifts in favor of the operators and gatekeepers of the platforms for working activities (Koos 2022). First, the metaverse is a deregulated space where operators and gatekeepers are omniscient and ubiquitous. The metaverse has no regulation for privacy issues, and the owners of the metaspaces have access to all the data of participants (e.g., time spent watching the screen, number of breaks at work, communications in the meta-chats) (Dwivedi et al. 2022). Second, the development of virtual workspaces and virtual organization rooms can affect employees and employers (i.e., their avatars) in the sense of expression of their roles and responsibilities. Owners of virtual workspaces and virtual organization rooms significantly provide a degree of power to the relations and how and when subjects can interact.

Taken together, these elements tilt in favor of forms of performance optimization over employee rights and dignity with risks of worker exploitation, forms of depersonalized bullying, and abusive leadership (Berlingieri & D'Cruz 2021). That is, having access to data on employees, such as the number of breaks at work or communications in the meta-chats, with their implications for organizational proficiency, provides an organizational design in which forms of power and control over employees can be perennial. Employers and managers can rely on metaverse operators and gatekeepers to realize organizational purposes with subtle and overt forms of abuse. What is more, the virtual character of the employees suggests that there might be different forms of resistance from them

and how they might reinforce such power dynamics. Then, investigations might consider an open focus on the relational aspects and the expositions to violent manipulation of the organization and organizing of work in the metaverse. WOP in the metaverse requires gradual lenses for the comprehension of how control is distributed over the workers' lives and careers as well as over the manipulation, treatment, and use of web resources. For example, the aspect of privacy and control also resonates with the development of new technologies capable of tracking the eyes of the users, which may be used to operationalize and control employees' job performance (Falchuk et al. 2018; Flavián et al. 2019). Inclined to protect the dignity of the employee, WOP might advance normative models capable of understanding the boundaries of power, control, and resistance in the organization and management of workspaces in the metaverse.

According to the literature, human resources (HR) management can renovate the ways through which they allow employees to express themselves and prevent risks related to power and control. However, it is difficult to imagine how HR management might be in the metaverse, as owners of virtual spaces are in control of resources, data, and spaces. In these terms, the role of HR agents probably has to shift towards new ways of analyzing and supporting psychological and relational processes among avatars. Then, being at the forefront of the organization and of organizational changes, HR management has the responsibility of creating and maintaining a sustainable organization in the metaverse (Ward & Alaghband 2022). The function of HR management requires new forms of managerial practices (e.g., job analysis, recruitment, selection, and training), which might be characterized by a paradigm shift to dignity as a framework for organizing dignified structures of work that protect from human rights violations. More caution is required for the treatment of employees, particularly in caring for their dignity while also providing opportunities for personnel development. That is, one main area of concern is represented by the series of workplace practices that rely on partial or automated devices whose function is traditionally exercised by HR managers (Kellogg et al. 2020). The use of algorithms to automate the organizing of the virtual workplace in terms of what employees have to do, in which order, and with which schedule entails an instrumental view and a hierarchy that might lead to routinization and intense work. From a critical perspective of WOP in the metaverse, these processes remind us to question how to protect the dignity of the individual in the metaverse and which practices can temper power dynamics and control. In particular, it appears crucial to understand how HR management can realize the constant collection and processing of data and the inscrutable and unpredictable decisions of algorithmic management (Aloisi 2024).

In addition, there are also some less evident aspects that might appear in the context of the metaverse, challenging HR management. That is, HR has to draw particular attention to the infinite conditions of the metaverse against the limited resources of the employees. The organization of time and the requirements of flexibility, as well as forms of job arrangements and psychological contracts, must receive particular attention. As in the previous industrial revolution, the reorganization of working time and work arrangements has been the key feature of economic restructuring. However, in the past, such a reorganization of time and work was mainly related to employers' demands for flexibility in work schedules in the face of business models and/or market uncertainty (Li 2020). In sharp contrast, the metaverse opens to a novel idea of time and work schedules where everything is forever and eternal (Ball 2022; Dwivedi et al. 2022; Floridi 2022). Moreover, this context is approached by reflecting on the capitalistic and neoliberal logic of commodification and resource exploitation for profit maximization. This could lead to frequent overtime work, deadlines, emergency contingencies, and full immersion in the metaverse for the employees (Kozinets 2023). It is also possible to think that avatars may not stop working once the user disconnects as algorithms go on working. The metaverse requires renovating HR management, which should thoroughly be inclined to the realization of a normative perspective of the management of virtual time in favor of the dignity of people and data protection.

## 2.4 THE PSYCHOLOGICAL ISSUES AT THE SOCIETAL LEVEL: WORK-ENVIRONMENT CHALLENGES

Studying the dynamics involved in the virtual world necessarily invites researchers to tackle psychological issues at the societal level and to interrogate work-environment challenges. Nations have been looking at the metaverse to create or renovate their embassies in the metaverse. The European Union has been realizing an industrial alliance to guide the process of inclusion in the metaverse of markets, businesses, and nations. Similar initiatives have been realized from Eastern to Western countries (e.g., South Korea, China, and the US) (European Commission 2022; CNBC 2022; Greenwald 2022). It appears that the metaverse is not restricted by regions and time differences of the real world, and this characteristic of decentralization can probably lead to the creation of a metaverse society.

However, this endeavor cannot be taken for granted as the metaverse might not be accessible to everyone independently of economic resources or marginalized conditions of minority groups (e.g., individuals with disabilities). This leads to questions not only about the development of accessible design and features but also reminds us that the metaverse is not immune to

real-world issues such as job security, job exclusion, and social discrimination. The separation between real and virtual worlds reminds us of the question of the dignity of people, as it does not imply that individuals and organizations would not replicate inequalities (e.g., racial and socioeconomic disparities). In sharp contrast, the investment in metaverse workplaces by the richest international businesses suggests that organizations might be intentionally replicating the same capitalistic logic and, in turn, creating non-diverse and non-representative virtual communities.

This depiction of the societal-level aspects in the metaverse gives impetus to psychologists for theoretical and empirical investigations. WOP has to recognize that the social spheres of the metaverse don't separate from the work and organizational practices and, in turn, threaten a humanistic stance. Recalling the risks of dignity violations, it is perhaps crucial for WOP to understand how power and social inequality might be perpetuated in the metaverse, while also questioning emergent cultural narratives in favor of possible marginalized groups in the metaverse. With respect to this, environmental elements (societal, political, and cultural) applied to the metaverse would need to be refined by scholars. With nations and enterprises looking at the metaverse and creating new alliances for the realization of a new society, the metaverse will probably constitute new forms of meanings, roles, norms, and practices to which individuals refer (Chayka 2021; Dwivedi et al. 2022; Fernandez & Hui 2022). In this sense, the very notion of dignity as the intrinsic worth of people begs questions on how violations can occur and how dignity can be protected. WOP has to attempt to approach such changes in the metaverse by critically looking at the ways organizations and management intertwine with the broader structures of the metaverse, e.g., institutions and politics in the metaverse, while analyzing the perpetuation of political-economic ideologies such as neoliberalism.

The emerging work life in the metaverse calls for a WOP addressing how social power structures recreate and reinforce social injustices. Notably, the metaverse requires a look at the perception of job insecurity and the event of social discrimination (Center for Countering Digital Hate 2022; Fernandez & Hui 2022). Historically, the restructuring and downsizing of organizations have led to an increase in employees' sense of job insecurity. In the metaverse, this can be accentuated by the quest for new skills and competencies to interact with avatars and relate to virtual environments and algorithms. The consequence of this massive change may also involve the presence of contingent workers and alternative employment against conventional forms. These new forms of employment might be objects of fewer entitlements and protections within the organization. In turn, the restructuring of work and organization of

the metaverse may lead to the occurrence of social discrimination and social exclusion, with threats to diversity and inclusion. This is certainly the case in countries with lower-middle-income economies and enterprises that may have fewer resources to enter the metaverse since the largest investment in the metaverse is by international businesses that replicate capitalistic logic. Likewise, as for social media, there is the risk that major technology companies dominate the metaverse and its communities with software standards acting against a democratic and inclusive context (Purdy 2021). Then, cases of discrimination can still be based on race, ageism, and sexism within organizations (CCDH 2022), with the perpetuation of forms of social discrimination and social exclusion.

Lastly, these elements call for more efforts by scholars to use interdisciplinary approaches to understand how the metaverse and macro institutions in it change, create, and renovate jobs and careers (Li 2020). Notably, the metaverse can continue to have institutionalized and chronologically ancient forms of working, yet novel transitory or permanent jobs will be nascent in the metaverse. Given the embryonal nature of the metaverse, it is quite ambitious, or rather impossible, to predict new forms of work and employment. However, psychology can still make efforts to define processes and conditions on the match between employees and the new jobs and careers in the metaverse it will bring. The set of knowledge, skills, and abilities (Purdy 2021) as well as the perception of employability of people acting with avatars in the metaverse will probably be asynchronous and unrelated to the actual characteristics of the individual (Kozinets 2023).

### 3. CONCLUSIONS

The ever-expanding new wave of the internet, the metaverse, presents more complicated challenges for work life and organizations in addition to the existing ones. On the one hand, the metaverse requires us to rethink WOP prototypical lenses in approaching the individual at work (e.g., individual differences vs. subjectivity). On the other hand, the metaverse reflects the impetus of capitalistic logics and ideas of growth by the wealthiest multinational technology companies. The transformational impacts of the metaverse call WOP for responsibility toward how the metaverse can impact work, organization, and society at large while prioritizing the dignity of the individual (Bal et al. 2019).

Following a humanistic stance, our intellectual and imaginative work based on critical reflexivity for exploring the role of WOP in the metaverse led us to identify a series of directions that WOP can take. In doing this, we problematized traditional themes and methods of WOP by

arguing that the shift to the metaverse invites us to follow possible alternative perspectives to offer theoretical, methodological, and practical contributions to protect the dignity of people. We emphasized the importance of dialogue and self-assessment within psychology, i.e., critical reflexivity, about a careful reflection on research attitudes, trends, and practices in order to be able to approach the research activity itself in a critical manner. Challenging as it may be, this process of meta-reflection is fundamental when analyzing the phenomena of work and employment in the metaverse from the researcher's own reference as the researchers' practices take part in shaping the future (Bal et al. 2020; Gerard 2016; Islam & Zyphur 2006; Islam & Zyphur 2009; Weber et al. 2020). In parallel, our intellectual work implies that proposals for investigations may vary within the new context of the metaverse (Kozinets 2023). Taking a critical perspective on the metaverse, we may wonder if the methodology of psychology can be expanded to a more comprehensive vision that is open to the complexity of the metaverse. Pluralism, as a focal approach to the study of a given phenomenon, offers a particular lens for exploring a priori the conditions within which to carry out one's research work as well as generating a cognitive circuit from theory to practice that is more contextually adherent.

To conclude, we may also think about our profession as psychologists in the metaverse. Probably, some may see the metaverse as a progressive future in optimistic, imaginative, and utopian ways, while others may have terrifying, pessimistic, and dystopian views about the future of the profession. Some colleagues might recall opinions from academic literature on the future of work to frame our observations, such as the one by Rifkin (1995), who predicted the end of work, while more recent publications have claimed how difficult it is to predict future trends of work and employment (Islam 2020; Manyika et al. 2017; Wilkinson et al. 2020). We may say that good reasons for optimism refer to the set of opportunities in the metaverse, while pessimistic views echo the incomprehensible nature of an infinite world as the metaverse. Avoiding the two easy options of despair and excitement, objective indications on how we should reflect on the future of our profession must be considered. There is evidence of an increase in the social and institutional recognition of the discipline of WOP (Klein 2018; Schultz & Schultz 2020). Evidence is both in the presence of master schools and business schools devoted to the training of WOP. The number of journals and publications for research and practice in psychology attests to additional evidence. Such recognition should be viewed in continuity within the metaverse, as work and organizations will continue to need the benefitting aspects of psychology. What may be not quite clear is how psychology can be established in the metaverse. This calls scholars and practitioners to reflect upon the





interface between virtual reality and reality. In this sense, this calls our community, who wish to cherish, through research and practice, the crucial role of a critical WOP standpoint in the world of work and organizations, be they virtual or not.


## COMPETING INTERESTS


The authors have no competing interests to declare.

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