

Special Issue
Enhancement, Management,
and Sustainability of Tourism in Italian
Small Villages

FUORI LUOGO

Journal of Sociology of Territory,
Tourism, Technology

Guest Editors

Ilaria Marotta

Salvatore Monaco

Marina Novelli



Editor in Chief: Fabio Corbisiero
Managing Editor: Carmine Urciuoli

YEAR VII - Vol 21 - Number 4 - December 2024
FedOA - Federico II University Press
ISSN (online) 2723-9608 - ISSN (print) 2532-750X

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English text editor: Pietro Maturi.

Cover by Fabio Improta. Image from Unsplash.

EDITORE



FedOA - Federico II University Press
Centro di Ateneo per le Biblioteche "Roberto Pettorino"
Università degli Studi di Napoli Federico II

Editorial responsibility

Fedoa adopts and promotes specific guidelines on editorial responsibility, and follows COPE's Best Practice Guidelines for Journal Editors.

Authorization of the Court of Naples no. 59 of 20 December 2016.

ISSN 2723-9608 (online publication) ISSN 2532-750X (paper publication)

Articles

In evaluating the proposed works, the journal follows a peer review procedure. The articles are proposed for evaluation by two anonymous referees, once removed any element that could identify the author. Propose an article. The journal uses a submission system (open journal) to manage new proposals on the site.

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Fuori Luogo is included in the ANVUR list of Area 08-11-14 scientific journals, class A for the sociological sectors, 14/C1, 14/C2, 14/C3, 14/D1.

Fuori Luogo is indexed in: DOAJ Directory of Open Access Journals - ACNP Catalogue code n. PT03461557 - Index Copernicus International ID 67296.

The journal is part of CRIS Coordinamento Riviste Italiane di Sociologia.

Fuori Luogo is included in the LOCKSS (Lots of Copies Keep Stuff Safe) network of the Public Knowledge Project (PKP PLN)

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From Sharing to Business: Urban and Social Dynamics of Airbnb in Naples²

Introduction

The centrality of space and place has always been taken for granted in Geography and Regional Sciences. In the broader Social Sciences, attention to the spatial (and spatio-temporal) dimensions of phenomena is much less evident, although, since the early 1990s, it has been experiencing a sort of renaissance. For example, in recent years, an increasing number of social scientists have adopted the use of technologies and new methodologies for spatial analysis, such as Geographic Information Systems (GIS), Global Positioning Systems (GPS), remote sensing, and spatial statistics (Longley *et al.*, 2010; Janelle and Goodchild, 2011; Steinberg and Steinberg, 2006; Nyerges, Couclelis, and McMaster, 2011). This combination of social spatial analysis and technological innovation has led to the adoption of Geographic Information Systems (GIS) since the late 1990s, a tool that integrates various data forms to offer a nuanced understanding of urban phenomena (Corbisiero, Napoletano, 2023). Furthermore, greater attention is being paid to position and spatial interaction within theoretical frameworks. However, much still has to be done before full integration of the spatial perspective in both theory and methodology of Social Sciences can be achieved.

This study aims to analyze the Airbnb phenomenon in the city of Naples, focusing on the spatial distribution of listings and their socioeconomic impacts. The choice to investigate this topic stems from the limited scholarly literature on the spatial dynamics of Airbnb, particularly regarding its diffusion across the Neapolitan territory. In the absence of specific studies addressing the distribution of Airbnb in Naples, this research seeks to shed light on the platform's impact in this urban context. The expansion of Airbnb, a digital platform for tourist accommodation, has been a central focus in the sociological analysis of tourism for several years. Reflections in this field have often followed two critical strands. The first examines the platform's impact on local economies, particularly in the tourism sector. It critiques the opacity of Airbnb's market mechanisms and data transparency, highlighting concerns around the autonomy hosts have to set prices and select guests, which can lead to unfair competition.

The second approach focuses on the broader ambiguities of the sharing economy. While marketed as community-oriented, this economic model often conceals neo-liberal motivations and enables positional rents. In Italy, these challenges are especially pronounced in historic urban centers, where housing traditionally used by residents has been repurposed for tourism, leading to issues such as de-residentialization, governance challenges, and market imbalances. Most scholars agree that, the greatest challenges are found in the availability of reliable and complete data about the housing units listed on the website. On one hand, there have been scientific and reliable studies conducted by experts from various sectors, driven by data activism, which will be further discussed. For example, platforms like *insideairbnb.com* and *tomslee.net* collect and provide open-source data. On the other hand, there are platforms such as *Airdna* that gather data for purely commercial purposes. The specifics of these sources and their implications will be explored in detail in the 'Data Collection' section. This research, therefore, aims to thoroughly examine the spatial distribution of Airbnb listings in Naples and the socioeconomic implications of this phenomenon, helping to bridge the existing knowledge gap in the literature and providing a solid foundation for future studies and urban policies.

Following this introduction, the paper is structured into several key sections. Firstly, the theoretical framework underpinning the study is outlined, discussing the relevant literature and con-

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2 Received: 27/6/2024. Revised: 23/7/2024. Accepted: 15/07/2024. Published: 31/12/2024 (on line first 17/07/2024).

ceptual models that inform our understanding of the sharing economy and its impacts on urban spaces. This is followed by a detailed presentation of the research methods used, including data sources and analytical techniques, which provide the foundation for our empirical investigation. The results section then presents the findings of our spatial and socioeconomic analysis, highlighting how Airbnb has influenced the urban landscape of Naples. Each section builds on the previous to provide a comprehensive understanding of Airbnb's integration into the fabric of Naples and its broader implications for urban policy and planning. The paper concludes with a discussion of the implications of these findings, offering recommendations for policymakers and suggesting directions for future research.

1. Urban and Socioeconomic Dynamics in the Sharing Economy

The sharing economy, or collaborative economy, is an emerging economic model based on the sharing of private resources, both material (such as apartments, cars, bicycles) and immaterial (services, time, and labor). This approach promotes more conscious forms of consumption, based on reuse and access rather than ownership (Felson and Spaeth, 1978). The broader adoption of this model reflects significant shifts in socio-economic behaviors, where digital platforms facilitate the exchange of goods and services, reducing the need for direct ownership. While this can lead to a more efficient use of resources, it also raises concerns about the long-term sustainability and social impacts, such as the exacerbation of economic inequalities and the under-regulation of labor markets.

This trend is part of a larger movement towards tertiarization, where economies are increasingly dominated by the service sector, encompassing everything from on-demand technology services to creative and digital enterprises. These platforms not only transform how services are delivered but also create new opportunities for entrepreneurship and economic participation (Kenney and Zysman, 2016).

In this context of shifting economic paradigms, Airbnb has emerged as a standout example of how digital platforms can reshape traditional industries. Founded in 2007, Airbnb quickly acquired a dominant position in the short-term rental market, offering users the opportunity to rent private spaces worldwide. The platform's success demonstrates the potential of the sharing economy to disrupt established market norms and create new forms of economic and social value.

The expansion of Airbnb has significantly altered urban dynamics and heightened social tensions. In many European cities, the surge in Airbnb listings is linked to declining quarterly revenues for traditional hotel facilities, demonstrating a tangible impact on the conventional tourism sector (Zervas *et al.*, 2017). This competitive pressure has not only reduced hotel rates but also raised questions regarding the economic sustainability of traditional hotels (Medeiros *et al.*, 2022). Moreover, Airbnb's growth has intensified strains on the residential real estate market, accelerating processes of touristification and gentrification. However, the rise of short-term rental platforms, including Airbnb, has primarily contributed to the disappearance of essential services and local businesses such as grocery stores, hardware shops, and tailors in historic city centers, like Naples, making way for businesses that cater more to tourists, such as bars and restaurants (Corbisiero, 2022). These changes threaten the authenticity and local identity of neighborhoods (Gil and Sequera, 2020), with Airbnb introducing new revenue streams that widen rent gaps in culturally sought-after areas, thereby impacting rental housing availability and exacerbating gentrification concerns (Wachsmuth and Weisler, 2018). Furthermore, the increasing professionalization of Airbnb hosts reflects a shift towards commercial gentrification, with the platform playing a pivotal role in driving these urban transformations (Bosma and van Doorn, 2022). Regulatory responses to these dynamics have been varied and complex. Cities find themselves balancing the economic benefits derived from Airbnb with the need to protect the residential

and social fabric. For example, some cities have imposed strict limits on the duration of short-term rentals and implemented policies to mitigate the negative effects on the availability of residential housing (Nieuwland and Van Melik, 2020). These policies vary widely, with some cities adopting stringent regulations while others prefer more permissive approaches (Cocola-Gant and Gago, 2019).

The impacts of Airbnb, while being a global phenomenon, are strongly localized and variable, reflecting the geographical and cultural specifics of the cities in which it operates. For instance, the study by Serrano *et al.* (2020) identifies different groups of European cities based on the degree of professionalization of Airbnb, demonstrating how local contexts can shape the market dynamics of the platform. This variability suggests that political solutions and urban governance strategies need to be equally adapted and sensitive to local contexts. Understanding how different cities respond to similar economic and social challenges can provide valuable insights for policymakers and future studies on the impact of the sharing economy on modern urban planning.

A crucial aspect of Airbnb's impact is the change in the housing market. According to recent studies, the increase in Airbnb listings has led to a reduction in the supply of housing for long-term rentals, contributing to rising rent prices and reducing the availability of affordable housing (García-López *et al.*, 2020). Moreover, the concentration of Airbnb listings in city centers has caused a phenomenon of museification and commercial gentrification, replacing proximity services with tourist-oriented activities (Rolando, 2018). These changes have also been observed in other global cities, as evidenced by a study on Airbnb listing prices in Beijing, China. This research reveals complex, multi-level, and spatially varied relationships between specific listing attributes and their pricing. The study identifies that functional attributes—such as the size of the accommodation, its location, the availability of amenities, and the quality of the furnishings—are the most crucial determinants of pricing (Zhao *et al.*, 2023). Finally, the growth of sharing economy platforms like Airbnb has transformed not only the short-term rental market but also the urban and social context of cities. This phenomenon requires thorough and ongoing analysis to fully understand the benefits and challenges posed by these new economic models and to develop public policies that can mitigate the negative effects and maximize the positive ones. Integrating tools such as GIS and spatial analysis techniques can offer new perspectives for studying the impact of Airbnb and developing more effective urban management strategies (Nyerges *et al.*, 2011).

In Italy, the proliferation of Airbnb has sparked significant debates about urban tourism and housing (Angioletti *et al.*, 2024). Cities like Rome, Venice, and Florence have experienced a dramatic transformation in their housing markets and urban cultures. The influx of tourists, facilitated by platforms like Airbnb, has led to concerns about the loss of local character and the displacement of long-term residents. These challenges underline the urgent need for tailored public policies that balance tourism growth with community and cultural preservation. The Italian experience underscores the importance of adaptive regulatory frameworks that can address both local concerns and the dynamics of global platforms.

2. Data Collection

In the framework of my research on the Airbnb phenomenon in the city of Naples, the careful selection of data sources was a fundamental operation to ensure the quality and relevance of the information analyzed. Given the wide availability of platforms that collect data on Airbnb, I examined several options, such as tomslee.net, Airdna, and insideairbnb.com, assessing each for its relevance and specific utility in the Neapolitan context.

Platform	Data Period	Used	Reason for Choice/Exclusion	Notes
Tomslee.net	Data up to 2016	No	Lack of specific data for Naples	Provides a global overview but lacks local details for Naples
Airdna	Naples from 2018 - Ongoing data	No	Paywall contradicts open access principle	Rich in detailed information, not used due to access principle
Inside Airbnb	Ongoing data	Yes	Commitment to transparency and open data sharing	Main source for spatial analysis in Naples, updated data
LADEST Data	2015-2016	Yes	Free access and relevant for the period	Secondary data to complement initial analysis

Figure 1: Data source selection for Naples Airbnb Study

Tomslee.net, active since 2013, offers a global view of the Airbnb phenomenon through data collected in an open-source manner. However, despite its general usefulness, the platform did not have specific data for Naples, which limited its applicability for my study focused on this city. On the other hand, Airdna, known for being one of the most detailed and up-to-date databases on the market, operates on a business model that requires payment for data access. This approach contradicts the principle of open access that I uphold in my research, which is why I chose not to use Airdna despite the richness of information it offers. Consequently, the choice fell on insideairbnb.com, a platform distinguished by its commitment to increasing transparency and facilitating public debate through open data sharing. Founded in 2014 by Murray Cox, Inside Airbnb provides detailed and mapped data on available accommodations, which have proven to be essential for conducting an in-depth spatial analysis of Airbnb accommodations in Naples from 2018 to 2023. These data were used to examine recent trends and assess the impact of the phenomenon on the urban and social fabric of the city. To cover the previous period, specifically the biennium 2015-2016, I had access to data provided by the LADEST laboratory from the University of Siena. Although secondary, these data offered an initial overview of the growth of Airbnb in Naples, thus enriching the understanding of the preliminary phases of the platform's expansion. The absence of data for 2017, while representing a gap in the timeline, did not prevent conducting a comprehensive and significant analysis of the phenomenon as a whole. This methodical and selective approach to data collection allowed me to build a robust and detailed analysis, shedding light on the dynamics of Airbnb in Naples and providing important insights for future studies and urban policies.

3. Methodology

This research explores the Airbnb phenomenon in Naples with a particular focus on the types of accommodations offered, analyzing both the temporal and spatial evolution of the listings up to 2023. Through the use of geographic and statistical analysis methodologies, the study aims to outline how Airbnb's dynamics have developed within the urban fabric of Naples, influencing various socio-economic aspects of the city. Initially, the research focuses on classifying the accommodations available on Airbnb, observing how different types of rooms—entire homes, private rooms, or shared spaces—are distributed and vary over time. This preliminary step allows not only an understanding of Airbnb's offering structure but it also provides insights into how it reflects or influences the local real estate market. Subsequently, attention shifts to the temporal and spatial analysis of the listings. Using data updated to 2023, the research examines trends in the growth or decline in the number of listings and how these are distributed across different neighborhoods of Naples. The goal is to identify

areas of high density and correlate them with urban variables such as proximity to centers of interest or transportation infrastructure, for instance to the Line 1 metro.

A distinctive element of this study is the use of detailed cartography to visualize and analyze the spatial distribution of Airbnb listings. These maps not only show where accommodations are most concentrated but also how prices vary in relation to geographical location. Furthermore, the interaction between the presence of listings and proximity to metro stations is explored, using buffer zones to determine if and how proximity to public transport influences the density of listings.

This phase of mapping and spatial analysis provides the foundation for a broader discussion on the implications of Airbnb for the urban and social fabric of Naples, offering insights for future urban policies and regulatory strategies.

4. Results

Airbnb was established in 2007 as a tool of the sharing economy, but by 2015, from the data on the types of rooms available in Naples, it is evident that it had transformed into something else. In the city of Naples, as of September 2023, there are a total of 10,385 listings, 66.30% of which are for entire homes. This implies that “zero land consumption [...] is negated, as it does not involve sharing the same space but rather implies a displacement of the population” (Rolando, 2018, p. 137).

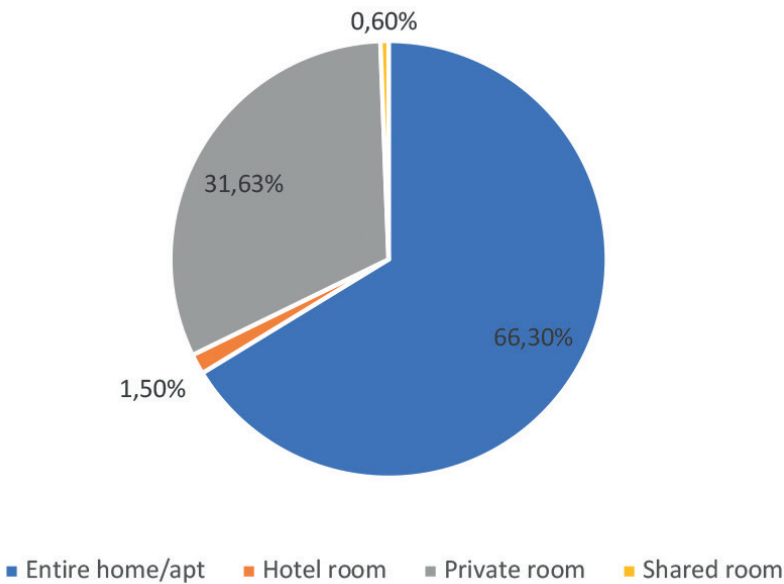


Figure 2 Typology of Rooms - Source: insidairbnb own reproduction

From this, it can be suggested that the Airbnb platform may not fully align with the principles of the sharing economy. The host becomes an entrepreneur: they manage the rental of second homes as a hotel business, they take care of their image as a real brand, and of the details of the furnishings according to a globalized aesthetic.

Having introduced the topic and demonstrated that Airbnb can no longer be considered a sharing economy platform, the study will focus on the evolution and description of the Airbnb phenomenon in Naples over the period from 2015 to 2023. The data for the years 2015 and

2016 were processed by the Ladest Laboratory of the Department of Political Sciences from the University of Siena. Unfortunately, I was unable to recover the data for the year 2017 as it was not included in the Ladest research and is not available on the Insideairbnb platform. Indeed, data on the distribution of Airbnb listings in Naples on the aforementioned platform are only available starting from June 2018. Although data for 2017 is missing, this time frame was chosen for this analysis because the biennium 2015-2016 represents one of the major growth phases of the phenomenon.

Initially, I would like to focus on the temporal evolution of the absolute value of the properties rented on Airbnb in Naples.

	Listings	Entire Home	% of Entire Home	Rate of growth (%) Listings	Rate of growth (%) Entire Home
2015	1271	681	54	N/A	N/A
2016	4058	2300	57	219,27	237
2017	N/A	N/A	N/A	N/A	N/A
2018	6532	3950	60	60	71
2019	8051	3950	60	23	22
2020	8038	4863	60	- 0,1	0,2
2021	7961	4686	61	- 0,9	- 3,6
2022	7520	4759	63	- 5,5	1,5
2023	10385	6884	66,30	38	44

Figure 3 Rate of Growth - Source: Ladest; Insideairbnb

From the data analysis, a significant and continuous growth of Airbnb in Naples emerges, despite fluctuations in the short-term rental market context. The biennium 2015-2016 recorded an exponential increase with a growth rate of 219.27% in the total number of listings and of 237% in listings of entire homes, signaling a change in the nature of the platform towards a more intensive use of entire homes. From 2016 to 2019, the overall growth was 83%, with the percentage of entire apartments in the total listings stabilizing around 60%. The year 2022 saw a slight contraction of 5.5% in the total number of listings, influenced by market saturation, increasing regulatory attempts, and the residual impacts of the COVID-19 pandemic. However, 2023 marked a vigorous recovery with a 38% increase in the total number of listings and 44% in listings of entire homes. This recovery can be attributed to the platform’s resilience and an effective adaptation to varying market conditions, with an increasing percentage of entire homes reflecting a preference for accommodation options that offer more privacy and autonomy. The percentage of entire homes has steadily grown, reaching 66.3% in 2023, indicating a transformation of the platform’s use towards a model that more closely resembles the hotel industry. This trend could have significant implications for the urban and social structure of Naples, influencing the distribution of housing and potentially exacerbating phenomena such as gentrification and touris-tification. Concurrently, tourist flows in Naples have shown an ascending trend over the years, further supporting the growth of Airbnb. This increase in visitors has contributed to strengthening the demand for short-term accommodation, making the platform an increasingly relevant component of the local economy. This extended and detailed timeline provides a clear picture of the evolution of Airbnb in Naples, showing how the platform has been able to adapt and grow despite challenges, and continues to be an influential player in the city’s touristic and real estate landscape.

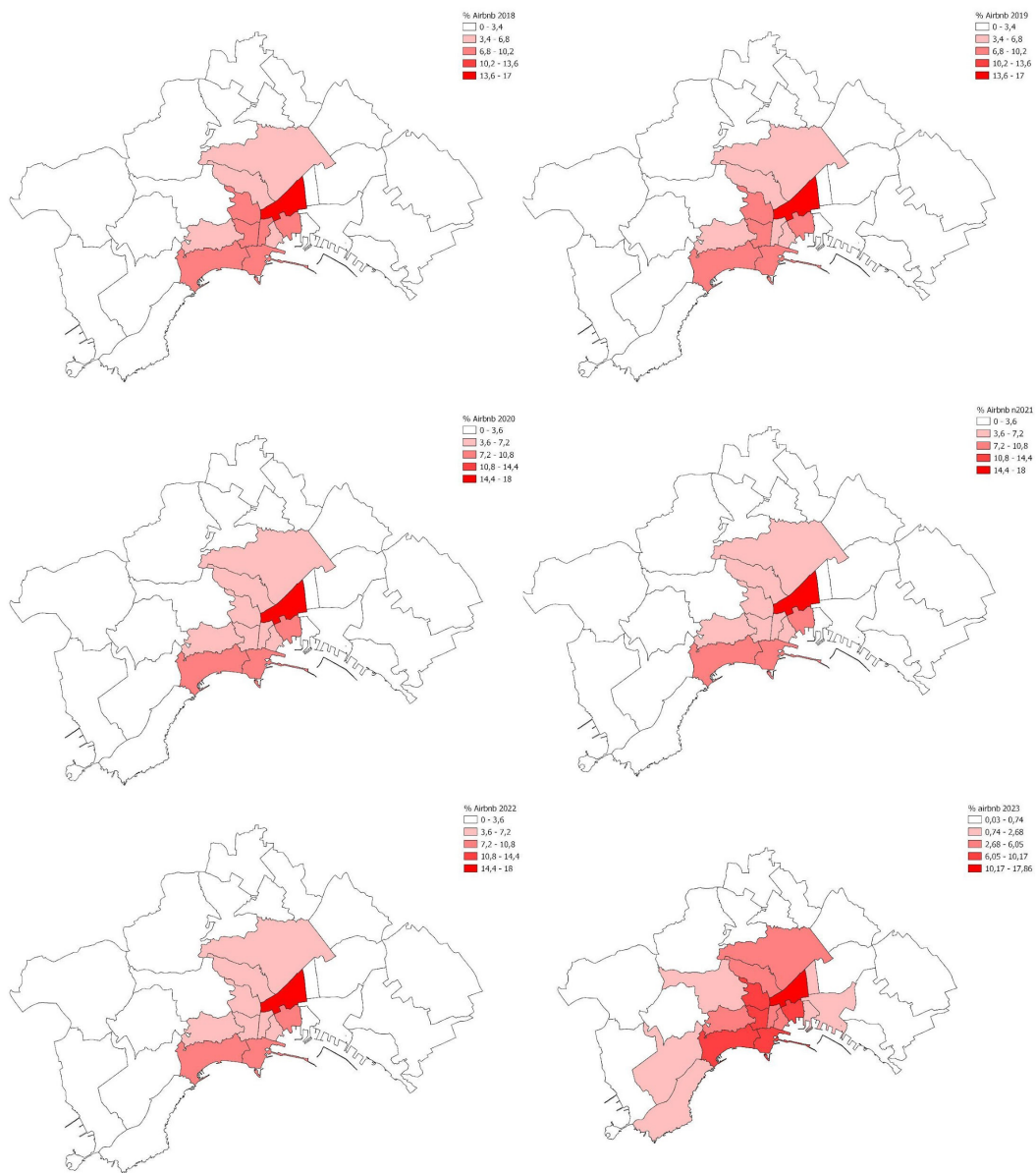


Figure 4 Comparing Airbnb ad Distribution 2018-2023 - Source: insideairbnb own reproduction³

If we look at the map and consider the previous discussion about its temporal evolution, it is easy to discern that the distribution of the phenomenon in Naples is virtually static. Observing the subsequent maps, it is noticeable that the presence of listings is primarily concentrated in two focus areas.

In the city of Naples, the phenomenon of Airbnb has predominantly affected the Centro Antico and the Chiaia district, as cartographically represented in the map by calculating the percentage of listings on the platform for each neighborhood in 2023.

3 All cartographic representations of density such as Figures 2, 3, 4, and 5 in this document are generated using the Jenks Natural Breaks classification method. This method is selected for its effectiveness in revealing natural groupings within the data by minimizing the variance within each class and maximizing the variance between classes. This approach ensures a more intuitive and meaningful visual representation of the spatial variations in Airbnb listings.

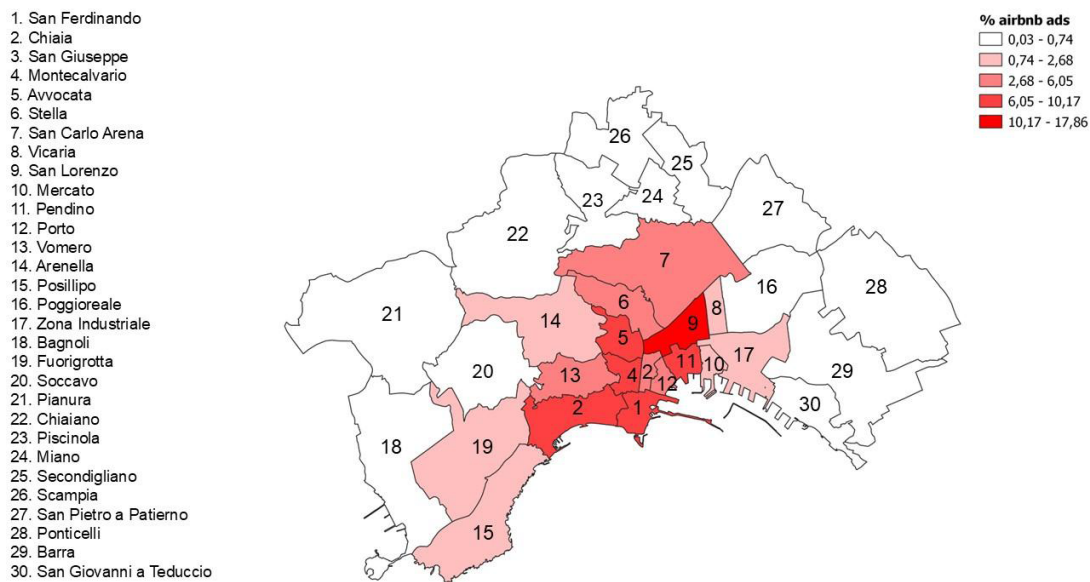


Figure 5 Percentage Distribution of Airbnb Listings - Source: insideairbnb own reproduction

It is straightforward to see from the map that the neighborhood with the highest concentration of listings, at 17.01%, is the San Lorenzo district, undoubtedly due to the high presence of historical monuments, religious sites, and cultural interest points, including churches or religious buildings (141), museums or galleries (9), archaeological sites (21), villas, or buildings of historical interest (12).

Another notable concentration of listings, amounting to 9.87%, is recorded in the Chiaia district, due to the scenic beauty and the area's reputation as a center for nightlife and shopping, as well as the presence of restaurants and pizzerias, cocktail bars, and high-fashion stores.

After representing the distribution of Airbnb listings by calculating the percentage of listings per neighborhood, the aforementioned distribution was analyzed using a different analytical technique. Among the various potentials of GIS techniques, the representation of concentrations of a particular property in the urban territory stands out. In the GIS context, the Kernel technique (KDE, Kernel Density Estimation) is a statistical method that allows the estimation of a continuous or discrete variable within a predefined radius, depending on the distance of the known point from which the intensity is estimated. The KDE (Kernel Density Estimation) was applied to analyze the concentration of Airbnb listings in Naples, using QGIS software. The function utilizes a radius of 10 millimeters and generates a continuous surface representing the density of points. The visualization quality was set to 'Best' to ensure accurate representation of the data. The KDE technique allows for the estimation of densities within a predefined radius, identifying areas of higher or lower concentration of listings. This method is particularly useful for urban studies, as it provides a clear visual representation of spatial phenomena and their intensity (Silverman, 2018). The statistical technique, in other words, provides the so-called heatmap, a visually impactful map that immediately allows one to recognize the estimated concentration of a certain property in space. Concentration maps are useful tools for identifying the density of points that represent a certain phenomenon, for example, they can be used to see the concentration of buildings, commercial activities, criminal acts, or car accidents, etc.

Observing the following figure, it is noted that the highest concentration of listings clusters around the area of the Duomo of Naples. Additionally, a significant, though lesser, concentration is recorded in the Chiaia district. The results of the analysis conducted using the Kernel technique

correspond to those from the analysis calculating the percentage of listings for each neighborhood in the total listings.

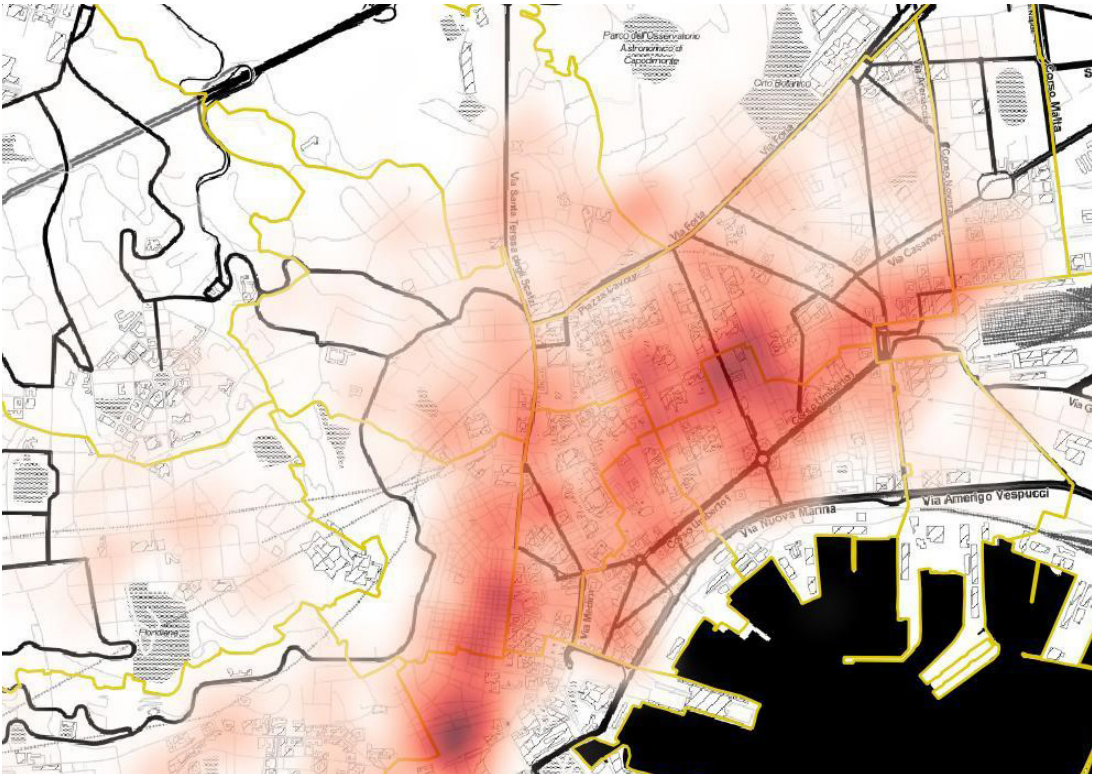


Figure 6 Estimated Kernel Density Offers Airbnb Rooms in Naples

The table summarizes the trend of the average nightly rental price for Airbnb accommodations in Naples from 2018 to 2023, also showing the annual percentage changes in prices. The data show a significant growth trend, especially in recent years.

	Average price	Price Increase Percentage
2018	67,75	N/A
2019	68,88	1,6
2020	73,8	7,1
2021	73,8	0
2022	84	13,8
2023	110,74	31

Figure 7 Average Nightly Rental Prices and Yearly Price Increase Percentages for Airbnb Accommodations in Naples from 2018 to 2023 - Source: insideairbnb

From 2018 to 2023, the average price per night has increased considerably. In 2018, the average price was €67.75, while in 2023 it rose to €110.74, marking a total increase of 63.5%. This increase can be attributed to various factors, including an increase in tourist demand, the professionalization of hosts on Airbnb, and the growing popularity of the platform.

The year 2019 saw a slight increase of 1.6% compared to 2018, indicating initial price stability. However, in 2020, the average price increased by 7.1%, despite the COVID-19 pandemic, which had a significant impact on the global tourism sector. This increase may reflect a shift in demand towards accommodations that offer higher levels of privacy and security compared to traditional hotels.

2021 maintained the same average price as 2020, highlighting stabilization after the pandemic year. In 2022, there was a more substantial growth of 13.8%, suggesting a recovery in tourism and greater competitiveness in the short-term rental market.

The most significant increase occurred in 2023, with a 31% increase from the previous year. This strong increase may be due to the post-pandemic economic recovery, the return of international tourism, and the stabilization of Airbnb operations. The peak average price of €110.74 reflects a strongly growing tourist demand and a greater availability of high-quality accommodations.

The analysis of the average nightly rental prices, based on the data presented in the cartography, reveals further details about the distribution of prices in various neighborhoods of Naples.

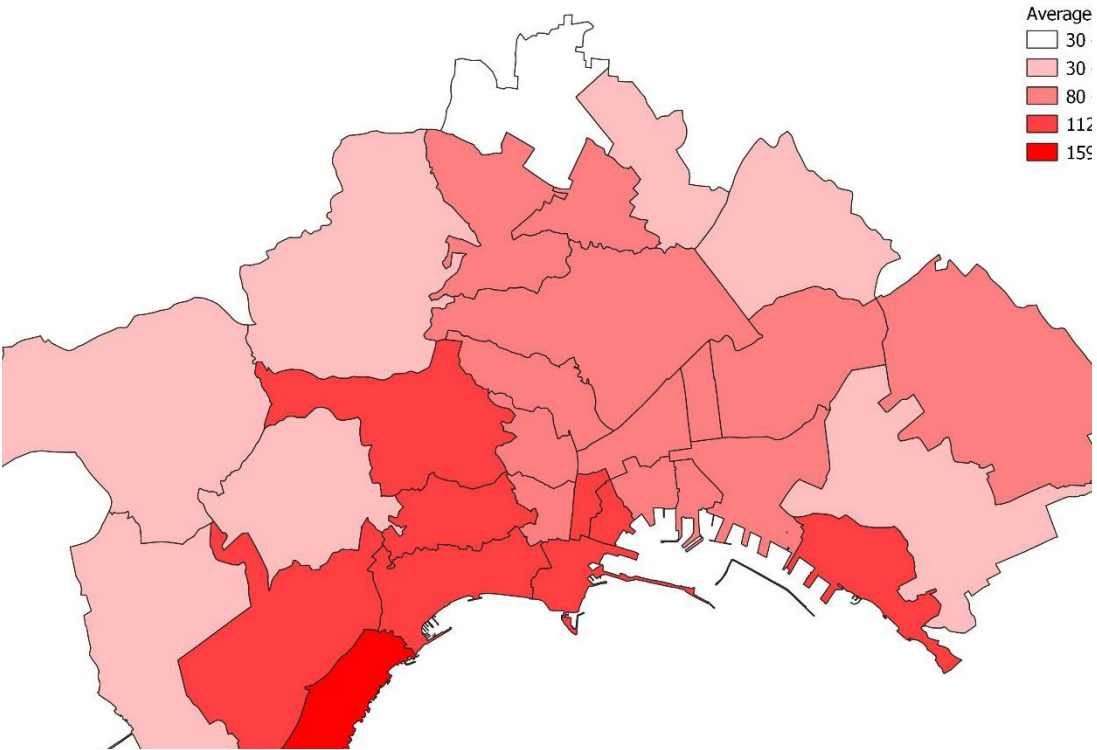


Figure 8 Average Price Distribution Airbnb Listings - Source: Insideairbnb own reproduction

From the data analysis, it emerges that the neighborhoods with the highest average prices are Posillipo (€235.15), Chiaia (€147.21), and Arenella (€147.16). These neighborhoods are known for their appeal, scenic beauty, presence of high-fashion stores, restaurants, and a vibrant nightlife, making them preferred destinations for tourists willing to pay more to stay in prestigious areas. In contrast, neighborhoods like Chiaiano (€77.50) and Pendino (€84.11) show significantly lower average prices. These areas may be less touristy or offer fewer luxury services, thus attracting a different segment of clientele, more oriented towards saving.

The concentration of Airbnb listings in central and prestigious neighborhoods like Posillipo, Chiaia, and Arenella reflects their appeal due to the combination of natural beauty, cultural at-

tractions, and modern conveniences. This price distribution illustrates the impact of location on Airbnb rental prices, where neighborhoods with greater tourist appeal and better services often have higher prices, whereas less central and less touristy areas tend to offer more affordable accommodation options.

While this pricing trend may suggest potential pressures on local residents, further analysis would be required to fully assess the impact on housing affordability. Without specific data on local housing market values, it remains speculative to conclude definitively how Airbnb affects long-term residential costs in these neighborhoods. This situation highlights the need for comprehensive studies that include various factors influencing housing markets, to better understand the broader economic impacts of short-term rental platforms like Airbnb.

The variation in average prices among neighborhoods underscores the importance of location in determining Airbnb rental prices. Neighborhoods with greater tourist appeal and better services tend to have higher prices, while less central and less touristy areas offer more affordable accommodation options.

The distribution of average nightly rental prices across different neighborhoods in Naples reflects the dynamics of the short-term rental market influenced by the presence of Airbnb. The increase in average prices, particularly in the most sought-after neighborhoods, highlights the growing tourist demand and the importance of location in determining rental values. While this analysis suggests that Airbnb may be contributing to transformations within the urban real estate market, attributing these changes to gentrification requires a more detailed examination. Proper assessment of gentrification should include data on resident population dynamics, such as any loss or growth of inhabitants and changes in the social class of the residents. Research indicates that Airbnb introduces a new rent gap in culturally desirable neighborhoods, impacting resident population and social class by facilitating gentrification (Wachsmuth & Weisler, 2018). Similarly, studies in Lisbon show that Airbnb's proliferation contributes to the commodification of housing, increasing property values and rents, and affecting housing affordability for local residents (Lestegás *et al.*, 2019). Therefore, without comprehensive data on these aspects, conclusions about the socioeconomic transformation and gentrification in Naples remain tentative.

The cartography below highlights a remarkably varied distribution of Airbnb listings in relation to the presence of subway stations in Naples. Despite the initial intent of the 1995 Art Stations project to integrate art and urban functionality, improving metropolitan transport and encouraging the redevelopment of urban areas, the impact on the Airbnb phenomenon appears to be limited. In particular, the buffer zones created around the stops of metro line 1, with a radius of 250 meters, suggest that the presence of Airbnb listings is not significantly influenced in peripheral areas. This could be due to lower tourist demand in these zones, a limited presence of attractions or amenities, or a less developed infrastructure for short-term rentals. While the enhancement of public transport aims to improve accessibility, it seems insufficient on its own to significantly shift tourist demand toward peripheral areas. This analysis, while focused on metro line 1, raises questions about the broader impact of other metro lines in the city. For a comprehensive understanding of how public transport influences Airbnb distribution across Naples, future studies should consider the effects of all metro lines, not just line 1. Additionally, this detailed spatial analysis demonstrates the importance of spatializing data to reveal nuanced urban dynamics and interactions, emphasizing its value in urban planning and policy-making.



Figure 9 impact of Metro Stations on Airbnb Listing Distribution in Naples: Buffer Zone Analysis - Source: Insideairbnb; Open Street Maps own reproduction

The cartography thus serves to emphasize how attempts to transform the urban fabric through public transport and art need to be accompanied by broader strategies to significantly influence the Airbnb phenomenon and mitigate the effects of gentrification and socioeconomic transformation in Naples. The increase in rental prices in central neighborhoods compared to peripheral ones reflects a growing gap that may require targeted political interventions to balance housing and tourism opportunities across the city. Such an expanded analysis could provide critical insights into the spatial dynamics of tourism and accommodation, potentially guiding more effective urban planning and policy responses.

Conclusions

Touristification is a widely spread phenomenon in many Italian cities, including Naples, where many consider it inevitable. It is essential to regulate tourism to use it as a response to the economic crisis, minimizing negative impacts on local communities. In this context, the importance of spatial data becomes crucial, providing local administrators with the necessary tools to precisely identify the most affected areas and to develop targeted intervention policies. Detailed mapping of areas with a high concentration of Airbnb listings, for example, can help better direct resources and strategies towards areas that require more regulation or support. The concentration of Airbnb listings in the historic center has generated waves of excessive tourism, with a consequent increase in packaging volumes, a decrease in the quality of life for residents, and a reduction in urban security. Although Airbnb has exacerbated this phenomenon, the process of touristification of the city center was already underway before the platform's arrival. The pro-

gressive transformation of private apartments into nodes of the global tourism network creates an increasingly fragmented spatial array, combining globally connected portions of the city with geographically contiguous but unconnected spaces (Romano *et al.*, 2023). The COVID-19 pandemic has made these phenomena more evident and has reduced the prospects for an immediate major paradigm shift towards more sustainable forms of tourism. Therefore, local administrations are called upon to regulate this phenomenon with territorial planning that promotes a sustainable distribution of tourist flows, also directing them towards neighborhoods and peripheral areas. Urban regeneration interventions aimed at preserving and restoring territorial beauty, supported by the planning and development of public and private transport systems, can facilitate a more balanced distribution of tourist flows that involve the entire metropolitan area. The professionalization of hosts on Airbnb can be seen through the lens of commercial gentrification, with Airbnb playing a significant role in driving gentrification through its platform. These actions would not only alleviate pressure on central areas but also stimulate economic and social development in areas less exposed to mass tourism, contributing to a more inclusive and sustainable urban development vision. However, there are limitations in the current research that need to be addressed in future studies. The analysis could be expanded by including a more detailed comparison with the local real estate market to assess the direct impact of Airbnb on housing prices and by examining more closely the effect of proximity to public transport infrastructure in order to provide new insights into urban dynamics. These future developments in research could provide a more solid foundation for urban policies and a better understanding of the complex interactions between tourism, housing, and city infrastructure.

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