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**Spatialisation of disruptions caused by the Sharing
Economy. The case study of Lisbon.**

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Abstract

Sharing economy platforms, such as Uber and Airbnb, have entered cities at a fast pace and created disruption to several industry sectors. The spatialisation of those phenomena in urban centers is not always easy to be spotted and their reflections on locals' dynamics and inequalities tend to be left aside when promoting such innovations. Lisbon has been advertised in the last decade as a Smart City and a city that embraces innovations in all phases, due to that it has been seen as the capital for those platforms in Europe. Not only, the complex housing scenario and peculiar legislation that have been done to regulate those innovations make for a unique case study. This thesis aims to evaluate, using literature review and a fieldwork, the impacts that the sharing economy has ranging from displacement of locals to labor relationships. The work done consisted in two sections, first a literature review and then a fieldwork on the case study. The review consisted of what is the sharing economy, how cities are perfect for them to thrive and how cities have reacted to those innovations. The fieldwork tried to identify those disruptions in the city of Lisbon using interviews with stakeholders, scholars on the subject and workers for the sharing economy; and a field observation consisted in a qualitative and quantitative approach. Finally, the author will propose his interpretation of what was perceived and evaluate possible regulatory solutions, either by sector or cross-sectors, and evaluate those already applied in the city of Lisbon. The results found that even though some attempts were made to regulate the activity, the side effects of their operations have been often overlooked by authorities.

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1. Introduction

The concept of sharing economy and what it comprises has been debated in the past years and has been one of the most disputed concepts regarding urban studies and information, with some authors given different names and framing the sector in a different way. However, one of the main questions related to that sector is how the fast growing pace of those innovations are impacting social relations, spaces and life of citizens within the urban centers where it operates.

The sharing economy comprises companies from a variety of sectors, from mobility (e.g. Uber) and short-term rental (e.g. Airbnb) to food-delivery applications and bike-sharing services (e.g. Mobike, Gira). All of those, even if proposing different services have some similarities that make them fit under the same umbrella term, either to enjoy the positive benefits of such a label, or simply due to how their platforms work (Schor, 2014; Belk, 2017).

At the beginning, when the sector was new and gaining advocates, Botsman & Rogers (2010) released a book that backed up the concept in which the collaborative economy (as it was called) would help cities achieve more sustainable relations, both environmental and economic. After years of operation, it became clearer that their operations were closer to standard buy and selling operations (Gurran & Phibbs, 2017) while exploiting market failures and opportunities created within urban centers (Davidson & Infranca, 2016).

Simultaneously, the discourse in which that new sector of economic activity is framed is often disputed between those that are suffering negative impacts of that disruption, versus those that are reaping the rewards of their operation (Martin, 2016). That type of battle between sectors and stakeholders matters when discussing new legislation and pressuring public officials, generally local level government, to regulate the sharing economy (Rach & Scheilecher, 2016).

This thesis intends to understand how the innovation brought by those platforms can impact different elements of urban life, from work relationships, congestion to gentrification and touristification of neighborhoods. Moreover, the focus will be to spatiliasse and be able to identify what are the secondary effects and negative externalities that the sharing economy creates in urban centers and what can be done to assess and tackle those.

To answer that question, an extensive literature review of how the mechanism of the sharing economy works, how it works and why it thrives in cities was done, exploring effects

related to classical urban studies concepts of agglomeration, matchmaking and congestions. Following that, the governance challenges that arise when trying to regulate those economies and how cities around the world have responded to those and how long it usually takes for them to do so. Since the innovation happens in a fast-paced and legislative process is usually not that fast.

From that, the first chapter of the thesis will dive into those concepts of framing the sharing economy, evaluating the governance challenges and understanding the gap between legislation and innovation. In the second chapter, a view on what are the possible spatial reflections of the sector, studied previously by other authors and what can be expected to be observed in the fieldwork. Both those chapters comprised an extensive literature review that ranges from urban scholar, economic and social studies to regulation.

To complement that literature review a case study was done to evaluate how those disruptions can be perceived in a big European city. The choice for the city of Lisbon was due to a number of reasons: adoption of a Smart Agenda after the economic recession of 2008 (Carvalho & Vale, 2019), the rich scenario that the legislation approved created for those activities (Tomassoni & Pirina, 2018) and the intriguing housing scenario that the city has faced in the past decade or more (Mendes, 2017 and Cocola-Gant and Gago, 2019). All of those are relevant when understanding the Portuguese capital relationships between stakeholders and to map possible impacts locals have experienced.

The fieldwork consisted in the use of different methodologies in order to achieve a comprehensive view and evaluate how different proxies work when assessing the phenomena studied in this work. First, a set of interviews with over 10 scholars that have studied, either the sharing economy or topics related to those, in the past years, was done to evaluate the current founding and interpretations. Those interviews were all semi-structured and are used throughout the case study to interpret some of the observed events.

Throughout those interviews, the opportunity arose to engage as a listener in a workshop done by a European Project workgroup in Lisbon. The project called PLUS (Platform Labor in Urban Spaces) is done to investigate in depth the labor relationships and dynamics that those platforms create. Inside that framework a workshop with workers from both Uber and Airbnb was held to evaluate a report made by the workgroup after a series of interviews and interactions with workers. The workshop gave yet another interesting glimpse into what those workers experience and how they occupy certain spaces.

Secondly, a field study was carried out in two phases to contrast with those interpretations and perceptions. The first one was a quantitative one to observe the interactions of all sharing economy platforms within certain time periods. The second one focused on a more qualitative approach of perceiving all the nuances that those platforms, especially Airbnb, brought to a certain neighborhood of Lisbon. As expected, the COVID-19 pandemic (still ongoing at the time of this work) had an impact in different stages, from the time frame available for this thesis, to limitations of certain phenomena and adding yet another layer to those disruptions.

Finally, all those perceptions, interpretations and observations were analyzed and gathered to provide a trustworthy evaluation of those disruptions and provide possible frameworks in which those can be regulated and assessed in order to provide better governance solutions.

2. Framing the sharing economy

2.1. What is the “sharing economy”?

“Sharing economy”, “collaborative economy” and “peer-to-peer economy” are some of the names given to a movement that surged in the past years, although sharing economy is the label that it is usually associated with (See Schor, 2017; Richardson, 2015; Martin, 2016; Friedman, 2014 and Botsman & Rogers, 2010). The movement has as flagships of its success two case-studies that will be addressed in this thesis: AirBNB and Uber. Both of them pose themselves as a more sustainable (to be addressed later) form of consumption (Martin, 2016). The central idea of the sharing economy can be summarized as enabling users to monetize idle assets by borrowing or renting them, rather than the standard buying and selling operation (Gurran & Phibbs, 2017). Those transactions happen in an internet-based marketplace that is powered by leveraging information technology to increase matchmaking between those with assets and those in need of them (Einav et al, 2016).

It is commonly recognized that the surge of the sharing economy benefited from the momentum created of the book called “What Mine is Yours: How collaborative consumption is changing the world” by R. Botsman and R. Rogers (2010), the book highlights the benefit of the upcoming, at that time, collaborative economy. In the publication, the collaborative economy was framed as an alternative solution to the current state of consumption, with a more sustainable approach, where consumers would get access to cheaper goods and the ownership of those goods would decrease, due to the fact that access to them would be shared. From that point on the movement gained attention in the media, as shown by Martin (2016), but from 2010 to 2014 the term used to refer to it was collaborative economy, which later shifted, in 2014, when the term used to address it became “sharing economy”. Nonetheless, some literature also includes open source software, crowdfunding, cryptocurrency and even social media placed under the umbrella term of sharing economy (Schor, 2014).

Although the movement is generally referred to as sharing economy, the European Commission chose the term collaborative economy as its official name for it, calling it so in its European Agenda for Collaborative Economy (2016). The document frames it collaborative as “...a business model where activities are facilitated by collaborative platforms that create an open marketplace for the temporary usage of goods or services often provided by private individuals...” (European Commission, 2016). The document also adds

that those transactions involve three parties; the user, the provider and an intermediate, in these cases the platforms, responsible for matching the user and the provider. This thesis will refer to this movement as sharing economy since most scholars still refer to it as so and public perception treats those companies and modes of operations as being representative of the sharing economy (See Belk, 2017; Martin, 2016; Schor, 2014). This thesis intends to look at the sharing economy (from now on SE) related to platforms such as Uber, Airbnb, Taskrabbit, Glovo, Blablacar and the likes of.

2.1.2. Operations, dynamic and discourse

The services and goods provided by the platforms framed within the SE ranges from a quite diverse variety, there are platforms that offer short-term accommodation, ride-sharing, car-sharing, mobility solutions and food deliveries, to quote the most common ones. However, it is possible to notice that the nature of those services and the way they are delivered differs between those platforms. Analyzing the examples of Uber and Mobike, both platforms related to urban mobility, Uber related to ride-sharing and Mobike to bike-sharing. Uber merely offers the platform in which users and providers are being matched in real-time to provide a lift service, similar to a taxi ride, so Uber does not own any car of their fleet. Meanwhile, Mobike has physical assets, their bikes are owned by the company, which are shared among users who can rent for a certain period of time to do their routes and later be rented by someone else. Although all those platforms differ in the service they provide and how they provide them, as the given example, they often found themselves under the SE label. That classification is mainly due to their utilization of information technology to allow those interactions to take place. Although, is important to note that although the SE is recognized nowadays through companies like Uber, Airbnb, Blablacar, Glovo and Lyft, Martin (2016) advocates that the true pioneers of peer-to-peer relationships in that scale are: Ebay, Craigslist, Freecycle and Couchsurfing.

The SE is often portrayed as a new phenomenon that is revolutionizing the behavior of consumers in big centers (Botsman and Rogers, 2010); however, the act of sharing in cities was present there for a long time. As Franken and Schor (2017) state it, claiming sharing in urban areas is a new activity created by those companies is to ignore the high level of that activity present in the working class, poor communities and communities of color that for a long time have used of this artifice to respond to the growth of markets, especially in cities of the Global South (Pollio, 2019). Some authors even go further to discuss if what those

platforms do can be considered as sharing, since there is a monetary transaction involved (Belk, 2014) and the transaction between parties, once monetized, shifts from the social communal aspect of sharing to the strict business one (Belk, 2017). Although, access to a certain asset can be shared instead of the asset itself, which would make peer-to-peer platforms (such as Airbnb) included under the umbrella term of sharing-economy. Furthermore, communities still benefit from the act of sharing in a more traditional way, sharing access to goods, such as water supply or even product of their labor, in case of rural communities (Martin, 2016).

Despite that, the act of “stranger sharing” as framed by Schor (2017) is, indeed, new. The simplification of matchmaking and sense of security given by those platforms made it possible for users to rent a room in their house to a stranger or get in some stranger’s car to go to a bar on a Friday night. Often, those platforms rely on reputation to build trust among users, generally based on a user evaluation system, in form of ratings, giving the user and the provider the possibility to evaluate that experience and serving as a parameter for future interactions (Einav, 2016). This sense of safety and the simplification of the matching process between supply and demand of those services and assets is what enables the act of stranger sharing. Even though the form of sharing presented in these platforms differs from the ones that usually happens in cities, the act of stranger sharing can impact negatively on the usual sharing process that takes place in those centers. Some scholars argue that once those idle assets are monetized they leave the pool of availability of assets that would be freely shared with friends and family, therefore the traditional sharing activity is lost and so is its relevance to enhance social ties and community value (Schor, 2017).

The idea of sharing an asset that is being underutilized is central to the definition of the SE and as Schor (2017) points out, there is a difference between a ride generated by Uber and Lyft versus one generated in Blablacar or any other platform of hitchhiking. In the case of Uber, the trip would have not existed if there was no demand from the user to do it; therefore, the trip just exists due to the demand of itself, very similar to a standard taxi service. Meanwhile in Blablacar, that trip would have happened anyway, the driver would have gone from point A to point B, nonetheless. However, he aims to simply fill the idle capacity of his car, a seat that would have not been taken otherwise, with someone else, in order to monetize that idle capacity. There is a glaring difference between those models, one indeed is based on sharing the access to assets while monetizing it, the other is not; both are seen as part of the

SE. That has been changing, however, as Franken and Schor (2017) state that recently the operation model run by Uber is being framed often as on-demand economy¹ rather than collaborative or sharing. Meanwhile, Uber continues to be highly recognizable in the literature, and by the public, as a part of the SE.

The boost of the movement came with applications that have enabled services like e-hailing (e.g. Uber) and house-sharing (e.g. Airbnb), both of them recognized as major success stories and recognized as established global enterprises. Despite that, the SE is not entirely composed by big corporations with global reach, such as those two. The movement also compress a large number of smaller companies as Blablacar (hitchhiking application) and Couchsurfing (house-sharing platform), among others, deemed to have a smaller-scale and to be peer-to-peer platforms that are operationalized by a mix of commercial, social enterprises and non-profit actors (Martin, 2016).

Furthermore, the advent of such an operational model has led to political and economics disputes in different countries around the globe. Supporters of that new business model claim that those services can bring new incomes for users, better resource allocation and create new economic activities for cities (Quattrone et al, 2016). At the same time, flagship companies are heavily targeted with criticism related to their disruptive potential to already established markets. Those criticisms are often based on the fact that they usually have regulatory oversight and tax avoidance due to their new business model still being unregulated (Sheppard & Udell, 2016) or mainly based on exploiting market failures to succeed (Davidson & Infranca, 2016). To add to those clashes, some operations of SE platforms have shown a high degree of specialization, furthering them away from the sharing aspect, which makes them even closer to their standard counterpart, as showed by Cocola-Gant and Gago (2019) with the short term rental market in Alfama, a Lisbon neighborhood.

On top of that, those companies often choose how to frame the movement, resulting in conflicting discourses. As Martin (2016) concludes in his work, actors across different sectors compete between them to shape the development of that new concept and those discourses are framed within a range that goes from economic opportunity and unregulated marketplace to decentralized economy and reinforcement of neoliberalism. That framing poses an important

¹ The term on-demand economy is an alternative for sharing economy in case p2p service delivery, as presented by Frenken and Schor (2017).

aspect of legislating those, since public perception of their activities often impact the regulatory framework that will be forced upon them (Stemler, 2017).

Nevertheless, is important to question why the umbrella term of SE comprises such a variety of services, such as food delivery (e.g. UberEats, Glovo, Foodora), short-term rental (e.g. Airbnb), hitchhiking (e.g. Blablacar) and e-hailing application, (e.g. Uber and Lyft). The answer to that question can be traced to the positive aspect derivative from the word sharing (Stemler, 2017 and Belk, 2017). The act of sharing carries the value of an altruistic act (Bucher et al. 2016) and has a sustainability meaning attached to it (Belk, 2009) that makes it beneficial for those who find themselves included under it. That's why those companies that have their business models based on offering services, via third-party matchmaking abilities through information technology; aim to fit under it, which is not always the case (Schor, 2017; Stemler, 2017). Belk (2017) also highlights that the use of the word sharing to benefit from the positive meaning attached to the word is normal in the Web 2.0, either for marketing purposes or to soften activities such as the "sharing" of user's personal data. Belk (2017, 2014) goes further, referring to it as pseudo-sharing and profit-motivated sharing. According to Richardson (2015) that labeling helps the phenomena to present itself as an antidote to the narrative of "the economy as engendering isolation and separation". Nonetheless, at the same time the use of such labels opens up space for criticism to the movement when it fails to deliver on that promise of a counterpart to the current state of consumption.

Moreover, Richardson (2015) states it that the SE presents a paradox within its definition, from the beginning it has been framed as both part of the capitalist system and as an alternative to it. The author goes on arguing that the SE has the potential to be both, either shake up or further enhance the "business-as-usual", although, at the end, will mainly provoke one of those. At first, that duality is not easily solved or understood, since it is also present in the discourse that aims to support or criticize the actual impact of the SE in cities. As Martin (2016) presents in his work, there are six different discourses² in which the problem is framed that are divided between resist or empower. Eventually, he finally argues that its disruptive potential might prevail over the others. Adding to that notion, Pollio (2019) argues that the attractiveness present in Uber's discourse at South Africa, which can be applied to cities of

² Those discourses presented by Martin (2016) are: Economic Opportunity, More Sustainable Way of Consumption, Pathway to a Decentralized, Equitable and Sustainable Economy, Creates Unregulated Marketplace, Reinforces neoliberal paradigms and as an Incoherent field of innovations.

the global South, is intrinsically related to the neoliberal idea of development, the monetization of ‘dead’ capital or of the idle capacity of goods.

In their book, Botsman and Rogers (2010) suggests that collaborative consumption would lead to a more sustainable mode of consumption; they based that assumption in the study case of car-sharing companies. They advocated for the reduction of car ownership, based on sharing that asset through those platforms, since cars are usually idle around 95% of the time (Frenken & Schor, 2017). That discourse was heavily present in early stages of the SE as pointed out by Martin (2016) and Frenken & Schor (2017). Although as both of authors suggest in their work, the SE eventually evolved into a “co-option” of corporate path, as framed by Martin (2016), and that the impacts of the collaborative consumption to sustainability were far over-estimated and not yet proven (Frenken & Schor, 2017). In addition to that, when looking at the scale of operations of some of the companies and their ties with venture capital it becomes clearer their scale and they are highly inserted into the capitalism system, rather than an alternative to it (Cohen & Sundararajan, 2017). For example, AirBNB raised around 826 million dollars in 2013, with an evaluation of 10 billion of dollars (Miller, 2016), and Uber received a 5.5 billion dollar pre-IPO (Initial Public Offering) funding.

Another interesting challenge posed by the SE is that, although its business model in its majority is almost entirely internet-based with close to zero physical assets, it has a much-defined place-based impact, especially at the local level (Davidson & Infranca, 2016). Take the case of Airbnb for example, the impacts of noisy neighbors and an increase in foreigners’ disturbance in a traditional residential area will be felt by the residents of that area and no one else, moreover, the shortage of affordable housing and gentrification can be tied to the platform operation (Sigler and Wachsmuth, 2015; Escobedo, 2020; Cocola-Gant and Gago, 2019 and Jorge, 2017). Those impacts are felt deeply and trigger responses from local actors as it happened in Berlin, with the BoycottAirbnb movement (see Figure 1), and Barcelona, with 2014 protests against disturbance caused by the platform (O’Sullivan, 2014). The same goes for Uber, where traffic will intensify, eventually generating a trade-off from public transport to private, which can create a negative effect in pricing of those services and eventually negatively impact third parties not involved in the transaction itself (Franken & Schor, 2017 and Davidson & Infranca, 2016). Those negative externalities have to be taken into consideration when discussing the sustainability and impacts of those services. They can

generate an opposite effect to what the book by R. Botsman and R. Rogers (2010) argued as the most favorable aspect of the collaborative economy.



Figure 1 - Example of poster used by the movement BoycottAirbnb in Berlin

Source: <http://www.kiezversammlung44.de/2017/02/denn-sie-wissen-nicht-was-sie-tun-airbnb-walk-in-neukoelln-eine-persoenliche-sicht/>.

Another glaring externality of the SE is its impact in labor markets. The dynamic between Uber and Lyft drivers, delivery-men and Glovo, Foodora, and UberEats gave shape to a new regime of employee-employer relationship, often called the “gig-economy”³. The work relations shifted from being long-term based to a more flexible arrangement, working basically to complete a particular task or for a certain period of time (Friedman, 2014). The gig-economy is often understood to be made by two main forms of work, as stated by De Stefano (2016), “crowdwork” and “work-on-demand via app”. Both facets of the gig economy are enabled by information technology and are mainly managed and paid online. The SE comprises mainly the “work-on-demand via app” facet, where it enables people to run errands via a third party company that usually attempts to maintain a quality control by setting

³ Gig-economy is the name given to the phenomena of shifting from long-term jobs to gigs, short-term and per demand work relationship. Those workers are hired for a particular task rather than for a long-time work position (Friedman, 2014).

rating systems to manage that workforce while avoiding any long-term contractual relationship with them.

One of the main attractions of those markets is the flexibilization of working hours and the promise of being self-employed that lures a lot of those workers in the SE (Pollio, 2019). This discourse of the SE as an opportunity for entrepreneurs to achieve their financial stability and personal success is one of the positives discourses that aim to advocate for those externalities (Martin, 2016). Nonetheless, that flexibilization and degradation of work relations leads to the internalization of risks by the employee rather than the employers, since there is no work contract between those companies and their workers, as they are hired as independent contractors (De Stefano, 2016). That change in the labor market is yet another impact of those platforms coming into cities and modifying essential relations, representing yet another dimension in which those platforms can be disruptive for cities.

The challenge presented in framing whether or not the negative externalities of the SE outweighs the benefits has even made legislators wary of new regulatory framework. In some cases, municipal actors reacted with old legislations to regulate those new markets without fully understanding if they would work and what are the benefits and drawbacks generated by this new marketplace (Quattrone et al. 2016). That rapid, and sometimes ineffective, response relates directly to the characteristic of the SE to explore and exploit those market failures and draws it from having a place-based impact, which demands legislators to act faster (Davidson & Infranca, 2016). Some examples of regulatory response to the emergence of the SE goes from Seattle's City Council response to Uber, with a limit to the number of cars and number of hours per car (Einav, 2016), to San Francisco's response to Airbnb to limit how many nights can be rented in the platform (Poston, 2016), to Austin's response to demand background checks to Uber drivers in order to increase security of users, which eventually drove Uber out of their market (Davidson & Infranca, 2016).

Adding to those, there is yet another layer that should be considered when discussing regulatory frameworks for those innovations. Policy-mobility, as discussed by Peck (2011), has influenced the making of policies in several levels and, likely will, or already is, influencing the decision making process of policy makers when facing challenges related to SE. In that specific case, the discourse presented by advocates of the SE (Martin, 2016) tends to bring those positive aspects to steer the debate into a no-regulatory land, where those companies are led to run freely, otherwise they would not be able to operate (Bowcott, 2017).

Another interesting example of regulatory and policy discussion being played out by actors that rely on the discourse of innovation is the Smart City, as Wiig (2015) discuss in his work how IBM sold different governments the idea of being labeled as smart by a set of policies, that, often, were disconnected to the reality of Philadelphia.

To understand in depth if policy-mobility and transfer would become a trend that helps the SE improve its reach and entrenched its operations in cities is a valuable topic that should be studied in depth at a later stage. Later in this paper, the relationship between Smart Cities and the SE in Lisbon is also discussed and both concepts are connected through the innovation and entrepreneurialism concept envisioned for the city.

The disruptive potential of the SE can be seen in a variety of dimensions, as tackled in this chapter, from the clearly economic one, which erupts from the exploitation of market failures and legislation voids, to the social challenge it poses, presented mainly by new employer-employee relations, a shift in social life of local neighborhoods as well as impacts on their physical aspect. The latter, especially, have often immediate stronger effects at the local level, thus demanding a faster and more precise answer from local governments. To better understand those effects and analyze how they happen and how they shape cities it is important to understand how they thrive in urban areas. On top of that, to understand the dynamic between local legislators, consumers and those new companies is essential to follow the governance response and how they are shaping the discourse in those cities through legislation.

2.2. Cities as the perfect environment for sharing economy

Urban theorists have highlighted for a long time the role of cities in economic specialization and economies of agglomeration, as Lewis Mumford in “The City in History” (1961) and Jane Jacobs in “The Economy of Cities” (1969). Besides that, knowledge spillover and agglomeration effects have been known for being some of the catalyzers to cities as they boost innovation and drive people to live in them. Those phenomena can still be seen as a part of the key factors that make those dense urban areas so appealing for SE companies, as they can be an accelerating factor to those known aspects of urban economics, as defined by Davidson & Infranca (2016). Those factors are also crucial to answer one of the main questions of urban studies of why cities exist and why people choose to live in them (Rauch & Schleicher, 2016 and O’Sullivan, 2012).

The benefits of agglomeration in cities are a recurrent subject of study and are known to be labor market pooling, input sharing and knowledge spillovers, as suggested by Marshall (1920) and later corroborated by others scholars (Rosenthal and Strange, 2004). Those effects caused by proximity in cities have sprouted growth in those urban areas, and attracted people to live in cities rather than in the rural area (Sullivan, 2012). The density that agglomeration generates benefits from a deep pool of buyers and sellers, known as depth of market. That depth is directly connected with the opportunity existent in cities for citizens to work, specialize and be in contact with a broader variety of companies, facilitating the matchmaking between them. Besides that, knowledge spillover plays another crucial role in attractiveness of cities and the reason why some cities are known for a certain type of industry, such as technology industry (e.g. Silicon Valley), movie industry (e.g. Los Angeles) and car industry (e.g. Detroit or Torino in the early 70s) (Rach & Schleicher, 2016). Although, as Sullivan (2012) remind us, Jacobs argues that the effect of knowledge spillover is augmented in cities with diverse markets rather than the ones only specialized in a single industry. That effect eventually leads to innovation cities, cities where there is not one single specialized market but several of them, which would boost innovation.

However, cities also have a negative impact generated by that growth. As cities get bigger, competition for goods and services also grow, transportation of citizens gets more expensive and the so-called congestion costs arise (Davidson & Infranca, 2016). Those congestion costs are known to be one of the factors that prevents cities to get bigger indefinitely, as the congestion costs would outweigh the agglomeration benefits of living in

them (Sullivan, 2012). Those congestion costs, as Jacobs (1969) states it, poses new challenges for residents of those areas, which then makes it needed for them to find solutions. Is important to differentiate the transportation costs of goods, which is one the benefits present in cities that leads to agglomeration (Sullivan, 2012) and the transportation of people, that when cities tend to get bigger, mobility of citizens in that city tend to be more costly and take longer.

Both those factors, labor market pooling and knowledge spillover can also help to understand the ease that SE companies found to thrive in big cities. Besides that, the agglomeration costs that arise from living in cities lead urban citizens to find cheaper and faster solutions more often than their rural counterpart. The combination of both of those effects creates the perfect scenario for those companies to reap the benefits of agglomeration and fill the gaps created by congestions. On top of that, those congestion costs and hassles of the urban life in cities are exactly the target of services provided by the SE and, at the same time as those services solve some of the friction created in the urban space, they also highly benefit from the higher density to succeed.

One of the interesting cases for that are the providers of urban mobility services that focus on the first and last mile⁴. Those companies claim they can facilitate a higher coverage of the public transportation by providing a more efficient connection to and out of main transportation hubs, such as train, metro and bus station. The idea behind that would be to allow citizens to make those trips without the use of cars, or to make it easy enough to arrive at those hubs so that citizens would shift from making the whole trip by car. Their services ranged from a variety of modes, going from bike sharing (e.g. Mobike), e-hailing (e.g. Uber and Lyft) and car-renting (e.g. Zipcar, car2go) (Shaheen & Chan, 2016). Therefore, with the increase in supply with easier and usually cheaper way of transportation they would reduce the friction in the transportation system in large urban centers and, at the same time, improve the sustainability of the area by increasing the use of public transportation and, in some of those cases, reduce the usage of private cars for the whole duration of that trip.

Due to their nature, a great variety of the services provided by the SE companies are place-based matchmaking (e.g. Uber, Lyft, TaskRabbit, Glovo, Foodora, etc.). Analyzing the operation of Uber, for example, when someone orders a ride, the application makes a match between a driver that is close to that person, offers the ride to the driver, which then decides

⁴ First and last mile are defined as being the last part of a person trajectory, usually referring to reaching their destination from a transportation hub or reaching a central transportation hub from their houses.

whether or not to take it, based on where the ride is going and the score-based evaluation system. Those services present a fast and effective solution to many problems in daily urban life, which often demands new responses to those challenges (Davidson & Infranca, 2016). In this particular scenario, those solutions are offered with a lower price than their non-sharing counterpart, which is often the first reason that draws users to those platforms (Dyal-Chand, 2015). If this operation were to happen in a sprawled city the effectiveness of that connection could decrease, making users shift to different transportation solutions, studies if there is such a correlation are yet to be developed, and can be an interesting research topic.

In general, as stated by Rach and Schleicher (2016), “the sharing economy improves the operation of agglomeration”. The author based that statement by saying that most of the operations offered by those companies were possible before they appeared, they include renting a room, getting a lift and even hiring someone to walk your dog. Although, those activities were constrained from happening on a broader scale due to their transaction costs.

The surge of the SE made those transactions costs way cheaper, making it easier to find the perfect fit for those activities and, at the same time, standardized pricing systems, searchable databases and rating systems (Rach and Schleicher, 2016). In addition to that, in order to thrive, they benefited from the depth of market provided by density to accelerate matchmaking (Sullivan, 2012) between users and increasing their user base. That effect presents a competitive advantage for the functionality and success of those platforms. The other crucial aspect that benefits the SE in cities is knowledge spillover. This effect, as we have seen, is widely recognized by urban economics scholars as one of the driving forces of innovation in cities (Sullivan, 2012).

As pointed by Knox and Pinch (2010), Castells recognizes that phenomena as informational cities in its work, where information flows are a part of a network society. Jacobs also argued that the concentration of industries of different types in a certain area was the best explanation for economic growth and innovation, that work was later supported by empirical works (Davidson & Infranca, 2016). Some studies done in the past showed how TaskRabbit benefited from moving from Boston to San Francisco and being positioned close to other SE companies like Zipcar and Uber, to make impactful changes in their business model (Davidson & Infranca, 2016). Although, they benefitted from the knowledge spillover as any other company would, by sharing solutions and technologies used by similar companies, not in any specific advantage created by their business model. However, proximity of users has proven to enhance the word-of-mouth recommendation of those

services, which led them to enhance their user base and increase the depth of market offered in cities (Samuel, 2014).

Finally, urban centers present themselves as perfect environments for those companies to thrive, as they solve problems created by agglomeration and, at the same time, benefits from the agglomeration to have faster and effective services (Samuel, 2014; Davidson & Infranca, 2016). Controversially, cities are the perfect environments for those solutions to thrive and citizens often benefit the most from those solutions and by doing so, they are the most affected by the frictions caused by those platforms. Simultaneously, as the reactions to the disruptions caused by those services are much localized in those urban centers, legislation usually tends to be made at the local level and, due to that, regulatory agencies are asked to respond quicker to those changes.

2.3. Governance challenges posed by the disruption

To understand better how local governance is challenged by the disruption this chapter tries to frame that disruption by analyzing a few points. Firstly, how previous waves of technological innovations were legislated in the local level, and why the SE differs from the previous ones. Secondly, what are the particular challenges faced by legislators when trying to craft effective legislation for them, ranging from public perception, heterogeneity of services, data availability and the pace of those innovations.

The scope of operation from some of the companies inserted in the SE sector can definitely be labeled as global when looking at their indicators. Airbnb, as of 2020, has close to 7 million listings worldwide across 100 different countries, (retrieved from Airbnb in 2020), numbers comparable to the biggest hotel chains in the world, such as Marriot and Hilton (Gurran, 2017); Uber is operating in over 900 cities (Uber, 2020). Even so, even if the operations run by those companies are at the global level, their negative externalities are extremely local, as one would assume, due to their services being highly localized. The example of Airbnb disturbance and displacement caused by neighbors renting their houses to tourists is one of the staple cases of those negative externalities, as some studies have shown (Cocola-Gant & Gago, 2019 and Sans & Dominguez, 2016).

The disruption caused by new technologies is not exclusive to SE companies; different waves of technological innovations have spurred disruption in legislation throughout time. Nevertheless, the main difference when analyzing this new wave of innovation is that the previous occurrences, such as the advent of the Internet, social networks and even the boom of smartphones, are generally regulated at the national level. That is not stating that they do not have any localized effects and impacts, but they are usually felt more mildly when compared to this new wave of innovation (Davidson & Infranca, 2016 and Rach & Schleicher, 2015). For example, privacy laws on user data or copyrights issues related to intellectual property are usually regulated at the national or supra-national level, as is the case for the European Union. There are, however, some national level responses to said services, such as in Italy (Kindred, 2017) and Spain (BBC, 2014), which banned Uber in their whole territory at a certain point.

To understand why those externalities are felt harshly at the local level it is important to remember that those SE companies often take advantage of local regulatory oversight and disjunctions to penetrate established markets (e.g. taxi service and short-term rental) and

leverage their business model by offering cheaper services when compared to their staple counterpart, which draws users to it (Dyal-Chand, 2015). Not only that, the service offered usually has a place-based impact either in housing, hospitality, transportation, restaurants and local establishments. That impact goes from neighborhood noises, disturbances, displacement of locals, gentrification and traffic congestion (Davidson & Infranca, 2016).

One clear example of that is the exemption of taxation and avoidance in land use regulation that Airbnb has taken advantage of to convert housing units into short-term vacation hotels. Even though some scholars advocate that you should not apply the same regulatory framework to single owners as you do big hotel chains (Biber & Ruhl, 2014). To counter that argument, some studies have shown that there is an increasing professionalization in the management of those Airbnb units, which would make them closer to hotels than to short-term rentals that homeowners announce during their vacations to help in their income, as Airbnb advertises (Cocola-Gant & Gago, 2019). In that scenario, Airbnb would be operating as a hospitality business while being framed in the zoning legislation as a standard residential unit.

As Paris' deputy mayor, at the time in charge of housing issues, Ian Brossat said in an online piece of the USA Today (2015), he was concerned not about Parisians wanting to rent their house while on vacation, but someone buying houses with the sole purpose of putting them in the short-term rental market and taking it away from Parisians in an already scarce market. That effect was also noticed in the work of Cocola-Gant & Gago (2019) in the neighborhood of Alfama in Lisbon: They mapped out that in a particular historic neighborhood in the Portuguese capital there were entire buildings being purchased with the sole purpose of renovating them and listing them on Airbnb. Investors were actively buying and poaching citizens to sell their houses to turn them into short-term rentals and taking advantages of the regulatory void. Those types of professionalization need to be taken into consideration when regulating those platforms.

Another glaring case of needed regulatory approach is the case of Uber and their growing presence in urban centers. The advent of cheaper and faster solutions for citizens to move in a given city can create direct rivalry with the public transport system and increase the number of private cars (Davidson & Infranca, 2016; Lindsay, 2017). Besides that, Uber poses a direct rivalry with standard taxi services, which are often thoroughly regulated and inspected in most cities, with specific permits and regulatory framework. That creates a lot of friction with taxi drivers, as protests have emerged in several cities, from Paris, Lisbon,

London, Toronto, New York to Rio de Janeiro and Buenos Aires, to name a few, that asked for the regulation of even the ban of said service.

Lastly, the SE enhanced the gig-economy regiment, with Uber drivers and food delivery services being the most recognizable facet. In that regiment, employees are hired on an on-demand basis to service specific tasks, as pointed out earlier in this thesis, without any lasting bond with companies (Friedman, 2014). That change in those employee-employers relationships will result in less guarantees and risk being internalized in the employee's side of the equation (De Stefano, 2016). Although, labor regulatory framework is often handled in a higher level of governance, usually state or national levels, when compared to zoning laws, mobility and services. Although it is possible to see exceptions, such as Atlanta, where the municipality demanded background checks on Uber drivers from them to operate legally (Davidson & Infranca, 2016).

One interesting facet present in the sharing movement is that those impacts are not generally perceived as negatives by consumers and providers. As pointed out by Rach & Scheilecher (2016), SE companies have shown to be resistant to any pushes towards more legislation and often rely on users as political advocates to pressure public officials. As seen in London in 2017 when the public regulators made a move to not renew Uber's license to operate in the capital. Uber UK's account made an appeal on social media to its users to sign a petition and "save your Uber in London and 40000 drivers' livelihoods" (Bowcott, 2017). The claim is that any regulation would cap innovation and the possibility of those services to operate in said cities and take economic opportunity away from citizens.

Stemler (2017) calls that effect by the name of "The Myth of Sharing Economy" that influences public perception that highlights benefits and downplays the disadvantages of the SE. That rhetoric used by the SE is coined from the labeling of the movement, also discussed by Belk (2014; 2017), to the labeling of Uber drivers as partners and hosts of Airbnb as home sharers (Stemler, 2017).

Those pressures are aligned with the discourse that the SE presents an economic opportunity (Martin, 2016) to those in more vulnerable situations and that by regulating them it would cap the benefit of it. That advocacy of users can be seen especially in the Global South; Pollio's (2019) work about Uber in South Africa showed that interviewed drivers felt better working longer hours and earning less with Uber than with usual taxi corporations in Cape Town. One of the main reasons was the feeling of "freedom", being a micro-

entrepreneur and avoiding a corrupted taxi system. Those discourses are especially effective in Global South cities due to the high rate of informality, inequality and the promise of being self-made that is sold by those companies (Firmino et al, 2019).

Another challenge in regulating the SE comes from its heterogeneous aspect. As pointed out previously, the services provided by said companies can range from ride-sharing, hailing, short-term rental and food deliveries. That heterogeneity creates yet another barrier for effective legislation, since each case should be evaluated separately and there are no guarantees that one regulatory framework would work for all of them, most likely they would not (Miller, 2016). This would mean that before legislating over those activities the public authorities would have to identify which sectors are being disrupted by that activity (e.g. transportation for Uber and hospitality for Airbnb) and which ones are being created by the platform, instead of applying to same legislation already in place for said markets (Rach & Schleicher, 2015).

The rulings made by European Court of Justice in 2017 and 2019, regarding Uber and Airbnb respectively, illustrate perfectly that heterogeneity. In 2017, the court ruled in an action moved by Barcelona's taxi drivers that the platform was operating as a transportation firm rather than an information society service. Uber was claiming to be a computer service business, what would fit them under the e-commerce directive that prohibits restrictions on the establishment of those organizations (Bowcott, 2017). However, in 2019, in an action moved by France's hotel industry to demand a real estate agent license from Airbnb to operate in the country, the court made an opposite ruling, stating that Airbnb is an "information society service" (Bowey, 2019). Those rulings put Uber and Airbnb under different regulatory frameworks, as far for the European Union, and are relevant for further regulations on the activities of those companies.

Miller (2016) also points out that regulation should not be done aiming specifically at a company but at the impacts of the SE in that market segment or service as a whole. In the case of Uber, legislation should not just focus on taxi service or making Uber drivers equal to standard taxis, but the impact those services will later inflict on congestion, public transport and even health and safety of workers and passengers. For Airbnb those can be the housing market, neighborhood effects, hospitality businesses and liability in cases of incidents. The full understanding of how disruptive those technologies are for cities is essential to craft effective pieces of legislation without capping the full innovation aspect of those businesses.

One perception around this issue, and advocated by the companies, is that any piece of legislation will cap the innovation promoted by those companies and make them stop operating in any city that attempts to regulate them. The argument is that legislation over them would leave consumers without that option, which has been proven not to be true in some big markets as companies find that operating in them, even without their previous freedom, was still profitable (Davidson & Infranca, 2016). An example would be New York, which forced Uber to do fingerprint background checks and added 10 hour maximum shifts for drivers (Uber, 2020). On the other hand, Rach & Schleicher (2015) argue that the belief that once those platforms avoid legislation they will be free to operate in the future without any disturbance from local governments is just not true and “not consistent with how local levels operate”.

On the other hand, Miller (2016) argues that banning those companies to operate in cities would just lead them to operate in the “shadows”, since the demand for those would still be there and users would still be tempted to use it. On top of that, in order to properly understand the dimension and scope which those companies operates, public bodies would need reliable data related to their activities, which has been proven a hard task, for example Uber in Rio de Janeiro (Globo, 2019) and Airbnb in New York (Miller, 2016) to cite some.

In that context, local legislators find themselves in a hard position where they suffer pressure from several sectors of society to mitigate the negative externalities that arise from the operation of those companies and, at the same time, are encouraged to foster innovation and promote them to bring new opportunities for locals. In addition, companies often make it hard to access their data in order to allow those bodies to craft effective pieces of public policies and legislation, under the banner of user’s privacy. Furthermore, the fast pace that those companies grow present yet another challenge to legislators and to the usual pace of legislation at local levels.

Finally, in order to understand how those companies’ shaped local policies this thesis will have a timeline with legislation done for Uber, since it is one of the biggest disruptors. This work will take a look in cities from Europe, Latin America, North America and Africa, to paint a more trustworthy picture of how cities acted upon that disruption and understand if cities from the Global South tend to respond differently, such as Rio de Janeiro, São Paulo and Cape Town.

2.4. How long does it take to regulate innovation?

Figure 2 shows a bar graph that contains eleven different cities from different continents and economic contexts to try to understand the local response to innovation and disruption. The graph plots a bar from when the service of Uber was first offered in said cities (month and year) to when the first acknowledgement of legislators were made official, either by judicial decisions or new public policies regarding the subject. To retrieve those information quotations of local newspapers and local law were searched. Table 1 also shows the same information with additional information regarding the current state of operation of Uber in those cities.

Those countries were selected due to their relevance in the global scenario and aiming to have a diverse set of cities, from different continents, socio-economic contexts and population size.

Table 1 - Start of operation, 1st legislation and current state of operation

Cities	Start of operation		1st legislation		Legal?	Operative?
	Month	Year	Month	Year		
<i>Lisbon (LBN)</i>	July	2014	Abril	2015	Yes	Yes
<i>Rio de Janeiro (RJ)</i>	April	2014	April	2018	Yes	Yes
<i>São Paulo (SP)</i>	June	2014	May	2016	Yes	Yes
<i>Barcelona (BCN)</i>	April	2014	December	2014	No	No
<i>Madrid (MDR)</i>	April	2014	December	2014	Yes	Yes
<i>Cape Town (CPT)</i>	August	2013	March	2016	Yes	Yes
<i>London (LND)</i>	July	2012	October	2015	No	Yes
<i>Toronto (TRT)</i>	March	2012	August	2016	Yes	Yes
<i>Paris (PRS)</i>	December	2011	May	2015	Yes	Yes
<i>New York (NY)</i>	May	2011	May	2013	Yes	Yes
<i>San Francisco (SF)</i>	May	2010	December	2010	Yes	Yes

Source: Multiple news websites on elaboration (Full list of sources in the references).

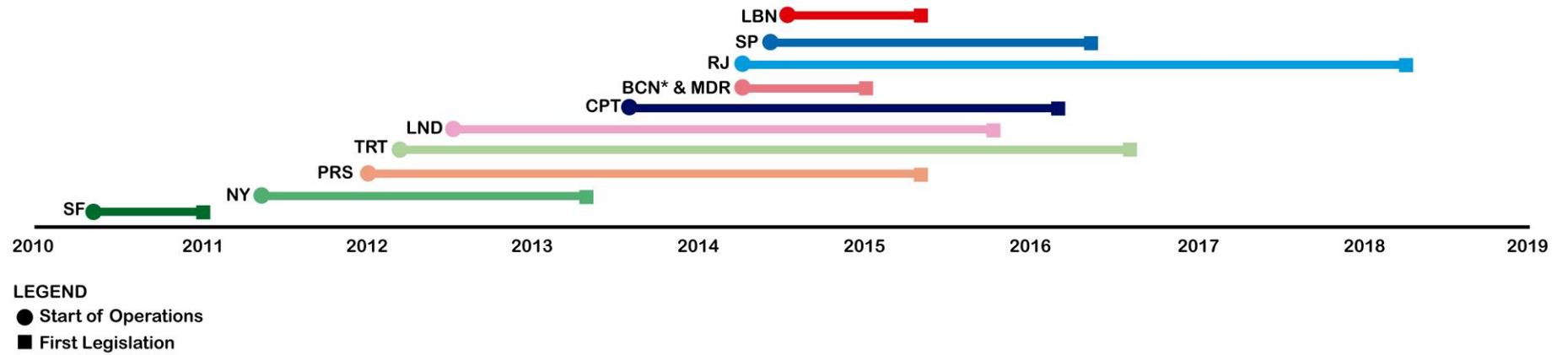
From that we can conclude that in cities where the entrance of Uber came later, they showed a quicker response to act regarding those services, especially those in Europe, such as Madrid, Barcelona and Lisbon. One interest point here is that, in the case of Spain, a national law was passed that banned Uber in its entire territory in 2014, which makes it a special case of national level response, rather than local (BBC, 2014). Another interesting point is that, San Francisco, being an innovation hub and home to Silicon Valley, showed a quick response at regulating the first appearance of Uber.

However, the dates showed in the graph are representative of the first legislation of regulatory framework applied to that service; it does not mean that there were any restrictions

or ban to those operations. It aims to paint a picture of how fast local authorities were to recognize, at least officially, the presence of those disruptive players. Another interesting aspect is that all cities, at a certain point, drew some legislation regarding the operation of Uber and yet, in all but one of those cities, Barcelona, the application still works. In the case of London, Uber is currently operating while appealing court decisions.

Taking a deeper look into Global South cities, there are not a particular tendency in response time, only Rio de Janeiro showed a higher delay between operation and legislation, but that can be due to particularities in the political scenario of the city. Nonetheless, those cities tend to be friendlier to such operations, due to their discourse of economic freedom and opportunities that have a strong appeal to inequalities (Martin, 2016; Pollio, 2019 and Firmino et al, 2019). In order to understand a bit better the power dispute that happened in those cities, some vignettes will be done for the case of London, Barcelona and Rio de Janeiro, three global cities that showed a different approach to innovation.

Figure 2 - Graph showing how long cities took to show first legislation regarding Uber



Source: Annex ; multiple news websites on elaboration

The London vignette

In London, Uber started to operate in July of 2012 and was met at first with a friendly legislation from TfL (Transport for London), the regulator for those types of services in the city. The two most impactful disputes were one in 2015, when the Supreme Court ruled that phones could be used as taximeter for the rides given by Uber, and, in 2016, when TfL planned to ask non-native speakers of English to undergo written, oral and listening English tests (Topham et al, 2015 and Press Association, 2016).

However, the biggest blow to Uber's operations in the city came in 2017, after 5 year of friendly policy making, as stated by the CEO of the company at that time. In that year, TfL revoked Uber license to operate in the city under the argument of lack of corporate responsibility and failed to comply with requested standards, thus the company was found not "fit and proper" to operate. At the time, Uber and its CEO went to social media to engage its consumers, in order to pressure public authorities to renew its license (Butler & Topham, 2017).

After a series of appeals, the license was extended for a period of 15-months by a Judge and again, in September of 2019, TfL made a decision of not to renew the expiring license of the company for an additional time. Instead of that, the public body made a decision to extend only for 2-months for the company to come up with conditions to ensure passenger safety, which could range from insurance policies and background check (BBC, 2019)

That vignette had the purpose to show that even when, at first, a company of the upcoming SE found friendly legislation, it suffered later a more severe approach as local level institutions were realizing the issues and problems related to the operation. In the case of London, the TfL decisions were mainly based on assuring safety of passengers and drivers, not focusing on the other externalities that come from their operation, such as congestion and public transport degradation.

The Barcelona vignette

Spain showed a quick and strong response to the appearance of Uber in 2014 when a high court in Madrid issued a ruling in December that made the operation of the web service illegal in the whole Spanish territory. That ban came after just a few months of operation and several protests from taxi drivers in the main cities of the country, such as Madrid and Barcelona (BBC, 2014).

The next try of Uber to get into the Spanish market was made in 2016 when in an attempt to comply with legal legislation, they obtained VTC (chauffeured private hire) for their drivers to operate in the Spanish capital, Madrid. That effort was just expanded to Barcelona in 2018 using the same strategy of acquiring VTC licenses to operate in the city. That attempt was received with threats from the taxi drivers' community in Barcelona to unleash new protests if the company indeed returned to operate in the city, and a representative of an industry group asked legislators to "exercise oversight in its activities". Despite those tensions, the service was able to restart operations after three years of inactivity (CAN, 2018 and Gutiérrez, 2018).

Later, the decision regarding operations of Uber was handled to the regional level, in the case of Barcelona that means the Catalan Regional level. In 2019, the Catalan government insisted on applying a 15 minute wait between the request for a ride and the driver being able to pick up the passengers. That decision came after a new wave of strikes by taxi drivers in Barcelona and Madrid and that new legislation was seen as a response to those movements. That new regulatory framework made Uber and Cabify (a similar e-hailing company) shut down their activities in the city (Figuls, 2019 and BBC, 2019).

In Barcelona, we can observe two interesting dynamics of how those companies engage in cities. Firstly, the fierce protest done by taxi drivers against the company with claims that it would bring unfair competition due to the lack of proper regulation and licensing. However, this power play is not unique for Barcelona and has happened across several big cities in Europe, North America and South America. In this case, the movement of taxi drivers was enough to pass regulations that eventually killed the operation of Uber in Barcelona.

Secondly, those attempts of reentering a market after a stronger regulatory push shows that innovative companies can, and will, adapt their business models and strategies in order to profit in those big markets, as Madrid and Barcelona. Even though at the end, due to

excessive regulation, the company shut down its activities in the city, which can be seen as a negative outcome for users of the service and for innovation in the city.

The Rio de Janeiro vignette

Rio and São Paulo were the first two cities in Brazil to receive Uber operations in 2014, as being the two biggest urban centers of the country; it makes sense that Uber would enter the Brazilian market through those big cities.

In its early operation in Rio, Uber faced close to none regulatory pushes by the municipal chamber, even though some minor protests by taxi drivers were done. The first major reaction to the growing operation of the application was felt in 2015, when five different cities in Brazil had protests against the unlawful competition Uber posed to taxi services. Around the same time, some legal injunctions were in place questioning if the competition Uber posed to taxis were legal (G1, 2015). However, a study done at that time by CADE (Administrative Council of Economic Defense, a federal body) concluded that the upcoming Uber was not eating into taxis rides, which was eventually proved to be wrong (Agência Brasil, 2015).

The first meaningful legislation move regarding Uber came in 2018 when the Federal Government passed a law stating that Municipal level was responsible for any regulation to that service. However, the legislation prohibited any local level to ban the service in the city; the role of the municipal government was to regulate, not to prohibit. Later that year, the mayor of Rio de Janeiro passed the first local decree, in which some standard rules of operation were declared, such as background checks, conservation of vehicles and the prohibition of taking rides outside of the application (G1, 2019). Those regulations were seen by the taxi drivers as not enough, since the price of that service was still low and the taxi license in Rio was still expensive to compete fairly. On top of that, for every ride made the e-hailing application should pay a fee to the municipal government. Later, that decree was rebutted by a local court ruling under the argument that those definitions were not to be made by the mayor and that they were against economic freedom and free initiatives (Conjur, 2020).

One solution provided by the mayor to ease the rage of taxi drivers was to provide a similar web application service to taxi drivers. That application would allow drivers and find rides in the city, in a similar manner to how Uber works, while also deciding if they would

like to offer any discounts to increase their pool of consumers (in order to compete with Uber). However, in 2019 some protests took place again in the center of the city to protest the operation of the company and asking for more strict regulations and a fair playing field (G1, 2019).

In Rio, the discourse in which Uber leverages its position to continue to operate despite heavy protests of taxi drivers, which can be seen similar to Barcelona, is closely tied to economic opportunities and a chance to be self-made, much like exposed by Pollio (2019) in South Africa. That appeal can be seen in how fast the number of Uber drivers grew in the city: an estimative done by the municipal government stated that, in 2018, the city had 150 thousand drivers registered in web-applications for e-hailing. That figure is three times higher than the number of licenses expedited by the city to local taxi drivers at that time, which means that e-hailing drivers represented 75% of the fleet in the city (Magalhães, 2018).

When comparing the context between London, Barcelona and Rio, it became clear that in Rio the economic opportunity posed by the operation of the service outweighed the disruption in the taxi service and even in the urban mobility of the city. That can be understood when looking at the high rate of informality in the country: 41,1% of workers in Brazil were informal in 2019 (Loschi, 2020). That informality is a perfect environment for the growth of SE applications as they leverage that to offer economic solutions and establish themselves in the market (Firmino et al, 2018).

3. Spatial reflections of the sharing economy

In the previous chapter, a framework of what is the SE and what are the main disruptions provoked by them was laid out with the intention to grasp how those companies framed within the label are impacting different sectors of urban life. Adding to that, a dive into how dense urban areas are a perfect environment for those platforms to thrive was also done, in order to understand the mechanics in which they take advantage to have its widespread success. However, for urban studies and this thesis, one of the main aspects of how they are disruptive to cities is how they impact spaces, the spatial reflections and how that can be later translated into a change in the urban sphere.

The operations of the SE companies are done in a global scale with their presence in multiple countries, as proven by the number of cities in which they have running operations. Uber operates in 85 countries (World Population Review, 2020), Airbnb operates in over 220 countries (retrieved in Airbnb website at 20 September of 2020), those numbers can give an understanding of the dimension those companies operate, a definitely global reach. Despite that, their daily transactions are highly localized in the local level, as presented previously; either for the fast paced matchmaking, pool diversity or need for quick solutions to daily urban challenges. Those ties with the local level are also true for its impacts in all spheres, from labor market, legislation and social disruptions.

That tie with the local level is also true when considering the spatial disruption caused by those operations. When addressing those spatial disruptions, a more comprehensive approach is needed since, at first glance, it might not be as straight forward as the disruption in others areas, such as in the taxi industry (e.g. Uber and Lyft), the hospitality industry (e.g. Airbnb) or any industry directly impacted by their competitive advantage. Another layer of complexity to the problem is the fact that the data needed to map and study in depth those reflections are usually not available directly from the source and not made available by those companies. That secret around their numbers and data also make it very difficult for legislators to assess fairly those services that are being provided and their impact (Miller, 2016; Globo, 2019 and Chen et al, 2015).

Since data analysis alone has proven to be tricky without the proper data, like a trip log from pick-up and drop-offs for all Uber and Lyft rides, or for Glovo and Foodora food deliveries, doing a solely data analysis of those phenomenon has its challenges and tend to not be enough to map the true impacts of those disruptions. Nonetheless, due to that nature of

those innovations and the fast-pace they take place, several urban scholars have done studies approaching the problem in different cities (Martin, 2016) such as Airbnb impacts in Lisbon (Coloca-Gant & Gago, 2019), London (Quattrone et al., 2016), Sydney (Gurran & Phibbs, 2017) and Barcelona (Sans & Dominguez, 2016) to the Uber presence in New York (Correa et al., 2016) and South Africa (Pollio, 2019). Some of those studies are more based on empirical studies of data-sets, as is the case for Correa et al (2016), since NYC has a vast dataset of pick-ups done by e-hailing services incorporated into the standard taxi database.

Some of the services provided under the SE label are easier to attribute physical dimensions than others, as for the case of short-term rental platforms (e.g. Airbnb). Airbnb is a service that is based on short-term rental of housing units, rooms or bed, primarily for tourism related activities, even though Airbnb has offered different types of options in some cities. That type of short-term rental in neighborhoods where the presence of tourists was not as intense as in planned touristic neighborhoods, those with high concentration of hotels or historic centers, can have impacts in local community balance, but not only that, it can impact the way services and retail are provided.

In Lisbon, the case-study of this thesis, some papers about the impact of Airbnb and its tourism led gentrification and spatial reflections. In their work, to achieve a comprehensive framework of how the presence of Airbnb in a neighborhood affects its dynamics, Cocola-Gant and Gago (2019) made a qualitative and quantitative analysis of the Alfama neighborhood. The work done consisted in an extensive mapping of all units existing in the area and what typology they hold, shared room, single room or whole apartment. To complement and spatialize that analysis, a qualitative survey with residents and site observations were done throughout two years in the neighborhood.

The study found out that the demand for short-term rental in that area had attracted investors to renew entire buildings and that those investments eventually led to a gentrification of the place. Not only that, inhabitants of that neighborhood complained about the lack of essential services, they argued that those slowly shifted to retails catered only for tourism activities after the increase of Airbnb units in the area. In addition to that, renovation works done by those investors often impacted the units of residents with flooding and disturbance, meanwhile residents did not reap any reward from those, since they were left to deal with the property damage on their own (Cocola-Gant and Gago, 2019).

That specific case of the Alfama neighborhood is not alone when considering local discontent with the increase of Airbnb units. Some cities have shown protests and movements organized by local citizens to demonstrate the toll Airbnb guests have in the neighborhoods and their discontent with how those short-term guests proliferate in the city. In Barcelona, a street protest took place in 2014 to draw attention for inappropriate behavior, usually related to excessive drinking, done by a group of tourists in residential neighborhoods, usually staying in those types of holiday rentals (O'Sullivan, 2014). In Berlin, the #BoycottAirbnb movement made an attempt to raise awareness to the guests themselves of how much they impact local life by home-sharing in the city. The movement hung posters around neighborhoods with the saying "Who pays for your holidays?", "Castrate gentrification" and "Stop milking it", all written in English, to make tourists aware of the toll that those type of "home-sharing" impacts the local neighborhood, with locals being expelled and the escalation of housing prices (Gurran & Phibbs, 2017).

Despite those movements of local communities to control or even ban the activities of the platform in some cities, Airbnb claims that the presence of guests in those neighborhoods have a positive effect, since they tend to stay longer, spend more money in the local community and bring new income overall, which could eventually result in an improvement in the neighborhood due to new income flowing in (Gurran & Phibbs, 2017). However, as shown in some previous studies (Cocola-Gant & Gago, 2018 and Roelofsen, 2018), the reality shows otherwise, as inhabitants of those neighborhoods see the presence of more short-term rental houses as damaging rather than positive for daily life and the conditions of the area. In the Alfama case, buildings were indeed renewed to attract more tourists, generally with façade renovations and had a positive visual impact on the neighborhood from the outside. Nonetheless, the overall result of that increase of short-term units was negative, both in the social and physical aspect (Cocola-Gant & Gago, 2018).

Some alternatives to this model of Airbnb have been appearing in the last years as a response to those big platforms. In 2016, Fairbnb was founded as a movement to attenuate the predatory aspect of the short-term rental platforms and offer an alternative to those. The manifesto signed by the movement attests that they intend to "put the sharing back into the sharing economy" and reverts 50% of profit of accommodation back into the communities to fund local projects, chosen by the host, and enhance the community. Those alternatives created to counter the growth of short-term rentals could represent yet another evidence of

how they have larger local impact than initially anticipated and the opposite of what is claimed by some companies that offer these services.

Still in the case of Airbnb, since renting units are “fixed” and can be spatialized easier than in case of trips with e-hailing applications, for example, some studies have been done using that spatial characteristic to grasp several impacts of its activities. Quattrone et al. (2016) for example, did an extensive mapping of units within the center of London to understand correlations between listings and socio-economic indicators, its temporal evolution and if all the types of listing are created equal, those from entire houses and single rooms. That work done by Quattrone et al. (2016) relies heavily on an accurate and precise mapping of the presence of Airbnb in central London. Meanwhile, that level of data is not available as widely for other platforms, either directly or via third parties, as the case for AirDNA for Airbnb units.

If one attempts to understand the spatial fallout of e-hailing applications is needed to go further than its impacts of the taxi industry and labor market. Franken and Schor (2017) argue that one of the disruptive facets of e-hailing applications can be felt in the public transport system. Due to its capabilities of providing door to door mobility solutions compared to a fixed bus or train line, they might compete for users with the public transportation system. The competitive prices of the e-hailing service and the perception of quality by users can make them pivot from taking a train or a bus to choosing a lift from one Uber or Lyft. That decline in the ridership can stress an already stressed system and make prices surge or the quality of the service to drop; both of them would bear a negative effect on low-income citizens who rely on those networks (Davidson & Infranca, 2016). Furthermore, with the COVID-19 pandemic and sanitary recommendations to avoid agglomerations and crowded places, the ridership of public transport might decrease even more and boost the choice for private or alternative transportation means, such as Uber (Lee, 2020; Lindsay, 2017).

In addition to decrease of public transportation usage, the change to e-hailing applications can have an impact in the urban mobility of big centers. If more users are choosing private means of transportation versus public ones, more cars are on the streets and that can increase pollution levels and traffic (Lavie et al, 2017). That goes in the opposite direction of what Botsman and Rodgers (2010) argued in their book about collaborative consumption, where cars were being used as idle assets to provide mobility solutions and that

this shift would represent a more sustainable approach to consumption, since the car ownership would decrease and the number of cars being used as well.

Henao (2017) argues in his work that the VMT^{5*} of those services are higher than what is shown at first, due to miles traveled before and after the trip itself, that should count for the impacts of those applications. The impact of said services should not only be counted by the actual trip, but by considering the path until the pick-up of the user and the down-time of those drivers while waiting for a ride to appear on the application. Not only that, a saturation of drivers in e-hailing applications can result in a higher down time of cars roaming around waiting for a ride to pop up on the application and contribute to further increase the negative impacts. The environmental impacts that a rise in e-hailing usage can generate are directly linked to an increase in VMT and should be understood in more depth. However, the lack of accurate information and data provided by the main companies in the business makes it hard for those analyses to be made and a clear picture of those impacts to be achieved (Chen et al, 2015). In the case of NYC, data related to pick-ups done by that service are available, which presents an important step into grasping the true impact and dimensions it has in the city (Correa et al., 2016), even though those before and after miles presented here are yet not attainable by that dataset.

Another interesting negative externality of Uber service is accounted for in Lee et al (2020) impact in users' choice when deciding what type of service to use for reaching their destination. In their study, they present a profound analysis of how e-hailing applications can impact the choice between public transport and walking to use that service. They concluded that a relevant part of people who usually walks or bikes to reach their destination will shift to using those applications, which will increase congestion and, eventually, have negative environmental impacts.

To yet another service provided by companies that fit in the label, food delivery services (e.g. Glovo, UberEats) have grown through the last years and became a billionaire industry (Forbes, 2019), becoming especially essential after the COVID-19 crisis where restaurants were not able to have clients indoors, due to lockdown measures, and relied on those services to keep their business going. Nonetheless, it is still early to understand how much of the momentum gathered by those companies during those sanitary measures will retain after the crisis. Even prior to the COVID-19 crisis those services were already a vital

⁵ Vehicle Miles Travelled

part of the core of small restaurants and impacted directly the way citizens interacted with those services. The options to order through an online application, instead of walking or taking a car to a restaurant, can have impacts in the way those spaces will be used and how clients will interact with them.

Due to the mandatory quarantine and lockdowns that happened in several cities around the globe, those applications became the only source of income for restaurants and gained even more importance into the daily life of citizens. With restrictions of going out of the house being imposed and the need to protect elderly population, the usage of those applications spiked in most countries in Latin America (LabNews, 2020), even though it did see a decrease in some European countries, or at least a change in type of consumption (Rzhevkina et al., 2020). If those changes are everlasting is yet to be evaluated, as well as how many users will rely more heavily on them to their daily food deliveries or general supplies, as during the pandemic. One of the main impacts could be the need for less retails on the streets, since more business are being done in the digital space rather than the physical one. That shift could generate a change in needed floor space for restaurants, retails and supermarkets and even a change in the urban landscape of streets in city centers.

Those spatial effects highlighted are specific for each one of the segments in which those companies operate, each type of service will impact different sectors and different stakeholders, even if sometimes those elapse each other. It is important, however, to discuss how the emergence of the SE as a phenomena will impact how cities are planned and lived by the citizens. Instead of understanding each facet of the movement as a different one and unfolding them to different sectors, we should be aware that the sector as a whole impacts the way cities are planned and experienced.

It is worth noting that another effect of that innovation is that major companies that are participating in this new economic cycle have been diversifying their portfolio of services to reach all facets of the SE, with Uber being the staple case-study for this sort of movement. Even though the company started as an e-hailing one where its main proposition was to enable the use of idle cars to generate an extra income, it has become much more than that. As of 2020, Uber has diversified its service to include UberEats (food delivery service), Jump (bike-sharing service), UberGreen (electric car-sharing service) and several different e-hailing modes: UberBlack (premium service of e-hailing), UberXL (bigger cars for more passengers) and UberPool (where strangers share a ride) (Tomassoni and Pirina, 2019).

That new dynamic of portfolio diversification makes those companies retain a considerable amount of mobility data related to the city, often those data-sets are bigger and with a higher quality than those municipalities have (Tomassoni and Pirina, 2019). According to Tomassoni and Pirina (2019), that opens the possibility for a new dynamic between public and private bodies that can bring those companies closer to the decision-making and planning process for mobility in cities. However, so far in Europe, just some cities have deals in place with Uber to exchange information and London has them integrated into the public system for ticket purchasing within their platform. In Cincinnati, Uber already took the next step in that partnership with the creation of the Cincinnati Mobility Lab to help solve mobility problems for the city with direct involvement of the company (Uber Newsroom, 2018). That can present the next step for SE companies in an attempt to shape public policies and the discourse around their activities (Martin, 2016).

As pointed out previously in this thesis, the relationship of SE and dense urban areas is strong and one of the pillars of its success, benefited by agglomeration effects that those areas provide. For that reason, the growth of those activities will change the nature of some crucial aspects of urban living, such as housing, as discussed by Davidson and Infranca (2016). The authors suggest that the emergence of that economic diversification would impact the size of housing units in the market, with urban householders accessing the SE to compensate for the small size of units. However, they also highlighted that the main driving force for the reduction of those unit is “the mismatch of existing housing and the rapidly changing composition of urban households” (Davidson & Infranca, 2016 p. 264) and not the SE itself, but that this new economic regiment would facilitate those changes.

Several facets of possible spatial impacts were identified, ranging from a change in retail activities, either needed floor space or typology of them (Cocola-Gant & Gago, 2018), passing through the impact on mobility choices and its impacts on congestion and environmental impacts (Halao, 2017 and Franken and Schor, 2017), going to housing availability and the new development of housing tailored to fit into the SE cycle (Davidson & Infranca, 2016). The case study was done with its main objective being to identify those impacts in the city of Lisbon through a quantitative and qualitative research approach, ranging from interviews with stakeholders, site-observation and data analysis.

4. Methodology

The case study of this thesis has as a goal to understand in depth the disruptions caused by the surge of the sharing economy, confront the founding with previous studies and assumptions about the topic. The first chapter had as an objective to lay out an initial framework of what consists of the SE and how it has been framed by scholars of a variety of fields. Not only that, it gives an overview of why those types of economies thrive in big urban centers and how some cities have responded to the innovation and disruption brought by those companies. The second chapter attempts to spatialize the disruptions caused by the SE and gives a broader overview of those disruptions, those that will impact the way cities are operationalized and how citizens will experience those changes at the local level.

The chosen city for this case study is Lisbon, given its importance in the SE scenario, being claimed by Uber's European director as a pivotal city for the company's innovation strategy (Tomassoni and Pirina, 2018) and due to the recent impacts suffered in the city due to the presence of Airbnb, as shown in the work done by Cocola-Gant and Gago (2018 and 2019) and Jorge (2017). This case study will attempt to spatialise the operations of a variety of SE companies that operates in Lisbon, from e-hailing applications (e.g. Uber, Bolt and Kapten), short-term rental (e.g. Airbnb and Guestready) and food delivery applications (e.g. Glovo, UberEats).

As discussed in the previous chapter, big urban centers are the perfect environment for those enterprises to thrive, due to their agglomeration and the dynamics of modern urban life. Those characteristics make them the perfect environment to observe their impacts, since those places are where they operationalize and disrupt. Not only that, even though data driven studies have been done in different cities, Lisbon included, this thesis tries to characterize those disruption through proxies, rather than the raw data of those operations (e.g. number of units, trips done by e-hailing). In some cases, as for Airbnb, the raw data to understand those effects are useful and easier to obtain, as even on their own platform it is possible to have an overview of concentration of those units and what areas have a higher concentration.

This work intends to use those proxies via interviews and observations to draw a trustworthy picture of those disruptions and how they are perceived by those who access the SE and those who provide them in the daily operations. The interviews will be carried out with a variety of scholars that studied topics related to the activities of those companies (e.g. housing, labor market, governance) or the company itself. Adding to that, informal

conversations with workers of the SE while using said services were done as well, that variety of stakeholders was chosen as an attempt to conflict those framings and perspectives that diversity can provide. During those, an invitation was made to be a listener throughout one workshop held with scholars and workers of the SE, as part of the work done by the PLUS European Project.

Considering the choice to adopt also a qualitative approach, interviews were organized (a set of all the interviewees and date are shown in Table 2) according to social studies methodologies that consider three typologies: Open, Semi-structured and Structured interviews. In this work, every stakeholder group was assessed and a type of interview was chosen, either to approach the subject, as in the case for the sharing economy workers, or to be carried out in his entirety, to achieve the best possible result. It is important to not apply the same type of interview to all of the interviewees, due to their diversity and their different level of involvement and ways to operationalize the SE. To apply the same for all would be to assume that those involved in municipality projects and decisions are under the same dynamics of an Uber driver or a Glovo delivery man, which is not true. Also, information that can be gathered can be different, from data to perceptions and opinions.

Table 2 - Table with all interviews dates and places.

<i>Interviewee</i>	<i>Dates</i>	<i>Where</i>
Ana Gago	08th of October	Kiosk at Lisbon University
	13th of October	Alfama
Luis Mendes	06th of October	via Zoom
	21st of October	Mouraria/Alfama
Mario Vale	30th of September	Caffeteria of ICS
Nuno Rodrigues	22nd of September	Kiosk at Estrela Garden
	22nd of October	Caffee at Largo do Intendente
Joel Scalzotto	25th of September	Caffe at Largo do Rato
Franco Tomassoni	24th of September	Caffe at National Library

Source: Made by author.

The work done by Pollio (2019) in South Africa used as a methodology an informal approach of Uber drivers in Cape Town, with informal and open conversations to understand the dynamics between those drivers with the taxi industry and also how they perceive those relations of driver and platform. In a different approach, Cocola-Gant and Gago (2018) based part of their research of Alfama with an in-depth interview with citizens and key real state

players to map the Airbnb toll in the neighborhood. This work will use an informal approach and conversations to approach SE workers to understand how they view their relations and attempt through those conversations to spatialize. Meanwhile, interviews carried out with other stakeholders will be done as semi-structured.

Together with interviews, site observation of possible manifestation of the SE will be done in specific locations of Lisbon. The place to be held the site observation was chosen to enable the author to grasp the most of all the facets of SE shown in Chapter 2, from rides with e-hailing applications, tourist movements and food delivery. Following that reasoning, the place chosen was Praça Duque de Saldanha due to its centrality and Alfama, due to its rich and relevant process with Airbnb. Those observations were summarized in notes and photos to describe those events.

The research question of this thesis is how the SE regiment is impacting cities and changing urban center dynamics. With the case study, the objective is to show that those tools, (e.g. observations, informal stories and interviews) can be helpful for urban studies when understanding the disruptions and disturbances caused by the SE and its operations in urban centers, since sometimes reliable and vast data-sets are not made readily available by the platforms. Not only that, to gather the histories of those who work for the SE and those who work with SE is to put into perspective two different views and interactions that those groups had with the same phenomena and to help validate some of the assumptions of disruptions provoked by that innovation.

The expected results of this thesis will be an interpretation given by the author that consolidates all opinions, stories and observations carried out throughout the fieldwork. With an assessment of how many facets disruption can have and can local level act upon to tackle those issues, and even if it is indeed what they aim for. In addition to that, further lines of investigation will be proposed and an assessment of what were the limits and challenges faced through this work will be addressed.

5. Case Study: Lisbon

5.1. Lisbon's scenario

Prior to diving into the case-study with the fieldwork, it is important to understand some dynamics that took place in the city of Lisbon that led up to some of the disruptions observed throughout the fieldwork. First, the relationship between smart city discourse and the success of the sharing economy in the city is explored, followed by what is the current state of regulation of the SE in the city, from Uber and Airbnb, which are the two most prominent companies.

Lastly, the specific dynamics and policies that have taken place within the housing market in Lisbon are explored. The focus given to this specific sector is due to its importance to understand some dynamics that were observed in the field work and to be able to distinguish which ones can be pinned solely to the SE or if the sector acts as an accelerator for processes that were taking place in the territory beforehand.

5.1.1. Smart Agenda and Sharing Economy

Smart cities and sharing economy are two of the most upcoming concepts in literature regarding new urbanization trends, innovation and the increasing connectivity of cities (Gori et al., 2015 and Zamith, 2018). What defines a Smart city, very similar to what happens with the SE concept, as discussed in Chapter 1, varies from literature and has proven to be a hard one to define (Scalzotto, 2020). However, the similarities between those two concepts goes beyond their complexity in definition, but is tangled within the highly innovative discourse and digitalization of cities.

The main connection between those two is clearly innovation. When discussing smart cities and what it means to be one, often the concept of a highly functioning city based in information technology, high-tech infrastructure and an abundant amount of data are what it comes to mind. At the same time, the SE leverage information technology and has as birth place of its main companies (e.g. Airbnb and Uber) in Silicon Valley, known for its innovative solutions. Another discourse of the SE is the one related to sustainability, the promise of achieving a more sustainable approach as an alternative to excessive consumerism, even if it fails to fulfill that (Richardson, 2015) and, from that, to help cities achieve a more sustainable economy. That sustainability discourse is also present within smart cities context, which aims to achieve that through innovation and participation (Zamith, 2018).

In the city of Lisbon the relationship between those two concepts can serve as an explanation of why the city has become one of the main European centers for SE companies, especially Uber, and its friendly approach when regulating those. Since 2011, Lisbon has been applying an agenda of transparency and open data for its public data,⁶ included in its Smart Agenda. Later in 2016, that came together with the discourse of creating a Startup environment to attract entrepreneurship as an attempt to boost the city's economy development post economic crisis (Carvalho & Vale, 2019). Carvalho and Vale (2019) also point out that the city has been embracing, through funding from European Union programs, several different smart cities initiatives that contributes to the perception of Lisbon as an innovative city, some of those are the Creative Hub of Beato (HCB), SUSHI and Smart Open Lisbon, as Scalzotto (2020) states and as discussed in our interview. Those Agendas are also endorsed in the Portuguese national level, promoted by the Ministry of Environment, focusing specifically in “urban-ecological improvements but also with an eye to develop new technologies to be exported and scaled up elsewhere” (Inteli, 2014 from Carvalho & Vale, 2019).

Lisbon's smart agenda, as posed by Scalzotto (2020) is “connected to a version of the Smart City that places emphasis on start-up urbanism, entrepreneurialism, city branding and urban regeneration”. To that extent, the connection between that agenda and the friendly environment to SE operations becomes clearer, since entrepreneurialism and city branding are highly connected with the notion of what those companies bring to urban centers. Is important for a city that is branding itself to embrace innovation to not cap the SE, which is often portrayed as an innovative entrepreneurialism movement, as shown by Martin (2016), even though it has proven not to be the case.

The importance of promoting Lisbon as a Smart City is also seen in plans made by the municipality in the past years. For example, the tourism plan, which had the final report released in December of 2019 and the urban mobility plan released in October of 2020. The first one, related to tourism, states clearly that being a Smart City is one of the structural values of added value that can be converted into tourism revenues. This further shows how both of those concepts of SE and Smart Cities connect when proposing a vision for the city, since some of those SE applications have meaningful roles in that sector, as the case of Airbnb.

⁶ That data can be accessed at: <http://lisboaaberta.cm-lisboa.pt/index.php/pt/>. Data related to services, infrastructure and geography of the city.

Further, the municipality of Lisbon released a new Mobility Plan called MOVE LISBOA 2030 (Câmara Municipal de Lisboa, 2020) that shows the city's goals and main strategies in urban mobility for the next ten years. The plan is quite clear that the city still carries the idea of being a smart city, as it mentions the use of big data and data driven solutions to improve its services. As one line from the plan states it quite clearly that "To achieve an effective management of our mobility system, ..., Lisbon poses itself as a smart city". In addition to that statement, the glossary in the plan gives the following definition of what is a smart city: "City sustainable ambitions, centered in people, which promotes sustainable projects and solutions, often with technological support, with social progress objectives and well-being of its residents".

Those definitions found in the latest official plan for the city's mobility shows that the idea of branding the city as a smart city, as posed by Scalzotto (2020), is still very much present within the discourse and official documents of the municipality. However, the definition attributed to what is a smart city conflicts with some of the disruptions that embracing fully the SE can cause to the well-being of citizens and social relations within urban centers.

5.1.2. Regulatory fallout

Lisbon has suffered in the past years a vast urban transformation due to the economic crisis of 2008. Since then, Portuguese austerity economic policies were put in place to tackle that crisis, going from taxes' raise, freeze of public salaries and pensions and change in legislation to access social benefits. Those measures were put in place by Troika⁷ and aimed to reduce public spending and make Portugal interesting for international investors (Seixas et. al, 2016). As a part of that package, to bring the city into international spotlight, Lisbon administration had as one of its top priorities the transformation of Lisbon into a smart city (Carvalho & Vale, 2019). Following the austerity measures, the administration aimed, and succeeded, to boost the local economy through the tourism sector (Seixas et. al, 2019).

As posed by Tomassoni & Pirina (2018) that political scenario and the position of Lisbon as an innovation city, with the hosting of the Web Summit being a clear example. On top of that, the good relationship between Lisbon's public authorities and Uber, lower wages and high qualification level can be seen as to why Uber chose the Portuguese capital as its European Centre of Innovation.

The Uber Law

That economic scenario and political stance made, in fact, the city a perfect environment for the SE to thrive in and an interesting case study to be analyzed. Another particular trait of the SE in Portuguese territory is the notorious "Uber Law" (knows as "Lei do Uber"), which was the legal framework approved later in 2018, after a lot of public pressure by taxi drivers, and the law was seen as a compromise to that discontentment (Pelegi, 2018; Tomassoni & Pirina, 2018). That new legislation established, in the whole Portuguese territory, the need of an intermediary company called TVDE⁸ that is responsible for managing labor relationship between Uber and their drivers, adding yet another intermediary to that transaction (Carvalho, 2018).

That regulatory framework creates another layer of complexity to an already complex relation between Uber and its drivers, basically establishing it another relationship between drivers and TVDE companies. In that setting, TVDE companies are responsible for all legal frameworks and are the only entities legally allowed to provide services of e-hailing in Portuguese territory, which means that all drivers must be associated with one in order to

⁷ "...the so-called 'Troika' of external borrowers, the International Monetary Fund, the European Commission, and the European Central Bank." (Seixas et al. 2016).

⁸ Paid and Individual Transport of Passengers in Uncharacterized Vehicles, literal translation

work for Uber or any related platform (Tomassoni & Pirina, 2018). The creation of that layer, instead of clearing it up the labor relationships, actually blurs even more the line and creates more friction among those.

Local Accommodation Law

Apart from the main change of creating a new intermediary level to those transactions, the Uber Law regulated some of the mechanisms of how Uber and its drivers work. For example, the new legislation creates a cap for the dynamic price surge that is usually practiced by Uber in events of higher than usual demand. The ceiling for those surges is established as twice the average price of that route in the previous 72h, to avoid pricing skyrocketing in the presence of special events (e.g. concerts, football games) (Villalobos, 2018). In the driver's perspective, to be able to perform the professional activity some new requirements were installed, such as having two year of driver's license and a certification given by IMT (Mobility and Transport Institute) after a 50 hours introductory course that costs drivers 300 euros. In the daily operations, the maximum of 10hours shifts every 24hours was established to prevent that drivers would work an excruciating amount of hours, as usually reported (Nunes, 2018).

On the other hand, the Uber Law was not the only legislation attempt made towards regulating the SE activities. An update to a piece of legislation called Lei dos Alojamento Locais (Local Accommodation Law, in literal translation) was instituted in October of 2018 to regulate the spread of short-term rental (e.g. Airbnb) units in Portugal (henceforth referred to as AL). That addition to the regulation was done at the national level, as it is for Portuguese governance system, and it created more tools and gave power to local levels (Autarquias) to deal with the massive presence of Airbnb. This new regulation allows Autarquias to set called "Control Zones" ' inside cities, usually Freguesias (a conglomerate of neighborhoods) or neighborhoods, where any new licenses for short-term rental units are under the evaluation of the municipality and need their special approval before starting operating. Those areas are categorized between "Absolute Contingency Zones" and "Relative Contingency Zones", the indicator for an area to be included as an Absolute Control Zone (ACZ) is to have above 20% of housing units within a neighborhood as AL units and to be considered a Relative Control Zone (RCZ) is to have between 10% and 20% (GuestReady, 2020).

In Lisbon, the municipality has declared (until the writing of this thesis) 4 ACZ which comprise the neighborhoods of Alfama/Mouraria/Castelo, Bairro Alto/Madragoa, Colina de

Santana and Baixa/Avenida da Liberdade/Avenida de República/Avenida Almirante Reis. From that group of 4 zones, 3 are within Lisbon's historic center and have felt the impact of a huge amount of short-term rental units, as exemplified by Cocola-Gant and Gago (2018) study in Alfama, and where is located the higher concentration of AL units in the city, as shows the map in Map 1 (red areas). In addition to those four, there are also two RCZ: Graça and Bairro da Colónias (indicated in Map 1 by yellow areas). That change in legal framework impacted the number of registration for local accommodation, dropping from 9.295 registrations in 2018 to 757 in 2019 (Graph 1 in the next section can confirm that)(Turismo Portugal, 2020).



Map 1 - Control Zones defined by Local Accommodation Law of 2018.

Source: Sapo (2020) accessed in: <https://eco.sapo.pt/2019/11/07/novas-zonas-de-contencao-do-alojamento-local-em-lisboa-ja-estao-em-vigor-veja-o-mapa/>

Those pieces of legislation have impacted directly the operation of those platforms in Lisbon. However, they are regarded as weak regulations that were done mainly to give a response to public opinion while not restricting the activity of the platforms. For instance,

when discussing with scholars and attending the Workshop promoted by PLUS⁹, the Uber Law was regarded as something that did not shift the power dynamics between Uber and its workers. Those relations are still highly unbalanced, with the drivers taking all the risks and the platform reaping the rewards. The creation of TVDE companies makes Uber stand even further away from having labor ties and be seen as an employer rather than a facilitator.

Regarding the creation of Contingency Zones, the same feeling was expressed when discussing with Ana Gago (researcher at IGOT, University of Lisbon) and Luis Mendes (researcher and professor at IGOT, University of Lisbon), both of them questioned the thresholds and raised questions related to neighborhood where the share of AL is way higher than 20%, as Alfama. The creation was felt to be simply a public answer to the problem without a further evaluation and set of actions to actually mitigate the negative externalities created by the operation of such a platform.

In what this thesis aims to achieve, the Local Accommodation Law falls more into regulating disruptions, even if just slightly. Perhaps due to the end activity of Airbnb being one that is easier to spatialize, as pointed out previously. Nonetheless, the law attempts to regulate more the displacement effect and local disruptions caused by SE platforms, or at least the local government in Lisbon tries to enforce it in those Freguesias. The Uber Law focuses mainly on the ‘gig-economy’ side of the SE and Lisbon has not yet any policies to mitigate secondary effects of Uber.

Manifestation in public plans

However, in the latest urban mobility plan released by the municipality in October of 2020, there are a few mentions of TVDE and which role is envisioned for them in the future mobility of the city. First, they acknowledge that the presence and disruption caused by those services requires cities to act faster to innovation as “...they impose fast paced rhythm, forcing cities to reinvent and adapt.” (Camêra Municipal de Lisboa, 2020) Interestingly enough, the way the plan relates to them, is connected to a type of discourse that those disruptive innovations force the city to be better and to be innovative as well, to step away from the usual comfort zone.

It goes even further, as there is an exclusive service sector related to “shared and on-demand transportation”, which takes the approach to recognize that those services fill a gap in

⁹ European Project: Platform Labor in Urban Spaces. To study the impacts on labor of the platform economy.

demand and give users a choice when navigating the city. The plan gives the SE more opportunity of further exploring the TVDE, with a fluvial TVDE, making use of the Tejo, city's main river, and states that those services can contribute to a more dynamic and attractive Lisbon.

It becomes quite clear that the discourse of embracing innovation is highly present in Lisbon's vision of the city and that creates an interesting environment for those platforms. Even when the disruption caused by them is acknowledged, as it is in the new urban mobility plan, it feels that is given a positive connotation with the city being pushed forward by it, without a further reflection on the negative effects and dynamics that those platforms can bring to urban centers. That has a special burden in the housing market of the city, since, throughout the history of the city, that sector has been one riddled with challenges and problems.

5.1.3. Housing Market and Airbnb presence

To understand the complexities involving the presence and emergence of Airbnb in the city of Lisbon, is important to have a broader picture of how the housing market has been handled by authorities and investors in the past years and what are the dynamics that created the current state of the housing market, in which allowed a rapid growth of AL sector with Airbnb units.

The recent housing crisis that exists in the city was not born solely due to the presence of Airbnb. It started with the decline in population of Lisbon since 1981 (Sequera and Nofre, 2019) and later it was increased with the wave of austerity policies done by the central government allied to what Mendes (2020, 2018) calls a neoliberal turn in Portuguese politics as an answer to economic, financial and budgetary state after the global financial crisis of 2008-2009. Mendes (2020) states that those measures were included as part of an agreement done by the Portuguese State and three international entities (European Commission, Central European Bank and International Monetary Fund) that were giving financial help to Portugal's crisis relief package.

These factors allied with a tourist boom in the early 2010s makes the housing scenario in Portugal, specifically in Porto and Lisbon, a very heated one and one that quickly starts to attract attention of local and international investors. Not only that, the tourism boom is highly related to the operation of Airbnb and the shift of house owners from the long-term market to the short-term one, since the demand for those types of housing grew exponentially (Mendes, 2017 and Sequera & Nofre, 2019). To exemplify that growth, all one has to do is look at the numbers. The amount of registered AL in the city in 2014 was 1.903, 5 years later, in 2019, that number was 26.942 units of AL, which represents an increase of 14 times in the span of half a decade (Turismo de Portugal, 2020; see Graph 1).

Mendes (2020) goes on arguing that to blame solely touristification for the current state of the housing market in Lisbon is to oversimplify the problem and to deny the roots of it. In his article to *Jornal Economico* (2020) and many of his papers (2018, 2020) he states that the current scenario can be translated into the following factors: neoliberal turn in housing policies, programs such as Golden Visa¹⁰, a new urban rent law of 2012 (widely

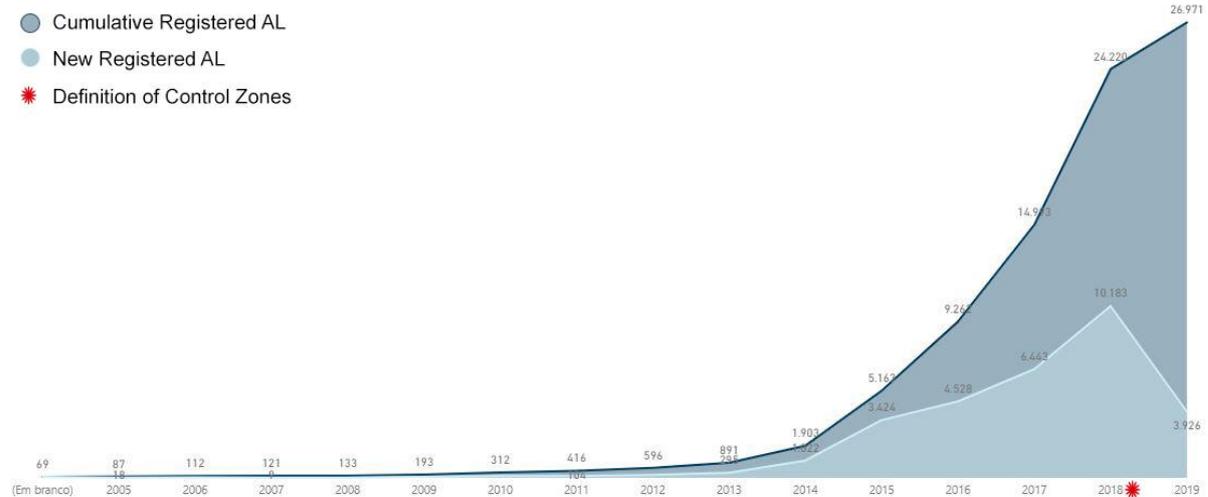
¹⁰ See Kraehmer (2016): "...has been introduced in 2012 by law 29 and changed by law 63 in 2015. It grants a visa for one year, renewable for two year periods, that can lead after five years to a permanent residence permit and after six to Portuguese citizenship. The requirement is to invest in Portugal (for a duration of at least five years) in different ways with different minimum amounts."

known as “eviction law”), the new Local Accommodation Law of 2014 and the revision of land use by the city’s master plan in 2012.

Those factors culminates in a massive surge in housing prices and a growing presence of transnational gentrification, as defined by Sigler and Wachsmuth (2015) and later referred by Sequera and Nofre (2019), where transnational actors are the ones behind the process, rather than local actors in usual gentrification processes. That type of gentrification is specially felt within neighborhoods that suffered deeply with the fast growing presence of AL, such as Alfama, and is the one that will be further evaluated in this thesis. Kraemer (2017) also study in depth that particular gentrification process that takes place in Lisbon and argues that in the city, there is no replacement of people living in there, just a displacement of locals and income of tourists, what he calls a “gentrification without genty” (Kraemer, 2017)

The SE entered into this process later in 2014 with the Airbnb boom in the city, which took advantage of all those factors and boosted an already on-going process. According to Mendes (2018), it is not fair, as easy as might be, to blame all that process to the AL market and the surge of the SE. The gentrification that has been taking place in the city has its roots within structural problems that have been there way before the company started operating in Lisbon. The city’s housing crisis, specially the decline in population in the city center, has been happening since 1940 and it was later aggravated by a new legislation in 2012 and the upcoming growth of AL, and even though numbers on evictions is not officially known, is perceivable when interacting with locals (Mendes, 2019).

Graph 1 - Evolution of registered AL in Metropolitan Area of Lisbon from 2005 to 2019



Source: TurismoBI (Accessed at: <https://travelbi.turismodeportugal.pt/pt-pt/Paginas/PowerBI/rnal-registo-nacional-de-alojamento-local.aspx>).

The growth in AL registration (as shown in Graph 1, above) can aid us to have a broader image of the new inflow of city users, in majority tourists, which started to pass through those neighborhoods on a regular basis. However, the impact of that presence is felt by citizens and, even if not addressed in its entirety by the local government, have scholars and local actors working to map those effects. In a report released by three Freguesias¹¹, the ones that are a part of the historic center, together with scholars of diverse fields (e.g. Geography, economics, civil engineers and architects), aimed to understand in depth the economic, social and urban impacts caused by that boom in short-term rentals and renovations in the area (Quartenaire Portugal, 2017).

The report was done in December of 2017 and contextualizes all the local dynamics (of Portugal or Lisbon) and how those aligned with international actors and tendencies to create a perfect storm for the changes that happened in the last 5 years in the historic center of Lisbon. Those conditions, according to the report, are: Economic scenario post crisis, investment in real estate, tourism activities, typology of inhabitants lease, urban rehabilitation and degradation of buildings. Those factors were also discussed with prof. Luis Mendes throughout this thesis' field work in Lisbon, where he went through the steps that led to the current situation in the city and which are the most noticeable effects.

¹¹ Those three are: Misericórdia, Santa Maria Maior and São Vicente.

The case of Alfama is a unique one in several ways, according to Sequera and Nofre (2019), the neighborhood has basically become an open-hotel, with the massive presence of Airbnb units. There is an estimate that close to 55% of all residential units in the neighborhood are for short-term rental, over half of the units in the neighborhood (Mendes, 2019). The concern relating to the decay of Alfama arose in 1986 when the neighborhood was recognized as an area for urban recovery and reconversion. In 1997, further initiatives attempted to revitalize the built environment with the inflow of new citizens, following a classical gentrification process. Recently, that renovation and attempt to renew the neighborhood are done via international investments that renew entire buildings aiming to put those in the short-term rental market and use those as assets.

In an attempt to answer to, as a way to govern, those processes the municipality of Lisbon launched a program, in the beginning of 2020, called “Safe Rent” that attempts to revert back some of the units lost to the short-term rent market into long-term affordable housing. The main structure of the program is that the municipality would rent from AL owners or general home owners their unit for a fixed rent for a 5-year period and later the municipality would sublet out those units for people in need of cheap rent. Basically, the municipality would finance part of the rent of those families. The program seems to be quite popular with families seeking a fair rent but not quite as popular with AL and homeowners. The report done by Santo (2020) shows a total of 120 available housing units were being disputed between 3.170 families, for the first phase of the program in January of 2020. At the end of the first phase, a total of 177 houses were rented through the program, however only 45 of those came from AL, and in September of 2020, the municipality was preparing itself for the second wave (Lusa, 2020).

After the sanitary crisis of COVID-19, the tourism business suffered a big hit with travel restrictions and lockdown measures imposed by authorities in several countries. Overall, the Airbnb business suffered a huge loss with hosts complaining about being let down by the platform and losing all revenue with nowhere to fall back on (Rodriguez, 2020). In that scenario, the hope of municipality, as discussed during the interview with Luis Mendes (at 06 of October of 2020), is that the “Safe Rent” program finds more suitors going forward due to that new scenario of uncertainty. On the other side, Ana Gago believes that the flexibility given by the platforms to hosts still outweighs the benefits given by the

municipality's 5 year contract and that the belief among the niche is that the tourism sector will bounce back, which will eventually make the program not that attractive.

To summarize, Lisbon has a complex history related to housing policies and urban renovations throughout the last decades (Mendes, 2020 and Sequera & Nofre, 2019) and more recently being put into a spotlight with the fast paced growth of AL within neighborhoods with an already disturbed housing scenario. Perhaps what makes it so unique and interesting the process led by Airbnb is tied to how fast those changes have happened when compared to the normal pace of urban transformations: as previously mentioned, cities have to adapt faster than in previous times.

5.2. Fieldwork

The aim of the fieldwork was to spatialise all the mechanisms and disruptions provoked by the operation of those companies in urban centers. Those disruptions can have impact in several different aspects of urban centers and it is not always easy to evaluate what those aspects are and have the data to do so. The fieldwork is combined with exploratory interviews with scholars that study the impacts of SE in different fields, as well as with users and workers in that new economic regime. The methodology of this work was discussed and presented in more depth in Chapter 4.

In the case of Lisbon, the city has an important and rich scenario related to Airbnb and its impact to local neighborhood dynamics and social issues, as we have seen previously, and this was one of the chosen aspects to be observed in depth. When discussing e-hailing and food delivery platforms those are also highly disruptive in what concerns labor relations and are often included in what is called the ‘gig-economy’, as previously pointed out. However, their impacts in the urban fabric are still under scrutiny and need further evaluation.

This fieldwork aimed to find out which spaces those new economies create or disrupt and how those processes can be observed. Nonetheless, how those disruptions can be perceived in the urban landscape and imagery of our cities and what the perception of users, providers and scholars has during their relationship with those platforms was also part of the fieldwork. To achieve that result, some different methodologies were chosen: interviews, informal conversations, proxy analysis and observation.

The interviews ranged from scholars to workers of the SE and the type of methodology carried out for those varied accordingly to the setting. In addition, participation to a workshop promoted by PLUS was done and was an insightful perspective over that group. The proxy analysis tries to find solutions for the lack of reliable and updated data that can be a problem when studying those disruptions. In the case of Lisbon, the delay between censuses created the need of finding different metrics to evaluate those. The observation was divided in 2 parts: quantitative and qualitative, with each one of them aiming at a different sector of the SE and observing different dynamics.

5.2.1. Workshop with SE workers and informal conversations

Structure of Workshop

The European funded project PLUS (Platform Labour in Urban Spaces) has as its goal “to address the main features of the platform economy’s impact on work, welfare and social protection through a ground-breaking trans-urban approach.” (PLUS, 2020). The project aims to study four different disruptive platforms (Airbnb, Deliveroo, Uber and Helping) in seven different European cities (Barcelona, Berlin, Bologna, Lisbon, London, Paris, Tallinn). In my first interviews with scholars in Lisbon I came across Franco Tomassoni (University of Lisboa), one of the main researchers in the Lisbon investigation team of project PLUS. Tomassoni invited me to participate in a workshop organized by the work group, on the 9 of October, which had as its goal to propose a discussion about a report developed by them on the labor relationships that happens within the SE in the city

That report was drafted after several interviews with workers to understand the relationships across all platforms. Going from how they organize themselves, the nature of the labour, the income and even the effect of COVID-19 pandemic in their business. The report does an interesting work identifying all the complex layers of those working relationships, and not only strictly related to the TVDE companies, in the case of drivers, but the existence of other facilitators, related to leasing and renting cars.

In the Airbnb aspect, the sub-markets created by the platform activities are also discussed, as for third party managers of the units to the support services for those units, to all the activities related to tourist experiences in the city. The industry created by Airbnb must not be simplified to the short-term rental market, but to all derivatives that come with the operation of those units: from check-in and check-outs, to cleaning duties, to laundry and hospitality services to guests.

The workshop was structured in order to generate a discussion between those who work directly with the SE and scholars that have studied the impacts and relationships that happen within that environment, proposing a more open line of dialogue between the parts. The next step of the research, as presented by the research group, will be engaging local representatives in order for them to listen and share their views in the topic

The main goal in attending this activity was to have an inside perspective with those workers, in a setting in which they felt free to express how they feel and what they think

regarding their situation. In addition to that, the possibility of confronting the perspectives of Airbnb hosts and Uber drivers was interesting in itself, since the dynamics of those two groups' experiences are generally different in a number of aspects and yet encapsulated in the SE.

The structure of the workshop was divided in three main sections to be discussed: Process of labor, Skill Sets and Social Protection. There were 8 active participants plus my attendance as a listener and observer. Out of the 8 participants, 3 of them were workers directly related to the SE, 2 being related to Uber (from here on called Driver 1 and Driver 2) and 1 related to Airbnb (Host 1), 3 were scholars invited by the PLUS project and 2 were moderators that were directly related with the writing of the report and project. The whole duration of discussion was three hours long of an extensive conversation between parties. An approach of a more open discussion was done by the moderators who were there to engage participants in order to understand their views and create a meaningful dialogue.

Main takeaways

In my work I will focus on the account made by those workers related to their experience and their views on how the SE operates in Lisbon, their view on the response by public authorities and what they considered to be desirable moving forward. As this work aims to spatialise the SE within the urban scenario, and being an urban planner, accounts that help directly to answer those questions will be highlighted in this thesis.

One of the main takeaways from that interaction was the clear mutual feeling between the workers that the public authorities ultimately failed to provide an accurate and precise response to impact caused by innovation with the entry of those platforms. When discussing how cities react and how planning can be an effective tool to respond to those innovations, those perceptions give a clear picture that, in the case of Lisbon, the perception among workers is that this process has failed. Those are perceived when they made it clear that, for them, the Uber Law did not regulate at all the activity (for both drivers), since it does not affect wages and that they were not listen or involved in any step of the way, even though there was effort made by drivers (as described by Driver 1).

Furthermore, the few points that the law does regulate, such as the long hours shifts, are, in practice, not working the way they should. The accounts told by both drivers were that only Uber, among all e-hailing platforms, controls the 10 hour limit for drivers. That can be posed as an example of a need to regulate activities and not platforms (Miller, 2016) and that

those hours are only accounted for when drivers have passengers in it, which means that the downtime between rides are not accounted for, which is problematic. As pointed out previously in this thesis, the impact, both on driver's health and city's dynamics, of those activities has to be looked at in a broader way (Correa et al., 2019), as cars do not disappear between rides and drivers do not simply teleport between pick-ups.

Another interesting aspect pointed out by them during the activity is the feeling of separation between Uber drivers. Since they are spread all across the city and usually do not have a platform, or space, to get together and engage, they fail to assemble themselves as a movement to demand, or even debate, for further changes. For them, that is done purposely by the company so the workers have less pull when deciding next steps or claiming for better conditions. That shows that the typical space used by working class to assemble and demand for better conditions is taken away from those workers of the SE, as pointed out by one of the scholars in the workshop, that can be also due to the feeling of being self-employed and entrepreneurialism that Uber sells in its discourse, which aligns with what Pollio (2019) discuss in her Cape Town case study.

Those dynamics that at first may seem strictly related to labor market bears also have repercussions when discussing the spatialisation of those SE activities. Cities are made of a variety of spaces, not only the physical one, and the need of social spaces is glaring. Urban centers are often taught of spaces where knowledge and social relations are built and, according to the drivers; those spaces to build that are stripped from them, as they feel that the movement is fragmented.

Shifting to Airbnb, to analyze the main takeaways from what was exposed by the participant, even though the sample size has to be take into consideration, is interesting to understand some dynamics of what can happen within a unit of Airbnb. One of the dynamics that was already presented in this thesis is the highly professionalization of Airbnb and the loss of the sharing aspect. Host 1 made it very clear throughout the activity that he works in a sub-lease agreement, which means that he rents apartments with long-term contracts (usually 5 years) and then lists them in Airbnb. That level of professionalization is the one that has the higher burden in the territory, with Airbnb working as touristic lodges and pushing long-term residents out of those places.

Not only that, another interesting dynamic is the use of the "live like a local" motto, which is often used by Airbnb marketing strategies and can be pointed out as one of the

reasons the business was so successful at first. The promise of having a more unique experience as a tourist, rather than a “pasteurized” version of big hotel chains (Gurran and Phibbs, 2017). That marketing point, according to the accounts of Host 1, was determinant in his decision to rent part of the rooms in each apartment to students or young people, usually with medium-term contracts, to “give a more local experience for users” to quote what was said. It is interesting to see how the host did acknowledge that nothing related to his renting experience was local, but in order to sell like that to users, he shifted the way he is handling his business.

Apart from that, another interesting dynamic that Host 1 shared with the group was the lack of any type of supervision by the Lisbon authorities after he signed up for being an AL. Host 1 told the group that after the normal registration within the municipal council to use his units as Airbnb he was told that after one to three months someone would come to check on the place: after over 3 years working with that, they never came. This experience can be tied with the uncontrolled growth that the registration of Airbnb in Lisbon suffered in the past years (Turismo de Portugal, 2020).

When discussing the COVID-19 pandemic, the feeling expressed by Host 1 was that the industry would slowly go back to the way it was before. However, the idea expressed by him was to shift some units toward medium-term housing for international or regular students while waiting for the industry to get back on its feet. That feeling mirror’s what Ana Gago believes that the approach toward handling the crisis will be, with hosts migrating temporarily to a quick solution and then waiting for normalcy of mass tourism to kick in again.

Overall, all the three workers for the SE showed a level of dissatisfaction with the way both platforms handle their business, especially when faced with problems. There are some glaring differences between the specializations needed between both workers, Host 1 showed a higher degree of specialization and business operation when compared to both drivers. However, Drive 1 and 2 showed a profound perception of the relations and dynamics involving Uber, TVDE and drivers. Their accounts are insightful toward understanding which spaces those workers use and how they perceive the disruptions caused by the operations they are involved in. Both of them also displayed some level of disbelief in the power of government, local and national, to change any of the way businesses are handled and to cap any power those platforms have.

Informal interviews with drivers

During my stay in the city of Lisbon I took some trips with the Uber platform to have the opportunity to have an informal conversation with drivers about their conditions of work and what are their opinions of those relationships. Most of the trips were in the neighborhoods of Lapa, Estrela e Campo de Ourique, those are not located in the historic center of the city, like Alfama, but in more residential areas. The first perception that I had was that most of the drivers were not Portuguese, overall they were either Brazilians or from Bangladesh.

That first perception can attest to those jobs being easier for immigrants, since they are basically working in a self-employed manner. What could be a problem would be to acquire a car, but there are today in Portugal, as reported by drivers 1 and 2, specialized companies for car renting that makes it easier for the people to access those markets. However, an interesting perception when discussing with those drivers was that, for most of them, they view that job as something for short-term gain, rather than a profession. They usually refer to it as a 'gig' to make some money while establishing themselves in Portugal, especially Brazilians. I found that to have those types of interactions with drivers from South Asia was more difficult due to language barriers and overall distrust.

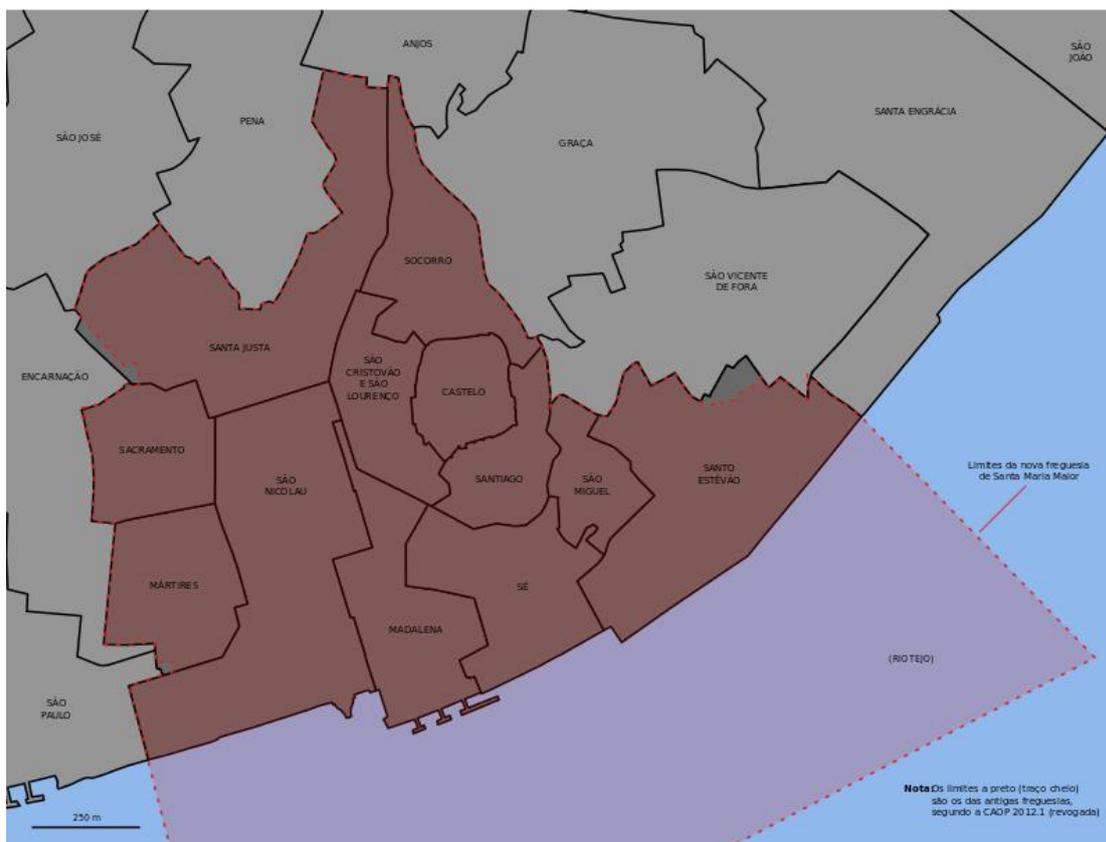
That perception of seeing the e-hailing driving job as something temporary was also felt back in Brazil, when using the service as a regular user and often having those types of conversations with those drivers. They usually were out of job due to the economic crisis or doing it to gain some extra money, most of them did not see that as a profession, which differs from taxi drivers. Perhaps, that sentiment of being temporary can contribute to make it hard for that working class to mobilize itself to claim for better working conditions, as expressed by drivers 1 and 2. That mounts up to stripping from those workers that space that is usually very much present in the working class.

On the Uber Law, most of them felt that the new legislation did not change much of how their activities were played out; the limit of 10 hours established by the legislation did not make sure that they were having normal working hours, as also reported by drivers 1 and 2 in the PLUS workshop.

5.2.2. Proxies to evaluate population decline

The decay in population in the historic center of Lisbon, due to the entry of those new companies and mass tourism, cannot be evaluated with the national Portuguese census, since the last cycle was done in 2011 and the next one will be held in 2021 (Instituto Nacional de Estatística, 2020). Due to that gap between censuses, a proxy is needed to understand if there is indeed a movement of locals being evicted or choosing to leave the neighborhood, in places impacted by Airbnb. As pointed out previously in this thesis, Portugal has an administrative level called Freguesias that are formed as a conglomerate of neighborhoods, those are the local administrative level. Adding a layer of complexity to this, in 2012 there was a rearrange of how those Freguesias were distributed, with Lisbon's historic center being one of them that were rearranged (ANAFRE, 2013).

A viable proxy to understand that displacement can be done via the election cycle. Portuguese election cycle takes place every 4 years, with the last one being 2019, in addition to that, the data made available about the election is viewable to the Freguesia level, which is helpful to see how many voters are registered within that Freguesia. The number of registered voters can be used as a representative of how the population in the last years has been behaving, if there is an increase of registered voters or a decline. However, as pointed out previously, the administrative reform in 2012 changed the boundaries of Freguesias and created the Freguesia of Santa Maria Maior, the one that comprises the historical center. Map 2 shows the smaller freguesias that were agglomerated in 2012 to create the new Freguesia of Santa Maria Maior, with some minor territorial changes.



Map 2 - Change in boundaries of Freguesias and creation of Santa Maria Maior

Source: Wikipedia via DG Território. Available at: https://www.dgterritorio.gov.pt/ficheiros/cadastro/caop/caop_download/caop_2013_0/caop2013cont_zip_2

The list of the 12 Freguesias that were merged to create Santa Maria Maior are: Castelo, Madalena, Mártires, Sacramento, Santa Justa, Santiago, Santo Estêvão, São Cristovão e Lourenço, São Miguel, São Nicolau, Sé and Socorro. From 2011 to 2019, three election cycles took place in Portugal, with 2011 being the last one in the former administrative boundaries, prior to the 2012 reform of Freguesias. Accessing the database of SMAI, which have data related to voters registered per Freguesia, is possible to have a somewhat trustworthy picture of locals being displaced in the past 8 years.

The following table (Table 2) shows the data gathered from SMAI portal by all Freguesia in 2011 and from Santa Maria Maior in 2015 and 2019, with total numbers of registered voters. At first, it is easily perceivable a decline in registered voters in that area from 2011 to 2019, with a drop of 28,3% (3,285 registered voters) in 8 years. However, that proxy is not without limitations. As discussed here, the incoming city users are formed by usually internationals that, usually, are not enrolled to vote, so that proxy might not be that

trustworthy of how many residents there are in the area, but can give a picture of how many locals who have been displaced in the past 8 years in the historic centre.

Table 3 - Registered Voters by Freguesia in 2011 and in Santa Maria Maior in 2013, 2015, 2017 and 2019.

<i>Freguesias</i>	<i>2011</i>	<i>Freguesia</i>	<i>2013*</i>	<i>2015</i>	<i>2017*</i>	<i>2019</i>
Castelo	414	Santa Maria Maior	12,516	11,340	10,692	9,699
Madalena	442					
Mártires	356					
Sacramento	873					
Santa Justa	861					
Santiago	755					
Santo Estêvão	1,871					
São Cristóvão e Lourenço	1,385					
São Miguel	1,538					
São Nicolau	1,105					
Sé	1,036					
Socorro	2,888					

*Municipal Elections

Source: SMAI (Minister of Interior Administration). Available at: <https://www.eleicoes.mai.gov.pt/>

Those conclusions can be proved later in 2021 during the next census that will take place in Portugal. However, it is interesting to have data that can give it a dimension of which type of displacement happens within that neighborhood. In the next section, in two different opportunities, the lack of locals in Santa Maria Maior is felt while walking in Alfama.

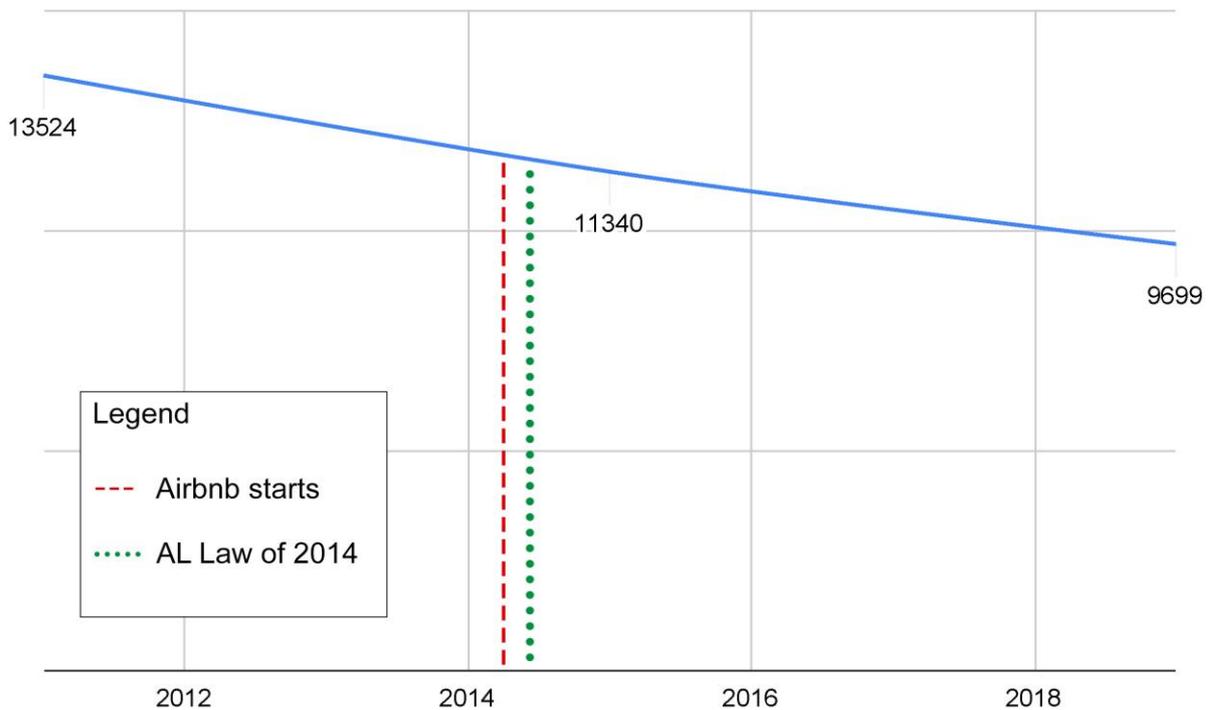
The number of registered voters can be used as an effective proxy since once locals are displaced from a Freguesia to another, or even to another city, there is a need to change their registration to that new place. A limitation to that proxy is that the percentage of locals leaving can be even higher than the numbers show. If there is a displacement of 100 locals in a 4 year timespan and at the same time, 50 new citizens relocate to the area, the number will show a drop of 50 registered voters, while the reality is that 100 were displaced and 50 new inhabitants moved in. That will matter if evaluating the heritage and sense of place that is lost with the expulsion of 100 locals and not 50, as this proxy would show.

However, as Sequera and Nofre (2019) state it, the process that takes place in Alfama (within Santa Maria Maior) is characterized by transnational actors and a displacement that does not bring new inhabitants, but creates the feeling of an open-air hotel in that area. The

new city users are mainly characterized by tourists, which are not registered voters. Therefore, that shift can be felt when looking at those numbers.

To have a bit more comprehensive correlation between that proxy and two important marks that happened regarding housing were plotted in the same graph (Graph 2): when Airbnb starts to operate in Lisbon in July of 2014 and the passing of Local Accommodation Law in 2014, argued by Mendes (2017) as one of the factors for the rising in prices and further enhancing of the housing crisis of the city.

Graph 2 - Evolution of voter registration and Airbnb appearance and AL Law of 2014



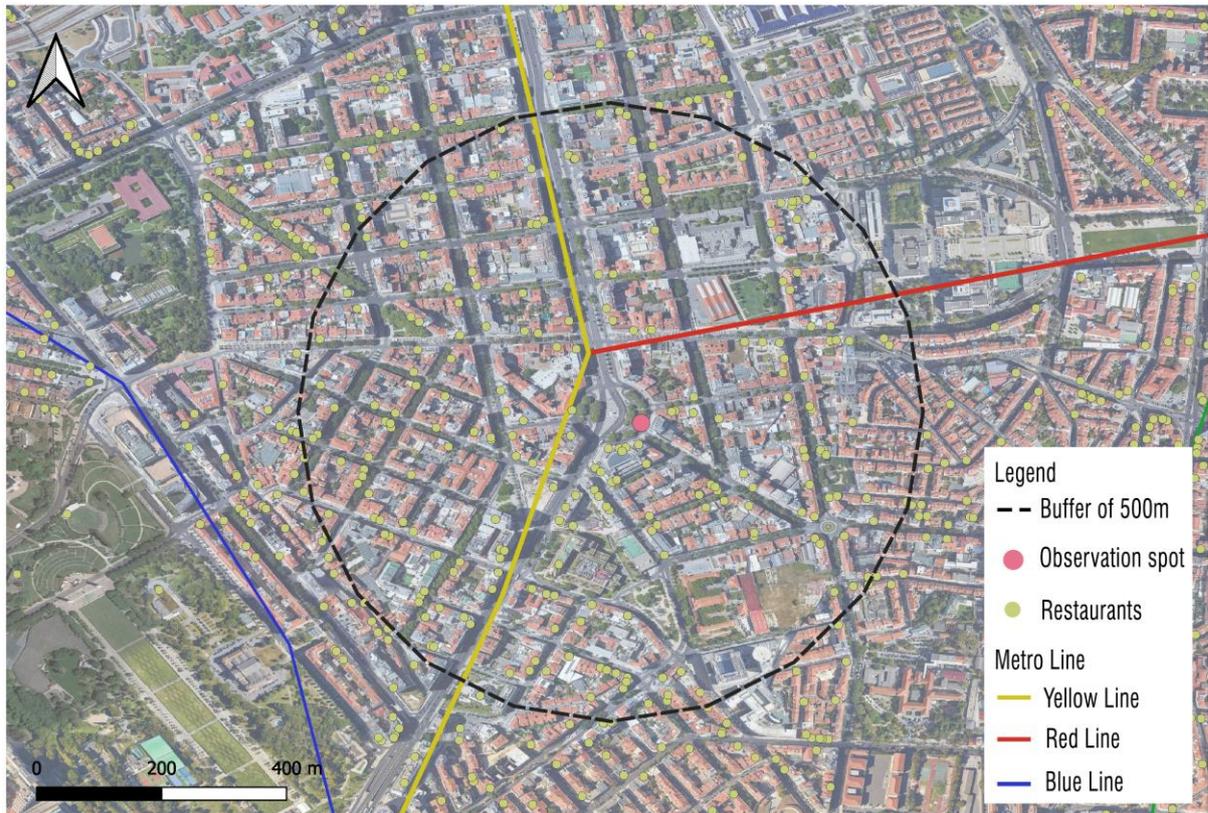
Source: Made by the author with data from SMAI.

That decay in voters, which can imply a decay of people living in those places will be observed throughout the next section, where those neighborhoods will be visited to be observed, in order to spatialise and understand if those effects are felt in the daily life.

5.2.3. Systematic Observation and Ethnography

The aim of this part of the fieldwork was to compare the interpretations of scholars and users of the SE in Lisbon, based on the interviews, informal conversation and workshop, presented before, with field observation. This observation was divided in two parts, each one of them had as an objective to observe different dynamics related to SE. The first part was an observation of Praça Duque de Saldanha to perceive the disruptions and dynamics of Uber and food delivery companies. The second one is to further visualize the toll that Airbnb had in Alfama, one of Lisbon's most impacted neighborhoods by the presence of the platform and mass tourism.

Praça Duque de Saldanha was chosen to be the observation spot for TVDE and food delivery after interviews with Nuno Rodrigues (researcher at IGOT and PLUS project) (at 22 of September of 2020 and 22 of October of 2020) and Franco Tomassoni (researcher at IGOT and PLUS project) (at 24 of September of 2020) in which both mentioned that this is a known spot for agglomeration of riders. Due to the high presence of commercial buildings and big fast food chains, it is possible to see two types of riders, the ones waiting for an order to appear in the app and others passing to deliver in one of the buildings, usually by foot after parking their bikes or motorcycles. Those two reasons, commercial center and fast food chains, would already be enough to make Saldanha an interesting spot for our fieldwork, but the concentration of restaurants within 500m of the roundabout (as shown in Map 3), also makes it highly central for the riders to wait for orders in the application.



Map 3 - Square Duque de Saldanha and its centralities

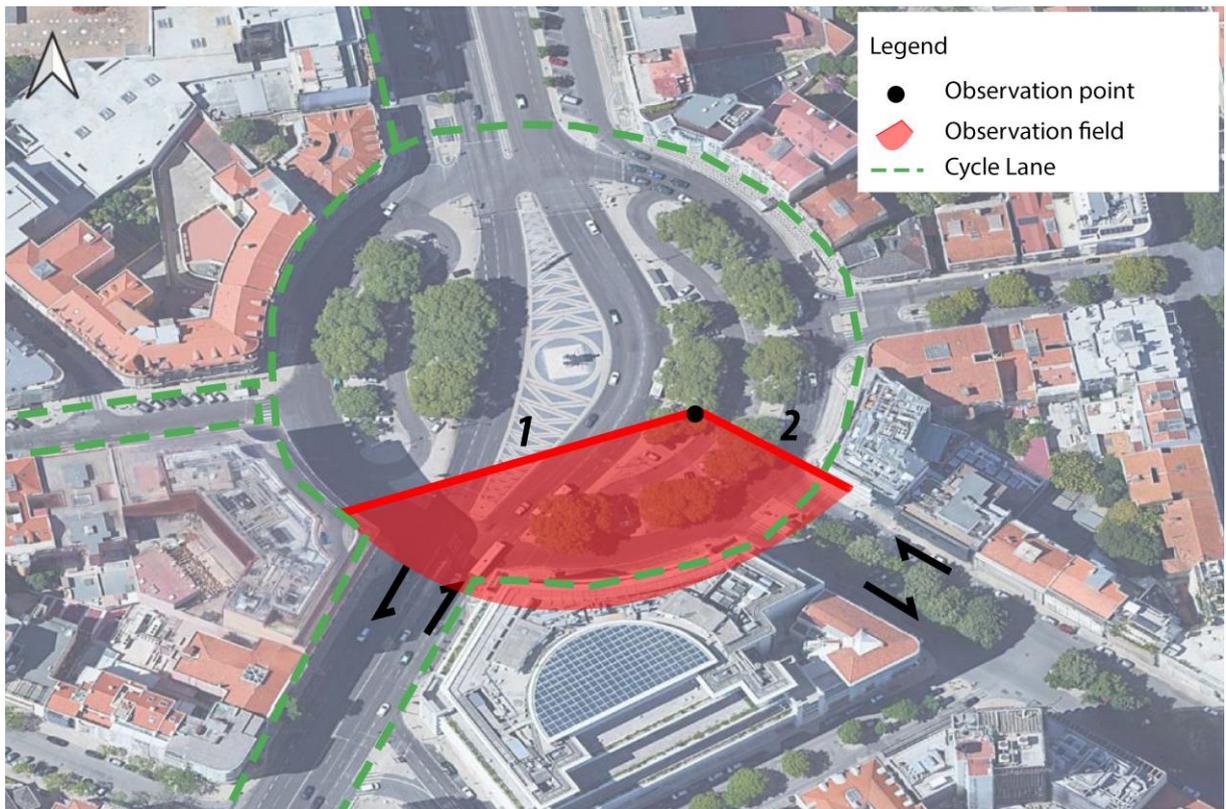
Source: Made by author with files from LisboaGeoDados (<https://geodados-cml.hub.arcgis.com/>).

On top of that, Praça Duque de Saldanha is a pivotal node regarding transportation in the city of Lisbon, due to the presence of an important intersection between the Red and Yellow Line of the metro, Saldanha station (also shown in Map 3). The square is also known for the crossing of Avenida da República and Avenida Duque d’Avila, two important roads in the city. To observe the presence of TVDE workers (e.g. Uber, Cabify and Bolt) the observation place had to be one with a higher number of inflow of people to make it easier to observe that phenomena and see it’s spatialization. However, due to limitations in time for that observation, both of them, for TVDE and riders, where done simultaneously.

As described briefly in the methodology chapter, the approach used for this stage would consist of a quantitative and qualitative observation. The attempt of a mismatch between those two methods will be reevaluated in the conclusions in order to assess if that was the best path to achieve the expected goal.

5.2.3.1. *Systematic Observation*

This method consisted in a simple counting of interactions that a certain section of the urban area had with SE. Those phenomena were distributed between food delivery applications, TVDE and sharing mobility (e.g. sharing scooters and bicycles). I was sitting in a bench in Praça Duque de Saldanha facing south, as shown in Map 4. The view of both roads are as showed in Figure 3, the one in the right represents the sight 1 and the one in the left the sight 2.



Map 4 - Observation site

Source: Google Maps and Ciclovias.pt (<https://www.ciclovias.pt/>).



Figure 3 – Sight 2 on Map 2 (on the left) and sight 1 on Map 2 (on the right).

Source: Taken by the author.

From the map is possible to see which roads would be observed and that a cycle lane is also easily observed from the observation point. The implementation of Uber Law in 2018, as already discussed in this thesis, makes it mandatory for e-hailing drivers to have a tag (Figure 4) in the front or back shield and that was the method used to count how many TVDE drivers passed in both roads during observation.

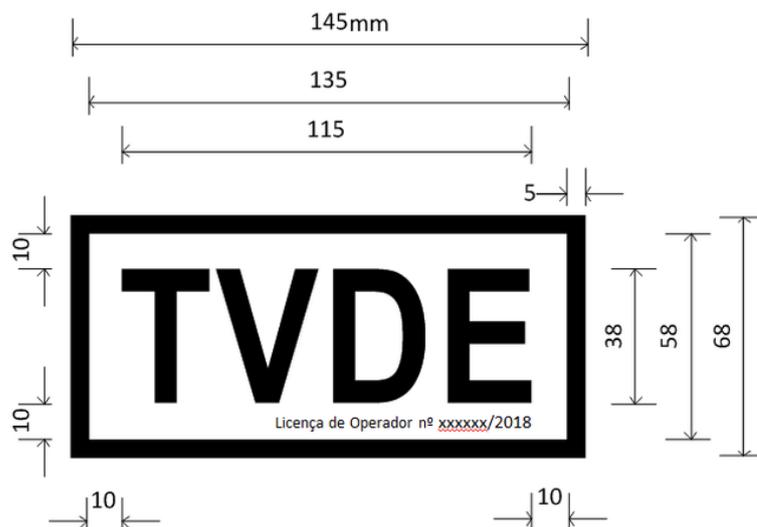


Figure 4 - Sign that driver must have to be identifiable

Source: <https://imt-tvde.webnode.pt/identificacao-de-veiculos-tvde/>

The identification of riders delivering food is much easier than the identification of TVDE drivers, even with the mandatory sign showed in Figure 4. The nature of their work

makes it mandatory for the riders to be wearing in all stages of the work the backpack to carry the product to be delivered. Those distinguish backpacks used by them carries the logo of one of the main applications of food delivery (e.g. Glovo, UberEats) in which they are working for. As discussed with Nuno, the purchase of said backpack is often mandatory by the platforms, and it can also works as an advertisement of their product, since they are rarely missed in the urban landscape.

Since the presence of riders is highly connected to the time in which the fieldwork is done, it was decided that the ideal would be to do it in two different intervals. The first interval was between 10:10h and 11:10h, for hour duration. In the first round of observation the intention was to mark down all the visible interactions of SE in the area. The second round was solely focused in riders, since it was done in lunch hour between 12:45h and 13:15h, for thirty minutes. All the notes from that observation can be seen in Figure 5, each crossed-box is counted as five interactions of said subject.

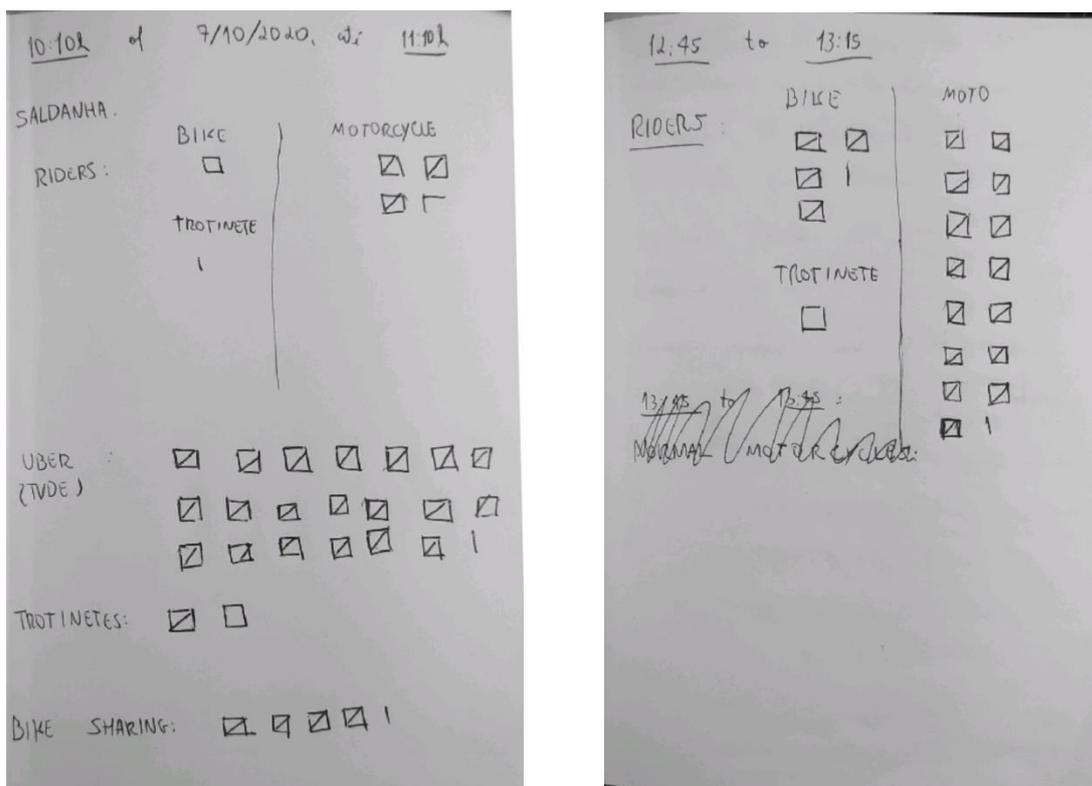


Figure 5 - Notebook of both observations. On the left: Morning interval. On the right: Lunch-time interval.

Source: Elaboration by author

The results from the observation are interesting when comparing the amount of perceived interaction of SE related to TVDE (e.g. Uber or Bolt) which is way higher at 101 iterations spotted with the iterations spotted of bike sharing at 21, meanwhile sharing scooters were spotted just 9 times. One interesting aspect related to those sharing mobility is that all interactions of bike sharing was by the Municipality of Lisbon, Gira.

When evaluating the iterations of riders in the landscape there is a significant discrepancy between both timeframes. At the first one, in the morning, it was spotted 22 iterations of food delivery platform, (18 with motorcycle, 4 with bikes and 1 with scooter) in a one hour observation. In the second timeframe, during thirty minutes, a total of 101 riders were spotted (76 with motorcycle, 21 with bikes, 4 with scooter), that would give a total over 200 if extrapolated to a total hour. That indicates a rate of over 9 times more in a peak hour when compared to a low hour. That can be expected due to the type of service, since lunchtime in a commercial centre tends to have a higher flow of orders coming from office spaces. From the interview done with Nuno Rodrigues, there is also another peak hour during the night, around dinnertime, between 7pm and 9pm.

To further the evaluation of that data, those numbers could be even higher if the same kind of fieldwork was done previous to the COVID-19 pandemic, since there is a high stimulus from governments to smart working, which shift the relationship of places within commercial and businesses centers in cities. At the same time, those could mean a spike in that type of delivery in more residential areas, due to more “smart working” and users order from their homes, instead of their office space. How everlasting those effects will be are yet to be defined, since the pandemic, as the time of this thesis, is still on going.

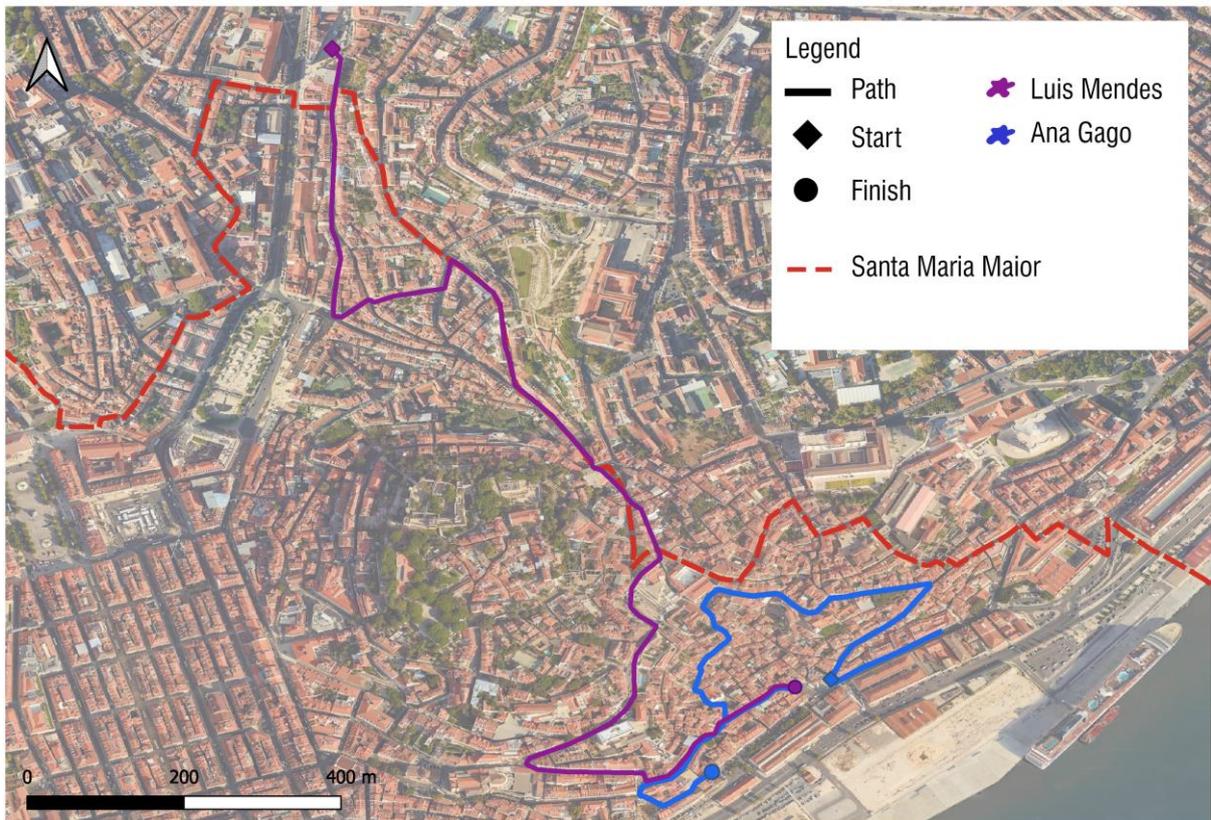
From this observation I was able to perceive a pungent difference between the interactions of the SE platforms with the urban landscape and how much weight they have on them. To observe the presence of e-hailing cars was way more demanding, the TVDE sign helped with that, but still was a forced observation with the goal to verify each car and if they had the identification sign. If you are casually walking in the city, or even take a photograph of it, the difference between a normal private car and an Uber would be invisible. However, for riders, their presence is felt in a much stronger way, they are always carrying backpacks with strong colours (yellow, green and red) and logos of each platform.

In order to better understand their impact a longer observation would be needed, as well as a comparative framework between how many TVDE are spotted proportionally to the

number of taxis and regular cars. A quantitative method, perhaps, needed a longer fieldwork to achieve those, and a bigger sample size to make those more representative. However, the goal with this methodology was to use these results as indicatives and give a proxy to identify the reflections and presence of those companies in urban centers.

5.2.3.2. *Ethnography of places*

The choice of a more qualitative method was due to the need of proxies to understand the burden of those operations in the territory. Among the qualitative methods chosen there were two guided walks through historic neighborhoods in the city, one with Ana Gago and one with Luis Mendes (both are showed in Map 5) to give a broader perspective of Airbnb toll in those most affected areas. Secondly, an hour observation of dynamics related to food delivery workers in main hotspots of deliveries.



Map 5 - Paths walked during observation of neighborhoods.

Source: Elaboration by author with LisbonGeoData data.

First itinerary

The first guided walk was done with Ana Gago (showed in blue in Map 5 and in Map 6) after a first interview with her related to her experience while working in the neighborhood of Alfama for over 2 years in a research related to toll of Airbnb, quoted a few times in this thesis. Ana lived in Alfama prior to her studies related to the territory and, according to her, the motivation to study the area was related to feeling as an inhabitant those rapid changes in the neighborhood. Map 6 shows the path done and which spots were taken the photographs that will be addressed in this fieldwork.



Map 6 - Path walked with Ana Gago in Alfama

Source: Elaboration by author with LisbonGeoData data.

At first, Ana and I met at Largo do Chafariz around 10:30h in the morning in the main square in the neighborhood, which is located right front of Museu do Fado, an important landmark for the traditional Portuguese-style music. There we discussed some of the perceptions related to that particular square that has several coffees and restaurants around it, with the classical Portuguese “Esplanadas” (chairs outside of restaurants, typical in warmer months). My first impression was to notice that the square was mainly empty, with very few people going around and having their morning coffee. Ana informed me that was not a typical

scenario for Alfama prior to the COVID-19 pandemic, where the square was basically full at all times (Figure 6 and Figure 7 exemplify the before and after).



Figure 6 - Largo do Chafariz pre-pandemic [1]

Source: Ana Gago's archive photo.



Figure 7 - Largo do Chafariz in 11 October 2020 [1]

Source: Taken by the author.

From that, it was very clear that what I was about to be observed was an Alfama in suspense, waiting to understand the next steps after the collapse of the tourism sector after the pandemic. Throughout the whole path just two touristic groups were spotted (recognizable by the guides and speaking English), which is not the standard scenario when there was mass tourism in the area, as accounts by Ana. However, that setting is highly interesting to

understand how a fragile territory that depended in one industry, in this case the tourism industry can have almost to no resilience¹² (question also posed by Luis Mendes).

From Largo do Chafariz (starting point showed in Map 5), the path was done with Ana telling some stories she have heard while living and studying the neighborhood, stories that goes from how locals avoid passing through crowded streets (e.g. Rua de São Pedro) to how some locals give false information when asked for coordinates to avoid their places to be overcrowded. Those accounts are of interest to understand how those relationships take place and how the remaining locals have found their ways to live with the massive presence of foreigners.

To observe the presence of AL in the neighborhood there are two main elements that are present within the façade of buildings that can tell if there are Airbnb units in the area. Due to the Local Lodge Law, all the units should have a sign with “AL” on it that identify that the building is used for short-term rental purposes (Figure 8 shows an example). Apart from that, the presences of master locks outside of units are quite common on those types of units, since is a simple way for the process of check-in and check-out of units (Figure 8 shows an example of one).

¹² Resilience of the territory as defined by Cochrane (2010) can be understood as the ability of the territory to recover from abrupt and unexpected change. Resilience is how fast a system returns to its original state after a disruption.



Figure 8 – Example of AL sign (On the left [2]) and a classic example of master locks (On the right [3])

Source: Taken by the author.

Those can be noticed throughout the entire route, some with both elements and some with just one of those. Apart from that, some apartments were observed to have a dynamic that is related to short-term rental, such as cleaning duties by uniformed workers and, however there were none of the above elements, those were probably also AL. That can be representative to the extent that even though the majority of Airbnb units have AL signs or master locks, some of them maybe still are invisible to observers, even those looking for signs of their presence. That falls into the same dynamic that was observed with e-hailing applications, where their presence within the urban landscape is almost invisible if one is not looking for those manifestations (Figure 9 exemplifies that effect for Airbnb units).

In Figure 9 below is possible to notice three units and although all of them are used as Airbnb units (as confirmed by Ana Gago accounts), none of them can be perceive as one at first sight. However, if an observer looks closely is possible to notice the existence of passwords locks in the door or the classic master lock next to it, elements that are telling of what kind of use those units have. For a pedestrian passing by those apartments they can be seen as normal residential units, it takes more than looking at it to assign which type of use those units are.



Figure 9 - Façade of three buildings in Alfama [4].

Source: Taken by the author.

The next manifestation of impacts due to operations of the SE that was expected to be observed throughout the course was the impact in retail activities in the neighbourhood. The main goal was not only to observe the shift from classical services such as bakeries, grocery stores, butchers and milk store to souvenir, tourist service, fancy and international restaurants. In addition to that, the goal was to see the appearance of new types of services catered to helping hosts manage the business of having an Airbnb unit, such as laundries and services that helped the check-in and check-out process.

The main takeaway when walking through the neighbourhood was the dominant presence of souvenir stores in the streets. According to Ana Gago, as of now, there is only one bakery and one butcher that are both located in the lower part of the neighbourhood, close to Largo do Chafariz. Meanwhile, in the upper part, there are only souvenir shops (Figure 10) and restaurants, clearly catered for tourists, based on prices, menus written in English and the presence of international foods.



Figure 10 - Souvenir store at Rua de São Pedro (one of the main streets of Alfama)[5].

Source: Taken by author.

In the Figure 10 above, a souvenir store can be seen in the middle of Rua de São Pedro, one of the main axis of Alfama. That street is around 100m long and has 3 stores with the same function, souvenir selling. In another walk, this time with Luis Mendes, he told that this street was known to be filled with open street markets that sold fresh fish, a picture of an old Alfama that contrasts with the typology of retail that exists there now.

However, souvenir stores are not the only latent retail change that can be seen while strolling through Alfama. The presence of ATMs can also be linked with the process of tourism-led gentrification. According to Ana Gago, there are no classic bank branches in Alfama, usually called in Portugal by “Multibancos” and are the ones present in supermarket and services in general. In fact, those type of services were never very present in the neighbourhood and the appearance of ATMs machines, which does not allow any operation except withdrawal, in the area did not address that particular need for locals. The appearance of those serves only tourists, and it is present everywhere, as it was perceived during the walk, several ATM machines were spotted as a way to facilitate withdrawal of cash by any pedestrian walking down the streets.

Another service tailor-made for the new inflow of city users are the ones designed to facilitate the management of those Airbnb units. Usually, the process of check-in and check-

out are being outsourced by hosts to facilitate the management of their guests. One of the solutions found by them is the master lock (showed in Figure 8), where the guests mainly open a safe with a key to the apartment. Another highly used method is the pick-up in specialized places, Figure 10 shows a place in Alfama that seems to serve solely this purpose, with a wall filled with keys and a name that resembles to a laundry place, fulfilling both functions for AL hosts. That place is interesting as it seems to be an lobby from an hotel, with several keys hanging on the wall, as if Alfama worked as an open-air hotel, as posed by Sequera and Nofre (2019).



Figure 11 - Cleaning place in Alfama (On the left). Same place with a zoom on wall with several keys (On the right) [6].

Source: Taken by author

Those elements noted thus far were the ones that it was expected, from desks studies, to be found within Alfama. However, while there, some nuances were perceived that are unique to the neighbourhood and are as interesting and important when studying those disruptions.

As pointed out by Ana Gago and later by Luis Mendes, Alfama has a morphology that creates the existence of inner patios that are normally used as commutal space, a place where people usually met to create bonds with neighborhoods, talk while their child played and observe the neighborhood. Those dynamics were highly present in Alfama and have been lost

through time, as locals leave and private actors take hold of those places. An example of this phenomena can be seen in Figure 12, where an inner patio became a private space after an hotel bought all houses within that area, putting closed gates in that space.

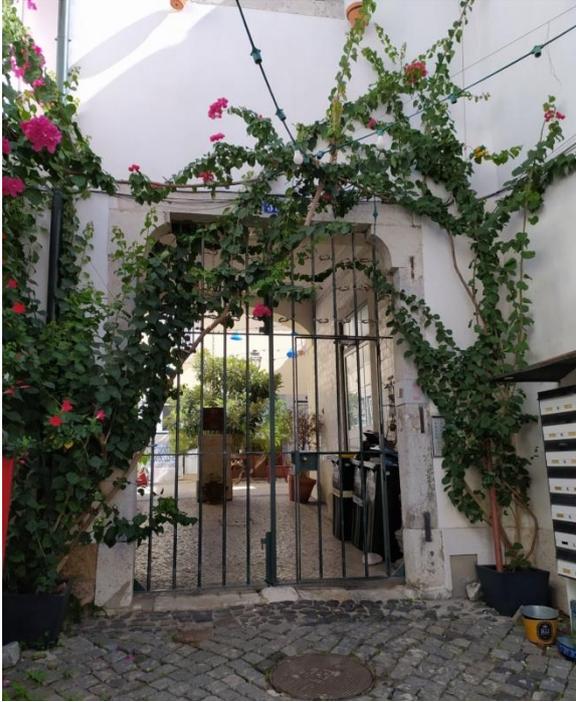


Figure 12 - Example of closed patio. [6]

Source: Taken by the author

Another interesting local dynamic is the existence of a project called Alma de Alfama (Soul of Alfama), created in 2016 by the Freguesia of Santa Maria Maior, the one in which Alfama belongs to, in order to pay a homage to an old Alfama, with signs spreaded throughout the neighborhood with pictures of locals that spend their whole lives in the neighborhood and are part of the cultural and social heritage. The project places a map with the location of all signs that are spreaded in the area and states that “...(Alfama) has preserved its unique cultural characterisitc.” and that “...the characteristics of the people translate into the most significant heritage of the neighborhood’s authencity” (Figure 13 shows the project’s map).



Figure 13 - Soul of Alfama project sign located in Largo do Chafariz.[7]

Source: Taken by the author

Those statements conflicts with the reality that was perceived in the field, in an Alfama empty due to lack of tourism and with a dominance of AL that has pushed rent prices up and locals out of the neighbourhood. Figure X shows an example of those signs next to an ATM machine in Rua de São Pedro, an interesting overlap between a neighborhood that does not exist anymore with a touristic one.

Both Ana Gago and Luis Mendes shared the opinion that said project, although carried out with a good intention, gives a sort of museufication of Alfama and createas a dichotomy, since some of those pepople portrayed in the signs were expelled by the touristfication process and pressures that short-term rental growth aligned with mass tourism imposed in that place.



Figure 14 - Sign of project Soul of Alfama next to an ATM Machine.[8]

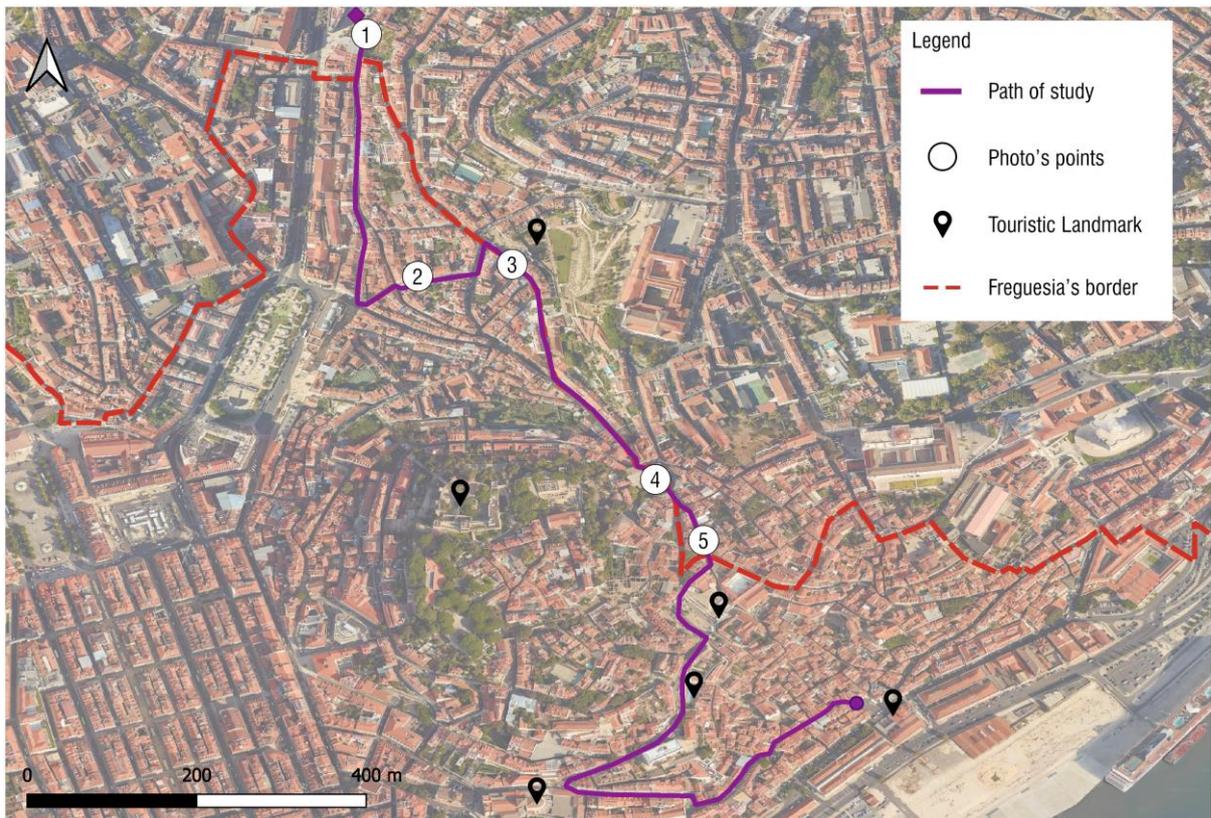
Source: Taken by the author.

As mentioned earlier, Ana Gago told accounts related to the resistance of locals facing the massive surge in tourists within their neighborhood. Apart from avoid certain streets, such as Rua de São Pedro, due to the massive traffic of tourists in such a narrow path, posters around the neighborhood represents a resistance of Alfama against evictions (despejos in portuguese) that usually takes place within the area (as shown Fig X). Another element of that resistance is the informal conversation that takes place within locals in bar, coffees and grocery stores. Prior to COVID-19 and the downfall of tourism in the area, the overall discourse was that over-tourism was killing the classic Alfama, expelling locals and creating frictions to their daily lives.

In my interactions with Ana Gago, she expressed the feeling that Alfama now is in a “suspense feeling”, where people do not know what to think, there is not a consensus in which will be the best for the future. Since tourism represents a high share of the earnings of most of the locals with business in that area, the lack of it makes their economical situation a difficult one. If COVID-19 pandemic can present an opportunity to restructure the local economics of Alfama, it can also mean a shift in the local feeling of tourism as a negative factor to a positive one, or a “necessary evil”, where without it the neighborhood would not survive.

Second itinerary

The second field observation was done with prof. Luis Mendes, a scholar that has several articles and researches done in the housing issue in the city of Lisbon. Some of his articles were quoted in this research as they laid out the scenario in which the city finds itself in that complex issue. Firstly, an interview with the professor was done via Zoom (at 06 of October of 2020), where it was discussed all the facets that permeates the housing market and policies in Lisbon in the past and prognostic for the future.



Map 7 - Path walked with Luis Mendes from Intendente to Alfama.

Source: Elaboration by author with LisbonGeoData data.

The main goal when doing that fieldwork was to see the transformation and process of gentrification that have been happening in Lisbon, not just in Alfama, but in the historic center as a whole. Due to that, the path done with prof. Mendes went from Largo do Intendente to Largo do Chafariz, as Map 7 below shows. Largo do Intendente is the main square of Intendente, a neighborhood that is known to have a multicultural landscape, meanwhile, Largo do Chafariz, the same one visited with Ana Gago, is the epicenter of Alfama.



Figure 15 - A revitalized Largo do Intendente with benches and coffee shops. [1]

Source: Taken by the author.

According to prof. Mendes, Largo do Intendente (shown in Figure 15) has a pivotal role in the urban transformation process that took place in that area at in 2010, when the office of the former Mayor Antonio Costa moved to that square (Público, 2010) so that investors would have a positive image of the neighborhood that was formerly known for drug trafficking and prostitution.

The neighborhood itself is located almost as a transition neighborhood between the historical center of the city, Baixa and Castelo, and neighborhoods that are known for being more residential, Anjos and Graça (Tulumello and Allegretti, 2020). The area was used as the flagship of the urban transformation being proposed in the city of Lisbon (Tulumello, 2016). Today, the neighborhood still shows a high degree of diversity in its shops and people circulating around the area, which is not usually the case for gentrification policies.

Tulumello e Allegretti (2020) describe the process that took place in Mouraria as divided in two phases. The first one up until 2014, where the neighborhood was under regeneration policies that did not provoked the gentrification of that place, as it normally does, being referred by the authors as a ‘deviant’ case. However, after 2015 and the previously discussed liberalization of housing and real estate, Mouraria became a ‘paradigmatic’ case, as posed by Tulumello e Allegretti (2020) with a surge in short-term rentals and a modification of the built environment.

Nonetheless, even though Mouraria had been inserted, even if more lately than previously, in the same process in which Alfama and some other neighborhoods of Lisbon's historic center went through, there are still signs of local activities and some of that diversity that made the place resisted early attempts of gentrification by the proposed policies. In that area is still possible to see local markets, restaurants, butchers and shops, which are now completely gone from Alfama. Perhaps, as that process might have caught up as of lately to the neighborhood, Alfama could be seen as what the future of Mouraria holds, or the COVID-19 pandemic and the halt at the tourism industry might delay even more that process.

As it goes further south, towards the Tejo River, it starts to increase the appearance of touristification, with more specialized shops and less life in the streets. Not only that, the signs of protest against evictions also became clearer (Figure 17 shows), as well as real estate's sign of selling, an element that is usually present in those areas (Figure 16 shows). However, the more perceivable change happens when it crosses from Mouraria to Alfama, where almost instantly some of the elements perceived in the lower part of the neighborhood visited with Ana Gago are spotted.



Figure 16 - Two signs of real state agencies within less than 30m apart. [2]

Source: Taken by the author.



Figure 17 - Signs against Lisbon's governance handling of housing crisis. One of them says “Lisbon Municipal Chamber. Dignified housing when?” [3]

Source: Taken by the author.

Firstly, the presence of Tuk-Tuks starts to appear, as well as souvenir shops (Figure 18) and coffees and restaurants with international foods and menu written in English. Secondly, due to the current state of the tourism sector, the emptiness of those streets became noticeable, with just one sight of tourists was spotted (Figure 19). Prof. Mendes brings up, throughout the walk, the need of a diversified territory, one that can be resilient in face of changes, and it is clear that with the massive touristification that took place in Alfama, the territory became fragile to any negative disruptions that the sector might suffer.



Figure 18 - A souvenir store is spotted as soon as we cross to Alfama. [4]

Source: Taken by the author.



Figure 19 - A usual normal sight in Alfama. Tourists with their trolleys. [5]

Source: Taken by the author.

A process that was discussed with Ana Gago and showed in Fig X was the one where the appropriation of public spaces by private entities, regarding the use on inside courtyards.

In the upper part of Alfama there is a famous one called “Pátio do Carrasco” (Executioner’s Path), which carries this name due to be the place of residence of Lisbon’s last executioner (VortexMag, 2019). The place shows two interesting dynamics, the first one is that the patio is closed with gates, same as the example showed before, but this time around the decision was made by locals that wanted to avoid presence of income tourists (as described by prof. Mendes). The second one is the example of the power relationship that exists between owners and tenants in the city.

In that patio, it happened, as told by prof. Mendes and vetted via local news, one of most famous cases of bullying between owners and tenants. Carla used to live in the ground floor of “Pátio do Carrasco” for a lifetime and, due to pressures made by the owner, was expelled of the house. The decision to leave the house was made after a series of bullying; the owner cut the supply of water and energy of the apartment (Publico 2018). That is one of the many cases reported by locals that took place in those regions, often the buildings are bought by investors and those don’t renew leases making locals leave the place. Often, those investors buy and renew buildings with the intention to put them in the short-term rental market (Sapo, 2018).

Throughout the visit it was possible to observe three different neighborhoods and different results of urban transformation caused by gentrification and mass tourism. In the first one, Intendente, even though there was a process of renovation that led to gentrification, is still possible to recognize the roots and characteristics of the neighborhood. Meanwhile, neighborhoods such as Alfama, where the touristic presence reached a point where the presence of locals is almost invisible, there is emptiness in the streets, with the decay of that industry. However, as made clear by prof. Mendes, the problem of housing in Lisbon is not solely due to the presence of AL, it is a mix of several factors that have been discussed here, even though short-term rental worked as an accelerated to that process.

6. What happens after the disruption?

Those accounts and observations showcased in the case study were proven useful to identify the possible spatialisations that the operation of the SE can have within an urban center. In order to achieve a more systematic view of those impacts, a table relating each of the perceived disruptions, divided by application, was made (see Table 3). Even though, some of the observed disruptions can be found, perhaps, only in Lisbon, due to the pre-existing conditions, is important to map and sort out all of them.

Table 4 - Applications, their disruptions and if they were observed

Application	Disruptions	Observed?
Uber	Congestion	No
	Decline in public transport usage	No
	Lost of workers' representation as a categorie	Yes
	Fragile relation among workers	Yes
Airbnb	Appearance of specific services	Yes
	Socially and Economic fragile territory	Yes
	Local's displacement	Yes
	Predominance of services for tourists, rather than locals	Yes
	Rent surge	Yes
Food-delivery apps	Change in use of public spaces	Yes
	Change in urban landscape	Yes

Source: Made by the author

As expected previously, and already discussed in some papers (see Chapter 3), each one of the applications has its own set of disruptions that can range from economic activities to displacement of locals and creation of secondary markets. That goes even further of what was discussed by Miller (2016) when stating that the markets created by those applications needed regulation rather than an application itself, as done in Lisbon with the Uber Law. In those cases, the legislation and agenda need to focus on those negative externalities that the operation of those markets creates. It is not as simple as imposing limits of number of AL units in a region or preventing drivers to work more than an amount of hours in that week, is about understanding that not every aspect that comes with innovation is positive.

As a planner, the main interest in this thesis was to map those disruptions and to gather from a different set of practices, done in different places, what can be done to achieve a more sustainable relationship between those platforms and cities. However, is important to have in mind that, once those innovations are embraced by the state, as is the case of Lisbon, a step

back to prohibit those is highly unlikely. Cases shown in this work (see Chapter 2.4) proves that if a city, or a country, shows a complacent legislation towards those, the power relationship between companies and local government gets tilted to the company's side, which usually rallies users and workers around their cause to allow their operations to run freely.

6.1. COVID-19 Pandemic effects

Adding yet another factor to that equation, there is COVID-19 crisis that started in February of 2020 (still on going by the time of this thesis), which created in a short period of time, a halt in most economic transactions and operations in big centers, with tourism being one of the main affected segments. That new factor creates a high degree of uncertainty of what the so called “new-normal” will look like, if there will be any everlasting changes or everything will go back to pre-covid times, once the pandemic is over. For instance, COVID-19 impacts on transportation choices is already being discussed, since public transport can present, due to agglomeration, a higher risk for contracting the virus, that can mean a higher usage on private mode of transportation (e.g. cars and bike), which can boost usage of e-hailing applications.

In addition, the impacts of COVID-19 on tourism has shown to be especially felt in neighborhoods such as Alfama, showed in Chapter 5, where the whole neighborhood's economy revolved around tourism after a massive surge of AL. That type of crisis can be presented as opportunity, as cliché as it might sound, to shift the way housing is being handled in those places. In fact, an article written by Lisbon's mayor, Fernando Medina, to *The Independent* in July of 2020, created a lot of buzz in several sectors after the piece was published with the title “After coronavirus, Lisbon is getting rid of Airbnb and turning short term holiday rentals into homes for key workers” (Antunes, 2020). Immediately, that became news on all of the major Portuguese media news¹³ (see *Diario de Noticias*; *Observador*), and needed to be corrected by the mayor.

However, even if Medina does not aim to banish Airbnb from operating in Lisbon, he does admit in the article a need of bringing back locals to those neighborhoods that became basically open air hotels for tourists. As showed in Chapter 5, most of the streets of Alfama

¹³ See: <https://www.dn.pt/dinheiro/depois-do-coronavirus-lisboa-vai-livrar-se-dos-airbnb-afirma-medina-12390729.html>; <https://observador.pt/programas/ideias-feitas/lisboa-vai-acabar-com-o-airbnb-e-o-sr-medina-vai-acabar-com-lisboa/>;

were completely empty during both visits, with very few locals and a perceivable number of AL spread throughout the whole territory. The mayor goes on stating that "...I want to bring those who are our lifeblood back to the city centre as we make it greener" (Medina, 2020) and goes on stating that "Airbnb-style holiday rentals have taken over a third of Lisbon's city centre properties, pushing up rental prices, hollowing out communities and threatening its unique character." Those are strong statements related to what the presence of that platform brought to the centre of Lisbon in the past years, however it seems to blame all of that in Airbnb, which is not the case (Mendes, 2020).

Basically, that piece in *The Independent* was used as a platform to promote the new program of the city to tackle the surge of AL units: "Safe Rent". As discussed in Chapter 5 (see 5.1.3), the program had a way higher number of people searching for affordable housing than owners willing to put their AL in the long-term market. That program alone does not seem like the solution for the problem encountered currently in those places, as Medina itself recognizes in the piece. In any case, there are other dynamics that COVID-19 can bring to the city that might shift the current scenario.

Discussing with Ana Gago those possible changes and shifts for Alfama in a post-COVID-19 world, she expressed a possibility in which those owners of houses eventually shifts those units from AL to medium-term rentals, for 2 or 3 years, while waiting for a bounce back from the industry, confirmed by what Host 1 expressed in the PLUS Workshop (see 5.2.1.). The "Safe Rent" program might be a too big of a step for them, to be stripped of that flexibility in which the AL give them, as posed by Cocola-Gant and Gago (2018). Since the program creates a 5 year contract between municipality and owners, in which those houses will be sublet as affordable units.

In that scenario, the proposal of any policy change or even solution for those disruptions becomes even more challenging since, with new dynamics that might appear after the sanitary crisis, and how they will take place in cities is still unknown. The economic crisis that will follow the pandemic (Nicola et al, 2020) will push government to find solutions that can reactivate the economy. It will be interest to see how the mayor of Lisbon will act on Airbnb with the tourism sector being one of the most prominent in the city, which represents one fifth of the region's GDP (Moreira, 2020; Plano de Turismo, 2019), and the AL is definitely a driver for that market.

6.2. Current scenario and possible solutions

To recap the current state of legislation in Lisbon related to Uber and Airbnb, there are two main pieces of legislation, both update or approved in 2018: Uber Law and Local Accommodation Law. The first one created another level of complexity between drivers and Uber, with TVDE, and imposed restrictions on working hours, price surge and mandatory courses prior to working as a driver. However, the imposed restriction on working hours was confirmed by some drivers (see 5.2.1.) as not effective and TVDE makes Uber further themselves away from workers, and does not solve issues related to labor relations. The second one, related to AL, created a tool for local governments to imposed restriction zones (either absolute or relative) where the registration of new AL was prohibited or followed a more thorough process, and as of today, three Freguesias are within those (see 5.1.2.).

The one related to Uber does not seem to be effective in many of the area it proposes to be, and the process leading up to that was not made in a participatory way with important stakeholders, as drivers, according to their accounts (see 5.2.1.). Not only that, the regulation aims specifically at regulating the activity rather than any negative externality that those might present, which is the focus of this thesis. The new Mobility Plan of Lisbon, released in October of 2020, does not seem to acknowledge any effects that a surge in e-hailing use can create to traffic and congestion or its impact of user choice (Hanao, 2017; Lee, 2020). That would be one of the main recommendations, a well-founded study of how, and if, the increase of offerings in e-hailing are impacting public transportation usage in Lisbon and, if so, perhaps drawing legislation which limits the amount of driver. Especially now, with COVID-19 impacting mobility patterns, dynamics and unemployment rate going up, workers might started shift to work for those services while waiting for a new opportunity, as some reports collected (see 5.2.1.) and, at the same time, the users migrate to choosing more private modes of transportation.

Further, the Local Accommodation Law, which allowed the municipality of Lisbon to create Control Zones within its boundaries, was the most recent development related to Airbnb and short-term rental units. The Control Zones are areas, which can comprise neighborhoods or Freguesias (see 5.1.2.), identified by the municipality in which the percentage of AL in that place became too high. However, the threshold in which the presence of AL becomes a problem is debatable, Ana Gago, for example, as a researcher and inhabitant of Alfama felt that when that threshold was around 10% to 15% the effects were already in

place, which now would fall into a RCZ ¹⁴. Adding to that, the path to go back from a higher percentage of AL in some area is still uncertain. Lisbon has tried to shift back some of those units from the short-term to long-term market, and in this specific scenario to affordable housing, with the program “Safe Rent”, the program faced some criticism and have yet to reach meaningful impact in converting AL units to long-term ones.

The challenge when discussing solutions for this problem is to make those areas attractive for locals again, with fair rents, less crowds of tourists in streets and enough services so they can maintain a decent quality of life. The current pandemic may present itself as an opportunity to governments to take back some of the AL in those areas, especially with the decrease in touristic flow and, following that, the income generated with AL. Some cities are already taking advantage of that, such as Paris, Berlin and Amsterdam (VICE, 2020), the last one, for example banned all type of Airbnb units in some areas of its historic center (Reuters, 2020) and reduce the number of days in which owners can rent their place on the platform.

In Europe, a movement took place, on September of 2020, which involves 22 different cities ¹⁵spread across countries, which are trying to push the EU Commission to pass an EU-wide tougher regulation to short-term rentals, rather than the current state which each city, or country, has its own ruling. In a previous attempt to obtain a European ruling, the ECJ have ruled against a bid made by Paris trying to get a favorable ruling on Airbnb operations needing a real state license, but it was eventually rejected (see 2.3.). Interestingly enough, even though Lisbon’s Mayor showed willingness in the article to The Independent to change the approach towards the Airbnb presence in the city, they were not among the 22 cities pushing for tougher regulation.

This movement shows a particular interest connected with the European Digital Service Act¹⁶, in which would make information technology companies, such as those in the SE, to share their data in a more extensive way with public administration. As discussed previously in this thesis (see 2.3.), the lack of access to the data produced by those companies is one of the biggest challenges when assessing the impacts of those. In this case, the

¹⁴ Realtive Control Zones (see 5.1.2).

¹⁵ Full list of cities: Amsterdam, Athens, Barcelona, Berlin, Bologna, Bordeaux, Brussels, Cologne, Florence, Frankfurt, Helsinki, Krakow, London, Milan, Munich, Paris, Porto, Prague, Utrecht, Valencia, Vienna and Warsaw (The Local, 2020).

¹⁶ New package that aims to modernise current legal framework for digital services. (see: <https://ec.europa.eu/digital-single-market/en/digital-services-act-package>)

argument made by Eurocities¹⁷ is that to have access to that data is to ensure the right to housing and that cannot be achieved if Airbnb does not comply with “...the rules that govern the real-estate market” (Eurocities, 2020).

A favorable ruling in the supranational level would be an interesting development for cities and countries that want have a tighter grip around the platform operations and, if it does happen, would be an interesting opportunity for further studies and place-based policies for areas in which those short-term units have taken a sizeable share of housing stock. However, some areas, as Alfama, seem to have reached a point where to go back to the old neighborhood is nearly impossible. A solution would be to develop policies that bring people to live once again in those neighborhoods and build back the character they once had, at the same time, a plan should be put in place to promote the opening of regular services (e.g. bakeries, butchers, supermarkets) in those areas, so when new residents move in, the economic activity in that area can support those and create a more livable neighborhood.

Finally, the biggest observed trend in what is regarded as regulatory framework for SE is related almost exclusively to their operations, as showed throughout this thesis. However, a more extensive overview of how those spatialisations manifest in cities and what are their consequences is needed to develop policies and plans to tackle those when needed. Some of them won't demand a regulatory response, as change in the urban landscape and occupation of public space by workers for food-delivery apps. Disruptions connected to local eviction, territory resilience and retail changes do need more active solutions from authorities and they often can be framed within other concepts related to urban transformation, such as gentrification.

In the specific case of Lisbon, the spatialisations of those occur in different places and at different scales, therefore a regulatory framework would not fit them all, a more detailed plan for each area and disruption could be presented as a solution. So far, the city has showed to be highly amicable to SE operations and present a discourse of innovation pushing the city to be more creative. However, innovation does not need to be embrace fully without a critical attention to what they can bring as negative externalities for places, people and their history.

¹⁷ “Eurocities is the network of 190 cities in 39 countries, representing 130 million people. Through joint work, knowledge-sharing and coordinated Europe-wide activity, we ensure that cities and their people are heard in Europe”. (Eurocities, 2020).

7. Conclusion

This thesis objective was to spatialise and understand some of the effects that the sharing economy can bring into a city, understanding how those companies benefit from agglomeration, regulation oversights and their fast paced innovation. Initially, a literature review on what is the sharing economy and which companies this work would consider as being under that umbrella term (e.g. Uber and Airbnb) was discussed. The main takeaways from that chapter were that the use of the word “sharing” in the sharing economy is connected to a positive value that, often, makes companies pursue to be fitted under that label. However, as they operate today, most of them do not have that sharing dimension to its activities.

Following that, a review of the major regulatory disputes and problems that different levels of governance faced when attempting to legislate over those companies is reviewed, with a vignette for three specific cities (London, Barcelona and Rio de Janeiro). In all those, the established players in the industries disrupted by the sharing economy expressed discontent with how the local government handled the arrival of those services, most notably the taxi industry and hospitality, affected by Uber and Airbnb respectively. Their claims always revolved around the lack of proper legislation to those companies and how they enjoyed that to thrive within that industry. In the taxi industry several protests around cities took place, in some of them it resulted in Uber being restricted, as Barcelona, and in some, just some legislation viewed as a compromise with the sector, as Lisbon.

To round that up, a chapter on what has been discussed in preview literatures as to how those disruptions can be perceived in different sectors was done. Apart from the disruption in established sectors, the chapter aimed to discuss their secondary effects and negative externalities, such as disturbance, traffic, congestion, gentrification and rent prices. It was important to notice that each company operating within the sharing economy can impact a variety of sectors within society and those are often neglected by public authorities when approaching the issue. Those initial chapters are important to set the expectation on what the author would later investigate on the field and what would be the main elements observed in the fieldwork. Also, to have a clear picture of what is considered under the umbrella term of sharing economy is essential to achieve a clear object of study.

The main objective of this work was to understand how different actors that have roles in that economic activity view the sharing economy sector, ranging from workers, users and scholars. The expected results prior to the fieldwork was to find several disruptions related to

the entry of said services in the city of Lisbon, chosen as the case study due to its peculiar regulatory scenario and recent problems with Airbnb. It was expected that some of those disruptions would be connected to specific local dynamics and urban transformation processes that have taken place there before. One more complexity layer to those relationships is the COVID-19 pandemic that has taken place in the beginning of 2020 and is set to impact all economic sectors and, in particular, one of those that the sharing economy relies heavily on to achieve its success, the tourism sector.

The particular case of Lisbon, the troubled state in which the housing market was at the center of the city, with a high number of people living on rent, empty buildings and an aging population living in neighborhoods that needed renovation (Mendes, 2019), created the perfect storm for Airbnb to thrive and for investors to jump in that trend. The city of Lisbon, due to its strategies of city branding as a Smart City (Scalzotto, 2019) has been an equally attractive scenario for other companies to invest, such as Uber. This can be linked to why the legislation done so far to tackle the sharing economy has been mild at best, as seen by workers and scholars as not effective in several stages.

The changes in social and labor relations, economic activities and urban landscape were some of the observed disruptions that these types of innovation brought to Lisbon. As expected previously to the fieldwork, each company has a different relationship with its users, workers and the urban fabric. Since each of those companies operates in different sectors, ranging from mobility to housing, their disruptions have different spatialisations and some of them are more related to certain spaces than others. For example, Uber shows a greater degree in breaking usual social and labor contracts between workers, with those losing the ability and space related to workers' engagement as a category that are usually tied with workers' claim to more rights and better overall conditions.

On a different aspect, the impacts of such applications in the urban mobility of the city seems to be not acknowledged in Lisbon's most recent plan for the sector, with the SE being seen as an driver for the urban mobility and not once being mentioned in a negative light. If the increase of usage in e-hailing applications due to COVID-19 and users seeking safer ways to travel will produce more negative externalities is still to be seen. One of those could be the decline in public transport usage, which could stress the system even more, and could create price surge or a quality drop in the public transport system and negatively impact its users.

Regarding Airbnb, the application is more connected to displacement of locals and a fast touristification of certain areas, as observed in Alfama. The pace in which investors were acquiring units in order to rent those in the platform reached a point that, as reported, over 50% of the units in that area were Airbnb units. During the fieldwork it was observed the feeling of emptiness and lack of local life and also a lack of tourists in that area, due to COVID-19 pandemic. Further, the massive presence of tourists makes it activities related to that segment pop up, with souvenirs being spotted throughout the whole neighborhood, restaurants selling international overpriced food and service catered for managing those short-term rental units. It was interesting to know that, even though Alfama is emptier than ever due to absence of locals, the remaining ones are still resisting those changes and that touristification, with bars known as “for locals” and streets to be avoided by them due to higher presence of tourists.

Not only that, the loss of spaces related to the social tissue of Alfama, the inside courtyards, lost their value as private actors appropriated themselves of those spaces. That type of disruption is acknowledged even by some high level governance, even though acts that speak to those concerns are yet to materialize. A specific project was done to put locals in a spotlight, but it just seems to be there to remind of an Alfama that once was, with some of people being displaced by that dynamic of short-term rental market. However, it is important to highlight that those displacements are not entirely related to the sharing economy, some of those dynamics took place in the territory prior to that, even though the sector seems to have sped up the process.

An interesting line of research that can be taken following this work would be to understand if and how the COVID-19 pandemic may shift once again the relations disrupted by the sharing economy. Especially in the case of Alfama, where the neighborhood finds itself in a state of clear transition between the mass of tourism to whatever is next. Not only that, to understand if the sharing economy will somehow change the way it does business (e.g. Airbnb offering student rentals instead of short-term rental) due to the disruption caused by the pandemic would be an interest research line as well. One more subsequent research topic, already mentioned in the work (see 2.1.) is how the policy mobility related to the sharing economy is done, and if a more regulatory strict approach by some countries could open the way for the same movement elsewhere.

Some of the fieldwork found limitations in the chosen methodology when approaching the quantitative method. Due to lack of available time and resources, a comparative count of the number of vehicles, TVDE and taxis was not carried out, which would be interesting to understand the percentage in which those vehicles are present within the studied area. Another relevant limitation was the number of locations in which those disruptions were observed, which was only one per application. To have a more truths worthy and heterogeneous image of how those companies are present within Lisbon's territory, a sample of more relevant places in which those are operating would be interesting and could enrich the final results of this work. Adding to that, the COVID-19 pandemic restricted some possibilities of fieldwork due to sanitary restrictions, which as seem as lack of tourists and a reduced time for the fieldwork itself.

Overall, the toll that some negative externalities have on locals and on the character of places is too deep to be perceived as a mere side effect or a price to pay to make the city more innovative and more marketable for tourists and investors. Those disruptions should have an active role when planning and proposing new legislation for those activities. The same goes for the impact of an increase in Uber drivers and decline in usage of public transport due to e-hailing applications, those effects need to be taken into consideration when mobility is being planned or studied in the city.

Another key conclusion is the need of a different approach for different applications and markets. All of the sharing economy applications, even though recognized under the same label, cannot be put in the same box when being studied or regulated upon. The places and magnitudes in which those services exist and disrupt are diverse and need to be looked at under that perspective. Those could be interesting lines of research moving forward, a more clear differentiation between the spaces in which they exist and how that create different needs for regulatory approaches and responses.

However, it is important to notice that not all spatialisations found in relation to the SE were necessarily negative. Some of them were related to the urban landscape, such as the perceivable passage of more delivery workers around the main commercial center observed in the fieldwork or more agglomeration between workers of those food-delivery applications around fast-food chains and their nearby public spaces. That changes some dynamics in those places but are not inherently bad or harmful for the people living or experiencing those places. In fact, those gatherings represent an interesting duality among the niche itself, while Uber

drivers are constantly feeling separated, food-delivery workers showed a more cohesive and close relationship between them during observation.

Finally, this thesis concludes that the innovation proposed by the sharing economy can bring new dynamics and markets to cities; however, a deeper look is needed by the legislators and governance levels and a better understanding of what the negative externalities of those operations are, before embracing them fully. The city of Lisbon has a rich and interesting scenario that made the city a perfect environment for those companies to thrive and was received with open arms by legislators that were aiming to promote the city as one that embraces innovation and entrepreneurialism. In more recent plans and documents, those disruptions are still given a positive light with the vision that they make the city better and force them to be innovative.

Despite that, some of those negative externalities are already catching up, with areas of the city becoming empty of locals and losing the character that was unique to some regions. In addition, locals' patience and views of said applications are highly negative due to all the troubles that they have caused, and still do, in their daily life. This work does not aim to conclude that all and any innovation should be capped or repelled, but to embrace them at all costs is being proven not ideal as well. However, as planners, it is important to understand how those innovations impact cities' dynamics, both social and economic, in order to engage proper responses to boost all the positive disruptions and try to minimize the negative ones.

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