

Impacts of P2P platforms on the economy of sharing

Impactos das plataformas P2P na economia do compartilhamento

André Castello Branco*, **José Mauro Gonçalves Nunes**

Escola Brasileira de Administração Pública e de Empresas (EBAPE/FGV), Rio de Janeiro, RJ,
Brazil

ABSTRACT

Technology has been changing the way we consume and relate with goods. Sharing economy is a broad term that includes those who simply want to share what they have, without financial gain, from those who gain access to their goods and services with financial purposes. For the second group, P2P (peer-to-peer) platforms have become a great force. If we think that sharing economy is an important issue, we must review the regulatory and work-related aspects that give to these companies an unfair advantage over established competitors. This study wants to investigate the phenomenon of the sharing economy, the regulatory impacts that platforms have generated in the workforce and understand some solutions that the public agents have been working. During our research we noted that the academic production in Brazil about sharing economics is scarce. We identified the main impacts that occurred in the precariousness of work, in the attempt to regulate the urban space and the creation of new rates and forms of monitoring P2P platforms.

KEYWORDS: Sharing economy; Collaborative economy; Access economy.

RESUMO

A tecnologia vem mudando a forma como se consome e se relaciona com bens. A economia do compartilhamento é um termo abrangente que, tanto engloba aqueles que querem simplesmente compartilhar o que têm, sem ganhos financeiros, daqueles que provêm acesso aos seus bens e serviços com objetivos pecuniários. No segundo grupo, as grandes plataformas P2P (do inglês peer-to-peer, que significa par a par) têm se tornado o seu grande expoente. Ao entender que a economia do compartilhamento é importante, deve-se revisar os aspectos regulatórios e relacionados ao trabalho que hoje fazem com que essas empresas, no exercício das suas atividades, ganhem uma injusta vantagem sobre seus concorrentes já estabelecidos. Este estudo tem como objetivo investigar, dentro do fenômeno da economia do compartilhamento, quais são os impactos regulatórios que as plataformas têm gerado na força de trabalho e nos seus setores de atuação, além de pontuar algumas soluções que os agentes públicos têm proposto. Nota-se pela pesquisa, que a produção acadêmica no Brasil sobre economia do compartilhamento é escassa. Identificou-se que os principais impactos ocorrem na precarização do trabalho, na tentativa de regulação do espaço urbano e na criação de novas taxas e formas de monitoramento sobre as plataformas P2P.

PALAVRAS-CHAVE: Economia do compartilhamento; Economia do acesso; Economia colaborativa.

Submission: February 08, 2018

Approval: March 16, 2018

*André Castello Branco

Master in Business Management (FGV/EBAPE). Consultant of governance, risks, controls, and IT audit. He is partner at Loudon Blomquist. Researcher of sharing economy and innovation economics using blockchain.

Address: Rua São Manuel, 36, Apt° 102, 22290-010, Botafogo, Rio de Janeiro, RJ, Brazil.

E-mail: acastelo.branco@gmail.com

José Mauro Gonçalves Nunes

PhD in Psychology from Pontifícia Universidade Católica (PUC-Rio). Associate Professor of Executive Master in Business Management (EBAPE/FGV) and Adjunct Professor of the Multidisciplinary Institute of Human Training with Technologies of the State University of Rio de Janeiro (IFHT/UERJ).

E-mail: jose.nunes@fgv.br

1 INTRODUCTION

The capitalist economy and the world of work are under a profound transition. Rifkin (2016) argues that active corporate profit is declining, and property rights are weakening. Technology has the ability to accelerate, not only transformations in economy, but also lower transaction costs, eliminating intermediaries, and empowering consumers. Using technology as its catalyst, the sharing economy emerges as a major player to create a market, where there was no market (Sundararajan, 2016).

The sharing economy born from the shift of an economic model based on scarcity to a model of abundance, with rational use of resources and ecologically efficient (Rifkin, 2016). A change in the economic logic of this dimension could not be made without bringing great insecurity to economic agents. If you have economic efficiency the rational use of idle assets, on the other hand, workers face the precariousness of their work. It is a reality where in which the share of goods and services flourish and workers change activity on the go, without labor rights such as the right to vacation, retirement or health insurance (Standing, 2011).

Belk (2010) mentions that the idea of sharing a good is old. Indians shared their goose and hunt. Sharing is a more common activity in domestic life than in the outside world of work and the market. Families share a television in their homes and the kitchen during meals. This is a phenomenon in the history of human civilization, while the collaborative consumption and sharing economy is a phenomenon of the Internet age (Belk, 2014). Sharing is a form of social exchange between people who know each other, without the goal of profit. By sharing and collectively consuming the space of their homes, family members establish a communal identity.

Eckhardt and Bardhi (2015) make an important division between sharing models. When sharing is mediated by market and there is a company mediating the relationship between two consumers who do not know, the authors mention that this is no longer sharing at all. Rather, consumers are paying to access someone goods and services for a period of time. That is access economy, when someone gives access to their good or service with financial interests.

This research focused on the sharing economics platforms with financial motivations. Three platforms were chosen, according to the definitions of Sundararajan (2016):

- Uber: a platform that connects drivers who own available cars with people who need transportation;
- Airbnb: connects people who have accommodations or available space in their home, to people who need these spaces for a short period of time;
- TaskRabbit: connects people who need to perform small tasks, such as setting up a cabinet, walking with dogs, making a shopping list, with people available to do it.

Sharing economy companies have achieved a big dimension in Brazil but brazilian academic literature is small in terms of discussions about sharing economy. What has been published in Brazil put this as a parallel topic of discussion such as the knowledge economy or contemporary economy. Sharing economy rarely is the main theme of articles.

The international discussion on the subject is extensive. You can name a few authors such as Belk (2010; 2014) that analyzes consumer behavior in the act of sharing and consumption online; Daunoriene, Draksaite, Snieska and Valodkiene (2015) that analyze the sustainability of this type of business; Rifkin (2016) and Standing (2011), both analyzing the social impact of changes in the sharing economy; Sundararajan (2016) mentions the phenomenon of large global P2P platforms and the unequal competition of these platforms with companies already established in regulated sectors; Eckhardt and Bardhi (2015) clarifies the difference between the economy of access and sharing; Elliot (2016) questions the legal impacts of Uber and Zervas, Proserpio, and Byers (2014) contributed to quantify the impact of Airbnb in hotels in the cities in which it operates.

It is necessary a better understand the phenomenon of the sharing economy and the impact of large platforms to reduce the academic gap in Brazil.

The research problem statement is: What are regulatory impacts that the platforms have generated in the workforce and in their respective sectors of activity?

To answer that, a bibliographic review was structured on the theme, with primary and secondary sources. The main players selected were the Uber, Airbnb and TaskRabbit platforms. According to Sheridan et al. (2016), these are the leading platforms in its segments of operation in the United States.

The research wants to contribute to a better understanding of the sharing economy phenomenon, with the following issues: a) pointing out some solutions to regulatory issues that has been taken by public officials around the world, b) understand the impacts this new model of work placed by the big platforms of technology P2P, c) a bibliographic review on the topic.

2 LITERATURE REVIEW

The academic literature has not a great number of definitions for the term sharing economy. According to Daunoriene et al. (2015), the term has changed with the evolution of relationship with consumer goods.

For Sundararajan (2016), the definition of sharing economics applies to any market that facilitates peer-to-peer exchange through a decentralized network. A good example is Airbnb connecting travelers to guest's rooms around the world.

Elliot (2016) defines sharing economy as an old economic system in which ownership of an item is embraced by a community. It has the characteristic of using the resources efficiently, the consumption is scalable and has a local production. The author mentions that, in the sharing economy, many small-scale enterprises do not seek profit, but offset the cost of ownership from the share. Miller (2016) mentions that nowadays, new business models have challenged already established structures.

And if everyone shares, who profits from it? BBC Radio (Davis, 2014) in a special program of sharing economy interviewed representatives of startups based on this model. Program participants mentioned that they do not want to make a profit on their business, but just enough to keep the business running.

Rifkin (2016) mentions startups as the great phenomenon of the 21st century. Without the weight of past success, they leverage and scale their model's business using a strong technological component. The same author mentions that large enterprises, on the other hand, with heavy hierarchical structures, are the main victims of this new economic model that requires agility. Sharing of goods brings diminishing returns and discouraging consumption to the traditional business. In research conducted by US consultancy PwC in 2014 focusing on the economically active population of the USA, 81% of people agreed that is cheaper to share goods than own them individually. 57% of people interviewed agreed that they have a new sense of ownership of property. That is surprising because the research was done in the USA, a society that is historically consumerist.

Figure 1 shows the main reasons pointed out by the UBS report on the sharing economy.

Consumption behavior has changed because of concerns about environmental, social issues and the impact of development (Hamari, Sjöklint, & Ukkonen, 2016). Collaborative consumption and sharing economics become an alternative for consumers after a major concern about climate change and a desire for some community consumption (Belkin, 2010).

Hamari, Sjöklint and Ukkonen (2016) define sharing economy as peer-to-peer activity to obtain, give or share access to goods or services in a coordinated manner and through an online community. It was disruptive in confronting players already established in the market by providing consumers with convenience and efficient access to resources without the financial, emotional and social liability of ownership (Eckhardt & Bardhi, 2015).

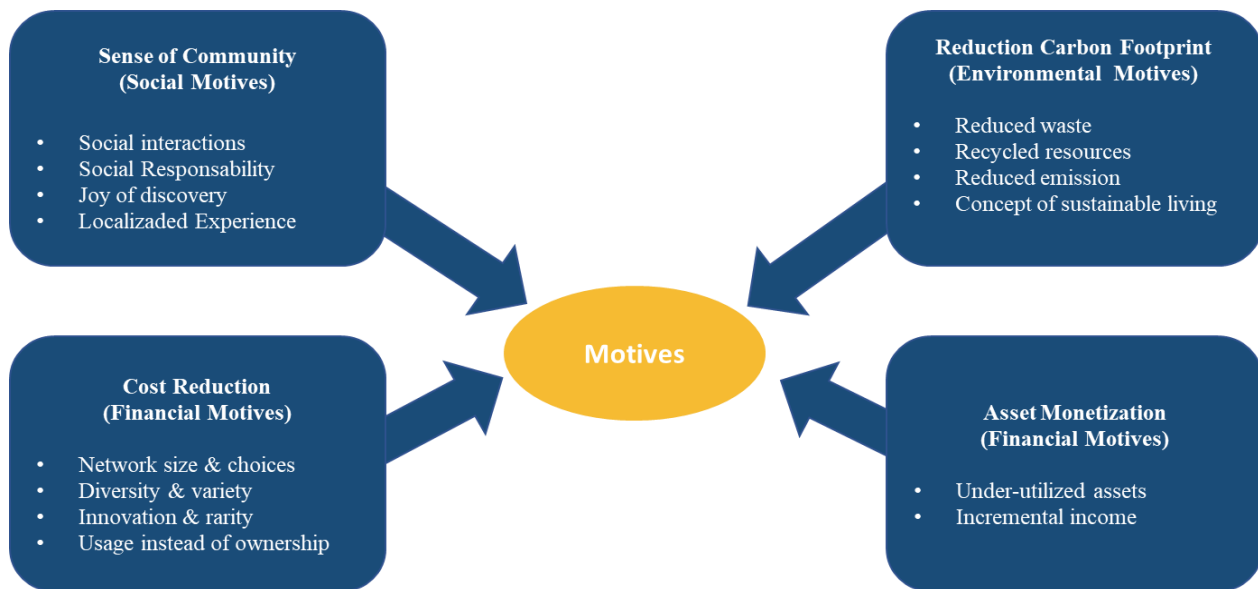


Figure 1 – Motives for sharing economy
Source: Based on Sheridan et al., 2016.

Figure 1 shows first two groups (Sense of Community and Reducing Carbon Footprint). They represent the basic motivators of the sharing economy when there are no financial interests. This motivating was also mentioned by Safarti (2016), who characterized them as the loss of sense of ownership, being replaced by an aspiration of people for intangible aspects, such as healthy eating, physical activity, enhancement of personal life and the environment in contrast to overwork.

In the sharing economy, large segments of the population can provide access to a set of goods not used. Eckhardt and Barhi (2015) proposed a separation between sharing with financial interests, calling it access economy, or as free sharing, when there is no demand for a payment. Horton, Stern and Zeckhauser (2016) as well as Rifkin (2016) mention that sharing without financial interests occurs only to cover the marginal costs or even to provide the good for free. Figure 1, Cost Reduction and Asset Monetization come as the two main drivers of the groups sharing economy with financial interests (Sheridan et al., 2016).

While in the traditional market, the money is used to gain ownership of a product, on share economy money presents the benefit of capturing value with temporary access to a product or service. Redistribution, community building, shared mobility, P2P (peer-to-peer) allow clients to access properties of this good or service (Daunoriene, Draksaite, Snieska, & Valodkiene, 2015). P2P platforms are able to solve a relevant market problem in the current context, allowing access to previously unused goods (Horton, Stern, & Zeckhauser, 2016; Eckhardt & Bardhi, 2015).

Although sharing goods and services is an ancient phenomenon of mankind, according to Zervas et al. (2014), this market reached scale with the advent of websites that facilitate this type of transaction at a low cost. In the first phase of this technology, US websites such as Craigslist allowed free online add, provided the sale items to a specific location, causing suppliers reached buyers at very low cost.

In a second phase, websites like Airbnb have provided a much more sophisticated solution by enabling the sharing of goods and granting access to those interested in that asset. These new peer-to-peer platforms, also called P2P, with their valuation and transaction scoring systems, have made that a good had an after-sales value for the seller. This value is the evaluation given by those who had access to the property and enjoyed it for a while. The use of these platforms in the form of applications in smartphones has made these services has reach a scale never seen before (Zervas, Proserpio, & Byers, 2014; Eckhardt & Bardhi, 2015).

3 REGULATORY ISSUES

The sharing economy is rapidly growing. People have access to bedrooms (Airbnb, Roomorama), tools (SnapGoods), cars (Zipcars, fleetly), taxi services (Uber, Cabify). Uber is one of the main players of this group, with projection and recognition. According to Hook (2016), the Financial Times mentioned that Uber received in June 2016, US\$ 3.5 billion in investments of an Saudi Arabia's sovereigns wealthy fund, marking the largest single investment ever made in a private company. Hamari et al (2016) mentions that investors are leading sharing economy to an investment megatrend.

Sharing economy will grow and it is important review the regulatory issues that today make sharing economy companies earn an unfair advantage over its competitors (Malhotra & Alstynne, 2014) who carry out their business in an already regulated environment.

The Uber transport service was established as an alternative transportation in several cities of the world and that was the trigger for protests of taxi drivers. In Brazil, there are protests in cities such as São Paulo, Rio de Janeiro and Brasilia for the application to be banned. The argument of those who are against the App is that it is illegal practice of the taxi service. Uber says it offers a different form of transportation, which helps to reduce traffic and generate income for people (G1 News, 2015). A taxi driver in Brazil needs to work pay taxes, to take courses and regulate the meter. Some drivers in cities like Rio and Sao Paulo rent the taxi license from other drivers, paying a daily rate of R\$ 220.00 on average. In the city of Rio de Janeiro, fifteen companies concentrate taxi licenses and rent those licenses to 33,000 taxi drivers (Jornal Extra, 2015). These are costs that as Uber driver does not have.

According to the New York Times (2017), Uber was accused of allowing its drivers to use a software called Greyball. This software was developed by Uber to deceive police officers. First a police officer calls an Uber car to inspect the service and then, software identified to the Uber driver that this customer as being a potential law enforcement agent. The algorithm use a combination of geo-positioning, customer credit card information and social networking to define a client as a potential law enforcement agent. Once the customer was identified, he would appear to the driver of Uber as a gray ball in the application. After that, there was no Uber driver available to provide the service for that customer in the region.

Public sector has problems to regulate the Uber in Brazil and worldwide. Elliot (2016) mentions that is difficult for the municipality to regulate occasional drivers. Elliot (2106) states that it is unclear how to define Uber within the existing laws for taxi drivers in the world. Uber is not responsible to check if drivers are attending to the regulatory aspects of each city. In addition, the occasional driver of Uber is only a driver when you connect your App, making it difficult to define when to apply the laws in force.

Malhotra and Alstynne (2014) mention a case that occurred in 2013 when a Uber driver hit a pedestrian in New York as he looked at his cell phone. The pedestrian family sued Uber. The company, on the other hand, claimed that it had no responsibility for the driver, since the service contract states that "Uber does not provide transportation service, it is a technology company and it is not responsible for services provided by third parties". The municipalities have difficulties to apply the law to a company that does not feel responsible for transportation process.

Airbnb was founded in 2008. Today it is a giant that hosts an average of 425,000 people per night, at an average of 155 million guests annually. This represents 22% more than the availability of the Hilton worldwide, which closed in 2014 with 127 million guests (PricewaterhouseCoopers, 2015). Airbnb define itself as "a trusted community marketplace for people to announce, discover and book unique accommodations around the world." In this business, people rent parts of their homes and can make profit from unused rooms. Guests earn more with lower prices than the traditional hotel chain. Airbnb charges property owner with 9% to 12% for each reservation made and charges guests 3% service charge to cover the costs of processing payments.

Zerbas et al. (2014) mention that Airbnb operates with minimal regulatory controls in most cities. This practice encourages new people to join the platform because of the low transaction cost. With more people using the service, more guests and hosts use the platform qualification system after

hosting. To reinforce this practice, Airbnb has created an on-line incentive system for guests and hosts to always leave a review after each stay.

City halls in the world's major cities have strict legislation on the distribution of spaces for the hotel chain and commercial areas. The goal is always to discipline the flow of tourists entering and leaving the hotels, keeping them separate from residential areas, which have the characteristics of concentrating people who seek more reserved spaces for their families (Henwood, 2015). That is a challenge for a legislator, to organize large urban spaces where any resident of a residential area can rent a room for a short season.

The impact of Airbnb on the availability of real estate in large cities is difficult to measure. The attorney general of New York in 2014, identified the rapid growth of Airbnb in the city. He realized that many units were not rented by individuals, but rather by large commercial operations that aimed to reduce the availability of rooms and properties in New York City (Henwood, 2015). Strategies such as this can work to artificially increase the price of certain properties in regions with a low supply of units and high demand, such as the South Zone of Rio de Janeiro. Miller (2016) mentions that the challenge of regulators is also to prevent people from artificially inflating the price of real estate. This practice creates unequal competition, restricting the supply of rooms and can reduce the flow of tourists in a city.

Zervas et al. (2014) developed a survey to measure this impact of Airbnb on a city. Fieldwork was in Texas (US). The study revealed that the first segments to be affected are low-cost hotels. It was concluded that, 1% increase in the supply of units in Airbnb, represented 0.05% decrease in the revenue of this segment for four months.

In a UBS report of sharing economics, Sheridan et al. (2016) mention that Airbnb's growth rate in 2016 has been decreasing due to the regulation that public agencies have begun around the world. Investment bank UBS has researched 127 cities, where Airbnb is present, to analyze its growth and impact on existing hotel chains. UBS has identified that the availability of accommodations on Airbnb has been slowing its growth rate throughout 2016.

San Francisco, the city where the Airbnb was founded and currently operates its headquarters, imposed some regulatory requirements:

- In February 2015, San Francisco city regulator defined that for short periods (less than 30 days), Airbnb should register the guest with the City Hall, maintain an insurance and inform the number of guests;
- In June 2016, San Francisco City Hall approved a law requiring Airbnb to pay \$ 1,000 for each unregistered guest at the municipality.

Other cities around the world implemented other regulatory requirements:

- In 2016, New York state approved a law prohibiting advertising of units for short-term rentals;
- New Orleans banned rents shorter than 60 days in the French Quarter, a major tourist region of the city, and rents for less than 30 days in the rest of the city;
- Berlin has created a new set of laws banning short-term rentals.

The same UBS report points out that cities like Barcelona and New York had a negative impact on the quantity of supply and demand for units.

According to the UBS report, it is important to mention that the company continues to grow. In 2015 Airbnb registered 25 million daily rates and in 2016 this number reached 52 million daily rates.

One of the key legal issues associated with sharing economics is knowing who a user will handle if there is a problem. Platforms have used insures to deal with those risks, especially those related to the safety and personal integrity of their users (Sheridan et al., 2016; Eckhardt & Bardhi, 2015).

4 METHODOLOGY

For the classification of the research, it was based on the taxonomy presented by Vergara (2013). This is an exploratory research, since the themes of sharing economics, access economics and collaborative economics have little knowledge accumulated and systematized in Brazil. Even in the international academic world, Daunoriene et al. (2015) states that the academic literature does not propose many definitions for the term sharing economy.

This research is a bibliographical review that seeks to raise questions in the context of the use of technologies in sharing economy and its impact on our society. When using the mechanism of the bibliographic review, we searched for an ordered set of procedures for understanding the phenomenon of sharing economics and the use of technology as process inducer. The review tried to understand how the authors observe the fact that large P2P platforms have used the phenomenon of the sharing economy. Those platforms have concentrated, in a short time, many users of their services and workers who use it as income. We used both materials from primary sources from secondary sources

Figure 2 presents some of the authors and their importance for the bibliographic review.

Authors	Relevance
Belk (2010) e Belk (2014)	Understand changes in consumption patterns of the sharing economy.
Hamari et al. (2016)	It explains how technology was important for the advent of collaborative consumption and their respective online service communities.
Sundararajan (2016)	It explains the transition from corporate and centralized capitalism to a peer-to-peer exchange between individuals who share their assets. They analyzes impacts on work and regulation.
Eckhardt and Bardhi (2015)	It raises an important difference between sharing economy and the access economy, with financial objectives.
Rifkin (2016)	It details how sharing can accentuate this economic transition, leading corporations to declining profits and impacting society.
Cappeli and Keller (2012)	Mention the changes in US and in other countries, with the migration of the full-time employee model to a single employer for new part-time work arrangements.
Elliot (2016)	Explain how the regulatory aspects of this new economic model works for legislators, public agencies and propose some solutions.
Malhotra and Alstyne (2014)	
Miller (2016)	
Standing (2011)	Mentions the impacts that workers of sharing economy large platforms may suffer.

Figura 2 - Main authors of the bibliographic review.

The speed of changes in the sharing economy led the research to also use market analysis. The work of Sheridan et al. (2016) for the German bank UBS and the consultancy report of PwC (2015) about sharing economy are important issues in this review.

5 REGULATORY IMPACT ON P2P PLATFORMS WORK MODEL

Private companies have many incentives to reduce their marginal costs. By doing it right, it means they can increase their profits, offer goods and services at a lower price. At present, the internet and other innovations have reduced the marginal cost to zero for some commodities and services, leaving some traditional companies with their profits in check (Rifkin, 2016).

The phenomenon of Airbnb is now selling space and rooms, connecting those interested in renting with guests, without having to invest in the construction of rooms. Airbnb is changing the rules of the game of hotel chains because it connects thousands of homeowners and allows them to receive on idle space in their homes, guests interested in renting a room. This is lowering the marginal cost of a hotel room close to zero. Landlords can rent much cheaper than large networks, since fixed costs such as financing and property taxes have already been absorbed (Rifkin, 2016; Eckhardt & Bardhi, 2015).

A traditional hotel chain, with its huge cost of operations cannot compete with someone who has a home that can be used and is a sunken cost.

Hotels are labor intensive, such as receptionists, waiters, maids, electricians, valets, cooks, among other categories. A decrease in the number of hotels will directly affect the employment, and those people will return to the labor market. On the other hand, platforms such as Airbnb have the potential to increase the availability of low-cost accommodation, the flow of tourists and, thus, produce more jobs (Zervas et al., 2014; Rifkin, 2016). New forms of work arrangements arise in the form of part-time work, to absorb this contingent of people, according to Cappeli and Keller (2012), the result of the reduction of full-time work.

In the case of Uber, Malhotra and Alstyne (2014) mention that the money earned by a driver working in this service in New York City could hardly cover the cost of gas and the depreciation of the vehicle. The peer-to-peer network for sharing small jobs or cheap jobs, makes industry and service jobs migrate to micro-services with lower pay.

Uber requires that registered drivers to have new cars. If the car has more than 8 years, the driver can be disabled from the system. The company, in this case, is ready to help: Uber in US has a partnership with Santander, which offers to drivers a financing to buy new cars. Part of the funding is deducted from each driver's income, in addition to the fee that Uber already charges (Henwood, 2015). In this way, the driver becomes increasingly locked to Uber system, as a type of "digital slavery" (Standing, 2011).

Micro-services, also called micro-outsourcing, is a system where workers are paid only for the execution of a task or a small number of tasks. That system become popular in Brazil on platforms such as Freelancer. In this model, Sundararajan (2016) mentions that it is possible to hire people around the world to remotely perform simple services or specialized activities, such as performing a technical translation or setting up a project schedule in Microsoft Project. In the US, the micro-services have as their main exponent the TaskRabbit, allowing users to connect with people in their neighborhood willing to perform a task for a small fee. It is possible, for example, to hire people in the neighborhood for services such as drilling a wall, cut the grass or making a shopping list. For each service, the person receives a note from his client. The best ranks become Rabbits and appear in the first place on searches.

Malhotra and Alstyne (2014) mention that micro-services pay only by task, considering a suppressed demand for services on the one hand, guaranteeing a small remuneration to cover their marginal cost. This type of work mortgages the future, as it does not reserve any income for learning new skills or to cover future care with health and retirement. Rifkin (2016) mentions that if marginal cost tends to zero to hire a microservice we cannot pay much for it.

The problem is that the sharing economy creates a tug of war between the primary and secondary producers that shares an item. And the secondary producer that shares, can become the one that takes the profits of primary producer. Netflix charges in Brazil R\$ 27.90 per month. This is roughly equivalent to the rental of two new released movies available on the movie selection menu of a major Brazilian cable operator such as NET or Sky. A person who rents two movies a weekend pays for a Netflix. Any more film that this person watches, she will be paying substantially less for a good that he or she will never have (Malhotra and Alstyne, 2014). It can be economically efficient, but it can also harm the people who produced the films, because they will receive a lower remuneration for their work. Thinking ahead, this can also hurt the demand for Netflix, because fewer people will be employed in the entertainment industry, for the simple reason that this will be a decreasing profit industry (Rifkin, 2016).

The sharing economy, while being economically more rational, bring new problems to workers. In a controversial case in England, an Uber driver, whose main source of income was work as a driver, was excluded from service because of three bad grades given in sequence by passengers. There was no room for appeal and the driver. The case became well known because the driver was the sole provider of his family and was turned off by Uber by an e-mail (Elliot, 2016). The precariousness of the driver's work leads to a situation like this, where the worker is dismissed without room to argue.

Rifkin (2016) argues that by connecting everyone in a global network driven by extreme productivity, it increasingly leads to an era of virtually free goods and services, thus to the shrinking capitalism in the next half century and to the rise of common collaborative goods, as the dominant model of economic organization.

According to Sundararajan (2016), the challenge of workers in the sharing economy is how to adapt to the outdated labor laws that separate the self-employed, such as the Uber driver from one who works full-time employment and has rights to a series of benefits. Sundararajan (2016) suggests the creation of an intermediate category of "dependent autonomous" that will allow companies to provide some type of training and benefits, without considering that worker as full-time employee.

Large digital platforms benefit greatly from the sharing economy (Eckhardt & Bardhi, 2015). The platforms were responsible for creating a new type of worker, according to Prassi and Risak (2016), located in a gray zone between a liberal professional and a freelancer, difficult to fit into one of these two categories, called crowdwork or also classified like crowdsourcing. This work model describes a form of organization based on the platforms of technology of the economy of the access, able to outsource tasks to a great number of workers. The crowdwork worker can perform different tasks (transport services, cleaning, programming, among others). He is evaluated and qualified after its execution and, finally, return to be available on the platform again, becoming a crowdsourcing, a resource in the crowd. The resulting contractual relationships are multiple and complex, as the work is usually run by an intermediary (the crowdsourcing platform) who, most of time, is not responsible for the service provided. A good example is Uber, which considers itself a technology company, not a transport company (Prassi & Risak, 2016, Elliot, 2016). Figure 3 summarizes the model proposed by Prassi and Risak (2016).

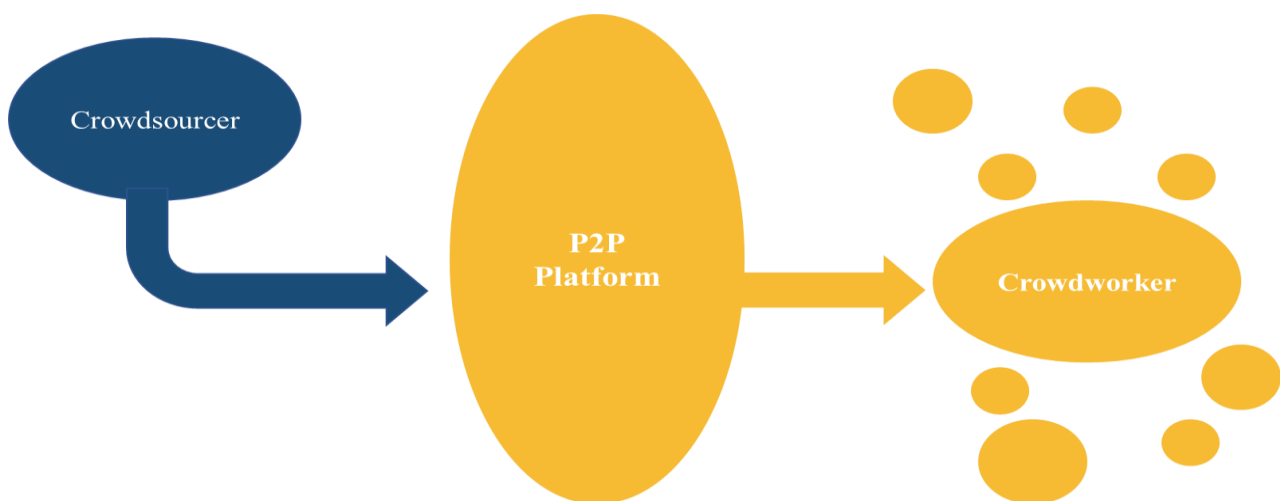


Figure 3 - Parties involved in crowdsourcing labor.
Source: Prassi and Risak, 2016.

The required tasks by these platforms are often simple, repetitive, low pay and highly standardized. The listed crowdwork features by Prassi and Risaki (2016) are:

- Flexibility: it presents a working relationship that allows flexibility for the worker on his work day and, for the employer (client), a possibility to hire him without having the cost of a labor termination;
- Production control: the platform maintains complete control of the production process, keeping the lowest cost per transaction possible.

For these two seemingly contradictory factors occur, two preconditions must be satisfied:

- Abundance of workers: the number of available workers must be large and growing;

- **Competition:** the abundance of workers creates competition among the crowdworkers on the platform, keeping costs low.

Malhotra and Alstyne (2014) mention that the economic crisis of 2008, which lasts until now with different intensities across countries, represents a great fuel for the functioning of the platforms, as it guarantees a growing mass of workers always available for the sharing economy. Even with the high turnover of workers leaving these platforms for different reasons (low pay, lack of benefits such as vacations, health insurance) the crisis of 2008 ensured that new workers entered the platform constantly.

The new platforms bring the reputation as an important currency to be worked on. According to Sundararajan (2016), the importance of reputation and social capital brings another idea: that the sharing economy can be self-regulated. Trust is the parameter for this type of business, with peer-to-peer transactions creating a high incentive to maintain a standard acceptable to the group. One way to do this is to allow people to write reviews, share their experiences, or give a note after using the service. Platforms can be better than governments, checking each user's background and resolving conflicts between members.

6 CONCLUSION

After 2008 crisis and a few years of recession around the world with a small recovery, the sharing economy offers certain groups of workers the already established business models, such as taxi drivers, the real prospect of decreasing income. For other people, this new model offers a way of supplementing an income that was stagnant or diminished with the crisis (Henwood, 2015), as those who use the idle space in their homes. The sharing economy has also served to enable large companies to monetize under people desperate for paid employment in a post-crisis economy. There is another fact that these large P2P platforms positively evoke a sense of belonging to a community by placing the worker and user as part of their system of qualifying experiences of using the services.

According to Sheridan et al. (2016), Uber has US\$ 11 billion in hand, Airbnb has US\$ 1 billion and TaskRabbit, US\$ 40 million. Hamari et al. (2016) mentions that investors have pushed the sharing economy to an investment megatrend.

New regulatory models to support sharing economy will be a subject of debate for a long time. The conflict between taxi drivers and Uber may be one of the most emblematic and debated on the internet. It is the confrontation of the new transportation model proposed by the sharing economy with established businesses. One of the solutions suggested by Elliot (2016) says that cities should evaluate the possibility of distributing more taxi licenses and modifying regulations, so that they also contemplate models of occasional drivers such as Uber.

It is important to combat unethical practices such as the Greyball case reported by the New York Times (Isaac, 2017). On this case, Uber helped its drivers to identify police officers and agents of the municipality that pass through customers to inspecting passenger transport model. Behaviors such as these should not be tolerated by a society that seeks to a fair competition, as pointed out by Malhotra and Alstyne (2014).

The regulation of the urban space is one of the most complex aspects to solve it. If today there are megacities like Rio de Janeiro and Sao Paulo, where urban planning is a challenge, platforms such as Airbnb must somehow connect with current policies in order to generate, according to Henwood (2015), a coexistence different urban spaces in the cities. The registration of guests with the municipality (Zervas et al., 2014) is fundamental for many cities in the world, especially for those dealing with terrorism or high crime rates. In many situations, people use of the absence of controls to move around with unlawful goals using those platforms. The rules that municipality adopted by prohibiting short rents in cities such as San Francisco, Barcelona and New York, mentioned by Sheridan et al. (2016), are a response from regulators to try to reduce the high turnover of people in residential areas that Airbnb allows.

The work model imposed by the large P2P platforms, totally deregulated, creates serious problems of precarious work. Observing Airbnb phenomenon, it has the potential to eliminate a whole set of hotel workers (chambermaids, cooks, waiters, receptionists, electricians, etc.) and push more people into precarious, temporary and the type of freelancers. Jobs offered by new platforms such as the TaskRabbit fit in this model. Standing (2011) mentions that this new class appears without any regulatory support, including many people will have to live with insecurity, entering and leaving jobs that add little qualification or knowledge.

Sharing of goods and micro-services flourish today and there are workers changing jobs without protection of labor rights such as paid rest, retirement or health insurance. There is no consensus in the literature on how to define this work model. An occasional Uber driver is only a driver when he turn on its App, making it difficult to define when to enforce legislation and to hold him in case of an accident (Elliot, 2016).

On the other hand, Rifkin (2016) argues that an increasing number of goods and services are moving towards a marginal cost close to zero and become almost free. When thinking about the universalization of access to consumer products looks like this is good news for a world where the populations of developing countries are still the majority. As a result, the market will continue to shrink to increasingly narrow niches, where profit companies will survive only on the fringe of the economy, backed by a reduced customer base of highly specialized products and services.

Rifkin (2016) suggests a future where machines would promote an abundance of free goods and services, liberating mankind from heavy labor, suffering and drawing from the human mind the preoccupation with strictly pecuniary interests, to focus on the arts and the pursuit of transcendence. This seems to be a much more interesting future than the one proposed by Standing (2011) of precariousness of work and marginalization of this worker.

Sharing goods with others makes people better and more capable to understanding demands of the community. Social relations provided by sharing, and which may have a financial return, are quite different from empty transactions of pure financial interest practiced by the model of capitalism based on the current accumulation. Technology leverages social relationships and helps solidify reputation and trust as one of the foundations of this economic model. Maybe a transcendence can get there, when free from the bonds of routine work, as predicted by Rifkin (2016), we could improve ourselves by intensifying contact with each other.

The fact is that we live on an old economy model that has not yet died and a new economic model that is being born. It is in this context that the sharing economy emerges by reinforcing the foundations of a new model of capitalism.

7 RESEARCH LIMITATIONS

The objective of this study was to investigate the phenomenon of the sharing economy and the regulatory impacts that platforms have generated in the workforce. This study brings some solutions that public agents have proposed around the world. The limitation of this article the focus on the dynamics of large P2P platforms when there are financial interests on the side of the one who shares a good. Future study can address the sharing economy when there are no financial interests involved.

REFERENCES

- Belk, R. (2010). Sharing. *Journal of Consumer Research*, 5(36).
- Belk, R. (2014). You are what you can access: Sharing and collaborative consumption online. *Journal of Business Research*, 67(8), 1595-1600.
- Bueno, B., & Balestrin, A. (2012). Inovação colaborativa: Uma abordagem aberta no desenvolvimento de novos produtos. *Revista de Administração de Empresas - RAE*, 52(5), 517–530.

- Cappelli, P., & Keller, J. (2012). Classifying work in the New Economy. *Academy of Management Review*, 38(4), 575–596.
- Daunoriene, A., Draksaite, A., Snieska, V., & Valodkiene, G. (2015). *Evaluating sustainability of sharing economy business models*. In 20th International Scientific Conference Economics and Management. Kaunas: Elsevier.
- Davis, E. (2014). *The Botton Line - Sharing Economy*. Londres: BBC Radio. Retrieved from <http://www.bbc.co.uk/programmes/n3csvtj8>
- Eckhardt, G., & Bardhi, F. (2015, Jan.). *The sharing economy isn't about sharing at all*. *Harvard Business Review*.
- Elliott, R. E. (2016). Sharing App or Regulation Hack(ney)? Defining Uber Technologies. *The Journal of Corporation Law*.
- G1 Notícias. (2015). *Uber x Táxi - Entenda as diferenças de custos e serviços entre o táxi e o aplicativo*. Recuperado de <http://especiais.g1.globo.com/sao-paulo/2015/uber-x-taxi/>
- Gonçalves de Meneses, U. (2015). Consumo colaborativo: Relação entre confiança e cooperação. *Revista Metropolitana de Sustentabilidade*, 5(2), 95–111.
- Hamari, J., Sjöklint, M., & Ukkonen, A. (2016). The sharing economy: Why people participate in collaborative consumption. *Journal of Association for Information Science and Technology*.
- Henwood, D. (2015, Jan.). What the “Sharing Economy” Takes. *The Nation*, 300(7), 12. Retrieved from <https://www.thenation.com/article/what-sharing-economy-takes/>
- Hook, L. (2016, June 1). Saudi wealth fund takes \$3.5bn Uber stake. *Financial Times*. Retrieved from <https://next.ft.com/content/a7e31c58-282c-11e6-8b18-91555f2f4fde>
- Horton, J. J., Stern, L. N., & Zeckhauser, R. J. (2016). *Owning, using and renting: Some simple economics of the “sharing economy”*. NBER Working Paper Series, 42.
- Isaac, M. (2017, Mar.). How Uber Decieves Authorities Worldwide. *New York Times*. Retrieved from <https://www.nytimes.com/2017/03/03/technology/uber-greyball-program-evade-authorities.html>
- Jornal Extra. (2015). *Grupo de 15 empresas de aluguel de táxis fatura R\$ 6,7 milhões por mês com diárias*. Recuperado de <https://extra.globo.com/noticias/rio/grupo-de-15-empresas-de-aluguel-de-taxis-fatura-67-milhoes-por-mes-com-diarias-17179548.html>
- Malhotra, A., & Alstynne, M. van. (2014). The dark side of the sharing economy... and how to lighten it. *Communications of the ACM*, 57(11), 24–27.
- Miller, S. R. (2016). First principles for regulating the sharing economy. *Harvard Journal on Legislation*, 53(1), 147–202.
- Nascimento, D. V. da C., & Teodósio, A. dos S. de S. (2016). *Negócios sociais no seio da economia colaborativa: Novidades antigas entre a inovação social e o consumo*. In EnAPG. São Paulo. Recuperado de http://www.anpad.org.br/~anpad/eventos.php?cod_evento=6&cod_edicao_subsec_ao=1318&cod_evento_edicao=84&cod_edicao_trabalho=22182

- Prassl, J., & Risak, M. (2016). Uber, Taskrabbit, & Co: Platforms as Employers? Rethinking the Legal Analysis of Crowdwork. *Comparative Labor Law & Policy Journal*, Forthcoming. 1–30.
- PricewaterhouseCoopers (2015). *The Sharing Economy. Consumer Intelligence Series*. Delaware, EUA. Recuperado de <http://www.pwc.com/CISsharing>.
- Rifkin, J. (2016). *Sociedade com custo marginal zero*. São Paulo: M. Books.
- Sarfati, G. (2016, jan.). Prepare-se para a revolução: Economia colaborativa e inteligência artificial. *GVEXECUTIVO*, 25–29, São Paulo, SP.
- Sheridan, E., Lesne, D., Langan, C., Castle, J., Farley, R., & Xu, M. (2016). *UBS Report - What is the scope of sharing economy?* EUA. Retrieved from <http://www.heatherholden.ca/wp-content/uploads/2016/08/The-Sharing-Economy.pdf>
- Souza, C. A. P. de, & Lemos, R. (2016). Aspectos jurídicos da economia do compartilhamento: Função social e tutela de confiança. *Revista de Direito da Cidade*, 8(4), 1757–1777. Recuperado de <http://www.e-publicacoes.uerj.br/index.php/rdc/article/view/25740>
- Standing, G. (2011). The Precariat – The new dangerous class. *Policy Network*. Londres, Inglaterra: Bloomsbury Academic.
- Sundararajan, A. (2016). *The sharing economy: The end of employment and the rise of crowd-based capitalism*. Cambridge, EUA: MIT Press.
- Vergara, S. C. (2013). *Projetos e Relatórios de Pesquisa em Administração*. São Paulo: Atlas.
- Zervas, G., Proserpio, D., & Byers, J. (2014, Feb.). *The rise of the sharing economy: Estimating the impact of Airbnb on the hotel industry*. Boston, EUA: Boston University School of Management Research Paper Series.