Papers

Sharing economy and urban tourist destinations: analysis of Airbnb spatial distribution in Curitiba

Economia colaborativa e destinos turísticos urbanos: análise da distribuição especial da Airbnb em Curitiba

Economía colaborativa y destinos turísticos urbanos: análisis de la distribución espacial de la Airbnb en Curitiba

Yure Sousa Lobo¹

¹University of Guadalajara (UDG), Puerto Vallarta, Jalisco, México.

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Abstract

The study focuses on the spatial expression of Airbnb and the platform’s ads to investigate the interrelationship between the spatial distribution of the Airbnb offer and the urban-tourist dynamics of Curitiba. The quantitative method was conducted through spatial data analysis and descriptive statistics, using digital data source (AirDNA, 2017). The results highlight the understanding of the dynamics of Airbnb with the urban-tourist space; the indication that the Airbnb offer does not pose a threat to conventional hotel occupation; the occurrence of multiple advertisements from the same host as an indication of negative externality; the reinforcement of centrality as a common element in the analysis of the spatial distribution of the Airbnb offer and the regions with the best socioeconomic indicators; and the eminence of new actors in the local tourist dynamics. The theoretical implications highlight the complex relationships between producers, consumers, local community, and public organizations in the context of collaborative economy and the contribution to debates about territorial tourism planning at local level. The conclusion points out that the spatial distribution of Airbnb blurs the limits of what would be the par excellence tourist space of Curitiba, considering new uses of space and its potential for interrelationship.

Resumo

O estudo centra-se na expressão espacial da Airbnb e nos anúncios contidos na plataforma para investigar a inter-relação entre a distribuição espacial da oferta Airbnb e a dinâmica urbano-turística de Curitiba. O método adotado foi o quantitativo, por meio da análise espacial de dados e da estatística descritiva, utilizando fonte de dados digitais (AirDNA, 2017). Os resultados destacam a compreensão das dinâmicas da Airbnb com o espaço urbano-turístico; a indicação de que a oferta Airbnb não representa uma ameaça à ocupação hoteleira convencional; a ocorrência de múltiplos anúncios de um mesmo anfitrião como indicativo de externalidade negativa; a ocorrência do reforço da centralidade como elemento comum na análise da distribuição espacial da oferta Airbnb e das regiões com os melhores índices socioeconômicos; e, a eminência de novos atores na dinâmica turística local. As implicações teóricas ressaltam as relações complexas entre produtores, consumidores, comunidade local e organizações públicas inseridas no contexto da economia colaborativa e, a contribuição para as discussões sobre o planejamento territorial do turismo no âmbito local. A conclusão aponta que a distribuição espacial da Airbnb borra os limites do que seria
1 INTRODUCTION

Tourism, as a field of study and research, presents significant contributions and a guiding path for analysis and understanding of central aspects of the contemporary world. These aspects are mainly related to mobility, cultural production, and consumption, social change, territoriality and spatiality, the formation of identities, new technologies, among other aspects. This does not happen by chance and is linked to the fast and systematic activity economic expansion, especially from the 1970s onward. All of this turns the tourist activity into a considerable phenomenon, given the unequivocal importance of several processes associated with it, which are established based on global dynamics, but, at the same time, are expressed and have implications at the local level (Meethan, 2005, Dachary & Burne, 2013).

The last decade marked paradigmatic shifts in tourism activity. With the development of Web 2.0 (O’Reilly, 2005), sharing and collaboration formed a new way of communicating and relating to the Internet. These shifts had indelible repercussions for current tourism, as they altered the way travelers began to interact in the online environment, reshaping the dynamics of consumption and production of tourist information and services (Buhalis & O’Connor, 2005; Xiang & Gretzel, 2010).

This new environment enabled the development of a type of economic relations between individuals in which the parties share value, immersed in a digital economy that grants its users temporary access to assets that are underutilized from each other. This occurs based on relationships distributed and intermediated by digital platforms, which provide the online structure and enable a wide range of activities. Such phenomenon has been defined as “collaborative economy”, “shared economy”, “sharing economies”, among other denominations, presenting a conceptual field still in dispute and with different perspectives (Botsman & Rogers, 2011; Rifkin, 2016; Frenken & Schor, 2017; Zanatta, 2017).

The collaborative economy has been characterized as a dynamic, heterogeneous, and controversial phenomenon, with characteristics and manifestations in different markets, products, and services. It presents itself as a new paradigm compared to traditional economic models and points to changes in the global economic context. In this sense, tourism seems to be one of the main driving activities and sensitive to these new production and consumption practices. Currently, it is possible to observe a proliferation of new business models based on digital environments that bring travelers and residents closer to the destinations visited, generating significant changes in travel, tourism, and cities (Cheng, 2016; Gruszka, 2017; Richards, 2017; Shirky, 2011).
Thus, as in symbiosis, collaborative economy and tourism merge, in a fertile way, in the urban spatial dimension, being a unique locus of analysis, explored by this research. In this way, the urban space appears as a singular place for paradigmatic changes in the patterns of production and consumption; in the mobility of capital, people and goods and, equally, for the technological revolution that has changed and continues to change the way people, places, and organizations relate. This aspect results in an interesting amalgam for studies that deal with contemporary urban tourism in the face of the collaborative economy and vice versa (Anton Clavé & González Reverté, 2007; Davidson & Infranca, 2016; Harvey, 1996).

Among the most cited and contested models of digital platforms of the collaborative economy related to tourism, Airbnb is the one that stands out the most (Cheng, 2016). Given this scenario, this study will investigate this platform vertically in the city of Curitiba, observing its repercussions in an urban tourist destination based on the analysis of its spatial distribution and the relationship established with the local urban-tourist dynamics. The intrinsic characteristic of the spatial dimension of urban tourism acts here as a lens for understanding contemporary tourism practices, often invisible and asymmetrical, that act in the production of the city and its urban space, with social, political, cultural, and economic implications. It is from this context that the research problem to be answered by this investigation arises: what is the interrelationship between the spatial distribution of the Airbnb offer and the urban-tourist dynamics in the city of Curitiba?

2 LITERATURE REVIEW

The analytical framework of the collaborative economy offered by the academic literature presents a conceptual field in dispute and with different perspectives. Some more focused on understanding collaboration and sharing as ways of promoting the common good (Bauwens, Iacomella, & Mendoza, 2012; Benkler, 2006; Frenken & Schor, 2017; Lessig, 2008), others that focus on describing characteristics, functionalities and potentials of these new models, from a digital entrepreneurship perspective and as an alternative to the dominant capitalist paradigm (Botsman & Rogers, 2011; Matofska, 2014; Rifkin, 2016; Sundararajan, 2016). Some studies observe the psychological aspects and subjectivities involved in collaborative economics (Belk, 2014; Möhlmann, 2015; Van Nuenen, 2016), and the legal, financial, regulatory, and consumer-related aspects (Rauch & Schleicher, 2015; Hoffman, Fainstein, & Judd, 2011). On the other hand, research that analyzes the phenomenon from its negative externalities and urban impacts is growing (Guttentag, 2013; Füller & Michel, 2014; Russo & Quagliervi Domínguez, 2014; Zervas, Proserpio, & Byers, 2014). This picture is complemented by studies that present a critique of the collaborative economy related to issues such as precarious work and new challenges in the field of political economy (Demairy, 2015; John, 2013; Meelen & Frenken, 2015; Morozov, 2013; Scholz, 2016; Slee, 2014; 2015).

In this context, the term "collaborative economy", in the most used sense, has been characterized for being, markedly, an internet’s post-commercial expansion phenomenon, with growth after the 2008 crisis and with an eminently digital basis. Generator of diverse experiences, consumption above all, from the offer and use of goods and/or services, generally non-occupied, through digital platforms and carried out by individuals in the context of information and communication technologies. These are technological-based socioeconomic systems, which generate new business and work models that, in turn, surpass the traditional ones and reorganize what can be considered rigid, verticalized, and centralized organizations in more horizontal, flexible, less centralized formats, with global capacity for performance.

Some principles are proposed as fundamental to the functioning of the collaborative economy. They are critical mass, which refers to the number of users needed and sufficient to sustain an economic practice (Botsman & Rogers, 2011); idle capacity; the belief in the common good and trust among strangers. The last will be pointed out by several authors as a vital axis to enable exchanges in a collaborative economy community, its absence would incur a threat to the system. This is also an aspect that distinguishes the current practices of collaboration and sharing, in the digital environment, from those present in pre-modern societies, and also modern ones, in which these practices tend to be limited to the circle of family and acquaintances (Frenken & Schor, 2017; Sundararajan, 2016).

Such principles show the eminently urban character of the collaborative economy, since they depend on conditions especially found in this space, for instance, the existence of a volume of providers and consumers,
the density and proximity that the urban offers and, especially, the possibility of providing solutions to frustrations and inefficiencies present in cities such as mobility, use of time and leisure options (Davidson & Infranca, 2016).

Airbnb is considered a paradigmatic case of the collaborative economy, due to its expansion rate, global dimensions, and cause for friction in several cities around the world. Especially regarding tourism, one of the main effects of the collaborative economy has been on the hospitality industry, through several digital platforms, but with special attention to the platform analyzed here, which, as a global tourism phenomenon, has received inquiries about its business model regarding the collaborative economy and facing controversial issues related to its development in cities (Guttentag, 2013; Molz, 2014; Kagermeier & Gronau, 2017; Arias Sans & Quaglieri Domínguez; 2016; Quattrone, Proserpio, Quercia, Capra, & Musolesi, 2016).

Founded about 11 years ago in California, United States, the platform offers services for sharing accommodation and tourism activities among individuals. Worldwide, it has 4.85 million active listings, and more than 200 million guests have visited the platform since 2008. It operates in over 65,000 cities and more than 191 countries worldwide. In Brazil there are already more than 120,000 listings, having registered almost 3 million guests since 2008 (Airbnb, 2017; 2018a; 2018b).

Considering the scope of this study, it is interesting to distinguish here the concepts of urban space and city. For Santos (1988), as well as for Lefebvre (1999), the city is the shape, that is, the revealed materialization of certain social relations. Urban space, on the other hand, is content, understood as materialization in the space of social relations themselves. Corrêa (1989), in turn, situates the urban space as a set of symbols and a field of struggles, with different forms and social contents, whose uses (city center, industrial areas, residential areas, among others) will reveal the organizational city space. Thus, city and urban space are interdependent: the city is the manifestation of urban space configuration. The city is the concrete, the set of networks, while the urban is the abstract, but it is what gives meaning and nature to the city (Souza, 2003).

Another key concept here is that of a tourist destination – the focus of analysis and intervention regarding the institutionalized tourism and the basic management unit for public tourism policies (Valls, 2006; Jovicic, 2016). It can be stated that a destination concentrates both the offer, intended as the location of tourist services and activities, infrastructure, and attractions, as well as the demand, understood as the factors that affect the markets, the motivation, and the tourists’ decisions. However, researchers have not yet agreed upon a definition – in some cases, the term is usually used, without even being defined (Jovicic, 2016; Framke, 2002; Pearce, 2014; Saraniemi & Kylänen, 2011).

In this study we start from the understanding of a tourist destination as the place where tourism takes place and where there are temporary interactions and interrelationships between different players: the host, the tourist, the market agents, the workers, the community and the public authorities (Fratucci, 2000).

We also highlight that tourism, according to Saraniemi and Kylänen (2011, p. 133), “... is about places and spaces that are embedded in cultures, economies, and social lives of communities. In tourism, production, consumption, and experiential characteristics become interconnected in a given location”. One proposition is useful to exemplify how tourism surpasses traditional sectors of the economy and encompasses perspectives of a social, cultural, spatial, and environmental nature – which makes it difficult to have distinctive and restrictive definitions, given the diverse nature and multifaceted character of the activity (Dachary & Burne, 2013).

It is in this field of complex and conflicting relations that tourism is included, as a cause and product, as a socio-spatial practice that produces flexible, discontinuous territories and “touristifies” places (Fratucci, 2000; Duhamel & Knafou, 2007). Hence the importance of understanding such processes, as a way to achieve a better understanding of tourism itself (Cruz, 2008). The relations between tourism and urban space are old and intricate, with tourism itself being essentially an urban phenomenon, with the city as the main attraction and tourist production center (Castrogiovanni, 2013).

The spatial dimension acts here as a lens that, from the urban space, sheds light on the gradual changes that tourism as a global phenomenon has undergone in recent decades. Thus, the Fordist conception of tourism (Molina, 2003) and those related to the “tourist bubble” (Judd, 1999, p. 36), in which the elements linked to tourism and entertainment remained separate from the rest of the city, have given space to new
conceptions and transformations, in which the daily urban uses coexist with the tourist uses, increasingly, being difficult to separate one from the other.

3 METODOLOGY

This is applied research (Dencker, 2007) since it has the intention of generating knowledge susceptible of practical application and led to the solution of specific problems. In this sense, it adopts an empirical-analytical approach that, according to Martins (2000, p. 26), is an “approach that has in common the use of collection techniques, treatment, and analysis of markedly quantitative data”, although it undertakes a qualitative analysis obtained data.

To this end, it adopts exploratory and descriptive methods. For Gray (2012, p. 36), exploratory studies — are especially useful when not enough is known about a phenomenon. The descriptive aspect, on the other hand, provides an overview of the investigated fact, portraying phenomena or establishing relationships between variables, to describe characteristics of groups and verify the existence of a relationship between variables (Mattar, 1996; Gil, 2008)

The literature on the topic of collaborative economics related to tourism and urban space, within the scope of this research, was obtained through the survey of theses, dissertations, and scientific articles in the CAPES Journal Portal and Tourism Publications, as they are databases that index the main national and international journals in the target knowledge area (Applied Social Sciences), from January to September 2017, considering papers published in the last 10 years, based on specific research descriptors.

The data referring to the Airbnb platform, in Curitiba, were obtained through the acquisition of a Data Science report, developed by the company AirDNA1, which monitors the vacation rental market based on data collected directly on the Airbnb platform in several cities around the world. This report is based on information publicly available on that platform, but only accessible from computational techniques and software developed specifically for this purpose. It is the main source of data for this research. Data Science refers to a still-emerging research area related to the collection, preparation, analysis, visualization, management, and preservation of large collections of digital information (AirDNA, 2017; Stanton, 2012).

The Data Science report (AirDNA, 2017) provided a broad set of data and specific information on the dimension and use of Airbnb in Curitiba, from September 2016 to September 2017, including the geolocation of properties (latitude and longitude coordinates), the digital identity – host ID, accommodation type, listing creation date, type of listing, occupancy rate and revenue, number of guests received, number of days booked, reviews received, host’s status, among other aspects that beholds the first large data set that was analyzed and presented using graphs, tables and, above all, maps and images that enabled the spatial analysis of the data and its correlations with other information and data equally georeferenced. Complementing this data set and information are those raised in specific agencies such as the Brazilian Institute of Geography and Statistics [IBGE] (2010), referring to socioeconomic data (income), the Curitiba Urban Planning Research Institute [JPPUC] (2015), for data related to the city’s urban aspects of and the Curitiba Municipal Tourism Institute [CURITIBA TURISMO] (2012), related to tourist data.

Another survey conducted was the geolocation of hotels and hostels in the city of Curitiba, offered through the Booking.com platform and obtained through web scraping – a software engineering technique that allows extracting data/content from websites (Boeing & Waddell, 2016). Booking.com data for hotels and hostels in Curitiba were obtained in September 2017, also spatially mapped to allow their analysis and interrelation with the Airbnb offer and other analysis elements.

The collected data and information were subsequently processed, represented graphically through figures (maps, graphs, and tables) interpreted, and analyzed. Spatial analysis of data, in turn, allows observing geographic patterns of data and investigating the relationships between the elements. Besides, Fotheringham, Brunsdon, and Charlton (2000) recommend that quantitative methods for the analysis of spatial data also offer consistent support for the evaluation of insights about various spatial processes.

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1 Available at: <https://www.airdna.co>. Accessed on: 10/01/2018. To provide greater transparency to the data used in this research, the report can be accessed at: <https://goo.gl/1qzrbv>.
Considering the importance of validating the results of research in the scope of the scientific field, the qualitative analysis and interpretation strategy named by Laville and Dione (1999, p. 227) of "Iterative Construction of an Explanation" will be adopted. In this construction, a theoretical point of view is not previously admitted, characterized by a fundamentally iterative process (done repeatedly), which means, that progresses through successive approximations. Therefore, the researcher gradually drafts a logical explanation of the phenomenon or situation studied, examining the units of meaning, the interrelationships between these units, and between the categories in which they are gathered. This type of analysis and interpretation is particularly suitable for studies of an exploratory nature, in which the hypotheses are simultaneously developed and verified, even if in part, in an alternating movement between reflection, observation, and interpretation, as the analysis progresses (Laville & Dionne 1999).

4 RESULTS AND DISCUSSION

The data set collected through the Data Science report (Airdna, 2017), contains detailed information about 1,731 hosts in Curitiba, making a total amount of 2,230 advertisements. To organize the collected data, an ontology (Guarino, Oberle, & Staab, 2009) was elaborated, composed by dimensions and variables presented in Figure 1, aiming to facilitate the information sharing and presentation, and results of this research.

![Figure 1 - Airbnb dimensions and variables analyzed](image)

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Variables</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spatial Distribution</td>
<td>Spatialization of the Airbnb offer</td>
<td>Refers to the collision of data concerning the offer of listings present on Airbnb on the map of the analyzed municipality.</td>
</tr>
<tr>
<td>Listings</td>
<td>Active Listings</td>
<td>Refers to the number of listings reported by the AirDNA platform during the data processing period (September 2016 to September 2017). It is important to consider that this offer on the Airbnb platform is volatile and may vary, for more or less, overtime.</td>
</tr>
<tr>
<td>Listings used</td>
<td></td>
<td>Refers to the number of listings reported by the AirDNA platform in the data processing period and which had at least one reservation in the analyzed period (September 2016 to September 2017).</td>
</tr>
<tr>
<td>Listing Types</td>
<td>Entire Spaces</td>
<td>When the host rents the entire unit (house/apartment, etc.) and the guest does not need to share the space with the host.</td>
</tr>
<tr>
<td></td>
<td>Entire Bedrooms</td>
<td>When the host shares the entire space of the property, such as living room, kitchen, bathroom, but the guest will have an exclusive room just for him.</td>
</tr>
<tr>
<td></td>
<td>Shared Bedrooms</td>
<td>When the host shares the entire space of the property, but the guest will not have a room to themselves, having to share it with someone else or with the host himself.</td>
</tr>
<tr>
<td>Hosts Type</td>
<td>Amateur</td>
<td>When the hosts hold only one listing advertised in the platform.</td>
</tr>
<tr>
<td></td>
<td>Professional</td>
<td>When the host hold more than one listing advertised in the platform.</td>
</tr>
</tbody>
</table>


It is possible to observe, in Figure 2, the evolution of Airbnb listings in Curitiba, based on when they entered in the platform and verify that it is from 2014 that a significant increase in supply occurs, the year in which the FIFA World Cup of 2014, in Brazil, Curitiba being one of its host cities. This increase represents an opposite movement to what was observed in the hotel offer in the city of Curitiba, which, in the same period, did not increase, according to what was pointed out by Guizi and Gândara (2017). Therefore, we can conclude that part of the demand may have been absorbed by this new type of tourist accommodation, as in other host cities. As of 2014, the increase is now continuous, observing a major boom in 2017, which coincides with the cycle of evolution, dissemination, and popularization of the platform itself in the country (Airbnb, 2017).
Out of 2,230 listings available in the city in the period surveyed, 95% are apartments, and the rest are houses, as shown in Figure 3. Since 1,063 properties (48%) are characterized as entire spaces, then the entire rooms appear 1,085 (49%), featuring the two main types of rental. The 82 shared rooms make up only 4% of the total offer.

One aspect to be considered, based on these data, is what Arias Sans and Quaglieri Dominguez (2016) comment about the diversification and scale of supply that the business models of the collaborative economy bring to a destination, in this case, the accommodation offer, essential for the expansion of tourism and inherent field for the notions of hospitality (Camargo, 2002; Derrida, 1999).

As a way to better exemplify these concepts, we can consider that if a standard, the medium-sized hotel has an average of 40 housing units (UHs) (IBGE, 2017) and each ad for entire spaces (1,063) is equivalent to a UH, we would have a total amount of approximately 26 new medium-sized hotels added to the city tourist offer – or the corresponding in UHs to the entire Harbor Hotel Chain in Brazil (JLL, 2017). Using the same logic, if we conceived the offer of entire rooms and shared rooms (1,167) as equivalent to a hostel bed, which has an average of 20 beds (IBGE, 2017), we would have an increase of approximately 58 new hostels – more than three times the current offer. Combined, they represent an increase of 53% to the current hotel offer in Curitiba.

These data account for the new processes to which urban tourist destinations are subjected in contemporary times, often imperceptible and, as highlighted by Heo (2016), still neglected by researchers in the area because they are new phenomena in the field of tourism. Another aspect, also discussed by Heo (2016) and Yrigoy (2017), is the emergence of new players (stakeholders) introduced by platforms such as Airbnb and who start to operate in the multifaceted tourism market, adding to the different stakeholders and playing a new role in the local dynamics, with direct influence along with consumers (tourists). According to Heo (2016, p. 3, our translation):

[...] if a resident is providing any type of service, through the collaborative economy, for tourists, their attitude towards the development of tourism tends to be different from that of normal residents. (Heo, 2016, p. 3, our translation).
Thus, when introducing other stakeholders in local tourism, new challenges arise for tourism governances that must consider these new players, a field of possibilities, and frictions. One example is the questionable use that 15% of hosts (258) have on the platform when managing multiple listings (Figure 4). A negative externality generated by the unregulated use of the platform. In some cases, hosts that manage between 10 and 29 listings have been identified, an aspect that highlights what Yrigoy (2017, p. 5) calls "tourism real estate market association", with listings clearly operated in a professional and often, by specialized companies.

![Figure 4](image)


Such findings highlight, from the quality of urban and tourist life perspective, the need to monitor the extent to which the commercial scale of entire space listings, managed by professional hosts, is expanded at the expense of those shared, which make use of spaces effectively non-occupied and enhancing more collaborative practices and in which interactions tend to happen with greater fluidity and effectiveness.

From the analysis and results presented by the total offer of Airbnb in Curitiba, a refinement was carried out based on the listing actually used, during the period analyzed, to reveal its distribution and spatial concentration (Figure 5) as well as the territoriality of the use that is effective from the offer. This refinement aims to qualify use dynamics of the platform. Thus, we analyze below the offer of listings actually used, that is, those that received at least one reservation in the surveyed period (Figure 5), which represents 53% of active listings and totals 1,190 listings.

![Figure 5](image)

Source: The author (2018), based on Airdna (2017)

First, we have identified that the preference for the use of entire spaces by the platform users in the city of Curitiba surpasses, by 57%, the other spaces for shared use. Regarding the general occupancy rate (53%), this is close to the estimates for Brazilian hotels, which is 55.2% (JLL, 2017), and for hotels in Curitiba, which is 59% (HVS, 2017). In the case of the specific occupancy rate for listings for entire spaces (57%), this exceeds that estimated for Brazil.
Thus, it is observed initially, from Figure 6 that there is a reinforcement of centrality (center-outskirts pattern) as an important element in the data visualization so that the concentration of Airbnb offer dispels as it moves away from the neighborhoods to virtually disappear in the most distant neighborhoods.

This concentration and advantage of the centrality identified in the Airbnb offer in Curitiba is a pattern also observed in other studies, in several cities (Dudás, Vida, Kovalcsik, & Boros, 2017; Gutierrez, Garcia-Palomares, Romanillos, & Salas-Olmedo, 2017; Yrigoy, 2017). To some degree, this contributes to intensifying, in the case of the most central neighborhoods, the tourist uses of these urban spaces.

As a way to advance the spatial understanding of this phenomenon, Figure 6 relates the location of the Airbnb offer, by typologies (entire spaces and shared spaces – entire rooms and shared rooms) and by neighborhoods (shaded polygons), with the location of the accommodation offer conventional tourism (hotels and hostels) in the city of Curitiba offered on the Booking.com platform (2017).

Figure 6 - Comparison between the location of hotels and hostels and the concentration of Airbnb offers in Curitiba

Although this is beyond the scope of this work, it is worth mentioning that such studies, despite revealing small competitive characteristics in some cases and cities, maintain, for the most part, that in each destination this response is different, considering the peculiarities of demand and local tourist dynamics, as well as the fact that Airbnb meets to the needs of specific niches and its operation, alongside with the conventional tourist accommodation sector, will always have a limited appeal and is influenced by these and other issues such as the generational aspect, typology of the existing offer, among others (Grant, 2013). However, the arguments of taxation, unfair competition, and market losses have dominated the discussion among sector organizations (Brazilian Association of the Hotel Industry [ABIH], 2017).

Paradoxically, a study conducted by the consultancy Jones Lang LaSalle Hotels [JLL] (2017) informs that from the end of 2016 and throughout the year 2017 the results of hospitality in Brazil were positively significant, consistent with the report by the Fórum de Operadores Hoteleiros do Brasil [FOBH] (2017), which points to an increase in the occupancy rate of around 19.2% in Curitiba. In addition to these issues, the present study, when presenting a comparative spatial analysis between the conventional hosting offer and the new models represented here by Airbnb (Figure 6), shows an important interpretative key that falls on the potential that platforms like Airbnb have to affect the urban-tourist dynamics by introducing new uses of the urban space. Despite reinforcing the use of tourist areas in the city of Curitiba, we can see that, as shown in Figure 6, there is, effectively, a spatial expansion. At first sight, this offers visitors other possibilities to take advantage of this essential element that is accommodation in a tourist destination. An aspect that may lead to a greater horizontality in the tourist experience, which is an aspect that requires further studies.
Figure 7 illustrates the preferred areas for tourist accommodation through the Airbnb platform, in Curitiba. It is observed that bookings for the 1,190 listings used were concentrated mainly in the central area, composed by the neighborhoods Centro, Rebouças, Bigorrihlo, Água Verde, and Batel. In other words, apart from the Água Verde neighborhood, which is in the Regional Portão, all the others belong to the Regional Matriz, and these are the two regions that congregate the highest income areas and largest supply of equipment and services (urban and tourist), in the city, as highlighted by Ramos (2010), Guizi and Gândara (2017), and Bizinelli (2015). They are also neighborhoods that concentrate a significant number of institutionalized tourist attractions.

Thus, as we move forward in the analysis of the distribution of the Airbnb offer and its relationship with the urban-tourist dynamics in Curitiba, we find important, viable, and healthy for local tourism to implement macro zoning measures, such as stimulating seasonal rental in certain areas of the city and their restriction in others, as well as measures of greater taxation control, knowledge about this demand and relationship with these new players.

It turns out that tourism, as an activity of a spatial nature, stimulates various interrelations, articulations and, socioeconomic activities, a circumstance that attributes to space a predominant role as a resource, support, and factor for this activity (Vera Rebollo, 2011). In this perspective and as a way of further understanding the use of space, a spatial impact of the used Airbnb adverts was carried out, with the distinction by typologies (entire spaces and shared spaces – entire rooms and shared rooms) and neighborhoods (shaded polygons) and applied the location layer of hotels and hostels in Curitiba, offered on the Booking.com platform (2017), as shown in Figure 7.

Figure 7 - Comparison between the location of hotels and hostels and the concentration of the Airbnb offer used in Curitiba

The listings for entire spaces are those that are preferably used in Curitiba and are more concentrated in the central area, coincidently within the location area of most hotels and hostels. On the other hand, adverts for shared spaces, even though they are also concentrated in the same area, have a greater expansion both in the neighborhoods around the central area and, in some cases, in fringe neighborhoods. As pointed out by Aznar, Sayeras, Rocafort, and Galiana. (2017) location is a key factor to explain this performance and can be used as a variable capable of measuring the attractiveness of a place, and in this case, mainly from the visitor’s perspective. It can also be considered that the most central hotels tend to be less impacted, despite coexisting in a space with a large offer of Airbnb listings, than those located in the most outskirt areas, precisely because they count on the issue of centrality on their behalf.

To move forward in a more vertical analysis and the correlation between Airbnb offer used and tourism aspects in the destination Curitiba, Figure 8 was produced. It was adopted as a spatial representation of the analyzed tourist destination – in terms of a basic unit of institutionalized tourism management in the city.
(Valls, 2006) – the Geographic Areas of Tourist Interest (AGITs). These areas were defined in the Integrated Development Plan for Sustainable Tourism of Curitiba, PR [PDITS] (2013) – for concentrating spaces of immediate interest for tourism in the city.

It is important to emphasize that, although it is used to illustrate the discussion established here, we recognize that the concept of a tourist destination can extrapolate such restrictive considerations and be characterized from a more holistic perspective (Fratucci, 2000; Valls, 2006; Saraniemi & Kyllänen, 2011).

Based on Figure 8, AGIT can also be considered as the area that constitutes the tourist image of the city, associated with its urban planning and where the symbols recognized by visitors and absorbed in the daily lives of its inhabitants are concentrated (Gândara, 2001). On the other hand, it also reinforces the constitutive character of the tourist imaginary that is based on the urban planning of the city, as Sánchez puts it when he says that, in Curitiba, the “planned city” is at the center of the scene ([200?], p. 1-2).

Consequently, AGIT is the preferred area for the socio-spatial practice of tourism, also by Airbnb users in the city of Curitiba, with a high number of listings used in the Centro, Rebouças, Bigorrilho, Batel, and Jardim Botânico neighborhoods. However, new areas such as Água Verde, Portão, Mossunguê, and Cristo Rei neighborhoods flow as current spaces for the expansion of tourism in the city.

AGIT can also be understood, in the perspective mentioned by Fratucci (2000), as the tourist place “by excellence” of the city, because it is where the phenomenon materializes and overlaps its fixed forms, such as tourist attractions, tourist equipment, and services, such as accommodation establishments, food services, entertainment, among others, as well as support infrastructure. Such areas, clearly preferred by visitors who used Airbnb in Curitiba, during the period under investigation, reinforce the role of the tourist as the subject of the tourist phenomenon, which manifests itself territorially, and creates a material field of interactions and interrelations, in which there are other important players, including the hosts and the receiving community (Knafou, Bruston, Deprest, Duhamel, Gay, & Sacarea, 1997)

![Figure 8 - Comparison between the location of hotels and hostels, the tourist aspects, and the concentration of the Airbnb offer used in Curitiba](image)


According to Carlos (1996) and from the analysis of Airbnb offer of spatial distribution use, it is possible to visualize that the place becomes the connecting space of the global and the local. It is where globalization materializes, in place of everyday life, banal life, which becomes a key factor to explain the current processes of production, consumption, and space appropriation. This is where the platform is anchored and acquires expression and scale.
It is clear, therefore, that the spatial distribution of Airbnb blurs the limits of what would be the "by excellence" tourist space in the city of Curitiba and points to new spatial uses and, along with this, expands the potential for inter-relationship previously mentioned. Until then, neighborhoods outside the "tourist imaginary" of the city start to receive flows of visitors who stay there, and, from there, they can activate a whole world of possibilities, from the view of uses and socio-spatial interrelations.

5 CONCLUDING REMARKS

In demonstrating the interrelationships that the spatial distribution of the Airbnb offer establishes with the urban-tourist dynamics in the city of Curitiba, we also show that the spatial dimension is an important key factor for analyzing contemporary phenomena that link tourism, technology, and the city. Such links show the necessity of new perspectives and practices that understand that it makes no more sense to think about these elements in a fragmented way, especially in the spatial/territorial perspective. Likewise, perspectives are needed that take on the challenge of dismantling the mythological luster of tourism as a panacea for all development crises.

In this context, in which multiple crises, changes, and transformations are increasingly overlapping, a profusion of practices linked to the idea of another economy, more horizontal, intelligent, dynamic, and efficient, have been discussed and implemented under the generic term of collaborative economy and other correlates. A phenomenon, intrinsically linked to the current phase of capitalism, which gains strength and attention not only on the part of its users but also by some researchers committed to advance a concept still in its infancy. This concept evokes, among other mottos, freedom, ease, access, and trust in contrast to the absolute and exclusive possession of goods, objects, and other resources.

The collaborative economy is a reality that comprises a wide field of activities, arrangements, and business models, usually mediated by a digital platform. This multifom dimension by nature does not match a single, universal and reductionist conceptual conception – on the contrary, it leads us to believe that a more pluralistic concept under the name "collaborative economies" responds better to understanding this phenomenon.

The theoretical review related to the "collaborative economy" basically presented two biases: one as a vector for strengthening social bonds and values and the other as an expression of capitalism that appropriates unexplored elements, such as private time and social life. These, for Mootoosamy (2016), are qualities that coexist and that integrate the movement of capitalism itself, as a system that is constantly changing and that reintegrates the elements of its criticism to transform and become more virtuous.

The corporate expression and capitalist bias of the collaborative economy, just like the model analyzed here, implemented by Airbnb, incorporates fundamental characteristics of human nature, such as collaboration and trust, to reinvent them in the light of hybrid practices. As a power, the collaborative economy may introduce social practices more focused on the sharing of non-occupied resources and cooperation for the production and consumption of goods and services (tangible and intangible). However, as a practice, this visionary potential has been criticized for being a chimera, socially, and economically dangerous for places.

Tourist practice is certainly evidenced in different ways in the same space, according to interests, scales, and singularities. In this sense, we cannot fail to point out that a multitude of experiences, uses, and interactions are taking place in this analyzed scenario. Because these new forms of tourist accommodation can activate new forms of mutual exchange of experiences, information, and the practice of otherness, in which the stigma of the invading tourist dissipates (Knafou et al., 1997). An aspect that requires further studies.

Another prominent aspect in this context is the importance of strengthening tourism governance processes, intending to producing spaces (physical and virtual) for the discussion and construction, collective and democratic, of ways and alternatives to face these new challenges and generate changes effective in negative dynamics. While considering that, in addition to the already established players (public sector, private sector, and civil society) in the field of tourism, the new models, such as the collaborative economy, introduce other stakeholders, as shown here.
This aspect that can be expanded if we consider the capacity that digital platforms have to generate easier service to the existing consumption demands, use of assets – unoccupied or not, new production settings, new relationships of trust between people, in addition to new stakeholders taking part in the field of tourism, both in the public and private arena.

Understanding the importance and power of the collaborative economy and its interrelation with urban tourist destinations has made it possible to mature the conviction that it is necessary to advance in contesting and regulating models that do not contribute to a better city. As well as in the construction of mechanisms to readjust these models and new forms of social and economic organization that oppose creatively and positively the negative externalities generated.

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Informations about the author

Yure Sousa Lobo
He is graduate and master's degree in Tourism at Federal University of Paraná. PhD student in Sciences for Development, Sustainability and Tourism at the University Center on the Coast of the University of Guadalajara. This article is the result of my Master's dissertation about the collaborative economy and its expression in urban tourist destinations, defended in 2018.
Contributions to the work: Selection of the research theme, definition of the research problem and construction of the theoretical and methodological framework, application of field research, data analysis and interpretation, and article submission.
E-mail: yureslobo@gmail.com
ORCID https://orcid.org/0000-0002-3