# Guest Editorial. The Labour Side of the Metaverse. Marco Biasi\*

1. Introduction. 2. Game, leisure and work in the Metaverse. 3. The doubtful identification of the applicable labor laws in case of (Pure) Meta-Work. 4. The peculiar needs of the Meta-workforce. 5. Concluding remarks.

### Abstract

The contribution purports to map the regulatory issues of Metaverse work. After a brief overview of the origin and of the function(s) of the virtual "space" (more properly, tool) known as the Metaverse, the Author distinguishes the case of "Ancillary Meta-Work" (which occurs when Metaverse work is just the supplement of a regular working activity carried out in the employer's premises or even remotely in the non-virtual world) from the case of "Pure Meta-Work" (which occurs when the working activity is entirely carried out in the Metaverse): whilst the former is simply the evolution and the further progress of remote working and it thus requires only a - yet, delicate – adjustment of the relevant policies, the latter poses more serious challenges to the extant labor regulation, ranging from the identification of the applicable law(s) to the recognition of the protective urges arising from a working performance which, despite its virtual dimension and actors (Avatars), involves, as always, the provision of (human) labor.

Keywords: Metaverse, Labor Regulation, Applicable Labor Law, Labor Protection.

## 1. Introduction.

From a labor lawyer's perspective, the Metaverse might appear as the ultimate stage of a process which started with the shift from widgets to digits<sup>1</sup> and continued with the shift from digits to platforms<sup>2</sup> and, eventually, to robots.<sup>3</sup>

Indeed, the latest technological developments seem to simply move forward – if not to complete – the progressive dissolution of the unity of space (and time) which featured the origin of labor law.<sup>4</sup>

At the same time, the Metaverse is still perceived by many as a topic which has more to deal with science fiction (and gaming) rather than with science tout court: not by chance, the

<sup>\*</sup> Associate Professor, University of Milan.

<sup>&</sup>lt;sup>1</sup> K.V.W. Stone, From Widgets to Digits. Employment Regulation for the Changing Workplace, Cambridge University Press, 2004.

<sup>&</sup>lt;sup>2</sup> Biasi M., 'We Will All Laugh at Gilded Butterflies''. The Shadow of Antitrust Law on the Collective Negotiation of Fair Fees for Self-Employed Workers, in European Labour Law Journal, 9, 4, 2018, 354 ff.

<sup>&</sup>lt;sup>3</sup> Hendrickx F., From Digits to Robots: the Privacy-Autonomy Nexus in New Labor Law Machinery, in Comparative Labor Law & Policy Journal, 40, 3, 2019, 365 ff.

<sup>&</sup>lt;sup>4</sup> Veneziani B., The Evolution of the Contract of Employment, in Hepple B. (ed.), The Making of Labour Law in Europe, Hart, Portland, 1986, 31 ff.

first conception of Metaverse was embedded in Neal Stephenson's oneiric novel "Snow Crash", published in long gone 1992.<sup>5</sup>

I personally shared the above-mentioned view, but what I accidentally experienced during the research period I conducted at Stanford University (which is located, as universally known, in the heart of the Silicon Valley) in Spring 2022 made me radically change my mind. In the occasion, I was only by chance invited by a friend of mine (needless to say, a venture capitalist) to join one of the virtual meetings he weekly held in the Metaverse with his assistants, who were physically located in various parts of the World. With a headset and a couple of controllers (akin to those used in videogames), I entered a space which had very little in common with the platforms, such as Microsoft Teams and Google Meet, where so many work meetings have been remotely held ever since the Pandemic. In the virtual, immersive dimension, the participants were able to interact through their virtual *alter egas (avatar)* in a way which resembled more closely a live meeting than an online meeting. In the tridimensional space, it was possible to project images and graphics on the walls, to exchange documents and files, and more generally, to move around the meeting room. Most importantly, two of the five senses (sight and hear) were involved with a degree of realism which was unparallel to any previous bidimensional virtual meeting experience.

In other words, the gates of a "*second life*" opened to me, if I may borrow from the name of one of the portals which provide businesses and private customers with a space or, better, a virtual architecture (technically, the Metaverse) where they can conduct a wide range of activities, from work meetings to videogames, up to wedding celebrations<sup>6</sup> or even to master dissertation defenses.<sup>7</sup> Not only. In the virtual marketplace, it is also possible to transfer goods (e.g. the "virtual weed" sold by the hip hop artist Snoop Dogg)<sup>8</sup> and "estates" which exist only in the Metaverse (e.g. the island allegedly acquired by the football player Marco Verratti on TheSandbox),<sup>9</sup> or to visit an art gallery, such as the Uffizi, without physically travelling to Florence.<sup>10</sup>

<sup>8</sup> James B., Is Virtual Weed Next for Snoop Dogg?, 21st June 2022, available at:

https://www.billboard.com/pro/snoop-dogg-virtual-weed-store-metaverse-trademark/

<sup>&</sup>lt;sup>5</sup> Stephenson N., *Snow Crash*, Bantam Books, 1992.

<sup>&</sup>lt;sup>6</sup> Matsumoto A., How to Throw a Wedding in the Metaverse, 6th July 2022, available at

https://www.brides.com/throw-wedding-in-metaverse-5270428

<sup>&</sup>lt;sup>7</sup> Di Pietro E., Cornetto M., *Innovation Coffee. Metaverse: from theory to practice*, 7<sup>th</sup> March 2023, available at https://www.intesasanpaoloinnovationcenter.com/en/news-and-events/events/2023/03/innovation-coffee-metaverso-theory-practice/

<sup>&</sup>lt;sup>9</sup> D'Angelo E., *Marco Verratti has bought an island in the metaverse*, 17 February 2022, available at: https://www.nssmag.com/en/sports/28996/marco-verratti-island-metaverse

<sup>&</sup>lt;sup>10</sup> Brassell J., Museums Move To The Metaverse, 4th May 2022, available at:

https://www.beyondgames.biz/22142/museums-move-to-the-metaverse/

It is thus clear why the Metaverse has ultimately attracted the bulk of the attention well beyond the gaming sector, as showcased by the several, multi-million partnerships among gaming companies and other businesses<sup>11</sup> and by the most recent EU initiatives in matter.<sup>12</sup>

In brief, all the above suggests that the Metaverse has left the confined realm of fantasy and (science) fiction, and that it has rather become a question (also) of business and, most importantly, of work.<sup>13</sup>

### 2. Game, leisure and work in the Metaverse.

The Metaverse technology has already piqued the interest of law scholars, practitioners and – with a much lesser extent – Courts.<sup>14</sup>

Many have been the delicate questions that have been posed in almost any legal field:<sup>15</sup> How to regulate the property right on the goods which only exist in the virtual dimension? How to qualify an Avatar's "violent" or offensive conduct? Do Avatars have a legal personality?

Labor Law has thus far been only relatively involved in the mentioned debate,<sup>16</sup> with the sole exception of the long-standing discussion on the classification of the activity of "pro gamers".<sup>17</sup>

<sup>&</sup>lt;sup>11</sup> For instance, in January 2022, Microsoft invested 70 billion dollars in attempting to take over the gaming company Activision Blizzard. *See*, extensively, McKinsey & Company, *Value Creation in the Metaverse. The Real Business of the Virtual World*, June 2022, available at https://www.mckinsey.com/business-functions/growth-marketing-and-sales/our-insights/value-creation-in-the-metaverse

<sup>&</sup>lt;sup>12</sup> See the public consultation launched by the European Commission in April 2023 aimed at developing a vision for emerging virtual worlds (e.g. Metaverses), based on respect for digital rights and EU laws and values: https://www.globalpolicywatch.com/2023/04/regulating-the-metaverse-in-europe/

<sup>&</sup>lt;sup>13</sup> De Stefano V., Aloisi A., Countouris N., *The Metaverse is a labour issue*, in *Social Europe*, 1<sup>st</sup> February 2022, available at https://www.socialeurope.eu/the-metaverse-is-a-labour-issue

<sup>&</sup>lt;sup>14</sup> Kalyvaki M., Navigating the Metaverse Business and Legal Challenges: Intellectual Property, Privacy, and Jurisdiction, in Journal of Metaverse, 3, 1, 2023, 87 ff.

<sup>&</sup>lt;sup>15</sup> Garon J.M., Legal Implications of Ubiquitous Metaverse and a Web2 Future, 10<sup>th</sup> January 2022, available at https://papers.ssrn.com/sol3/papers.cfm?abstract\_id=4002551

<sup>&</sup>lt;sup>16</sup> Nogueira Guastavino M., Metaverso e legislazione applicabile al contratto di lavoro, in Argomenti di Diritto del Lavoro, 3, 2023, 445 ff.; Lazzeroni L., Metaverso, in AA.VV., Lavoro e tecnologie. Dizionario del diritto del lavoro che cambia, Giappichelli, Torino, 2022, 162; Martone M., Prime riflessioni su lavoro e metaverso, in Argomenti di Diritto del Lavoro, 6, 2022, 1131 ff.; Donini A., Novella M., Vallauri M.L., Prime riflessioni sul lavoro nel metaverso, in Labour & Law Issues, 2, 2022, III ff.; Donini A., Novella M., Il metaverso come luogo di lavoro. Configurazione e questioni regolative, in Labour & Law Issues, 2, 2022, 4 ff.; Lombardi M., Il lavoro nel metaverso: uno spazio indefinito del possibile, in Labour & Law Issues, 2, 2022, 28 ff., Maio V., Diritto del lavoro e metaverso. Se il lavoro non è un (video)gioco, in Labour & Law Issues, 2, 2022, 42 ff.; Peruzzi M., "Almeno tu nel metaverso". Il diritto del lavoro e la sfida dei nuovi spazi digitali, in Labour & Law Issues, 2, 2022, 64 ff.; Lamberti F., Il metaverso: profili giuslavoristici tra rischi nuovi e tutele tradizionali, 8<sup>th</sup> February 2023, available at https://www.federalismi.it/nv14/articoloin Federalismi, documento.cfm?Artid=48381; Ghitti C., Il lavoro nel metaverso, in Piccinali M., Puccio A., Vasta S. (eds.), Il metaverso. Profili giuridici e operativi, Giuffrè, Milano, 2023, 209 ff.; Costantino F., Il lavoro nel metaverso, in Cassano G., Sforza G. (eds.), Metaverso, Pacini Editore, Pisa, 2023, 381 ff.; Romeo C., L'avatar, il metaverso e le nuove frontier del lavoro: traguardo o recessione, in Lavoro nella Giurisprudenza, 5, 2023, 471 ff.

<sup>&</sup>lt;sup>17</sup> Cherry M.A., The Gamification of Work, in Hofstra Law Review, 40, 4, 2012, 851 ff.

In relation to the latter, many wondered whether they carried out a working performance or whether they were just dedicating their time to their (arguably, favorite) hobby.

Notably, the same doubts surrounded, especially at the beginning, the inquiries on the ondemand app delivery riders<sup>18</sup> and, more recently, on the *web content creators* ("youtubers", "tiktokers" and "influencers" in general).<sup>19</sup>

Similar questions can now be posed in relation to those who enter the virtual dimension of Metaverse.

Yet, a premise is due.

As correctly pinpointed in the contribution by Peter Sipka,<sup>20</sup> a part of those who have access to the Metaverse do not carry out any working activity: in fact, the Metaverse is "populated" by a plethora of different subjects, ranging from the occasional gamers and the customers of dating apps,<sup>21</sup> up to the solo wanderers of the vast virtual land.<sup>22</sup>

At the same time, it is hard to deny that the Metaverse can become the vehicle or the platform (not technically a space: see *infra*) for a further evolution of remote working.

Indeed, many of the activities which are currently conducted on Microsoft Teams (previously, on Skype), such as job interviews, business meetings, online courses, can be rather easily transferred in the Metaverse space.

For instance, a growing number of health sector employers organize the training courses in for surgeons and personnel in the Metaverse, in order to replicate in the virtual, tridimensional space the experience of the operating theatre.<sup>23</sup>

All the above-mentioned activities can be considered ancillary or supplementary to a working performance which is primarily carried out in the "real" world and is thus regulated by the extant (tele)work laws.

A whole different case is when a working activity is entirely carried out in the virtual "space" of the Metaverse.

In such a scenario, once ascertained that the person is actually working, the main questions are the following:

i) has the worker to be classified as an employee or as a self-employed worker (or, in the jurisdictions where the intermediate categories exist, in the latter group)?

<sup>&</sup>lt;sup>18</sup> De Stefano V., The Rise of The Just-In-Time-Workforce": On-Demand Work, Crowdwork, and Labor Protection in the "Gig-Economy", in Comparative Labour Law & Policy Journal, 37, 2016, 471 ff.

<sup>&</sup>lt;sup>19</sup> Rota A., I creatori di contenuti digitali sono lavoratori?, in Labour & Law Issues, 7, 2, 2021, I.1 ff.; Iervolino P., Sulla qualificazione del rapporto di lavoro degli influencers, in Labour & Law Issues, 7, 2, 2021, I.26 ff.; Torsello L., Il lavoro degli influencers: percorsi di tutela, in Labour & Law Issues, 7, 2, 2021, I.52 ff.; Barzotti V., Jerussi I., Creatori di contenuti digitali, primi passi a sostegno di un nuovo modo di lavorare, in Lavoro Diritti Europa, 3, 2022, 1 ff.

<sup>&</sup>lt;sup>20</sup> Sipka P., Potential Challenges of Working in a Virtual Space, in Italian Labour Law e-Journal, 2023, 1, 53-65.

<sup>&</sup>lt;sup>21</sup> Caddy B., In the Metaverse, the Perfect Date Might Actually Exist — If You Can Find It, in Inverse.com, 14<sup>th</sup> February 2023, available at https://www.inverse.com/health/dating-in-the-metaverse

<sup>&</sup>lt;sup>22</sup> After all, I wasn't working – at least, in a strict sense – myself when I "intruded" on my friend and his assistants' work meeting during my "field research" in California.

<sup>&</sup>lt;sup>23</sup> Khan O., *How Will The Metaverse Drastically Transform The Healthcare Industry?*, 8<sup>th</sup> June 2022, available at https://elearningindustry.com/how-will-the-metaverse-drastically-transform-the-healthcare-industry

 which is the applicable labor law for the purposes of the relevant classification as well as, even most importantly, of the identification of the protections enjoyed by the employee/worker in the wake of her classification?

# 3. The doubtful identification of the applicable labor laws in case of (Pure) Meta Work.

When a working performance is only occasionally carried out in the virtual space of the Metaverse (Ancillary Meta-Work), the identification of the applicable labor law is simple: in such a scenario, similarly to the case of a Microsoft Teams work meeting, the law governing the working activity performed in the employer's premises will apply.<sup>24</sup>

Conversely, in the case of a working activity *entirely* performed in the Metaverse ("Pure Meta-Work"), the identification of the applicable law is puzzling: in fact, it seems hard to find a grounded material connection between the contract and a specific territory and thus to match the criterion generally deployed by the international conflict-of-law rules in matter of employment.

For instance, in the European legal framework, the so called "Rome I" Regulation confers upon the parties of an employment relationship the right to determine the applicable law.

However, the autonomy of the parties in determining the law applicable to an employment relationship finds its limits in the mandatory application of the overriding protections afforded by the law that would apply in the absence of the parties' choice.

In this case, the application of the law of the place where the work is carried out (*lex loci laboris*), which is the prevalent criterion for the purposes of the identification of the applicable overriding labor protections, would provide the companies operating in the Metaverse with an incentive to select the Meta-workers among those who reside in Countries where the labor laws are weak(er) or lenient.<sup>25</sup> This might suggest that a common framework of basic rights for Metaverse workers would be beneficial to the latter, although it would encounter the theoretical and substantial issues approached in the contribution authored by myself and by Michele Murgo.<sup>26</sup>

### 4. The peculiar needs of the Meta-Workforce.

The protective needs of those who work only occasionally in the Metaverse largely mirror those of remote workers.

However, a few specificities have to be taken into account.

<sup>&</sup>lt;sup>24</sup> Nogueira Guastavino M., nt. (16).

<sup>&</sup>lt;sup>25</sup> Lehmann M., Diritto del lavoro e Metaverso, in Lavoro Diritti Europa, 2, 2023, 1.

<sup>&</sup>lt;sup>26</sup> Biasi M., Murgo M., The virtual space of the Metaverse and the fiddly identification of the applicable labor law(s), in Italian Labour Law e-Journal, 2023, 1.

In consideration of the shift from a bidimensional to a tridimensional "space", the rules in matter of use of display screens have to be adapted for both those who carry out their activity in a *Virtual Reality* (i.e. the Metaverse) and those who work in an *Augmented Reality* (i.e. through a technology that superimposes a computer-generated image on a user's view of the real world, thus providing a composite view: e.g. the level of charge of a battery, the height of a hill).<sup>27</sup>

As further discussed in the contribution by Ildikó Rácz-Antal,<sup>28</sup> the intensity of the Metaverse immersive experience and its impact on workers' health urges a special policy aimed at preventing the so called "*Virtual Reality Sickness*", along with the specific formation on a sound use of the virtual technologies.

Additionally, when a worker is impersonated by an Avatar in the virtual space, one may wonder to which extent the rules in matter of health and safety at work and the antidiscrimination policies apply. In a famous British case, a researcher lamented that she was sexually harassed by her co-workers during a meeting which took place on the platform Horizon Worlds: in the event, her Avatar became the target of undesired attentions, sexually driven comments and also "contacts" by the Avatars of the colleagues.<sup>29</sup>

Whilst there is no doubt that also a "virtual" conduct, akin to cyberbullying, can unlawfully harm another individual and thus qualify as a breach of the employee's duties, recent studies also evidenced that the person can somehow sense and feel on her body the effect of the Avatar's perception (e.g. vertigo, when the Avatar is on the brink of a cliff): this phenomenon, known as "Proteus Effect",<sup>30</sup> would surely be amplified if (or when) the virtual experience will include the tactile sense, which would make the Metaverse experience much (dangerously) close(r) to the actual reality.

Moreover, if the Avatar consists in the virtual alter ego of the worker, one may argue that the latter should be granted some sort of right to her virtual identity, which might be different, in its features, from the (real) person it represents.<sup>31</sup>

Conversely, the employer of the person who works in the Metaverse through an Avatar may be interested in imposing upon the Avatar (more properly, upon the employer) a standard of behavior and image when the Avatar interfaces with the company's clients in the virtual space.

In this potential clash of opposite interest, a role might be played by collective bargaining, which could address the issue of the due conducts of Avatars in the Metaverse along with the potential disciplinary actions of the employer.

<sup>&</sup>lt;sup>27</sup> Compare Maio V., Diritto del lavoro e potenziamento umano. I dilemmi del lavoratore aumentato, in Giornale di Diritto del Lavoro e delle Relazioni Industriali, 3, 2020, 513 ff.

 <sup>&</sup>lt;sup>28</sup> Rácz-Antal I., *Labour law and Metaverse – can they fit together?*, in *Italian Labour Law E-Journal*, 2023, 1, 29-40.
<sup>29</sup> https://www.bbc.com/news/technology-61573661

<sup>&</sup>lt;sup>30</sup> Maio V., nt. (16), 57.

<sup>&</sup>lt;sup>31</sup> Still, the right would pertain to the person and not to the Avatar, which is not (yet?) a subject of law: *compare* Donini A., Novella M., nt. (16), 9.

More broadly, as evidenced in the contribution by Federico Pisani,<sup>32</sup> collective bargaining may also cope with the requisites of access to Metaverse work, thus supplementing the legal framework and the individual arrangements between the employers and the employees, akin to what normally happens in remote working.

Furthermore, collective bargain may take on the wage arrangements of Meta workers, who are often paid in crypto currency. If this form of salary does not raise any concern when it is above the minimum wage (this is the case, not only of football legend Lionel Messi<sup>33</sup>, but also of the pro gamers of the NBA 2K League, who receive, along with result-based compensation and bonuses, an entry salary of 35.000 dollars per year, which is similar to the salary granted to the "real" basketball players of the NBA's Development League),<sup>34</sup> a lower wage paid in non-universally exchangeable currency, such as crypto, would surely impair the chance of a person to fulfill her basic needs.<sup>35</sup>

One last delicate question regards the monitoring of the work in the Metaverse, where any activity is recorded and stored in the *blockchain*.<sup>36</sup> As pointed out in the contribution by Magdalena Nogueira Guastavino and David Mangan, such an intense scrutiny of the person seems at odds with the principles of adequacy, necessity and proportionality governing the treatment of personal data at the EU level and not only.<sup>37</sup>

#### 5. Concluding remarks.

As already noted, the Metaverse or, better, the Metaverses allow(s) their clients and their users (in a broad sense) to conduct a wide array of activities: some of those activities are merely recreational, others duly qualify as work.

Besides, a working performance can be entirely rendered in the virtual space or it can just be an ancillary segment of a working activity which is carried out in the non-virtual world.

In the latter situation, a mere – still, far from simple – adjustment of the rules in matter of telework is due, but there is no doubt that the applicable laws are those governing the employment relationship carried out externally.

Conversely, in the case of the Pure Meta-Work, the lack of a clear connection with a material workplace makes the identification of the applicable laws more complex: in such a scenario, even the preferrable solution of the application of the *lex loci laboris* would pave the way to the potential "law shopping" of Meta-employers, who could have an incentive to

<sup>&</sup>lt;sup>32</sup> Pisani F., Collective Labour Relations in the Metaverse, in Italian Labour Law e-Journal, 1, 2023, 41-52.

<sup>&</sup>lt;sup>33</sup> Shead S., Soccer superstar Messi is being partly paid in crypto by PSG, 12<sup>th</sup> August 2021, available at https://www.cnbc.com/2021/08/12/lionel-messi-is-being-partly-paid-in-crypto-at-psg.html

<sup>&</sup>lt;sup>34</sup> https://techinformed.com/paid-in-cryptocurrency-the-salary-of-the-future/

<sup>&</sup>lt;sup>35</sup> Compare Peruzzi M., nt. (16), 66.

<sup>&</sup>lt;sup>36</sup> Wilson J., *Employees fear surveillance in metaverse*, 26 July 2022, available at https://www.hrreporter.com/focus-areas/culture-and-engagement/employees-fear-surveillance-in-metaverse/368531

<sup>&</sup>lt;sup>37</sup> Nogueira Guastavino M., Mangan D., The metaverse matrix of labour law, in Italian Labour Law E-Journal, 1, 2023.

select their Meta-workforce among those who reside in Countries with lenient labor protections.

Whilst those delicate issues will likely (and hopefully) be addressed by the policymakers at the supranational level, the overall impact of the Metaverse on work hinges upon the very success of the Metaverse itself, which is still rather uncertain (tough promising).

A tentative prediction might possibly lie in between the two opposite postures of the "Meta-skepticism" and the "Meta-excitement".

On the one hand, assuming that the Metaverse is no more than a videogame undermines the potentials already showcased by the technology at stake.

On the other hand, foreseeing the entire shift of (almost) any working activity to the virtual "space" seems to collide with both empirical and theoretical evidences.

From a practical standpoint, it is implausible that any working performance can be transferred to the Metaverse: just for the sake of argument, one may at least claim that there will always be at least someone who manages the Metaverse software from the non-virtual world.

Most importantly, labor law itself is based on the implication of the person in her work, which cannot be hence treated as a commodity.<sup>38</sup>

The premise of such a fundamental assumption is that any human being is inherently unique and her personal growth (or, as elsewhere argued, her "liberation") comes through her labor:<sup>39</sup>

As a consequence, the "working" experience of the person's virtual alter-ego (i.e. the Avatar) will never be able to absorb (or even to mirror) the socio-relational dimension of the person's work, which, as authoritatively maintained by Hannah Arendt, is the very essence of the human condition itself.<sup>40</sup>

If the future of an entirely virtual life can definitely wait, the contributions of this special issue of the *Italian Labour Law e-Journal* purport to offer the readers a preliminary – yet pondered – view on the wide-ranging challenges *already* posed by the ultimate technology developments of the Metaverse to the extant labor regulation.

# Bibliography

Arendt H., The Human Condition, University of Chicago Press, Chicago, 1958 Biasi M., An Essay on Liberty, Freedom and (Decent) Work, in International Journal of Comparative

Labour Law & Industrial Relations, 38, 3, 2022

Biasi M., "We Will All Laugh at Gilded Butterflies". The Shadow of Antitrust Law on the Collective Negotiation of Fair Fees for Self-Employed Workers, in European Labour Law Journal, 9, 4, 2018

<sup>&</sup>lt;sup>38</sup> ILO Declaration of Philadelphia, 1944; Section 6 US Clayton Act 1914.

<sup>&</sup>lt;sup>39</sup> Biasi M., An Essay on Liberty, Freedom and (Decent) Work, in International Journal of Comparative Labour Law & Industrial Relations, 38, 3, 2022,3 59 ff.

<sup>&</sup>lt;sup>40</sup> Arendt H., *The Human Condition*, University of Chicago Press, Chicago, 1958.

Biasi M., Murgo M., The virtual space of the Metaverse and the fiddly identification of the applicable labor law(s), in Italian Labour Law e-Journal, 1, 2023, 1-11

Barzotti V., Jerussi I., Creatori di contenuti digitali, primi passi a sostegno di un nuovo modo di lavorare, in Lavoro Diritti Europa, 3, 2022

Brassell J., *Museums Move To The Metaverse*, 4<sup>th</sup> May 2022, available at https://www.beyondgames.biz/22142/museums-move-to-the-metaverse/

Cherry M.A., The Gamification of Work, in Hofstra Law Review, 40, 4, 2012

Costantino F., *Il lavoro nel metaverso*, in Cassano G., Sforza G. (eds.), *Metaverso*, Pacini Editore, Pisa, 2023

D'Angelo E., Marco Verratti has bought an island in the metaverse, 17 February 2022, available at https://www.nssmag.com/en/sports/28996/marco-verratti-island-metaverse

De Stefano V., The Rise of The Just-In-Time-Workforce": On-Demand Work, Crowdwork, and Labor Protection in the "Gig-Economy", in Comparative Labour Law & Policy Journal, 37, 2016

De Stefano V., Aloisi A., Countouris N., *The Metaverse is a labour issue*, in *Social Europe*, 1<sup>st</sup> February 2022, available at https://www.socialeurope.eu/the-metaverse-is-a-labour-issue

Di Pietro E., Cornetto M., *Innovation Coffee. Metaverse: from theory to practice*, 7<sup>th</sup> March 2023, available at https://www.intesasanpaoloinnovationcenter.com/en/news-and-events/events/2023/03/innovation-coffee-metaverso-theory-practice/

Donini A., Novella M., Vallauri M.L., Prime riflessioni sul lavoro nel metaverso, in Labour & Law Issues, 2, 2022

Donini A., Novella M., Il metaverso come luogo di lavoro. Configurazione e questioni regolative, in Labour & Law Issues, 2, 4, 2022

Garon J.M., Legal Implications of Ubiquitous Metaverse and a Web2 Future, 10<sup>th</sup> January 2022, available at https://papers.ssrn.com/sol3/papers.cfm?abstract\_id=4002551

Ghitti C., Il lavoro nel metaverso, in M. Piccinali, A. Puccio, S. Vasta (eds.), Il metaverso. Profili giuridici e operativi, Giuffrè, Milano, 2023

Hendrickx F., From Digits to Robots: the Privacy-Autonomy Nexus in New Labor Law Machinery, in Comparative Labor Law & Policy Journal, 40, 3, 2019

Iervolino P., Sulla qualificazione del rapporto di lavoro degli influencers, in Labour & Law Issues, 7, 2, 2021

James B., *Is Virtual Weed Next for Snoop Dogg*?, 21<sup>st</sup> June 2022, available at https://www.billboard.com/pro/snoop-dogg-virtual-weed-store-metaverse-trademark/

Kalyvaki M., Navigating the Metaverse Business and Legal Challenges: Intellectual Property, Privacy, and Jurisdiction, in Journal of Metaverse, 3, 1, 2023

Khan O., *How Will The Metaverse Drastically Transform The Healthcare Industry?*, 8<sup>th</sup> June 2022, available at https://elearningindustry.com/how-will-the-metaverse-drastically-transform-the-healthcare-industry

Lamberti F., *Il metaverso: profili giuslavoristici tra rischi nuovi e tutele tradizionali*, in *Federalismi*, 8<sup>th</sup> February 2023, available at https://www.federalismi.it/nv14/articolodocumento.cfm?Artid=48381 Lazzeroni L., Metaverso, in AA.VV., Lavoro e tecnologie. Dizionario del diritto del lavoro che cambia, Giappichelli, Torino, 2022

Lehmann M., Diritto del lavoro e Metaverso, Lavoro Diritti Europa, 2, 2023

Lombardi M., Il lavoro nel metaverso: uno spazio indefinito del possibile, in Labour & Law Issues, 2, 2022

Maio V., Diritto del lavoro e metaverso. Se il lavoro non è un (video)gioco, in Labour & Law Issues, 2, 2022

Martone M., Prime riflessioni su lavoro e metaverso, in Argomenti di Diritto del Lavoro, 6, 2022 Matsumoto A., How to Throw a Wedding in the Metaverse, 6<sup>th</sup> July 2022, available at

https://www.brides.com/throw-wedding-in-metaverse-5270428

Nogueira Guastavino M., Metaverso e legislazione applicabile al contratto di lavoro, in Argomenti di Diritto del Lavoro, 3, 2023

Nogueira Guastavino M., Mangan D., The metaverse matrix of labour law, in Italian Labour Law E-Journal, 1, 2023, 13-27

Peruzzi M., "Almeno tu nel metaverso". Il diritto del lavoro e la sfida dei nuovi spazi digitali, in Labour & Law Issues, 2, 2022

Pisani F., Collective Labour Relations in the Metaverse, in Italian Labour Law e-Journal, 1, 2023, 41-52

Rácz-Antal I., Labour law and Metaverse – can they fit together?, in Italian Labour Law E-Journal, 2023, 1, 29-40

Romeo C., L'avatar, il metaverso e le nuove frontier del lavoro: traguardo o recessione, in Lavoro nella Giurisprudenza, 5, 2023

Rota A., I creatori di contenuti digitali sono lavoratori?, in Labour & Law Issues, 7, 2, 2021

Shead S., *Soccer superstar Messi is being partly paid in crypto by PSG*, 12<sup>th</sup> August 2021, available at https://www.cnbc.com/2021/08/12/lionel-messi-is-being-partly-paid-in-crypto-at-psg.html

Sipka P., Potential Challenges of Working in a Virtual Space, in Italian Labour Law e-Journal, 1, 2023, 53-65

Stephenson N., Snow Crash, Bantam Books, 1992.

Stone K.V.W., From Widgets to Digits. Employment Regulation for the Changing Workplace, Cambridge University Press, 2004

Torsello L., Il lavoro degli influencers: percorsi di tutela, in Labour & Law Issues, 7, 2, 2021

Veneziani B., The Evolution of the Contract of Employment, in B. Hepple (ed.), The Making of Labour Law in Europe, Hart, Portland, 1986, 31

Wilson J., Employees fear surveillance in metaverse, 26 July 2022, available at

https://www.hrreporter.com/focus-areas/culture-and-engagement/employees-fear-surveillance-in-metaverse/368531

Copyright © 2023 Marco Biasi. This article is released under a Creative Commons Attribution 4.0 International License