Digital Mobility Platforms: Alternative Paths for Labor And Income

Plataformas de mobilidade digital: caminhos alternativos de trabalho e renda

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ABSTRACT

By enabling new business models, digital platforms are transforming traditional economy and generating a multitude of discussions around the globe. Changes experienced by technological advances are being discussed by governments, private sector and especially by the academic field. One of the biggest impacts related to the phenomenon concerns transformation of labor relations. This article aims to discuss these relationships through an exploratory research of qualitative nature coupled with the application of participant observation and semi-structured interviews. Nine mobility application drivers from the greater São Paulo (Brasil) region participated in the study. One of the main findings is that drivers find in these applications a more interesting work opportunity than in formal markets. For the sampled interviewees, the ratio of earnings from the platforms is four times greater than the salaries they used to receive in their former jobs. These findings cannot be generalized, but they corroborate a view of applications as an alternative for labor and income aligned with macro changes happening that impact labor relationships.

Keywords: Digital Mobility Platform; Platform Economy; Labor Transformation

1. Introduction

In recent years, the world has been experiencing an acute process of change, which has directly impacted economic structures. Schenker (2019) presents a study showing that out of the top ten world´s largest organizations in 2008, only one remained on the list in 2018. Seven of the top ten largest organizations in 2018 were based on technological platforms and five were less than thirty years old. As pointed by Friedman (2016) and Dowbor (2018), technological process accelerated so much that our society have difficulties keeping up with the velocity of changes.

From the 1960s onwards, period which Schwab (2016) refers to as the digital and/or computer revolution, or as the third industrial revolution, transformations have occurred at high speed. However, from 2007, the year in which the iPhone and Android appear on the market, this process accelerates even more, gaining proportions never seen before. In 2018, Apple exceeds the figure of US$ 1 trillion in market value, a historic fact (Salinas, 2018). Facebook, created in 2004, appears in 2018 among the five largest organizations on the planet (Schenker, 2019). Uber, created in 2009, hits US$ 82.4 billion in its initial public offering of shares (IPO) on the New York Stock Exchange in May 2019 (EXAME, 2019). It is worth mentioning that a multitude of startups are created daily, with the dream to grow and eventually become the next unicorn. We are experiencing an explosion of new business models. These models have in common digital technology as their main axis of transformation.

This new configuration is being addressed by different authors with concepts such as collaborative economy, collaborative consumption, sharing economy and gig economy. Indeed, "There is a lack of clear definition" of the platform-based business (De Groen et al., 2017, p. 6) as this phenomenon is still relatively recent. Drahokoupil and Jepsen (2017, p. 5) state that "the literature is growing rapidly, but it is still asking more questions than it answers in relation to what we are observing". There is still no clear definition of the phenomenon of businesses based on digital platforms that allows us to specify precisely what is in and out of the category. The term "platform" simply points to online digital arrangements whose

algorithms are used to organize and structure economic and social activities (Kenney, Martin; Zysman, 2015).

Even though technology evolution is connected to this phenomenon, what stands out in these new models is exactly characteristics that are not new to them. At the center of these arrangements are concepts such as "collaboration" and "sharing" that can be found even in primitive modes of production. If from one side some authors have an optimist view on the social impact of these platforms with arguments such as: decrease on assets´ idleness, reduced environmental impact (due to efficiency on assets usage) and greater interaction in peer-to-peer markets (Botsman & Rogers, 2010). However, altruistic ideas of collaboration and sharing connected to digital platforms have also been questioned. Some authors such as Slee (2017) and Schor (2016) raise questions about the real objective of these large platforms; especially when they grow very fast. For the purposes of this article the term "Platform Economy" (Huws, 2016) will be used as this term does not attribute neither a social nor a business connotation.

There is a huge difference between the forms of labor offered on digital platforms and traditional employment. Companies like Uber, for example, are characterized by intermediating the connection between passengers and drivers (demand and supply) clearly presenting their business objectives and value proposition. These platforms need a big network scale so that the services being offered are relevant both for suppliers and consumers. For achieving this, they lure workers with arguments such as creation of business ties, possibility of attractive incomes, flexible working hours and greater autonomy compared to traditional employment. But, the question that arises is: are these platforms leading to precariousness of jobs, or are they offering alternative and sustainable forms of labor and income? The main objective of this article is to analyze labor relations on digital platforms by interviewing people who actually make a living on them. We aim to understand and discuss whether these platforms are exploiting workers and thus making employment precarious or creating if they are generating alternative forms of labor for these people. It is worth noting the strong trend of replacing workers with technologies, which has been observed. Frey and

Osborne (2017) pointed out that 47% of jobs in the United States of America would disappear within a 20-year horizon because of technological substitution.

2. THEORETICAL BACKGROUND

2.1 Technology as an accelerated axis of transformations

The transformations resulting from technological advances have been compared with the great revolutions in the modes of production that have occurred throughout history. Schwab (2016) treats this phenomenon as the "fourth industrial revolution". The author identifies the transformational processes marked by the emergence of railroads and the steam engine between 1760 and 1840 as the first industrial revolution. The period between the end of the 19th century and the beginning of the 20th century was marked by mass production provided by the emergence of electricity and the structuring of assembly lines, the second industrial revolution. The digital and / or computer revolution is associated with the development of semiconductors, physical computer networks (mainframes) that took place in the 1960s and personal computers (between the 1970s and 1980s), as well as the development of the internet in 1990s. This period characterizes the third industrial revolution.

Of the three revolutions described, the temporal shortening of the third industrial revolution in relation to the two previous ones and the fact that its evolutionary basis was organized around computational devices stand out. The fourth industrial revolution, which began at the turn of the 21st century, is based on the digital revolution, marked by the evolution of mobile devices, popularization of internet access, artificial intelligence and reduction in the costs of technologies (Schwab, 2016).

It is a fact that these transformations have occurred at an accelerated pace and that there is a time mismatch between technological transformation and the adaptation of society. Friedman (2016) uses Astro Teller's graph to demonstrate that, on one hand technological platform can change society in 5 to 7 years while on the other hand, it takes us between 10 to 15 years to adapt to these changes. This view is supported by Dowbor (2018), as he argues that there is

a time mismatch between the transformations of technologies and the adaptation of governance. For the author, governance structures cannot keep up with the accelerated transformational processes ignited by technological advances.

But it is between the end of 2006 and 2007 that the most remarkable transformation events linked to the fourth industrial revolution take place. Together, these events propitiated and boosted the emergence of business models based on digital platforms. At the end of 2006, the internet users in the world exceeded the figure of one billion. The main operating systems for smartphones (Apple's IOS and Google's Android) appeared in 2007. These events together with cloud computing, big data and geolocation technologies, provided complete structures of relationships configured by the internet (Friedman, 2016).

C. Köbis et al. (2021) point that even though the sharing economy is adding hundred of billions of dollars to the global economy and rapidly growing, there are still challenges to be overcome and specifically related to trust on participant agents (providers, users and third parties). If from one side, well-functioning infrastructure can impact positively on trust ambiguity related to rules, roles and regulations can have a negative impact on how participant's trust. The authors propose that there should be a system of trust based on transparency between agents involved in the process. This is in line with Jiang and Lau (2021) that reinforce the importance of trust on ride-sharing services. They complement that besides trust, consumers also ponder risks and attractiveness of different alternatives to continue using these kind of services in the sharing economy.

2.2 The platform economy and new forms of labor relationships

For Sundararajan (2016) we are facing a new paradigm of changes impacting the dynamic of economic growth and the future of work. The author questions whether we will live in a world of skilled entrepreneurs who enjoy professional flexibility and independence, or whether we will become digital workers without the protections of traditional employment running across platforms in search of the next available piece of work opportunity. In this

scenario, it is important to reflect on political alternatives: the self-regulation of labor law versus the societal financing of a social safety net. The transformation of labor is persistent and highly impactful. Kenney, Martin and Zysman (2015) argue that companies such as Airbnb and Uber force profound changes in a wide variety of previously established and regulated businesses.

Platform economy is a complex phenomenon that is significantly impacting the general concept of what normal jobs are. According to Handy (1984) and Bridges (1996), the rupture of the society of full wage employment and the profound transformation of work indicates the division between core and peripheral workers. This new structuring culminates in new ways of labor arrangements. We now see work being driven by professionals being linked by technological platforms as well as the replacement of bureaucratic and hierarchical structures with networked organizations (Kovács, 2016). This new model couple with cloud computing impacts on an economic model with a much higher proportion of independent producers at the expense of more traditional and formal jobs. In this new economy, technologies allow for greater reduction in transaction, communication and coordination costs in addition to allowing the fragmentation of companies into smaller units, reaching the level of individual service providers (Kenney & Zysman, 2016). The principle of greater production, more efficiency and lower costs is taken to an extreme. Automation is no longer limited to routine tasks but also to more conceptual tasks. Even with these advances, technology is still far from replacing people, especially in activities that involve creativity, intuition, and imagination (Kovács, 2016).

Around this new configuration of work on digital platforms, numerous discussions have been taking place in the academic environment. One of the major concerns in this new business model relates to the workforce. In fact, there is a change taking place, but it is still too early to come to any kind of conclusion about the transformations. Different authors who research the subject have been warning about the urgency and need to look at this phenomenon in a more critical and permanent manner (Huws, 2016; Fabo et al., 2017; De Groen et al., 2017; Kenney & Zysman, 2016; Stanoevska-Slabeva et al., 2018; Frenken & Schor, 2017; Slee, 2017).

People do not necessarily need to work under formal hierarchical structures and in the platform economy this is seen with greater clarity as advances in information and communication technologies provide greater coordination of economic activities linking workers in networks (Malone, 2004). Few industries are protected from the possibility of disruptive changes related to the platform economy. It would be crazy to ignore collaborative sharing and consumption business models as alternative forms of consumption, or even as new business paradigms (Belk, 2014). Bearson et al. (2021), add that even though digitization has displaced lots of jobs, it has created new work opportunities enabling greater, dispersed and complex forms for the division of labor. Even though these new forms of labor face challenges, the authors believe there is opportunity for value creation on the labor market. Rolf et al. (2022) raise the concern that these new forms of labor offer fewer social protections for the independent providers. They acknowledge that this kind of platform capitalism has replaced formal kinds of formal labor relations with new forms of service contracts and thus it is important to find new ways of providing kinds of social protection for these workers.

The work carried out by Huws (2016) in the European Union presents a list of risks and opportunities of the platform economy. In term of risks: (a) circumvention of existing regulations designed to protect workers and consumers, (b) increase precariousness and a "race to the bottom" in relation to employment and labor conditions, (c) health risks and lowered safety for workers and consumers (d) threat to employers through replacement of companies from lower cost countries, (e) loss of quality control (including the ability to verify the authenticity of products and qualifications) and (e) the possible unraveling of regulatory environment. Opportunities are made by: (a) allowing access to work for people who would otherwise be excluded (b) providing consumers with affordable services, (c) creating new opportunities for flexible ways of combining work and private life (d) allowing new companies to enter the market or allowing companies to test new products or services at low costs and (e) help consolidating a single European digital market.

3. Methodological procedures

This research uses a combination of participant observation and exploratory research methods with semi-structured interviews. Charmaz (2006) states that, even if researchers opt for intensive interviewing as a single method, it can be used in addition to other methods, such as observations, application of questionnaires and reports of participant observations.

Semi-structured interviews, according to Prodanov and Freitas (2013, p. 106), allow "[...] to obtain information from an interviewee about a certain subject or problem". For this research, 9 (nine) semi-structured interviews were collected in topics. The topics that guided the interviews were defined by an interview protocol that was built based on theoretical background. The interviews were carried out individually and recorded with the consent of the respondents.

The selection of respondents is very important to ensure the quality of the survey results. Persons selected for interviews must have knowledge that satisfies the research information needed. Therefore, the interviews were carried out with drivers from Uber (digital app that is typical to the platform economy). The description of the respondents´ profiles is depicted on Table 2.

After recorded and fully transcribed, the interviews were analyzed with the aid of the ATLAS.ti software version 7. The analysis process was not fragmented by the different collection instruments but was combined to unify results from the two data sources (observation reports and interviews). The encoding process was made from a data driven perspective (inductive process) as results (codes and categories) emerged from the empirical corpus of the study. These techniques are aligned with a Grounded Theory process (Charmaz, 2006; DeCuir-Gunby et al., 2009; Saldaña, 2013; Glaser & Strauss, 1967). The theory driven perspective was also adopted. This perspective aims to achieve the established objectives, to answer the research question that guided this work and to triangulate empirical results with previously established theory.

Table 2: *Profile of respondents*

Respondent	Gender	Age	Education	Average working days (per week)	Average working hours per day	Ownership of vehicle	Category in the Uber App	Loyalty Program from App	Uses the app as source of income?	Gross Monthly Income (R$)	Driver's Registration time (Years)
E1	M	36	High School	6	10	Financed	Pool and X	No	Yes	> 6,000	2.5
E2	M	32	High School	6	12	Owned	Pool and X	Yes	Yes	> 8,000	2
E3	M	34	College	6	10	Owned	Pool, X, Select and Bag	No	Yes	> 6,000	3
E4	M	30	College (Incomplete)	7	8	Rented	Pool, X and Select	No	Yes	> 6,000	2
E5	M	39	College (Incomplete)	7	12	Financed	Pool, X, Select and Bag	No	Yes	> 8,000	2
E6	M	40	High School	6	12	Financied	Pool, X, Select and Bag	No	Yes	> 8,000	3
E7	M	27	High School	6	10	Financed	Pool, X, Select and Bag	No	Yes	> 6,000	2.5
E8	F	35	Post Graduation	6	5	Owned	Pool and X	No	Yes	> 6,000	1.8
E9	F	29	College	7	8	Rented	Pool, X, Select and Bag	No	Yes	> 6,000	3

Source: Elaborated by the authors

In the qualitative data analysis process, the code is used by the researcher to symbolize and assign common thematic meanings to different individual textual units. The objective of coding is to create conditions for the detection of patterns, to enable categorization and theory construction, as well as to assist other analytical processes (Saldaña, 2013). The encoding process was carried out in two phases. The first was open coding, in which codes were freely assigned to categorize textual incidents, which can be sentences, lines or paragraphs (Corbin & Strauss, 1990). The subsequent is called axial encoding – i.e. the process of relating subcategories to categories through the association of properties and dimensions (Corbin & Strauss, 1990). At this stage, codes were refined and grouped, considering relationships and connections between them (Saldaña, 2013; Corbin & Strauss, 1990). With axial coding, the total number of codes was reduced to a total of 78 which were analyzed and classified both using data driven (43 codes) and theory driven (35 codes) approaches.

4. Analysis of results

4.1 Resultant Codes

From the empirical research 28 codes emerged representing a formal network of relationships and were divided in two main groups: (1) Relationships between drivers and the platforms with 21 codes and Other relationships with 7 codes. Out of the first group, thirteen were classified as positive relationships between drivers and platform: (1) adaptation to the platform, (2) benefits offered by the platform, (3) driver's comfort, (4) communication with company, (5) availability, (6) local effect, (7) tools, (8) flexibility, (9) better option than traditional job, (10) job opportunity, (11) main source of income, (12) adapted job and (13) service quality. Still on the group of relationships between drivers and platform, eight were related to challenges: (1) adaptation to platform, (2) competition amongst applications, (3) control of applications, (4) change, (5) terms and conditions, (6) service segmentation, (7) lack of security and (8) different treatment between driver and passengers. The other group of codes that emerged was Other Relationships: (1) trust, (2)

employment opportunity, (3) opportunity to work outside the platform", (4) driver and passenger interaction", (5) service quality, (6) private trips, (7) reviews of drivers. These codes are summarized on Table 3 and will be further discussed as follows.

*Table 3: Codes related to formal relationships
between drivers and platform*

Relationships Between Drivers and Platform			Other Relationships	
Positive Relationships		Challenges		
1	Adaptation to the platform	1 Adaptation to platform	1	Trust
2	Benefits offered by the platform	2 Competition amongst applications	2	Employment opportunity
3	Driver´s comfort	3 Control of applications	3	Opportunity to work outside the platform
4	Communication with company,	4 Change	4	Driver and passenger interaction
5	Availability	5 Terms and conditions	5	Service quality
6	Local effect	6 Service segmentation	6	Private trips
7	Tools	7 Lack of security	7	Reviews of drivers
8	Flexibility	8 Different treatment between driver and passengers		
9	Better option than traditional job			
10	Job opportunity			
11	Main source of income			
12	Adapted job			
13	Service quality			

Source: Elaborated by the authors

4.2 Discussion of Resulting Codes

The positive relationships between drivers and application are high-lighted by the fact that drivers do not see themselves in an hierarchical structured with power figures such as "chief" or "boss". Somehow they appropriate these figures to themselves.

E3 *"you are your own boss."*

E6 *"because you end up being the boss yourself, the employee yourself"*

The ideas of autonomy and flexibility are quite forceful and emphatic in the respondents' speeches when they manifest them as a characteristic of work on digital platforms. There is a convergence between the drivers' vision with the replacement of bureaucracy and hierarchy by a network organization found in the literature review (Handy, 1984; Bridges, 1996; Huws, 2016). Drivers perceive flexibility as an advantage over traditional employment. This can be seen in the interviewees' speeches:

E9 *"So what helps the application is this flexibility that we have, on the day we need to do something or not, we stop and when everything is right, when we need it, we*

stick with it and make the application. So I think that helped a lot, this issue of… platforms being flexible."

E2 *"You're not well: 'Oh, I'm not well today, I'm not going to work, I'm staying at home'. Then I pick up and work on Sunday to... to make up for the day of the week that I was stressed and didn't want to go. So in the company, no. You are stressed, you are sick, you have to go, if you have a problem in the family, you have to go."*

E3 *"But you have this flexibility, which is very good, being able to spend more time with your family... I used to work in a bank, I was in the marketing area, this is fiction from 9:00 am to 5:00 pm. So I was able to leave at 9 am, but leave at 5 pm, never leave. There was always a meeting or something, it was the Nextel era, so I had Nextel, I was responsible for the stores that were an Itaú project with Magazine Luíza, so I gave marketing support to the stores, so I always had to be in contact with the stores until the weekend."*

The local effect also stood out a lot in the observation report and in the respondents' speeches. This relates to the locality characteristic of mobility operations and corroborates the view of Sundararajan, (2016), who states that Uber has local network effects. For the author, the network effect generates availability and gives value to both sides of the network. This two-sided network effect is verified in the respondents' speeches, in the reports associated with the code "Availability". Both in the interviews and in the observation report, it is possible to conclude that, even if drivers express a preference for longer trips, these trips are not very common and the statements also suggest that they do not reach such a considerable distance. Thus, the relationship between the findings of the empirical corpus of this research and the theory of network effect, two-sided network effect and locality view of mobility services is evident (Fabo et al., 2017; Sundararajan, 2016). The excerpts extracted from the research data and presented below reflect this relationship:

E4 *"Every place plays, every place has race, everywhere something happens."*
E9 *"It was always Uber. So we turn everything on, Uber plays first, turns off the rest, and then we hook up one to the other and just do Uber."*
It is worth mentioning that the company called 99, a Brazilian company founded in 2012 by Ariel Lambrecht, Renato Freitas and Paulo

Veras has been gaining some prominence in the Brazilian market and also generating network effects. In 2018, Chinese mobility services giant Didi Chuxing acquired 99 and, since then, the company has sought to gain market share from Uber (99 APP, 2022). This search for a leading role in the application-based transport market indicates the possible results of network effects and are also manifested in the respondents' statements:

E9 *"Now it looks like 99 is kind of taking over this place from Uber, you leave the two connected there, sometimes you do 99 all day and play one, do one or two Uber rides."*

E4 *"With Uber. That they paid more right in the beginning. Now the 99 is good... It's evening out."*

These findings on availability, local effect, flexibility and autonomy at work is very relevant. The two-sided network effect, especially in a big city as São Paulo, generates availability, which may make working for platforms an interesting alternative. This is because a great number of drivers registered in a region generates value for the users, at the same time that the mobilization of a great number of users produces value for the drivers (Sundararajan, 2016). Flexibility and autonomy at work also help drivers to become more satisfied with working for the platforms. This satisfaction can be identified in the statements of respondents who were classified with the code "A better option than traditional employment".

E6 *"...they don't force you: 'You have to work so many hours, you have to do this, you have to do that,...', no. It is you ((emphasized)) who will dictate how many hours you want to work or not, regardless of whether you want to work 2 hours, 3 hours, 4 hours, 24 hours, that's you ((emphasized)) who is choosing, isn't it? the company that is asking you, forcing you to do it."*

E8 *"Today, the big difference I see is remuneration. Unfortunately my job doesn't pay very well, I'm a teacher, and today the average salary of a private school for my graduation is R$1,400, working 5 to 6 hours a day there, and taking work home and various things. Today in the app I can do this during the week ((emphasized)), not working all day."*

E2 *"... and I, particularly, I don't see myself working in a company anymore, man. Following schedules of... following schedules with... with the*

boss ordering, some rules that have a company, for us, when we become... become autonomous changes a lot for you to go back to work for others. I think it's difficult. For me it's... I don't see myself. Honestly, I don't see myself anymore."

The relationship of the codes "work opportunity", "adapted profession", "main source of income", "better option than traditional employment" and "change"suggest that the job opportunity offered by the platform, as well as the benefits of the local effect, mobility and availability generate in the drivers the perception of a better option than the traditional job. This finding is in line with the process of change being faced by society as identified in E2's statement:

"Following schedules of... following schedules with... with the boss ordering, some rules that have a company, for us, when we become... become autonomous changes a lot for you to go back to work for others . I think it's difficult. For me it's... I don't see myself. Honestly, I don't see myself anymore."

Another pattern observed in the relationships between codes points to the benefits that platforms offer to the drivers. The codes "benefits offered by the platforms", "driver convenience", "tools", "availability" and "local effect" maintain strong relationships with each other. Platforms offer tools to drivers that give them some amenities. The main one is the destination guidance. Through this, each driver is entitled to two daily directions and the driver is free to choose the moment to use them. In E6's speeches there is a good explanation about this tool:

"What is a tool? An example, you start working in Osasco. Like, I start, if I want it already in the... when starting, direct it, this is called travel direction, it gives you two options throughout the day. If you want an example: 'Oh, I want to go there to Guarulhos Airport', I can direct him directly to the airport. All the trips I have on this route that he calculates can fall to me to make the trips. The same thing is the return home. The day I'm working throughout the day, start at 4:00 am and I go until 4:00 pm, when it's about 3:00 pm and I want

to leave, I direct ((emphasized)) back to House"

As for the benefits offered by the platforms, there are several who collaborate in the development of work with the applications. The main benefits offered by Uber are: VIP status conference (both for drivers and users), dynamic pricing, partnerships with car rental companies and agencies, online queue, 10-minute preference on the way back from the airport, living space and parking at the airport of Guarulhos inSão Paulo. Of these benefits, dynamic pricing (which deals with the application of a multiplied factor on the price charged when there is high demand) stands out. These benefits are evidenced in the observation report and in the interviews:

> E5 *"a VIP customer, which is a customer who uses a lot of applications on a daily basis, becomes a VIP customer."*
> E3 *"already enters the dynamic, which is the dynamic that we talk about, which is that supply-demand issue, isn't it? A lot of requests and little vehicle, so the value increases and we can earn a little more money."*
> RO *"Uber has established partnerships with some agencies for both car rental and drivers"*
> E1 *"It's because the preference stays back. So if... if you hit there, you left São Paulo there, you earn around R$40 to R$50. You already have a return of R$50 to R$60. So it's the preference that you can make at least R$100 in two hours in two hours. Until... even more, depending on where you go."*
> RO *"Uber has a space at Guarulhos airport where drivers can park their cars to wait for calls."*

Drivers reported that Uber is implementing a new benefit based on driver ratings and performance, as demonstrated in their statements:

> E3 *"I am a VIP driver, and now a new Uber program is coming, which is Uber Pro, which is coming to São Paulo on July 1st now, which are the best drivers that will be awarded, they have some awards, some benefits, and I am a Pro driver"*
> E5 *"Just like Uber now has a new project for it, Uber Pro, which only drivers over 2,000 trips and with a score of 4.85 or higher will be included in their*

project. They are still being tested, not all drivers are having it, but then the guy has to keep it, he has to keep pleasing, smiling, missing opening the passenger door, to keep his grade, to see what will happen ... this new system of theirs there, to try to keep the grade."

In the interviews there are several statements that depict to relationships that arise from drivers and passengers due to the contacts they were able to establish during the trips.

E6 *"It happens a lot that a customer takes the app – not only from Uber but from other platforms – to like the driver's service, and it's not that he is stealing the driver from the app, he is trusting the driver and he is asking him to work at his company."*

E8 *"I did extra work last year, which was generated by Uber, I ended up being a driver for a family and I was a driver for the children of the house. Like, one girl was four and the other was nine, and the parents didn't have time to take them to all school hours, so I did this job. And then I worked with them for a year, it was a very good experience for me, like a very good remuneration, and a bond, really, of trust, of... it was really cool, it brought a lot of fruit."*

Evaluations are treated within the scope of the platform economy as a way of defining the reputation of the actors involved in new economy transactions (Botsman & Rogers, 2010; Friedman, 2016; Gansky, 2014). Botsman and Rogers (2010) speak of trust among strangers, which is provided by evaluations. However, from the perspective of labor, evaluations can be seen as something positive or can generate dissatisfaction among employees. The interviews showed some dissatisfaction on the part of the drivers regarding the evaluations, mainly related to what they view as a different treatment between drivers and users. In their perspective, platforms penalize them based on their reputations and do not do the same to passengers, as can be seen in the interview reports:

E2 *"If you, for example, the issue of harassment, which is something I... I hit on a lot, that if generally, if the driver harasses the person, the person can say that he is harassed, he is blocked. We go there, we're going to file a*

complaint about a passenger, they take you off the route and end up doing nothing."

E5 *"Which is something that influences the driver. For the app, the driver has to have a good grade, the passenger doesn't influence anything, he can have a grade down there, and the app doesn't care about that."*

E7 *"Because Uber... it aims more at the passenger's vision, not the driver's. Sometimes it ends up harming even the driver due to the passenger complaining to Uber about something that the driver replied and he didn't like it."*

Still on the reviews, it is important to note that drivers realize that Uber has been changing the way it handles user complaints. They argue that the impacts of negative reviews on their grades have been minor. However, they complain about the lack of transparency in the parameters used to carry out the measurement as well as the metrics used to decide whether a driver may lose his / her registration to continue working on the platform. The need for transparency to support trust on agents is in line with(C. Köbis et al., 2021). People feel safer in a scenario in which information is shared more among participants (Reisch & Thøgersen, 2015). The respondents' statements reflect this perception:

E8 *"And I think this has changed a lot. Even I believe that they listened a little more to the driver than to the passenger, which I didn't feel at first, that I felt that much more was the passenger than the driver. But I think today they have been listening a little more like this, even in the evaluation questions."*

E1 *"It may happen that the application... is punished by the application without knowing the reason."*

E7 *"I think that for this reason, Uber should, before disconnecting the driver, call the passenger, call the driver and know what the friction was, before disconnecting, understand? I think that should be it. But no, Uber goes there and does the following. Deletes the driver from the platform and the passenger becomes normal. That, for me, is wrong, I should have a common sense – understand? – of conversation."*

In the literature review, the issue of sustainability was raised, suggesting that the platform economy brings benefits in this regard

(Botsman & Rogers, 2010; Gansky, 2014; Rifkin, 2014). However, in the field research, only one code was found related to the issue, which is "concern with social issues". It is important to note, however, that the incidents attributed to this code refer only to one of the dimensions of sustainability (i.e.) the social dimension as noted on the respondents´statements:

> E8 *"I usually say that it is difficult, sometimes you enter a free area and you say that everyone who lives there is a criminal, because we know they are not."*
>
> E6 *"Man, yeah... It's one of the things that not only me, but also several platform drivers, is not that we claim bonuses from platforms. Sometimes we claim an acknowledgment ((emphasized)), why? Sometimes we do things on the street that the app itself doesn't imagine... that we do, because sometimes they think it's just tracing the path there, this and that, and that's it and that's it. And it's not. Sometimes there is a lot of adversity on the way, pregnant people, sometimes elderly people, wheelchair users, this and that. So you have to have a treatment, sometimes even outside of what you proposed for that moment. Sometimes even not even a driver as a passenger, sometimes it's a person... being a human being always wanting to help others."*

These last speeches point to a more humanized view, which the platforms do not capture due to the automatized characteristic of the applications. These attitudes could enable greater proximity between the platform and drivers, as well as add more value to the services. It is also worth noting that one of the main views of Botsman and Rogers (2010) i.e, the greater use of goods and decreased idleness) is somehow contradicted in the field study. As depicted on Table 2 out of the 9 vehicles used by drivers, 4 were financed and 2 were leased, suggesting these drivers increased the number of cars on the streets and the consequently the emission of pollutants.

5. Final considerations

The results of this research contribute to the understanding of the transformations that labor has been going through with the accelerated development of technologies. The main finding of this research is related to the work opportunities offered by the plat-

forms. Even if platforms change the configuration of labor relations and there are losses related to benefits of traditional employment, respondents believe that working for the platforms is a better option than working on traditional employment. Even though this finding cannot be generalized, it contradicts the view that working for these platforms is not a good option as it does not provide the benefits of formal labor relations. Drivers value the benefits of flexibility, autonomy and compensation offered by platforms, and they point compensation as the main one. They claim their income is four times higher than what they would be making in their previous jobs. Despite the general conception that these applications are making jobs precarious, we believe they can be as a solid opportunity to offer alternative of wealth and work to people. Therefore, we think that public initiative can act to foment more competition between apps and act on the creation of a special welfare system to these professionals generating a safety network for those who opt to work on these "informal" opportunities instead of "formal" employment that are already contemplated in formal welfare systems. In this scenario, governments could also better regulate the operation of these applications making sure that there is a clear benefit to consumers while passing a fair share of wealth to providers who would not be subject to arbitrary remuneration from applications while at the same time are assisted in eventual cases of need (such as in an accident at work). The marginal cost close to zero nature of these new businesses seem to present a scalable alternative to unemployment with possibility of coupling it with fair remuneration and other perceived benefits.

Despite its interdisciplinary character, this work did not explore legal, regulatory issues, or those that presuppose the technological development itself, such as the use of autonomous cars and drones in mobility services. These questions remain as a suggestion for future research. This study collaborates with the available knowledge on platform economy while providing insights for companies of mobility applications The information from this study can contribute to an economically more profitable evolution of different agents involved in the platform economy allied to social and ecological concerns. Finally, regarding governance, the study presents inputs that can

help the public initiative finding ways to better handle the platform economy. This can be reflected in benefits that promote mor social welfare, diminish inequality and collaborate for a fairer society.

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