Mi Casa es su Casa? Examining Airbnb Hospitality Exchange Practices in a Developing Economy

SALVADOR RUIZ-CORREA*, Instituto Potosino de Investigación Científica y Tecnólogica (IPICYT), México

ITZIA RUIZ-CORREA, University of Guanajuato, México

CARLO OLMOS-CARRILLO, Huapango Media, México

FATIMA ALBA RENDÓN-HUERTA, University of Guanajuato, México

BEATRIZ RAMIREZ-SALAZAR, University of Guanajuato, México

LAURENT SON NGUYEN, Idiap Research Institute, Switzerland

DANIEL GATICA-PEREZ, Idiap Research Institute and Ecole Polytechnique Federal de Lausanne (EPFL), Switzerland

We present a study involving twenty in-depth, semi-structured interviews, a street survey, and online data, to understand Airbnb hospitality exchange practices in the context of a developing country. As case studies, we investigate Airbnb practices of both hosts and guests in two touristic venues in Mexico – the eighth most visited country worldwide. The analysis of the data revealed that Airbnb practices in Mexico have some similarities but also important differences with those previously reported in the literature. We found: (1) that money is the main motivation for hosts to participate in Airbnb, and that the earned money contributes significantly to the overall income of hosts; (2) that traditions that permeate the Mexican culture motivate hosts to engage in more personal hospitality experiences; (3) that Airbnb host practices lead to the creation of informal jobs that support the local community; and (4) that Airbnb local guests suggest that the lack of contextual information (i.e. the characteristics of the neighborhood where the accommodation is located) is a problem when renting in Mexico due to safety issues.

CCS Concepts: • Human-centered computing → Empirical studies in collaborative and social computing;

Additional Key Words and Phrases: hospitality network, Airbnb, emerging economy, qualitative analysis.

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^{*}The corresponding author

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Fig. 1. The first two rows show pictures of Guanajuato City, and last two rows show pictures of San Miguel Allende City. Both cities are located in Guanajuato state, which belongs to the Bajío region in central Mexico.

1 INTRODUCTION

Airbnb has changed the panorama of the hospitality industry. This service lets hosts advertise and rent their spaces (from single rooms to full homes) to a large community worldwide, through a combination of corporate-centric financial control and peer-to-peer service exchange. For guests, Airbnb offers an alternative to the traditional hotel industry, providing benefits associated with staying in a local residence, such as having access to a kitchen, and possibly meeting local people and obtaining local advice. As pointed out by [Ikkala and Lampinen 2015], the Airbnb hospitality paradigm integrates aspects of private, social, and commercial forms of hospitality as defined by [Lashley 2000]. Scholars in tourism and marketing research have discussed the capacity of Airbnb to change global trends in the hotel industry [Oskam and Boswijk 2016; Zervas et al. 2016]; with over 2.3 million listings and 100 million users in 2016, the process is underway, not without criticisms from regulators and policy makers [Jung et al. 2016; Quattrone et al. 2016].

Despite the increasing popularity of peer accommodation platforms, and the emergence of academic studies on Airbnb and other services in Europe and the US [Belloti et al. 2015; Bialski 2013; Ikkala and Lampinen 2015; Jung et al. 2016; Lampinen 2014; Lampinen and Cheshire 2016; Ma et al. 2017; Molz 2014; Quattrone et al. 2016], few papers have systematically investigated the features and impact of such systems in cities of developing economies. To the best of our knowledge, there is little academic literature investigating how hospitality exchange platforms

such as Airbnb are adopted in emergent economies where non-monetary and trust-based exchanges are part of everyday life practices, and where there is a long-standing tradition of hospitality to visitors [Panda et al. 2015].

We investigate how Airbnb is used to connect users to one another, and what kinds of interaction result from the exchange of services when users meet face-to-face (from the perspective of hosts and guests.) Our hypothesis is that while certain aspects of these processes are similar to those observed in developed regions as reported in previous research [Lampinen 2014; Lampinen and Cheshire 2016], there are additional practices that emerge given the specific social, economic, and cultural context, which are important to elucidate in order to characterize network hospitality systems beyond the economic and cultural context in which they were originally conceived. Our study is contextualized with basic quantitative data obtained from the Airbnb site for the two cities under

Our investigation is conducted in two touristic locations in central Mexico: Guanajuato and San Miguel de Allende (Figure 1). These cities are two of the main cultural venues in the country, gathering thousands of visitors every year due to their history, architecture, folklore, and cuisine. Guanajuato city is the state capital, has a large university (30,000 students), and each year hosts the International Cervantino Festival. This is the most important international art festival in Mexico and one of the most respected in Latin America, featuring music, theatre, dance, and street performances, and sometimes hosting over 3,000 international artists and 500,000 visitors. San Miguel de Allende, which is located 48 miles east of Guanajuato city, is home to a large community of residents originally from the US and Canada, including artists, writers, and retirees. A number of individuals belonging to these communities have adopted lifestyles that are indeed well suited for participating in "sharing economy" services [Tourism-Ministry 2013]. This population, along with the native Mexican population, has given rise to a multicultural environment in the two cities under study. As a means to complement the information collected through interviews, we conducted a short survey aimed at exploring the popularity of Airbnb during the peak tourist season in Guanajuato.

Our qualitative study addresses the following research questions in the specific context of a developing, highly touristic country:

- RQ1 Why do hosts in Mexico offer their space on Airbnb?
- RQ2 What are the attitudes of hosts and guests towards Airbnb as a platform?
- RO3 Does Airbnb provide overall benefits to hosts and guests?
- RQ4 Is Airbnb considered safe by the two types of users?
- RQ5 Do Airbnb hospitality practices in Mexico differ from those in countries in the developed world?

The analysis of our data revealed that Airbnb practices in Mexico have some similarities but also important differences with those previously reported in the literature. We found: (1) that money is the main motivation for hosts to participate in Airbnb, and that the earned money contributes significantly to the overall income of hosts; (2) that traditions that permeate the Mexican culture motivate hosts to engage in more personal hospitality experiences; (3) that Airbnb host practices lead to the creation of informal jobs that support the local community; and (4) that Airbnb local guests suggest that the lack of contextual information (i.e. the characteristics of the neighborhood where the accommodation is located) is an important problem when renting in Mexico due to

The remaining paper is organized as follows. Section 2 presents previous Airbnb research that is related to our study. The Airbnb landscape in Guanajuato and San Miguel de Allende cities is summarized Section 3. The methods used to conduct our qualitative study in these cities are described in Section 4. Section 5 presents the results of our study, and Section 6 discusses our findings. The paper concludes in Section 7 with a discussion that compares Airbnb practices in Mexico with those observed in the developed world, presents some limitations of our study, and suggests topics of future research.

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2 RELATED WORK

Studies on Airbnb and other systems (collectively referred to as networked hospitality in the literature) have appeared in research areas such as tourism and marketing [Lee et al. 2015; Oskam and Boswijk 2016; Panda et al. 2015; Toeniskoetter 2013], anthropology [Zaki 2015], sociology [Molz 2007, 2011], as well as web and social media research [Belloti et al. 2015; Bialski 2013; Ikkala and Lampinen 2015; Jung et al. 2016; Lampinen 2014; Lampinen and Cheshire 2016; Ma et al. 2017; Molz 2014; Quattrone et al. 2016]. These studies have focused their attention on Couchsurfing and Airbnb, the best-known platforms that support network hospitality. These services provide different types of exchanges. Airbnb is based on paid peer rentals, while Couchsufing offers non-paid hospitality based on reputation and reciprocity [Molz 2011], in which social relations are both the primary asset and the main measure of satisfaction [Jung et al. 2016].

Our work, which studies Airbnb in the context of an emerging economy, is inspired by and builds upon that of Lampinen and colleagues [Ikkala and Lampinen 2015; Lampinen 2014]. This research aims to document the motivations of a sample of Finnish Airbnb hosts to participate in the service, and to study how the interactions between hosts and guests might be affected by the exchange of money for accommodation. Their qualitative work, comprising eleven face-to-face interviews with hosts, is formulated in the context of hospitality theory [Brotheron 1999; Lashley 2000; Morrison and O'Gorman 2006; Simmel 1949], which suggests that Airbnb features three key domains of hospitality: private, because hosts accommodate their guests in their properties; commercial, because a financial compensation is a key element of the interaction; and social, because it supports peer-to-peer exchange. The study concluded that hosts rent their places for financial and social reasons, and that money-based dynamics let hosts control the level of use of their places, choose guests that are potentially compatible, and socialize with users if desired. Further research by [Lampinen and Cheshire 2016] was conducted in the San Francisco Bay Area. Their investigation, framed within the principles of social exchange theory [Cook and Rice 2006; Emerson 1976], examined the kind of activities that are facilitated through Airbnb during peer exchanges, and clarified how the act of payment creates a sense of certainty that facilitates additional social exchanges. The study showed that host-guest interactions (intrinsic motivations of some hosts), are not overshadowed by the financial benefits (extrinsic motivation of hosting). Their work also suggests that the centralized control by Airbnb provides a form of assurance to become a host with the benefit of social interactions. Centralized control could be appealing to people inclined to get involved in a hospitality network only if there was a central system providing certainty and allowing the development of peer trust.

Our work also connects with the research of [Panda et al. 2015]. Their study explores Airbnb and its use in India. It focuses on users' understanding of "sharing economy" services and their openness to try such services over existing services. The target population consists of urban Indian youth between 19-35 years old. Netnography (ethnographic research concerning digital environments) and in-depth interviews are used to understand people's perceptions and level of awareness about Airbnb. The results of the study suggest that online reviews play a role in decision-making prior to trial, and that users expect good location, safety, comfort, and cleanliness as values for money.

Studies addressing the local impact of Airbnb also provide a useful context to enrich our investigations. For instance, the study of [Quattrone et al. 2016], presents quantitative evidence of the impact of Airbnb by gathering data in London leading to evidence-based assessments (via a regression model) of areas of the city that benefit from Airbnb. The study acknowledges the difficulty to develop regulatory policies due to the dynamic nature of offer and demand in regions where Airbnb operates. In the case of London, the authors suggest that contrasting Airbnb data with census data can help determine which areas of the city actually benefit from Airbnb.

Prior to the creation of Airbnb, an investigation about *alternative tourism* conducted by [Dernoi 1981] discussed the social and economic opportunities and potential for "a form of tourism in which the client receives accommodation in the home of the host," particularly in the context of developing countries. The work highlighted a

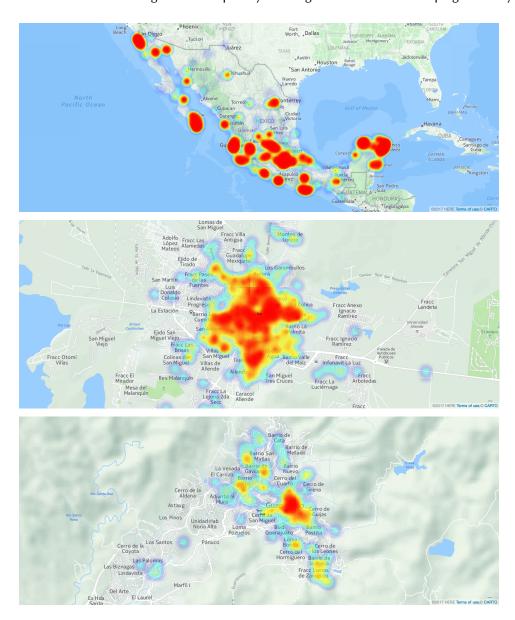


Fig. 2. In August 2015, Airbnb listed 14,206 venues in Mexico's most popular destinations. (Bottom) The highest accommodation density (in dark colors) corresponds to Acapulco, Cancun, Playa del Carmen, Mexico City, Guanajuato and San Miguel de Allende. Heat map of Airbnb listings in Mexico (top), Guanajuato City (middle), and San Miguel de Allende (bottom).

widespread practice among private owners of accommodating travelers in their home for money. The practice of alternative tourism was characterized by Dernoi as a structure that matches both the physical environment and culture, and is fair with and supportive of the local inhabitants. Although all these features might not be jointly achieved [Panakera et al. 2002], our findings support the observation that hospitality networks can foster practices

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supporting social and economic opportunities for the local communities, while remaining consistent with the local culture, traditions, and the environment. More recent papers have studied on-demand platforms (including Airbnb) in the development context. These include the works by [Dillahunt and Malone 2015], [Dillahunt et al. 2016] and [Ahmed et al. 2016], which focus on a study to identify the success factors and challenges for sharing economy for disadvantaged groups in the US and some countries of the Global South.

One issue that is closely related to our work has been addressed by [Thebault-Spieker et al. 2015] in the context of mobile crowdsourcing markets. This work analyzes differences of accessibility across socio-economic status and geographic locations. The paper presents a study in the Chicago metropolitan area aimed to determine if geographic factors influence whether a crowdworker will be willing to do a task, and what geographic factors influence how much compensation a crowdworker will demand in order to perform a task. The results suggest that low socio-economic status areas seem to be less able to take advantage of the benefits of mobile crowdsourcing markets. The work also discusses the implications of platforms like UberX [Rogers 2015] that have similar features to those of mobile crowdsourcing platforms.

Finally, [Ma et al. 2017] conducted a study using signaling theory [Spence 2002], to understand what information is disclosed by Airbnb hosts to convey trustworthiness, how this information affects the perception of trustworthiness, and how these perceptions predict the choices of guests. As we discuss later in the paper, the kind of information provided by Airbnb might not be always perceived by potential guests as sufficient background information in places where insecurity is a day-to-day concern.

3 AIRBNB IN MEXICO

Our work is a first attempt to characterize Airbnb practices in two of the most prominent touristic cities of Mexico, which is an upper-middle income developing economy according to [The-World-Bank 2016]. According to the United Nations' World Tourism Organization reports [UNWTO 2015], Mexico is the eighth most visited country in the world. At the end of 2015, the country's tourism sector is estimated to have obtained 17 billion US dollars from foreign exchanges, achieved an international tourism growth rate of 6.74% above the world average, and generated per capita consumption of \$487 USD. This growth has occurred in the context of increasing violence in many Mexican states related to organized crime and drug traffic activities, which has led, over the past ten years, to a larger perception of insecurity among locals and visitors [Cruz 2009]. At the beginning of 2015, Airbnb listed a total of 14,206 hosts in Mexico's most popular touristic areas, with the highest accommodation density in the coastal cities of Acapulco, Cancún, Playa del Carmen, Mexico City, Guanajuato and San Miguel de Allende (Figure 2). The data was obtained through a crawler that obtained basic metadata from Airbnb listings, and was initially used to compute heat maps representing the Airbnb listings' density across the country. Many listings are located in the central and south west regions of Mexico as well as Baja California and Yucatan peninsulas. Guanajuato (population: 171,000) and San Miguel de Allende (population: 69,000), which are located in the Bajio

Location	Number of listings	Bedrooms	Beds	Price per night (USD)	Hotel room
					price per night (USD)
Mexico	14,206	1;1.7±1.2	2;2.6±2.3	80;161.6±354.9	-
Guanajuato	136	1;1.5±0.9	2;2.9±3.0	50; 63.5±46.9	49; 61.1±30.7
San Miguel de Allende	443	1;1.8±1.2	2;2.5±2.1	95;150.6± 198.4	75;103.1±79.3

Table 1. Average number of bedrooms, number of beds, and price per night per listing (key: median; mean±standard deviation). Statistics for hotel rooms in San Miguel de Allende (resp. Guanajuato) were computed from 97 (resp. 35) listings recorded in 2016. Hotel room statistics were provided by a local travel agency in Guanajuato City, contacted by a member of our research team.

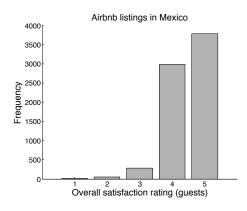


Fig. 3. Satisfaction overall rating in Airbnb Mexico.

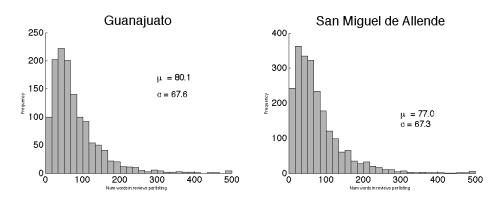


Fig. 4. Histograms for number of words per review in Guanajuato and San Miguel de Allende. Key: μ is the mean and σ the standard deviation.

region in central Mexico, are small cities whose cultural and touristic relevance made them ideal sites to conduct our study, which takes into consideration the perspectives of both hosts and guests.

Guanajuato City is the capital of Guanajuato State. The city occupies a valley, forming a network of narrow roads, pedestrian alleys, and stairways. Guanajuato is a UNESCO world heritage city due the number of historical places where cultural traditions and a vibrant architecture are a common sight. San Miguel de Allende is also a UNESCO world heritage city due to its cultural and architectural contribution to the Mexican Baroque and its importance in the struggle of Mexico's Independence from the Spanish crown in the early 1800s. A heat map showing the listing's density across these cities is shown in Figure 2.

In 2015, Guanajuato and San Miguel de Allende had 136 and 443 Airbnb listings (4.08% of the available Airbnb accommodations in Mexico) with an average number of bedrooms of 1.4 and 1.8 per listing, respectively (Table 1). The average price per night in San Miguel de Allende City is almost 60% higher than that of Guanajuato City, and close to the national average (Table 1). Guanajuato has a higher number of beds per listing than San Miguel de Allende. In both cities, Airbnb accommodations are mainly located in the historic center area. However, there are some accommodations that can be found in historical neighborhoods or close to recreation areas surrounding the city.

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Location	LD (%)	ND (%)	NR	NRSE (%)	RL	NS (%)	Score (1-5)
Guanajuato	87.5	E(74.7), S(25.2)	1313	E (76.6), S (19.5), O(3.8)	3; 9.6 ± 19.7	72.9	5; 4.6 ±0.4
San Miguel de Allende	90.2	E(84.2), S(15.7)	2029	E(77.1), S(21.3), O(1.4)	$2; 4.9 \pm 8.7$	63.6	5; 4.6 ±0.5

Table 2. Listing's statistics. Key: LD: Percent of listings with descriptions. ND: Number of descriptions (%) written in English/Spanish. NR: Number of reviews. NRSE: Number of reviews (%) written in English/Spanish/other. RL: Number of reviews per listing. NS: Percent of listings with an overall satisfaction score. English (E), Spanish (S) and Other (O); median; mean±standard deviation. Other languages include: Catalan, Chinese, German, Finnish, French, Italian, Portuguese, Romanian, Sindhi, and Swedish.

A bar plot of the overall satisfaction ratings nationwide was computed from all available listings in the platform (Figure 3). The histogram is highly skewed towards the highest scores. In Guanajuato (San Miguel de Allende), 72.9% (resp. 63.6%) of the listings had a satisfaction score computed. The corresponding median is the highest possible (5) for both cities (Table 2). As with other cities, these ratings are most likely biased. Zervas and colleagues have investigated this issue [Zervas et al. 2016]. Based on an analysis over 600,000 properties listed on Airbnb worldwide, they found that nearly 95% of Airbnb properties have an user-generated rating of either 4.5 or 5 stars; very few listings have less than a 3.5 star rating. The results were contrasted with half a million hotels worldwide collected on TripAdvisor, where there is a much lower average and more variance across reviews. However, these ratings may not be critical for room booking. The work in [Lee et al. 2015] has shown that social features such as seniority and the number of reviews are significantly associated with room sales besides well-recognized features like price, minimum stay and amenities.

Guest reviews and host descriptions for Guanajuato and San Miguel de Allende were obtained through the crawler. In Guanajuato, there is an average number of reviews per listing of 9.6. In San Miguel de Allende, this average is 4.98 (Table 2). The raw text was processed to detect the language in which the reviews and descriptions were written [Bird et al. 2009]. In Guanajuato (San Miguel de Allende), 87.5% (resp. 90.6%) of the listings had a detailed description of the place. In both cities, more than 75% of the listing descriptions and reviews were written in English. Few reviews were written in other languages (including Catalan, Chinese, German, Finnish, French, Italian, Portuguese, Romanian, Sindhi, and Swedish). Close to 20% percent of the reviews are written in Spanish, some of which were made by visitors from other Spanish-speaking countries. The collected evidence suggests that Airbnb accommodations may have been used by a limited number of Mexican guests (Table 2). After translating all the reviews into English the number of words per review were counted. Histograms of the number of words per review in Guanajuato and San Miguel de Allende are shown in Figure 4.

4 METHODOLOGY

Our study is based on a purposive sample of 20 semi-structured interviews conducted in person with Airbnb users [Kothari 2013]. A purposive sample is a non-probability sample that is selected based on specific features of a population and the objective of the study [Black 2010]. Five of them were hosting via Airbnb at the time of the interview. Fifteen of the interviewees were Airbnb guests, three of whom had also experienced Airbnb as hosts in their city of residence. This section describes the participants in the study and the interview and content analysis procedures (Table 3). Our study was conducted by following the Code of Ethics and Conduct of the British Psychological Society [BPS 1990].

4.1 Participants

We recruited host participants in our study through the Airbnb platform, as well as through recommendations from local contacts who were acquainted with Airbnb hosts in Guanajuato and San Miguel de Allende. A letter of invitation to participate in our study was sent to each potential host, and a Facebook page for the study was also

opened to share information among participants. As an additional strategy, the last three authors opened Airbnb accounts to reach out to additional study participants. Following the protocol proposed by (Ikkala 2015), eligible hosts were required to host their Airbnb property in Guanajuato or San Miguel de Allende and had received a minimum of one guest before taking part in the discussion with our team. Some of the host participants facilitated contacts with their Airbnb guests. In practice contacting people via Airbnb turned out to be more difficult than anticipated due to how Airbnb algorithmically limits passing on information about the study, and also the lack of trust of some people in Mexico.

Participant hosts to our study (8 in total) are residents of Mexico and their age varied from 25 to 67 years old, with Airbnb host starting experience ranging from 2010 to 2013 (Table 4). Ten out of 15 participant guests are residents of Mexico and five are international visitors (Spain, US, France, UK, China); their age varied between 20 and 68 years old. Participant guests with prior experience as Airbnb hosts (a total of 3) are themselves residents of Mexico. In total, sixteen subjects are female and four male (Table 4). The number of guests hosted by our sample of hosts varied between 20 and over 100. All of them provided on-site hospitality hosting i.e. they are physically present and sharing the apartment with the guest. Two of our hosts further provided on-site and remote hospitality, a trend pointed out by [Ikkala and Lampinen 2015]. More specifically, besides sharing a space in their own homes, they managed other Airbnb properties (houses and apartments) owned by family members through messages exchanged via Airbnb, WhatsApp, e-mail, calls, and brief face-to-face exchanges. All spaces on offer by our hosts were located in downtown or nearby areas.

4.2 Interviewes

The 20 interviews were collected over a period of five months in 2015 (June through October). Our research team conducted semi-structured interviews at public venues except for two hosts who offer their home to give the interview. Voluntary participation in our study did not involve any financial remuneration.

Two team members who had experience as interviewers conducted fieldwork. Interviews were adapted according to whether participant was a host, guest, or a guest that had experience as a host. General questions for participants include matters such as how they had first heard of Airbnb, whether the interviewee knew or had experience of similar services. Participants were then asked about our specific research questions: what motivated them to use Airbnb, what were their views on hosting or engage in Airbnb as guests, what were the benefits of being a host or guest, what were their views about Airbnb safety in Mexico, and whether Airbnb practices in Mexico were different from those in the developed world. The demographic information summarized in the previous paragraph was collected at the end of each interview.

Research Question	Topics
(RQ1) Why do hosts in Mexico offer their space on Airbnb?	What motivated them to use Airbnb?
(RQ2) What are the attitudes of hosts and guests towards	What were their views on hosting or engage in Airbnb as
Airbnb as a platform?	guests?
(RQ3) Does Airbnb provide overall benefits to hosts and	What were the benefits of being a host or guest?
guests?	
(RQ4) Is Airbnb considered safe by the two types of users?	What were their views about Airbnb safety in Mexico?
(RQ5) Do Airbnb hospitality practices in Mexico differ from	Airbnb practices in Mexico were different from those in the
those in countries in the developed world?	developed world?

Table 3. Topics addressed during the interviews and corresponding RQs.

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4.3 Content Analysis

We began the analysis by reading the transcripts, to identify emergent topics that could uncover themes characterizing the practice of Airbnb that address our research questions [Strauss and Corbin 2009]. For interviews provided by hosts, we used the encoding categories defined by [Ikkala and Lampinen 2015] to guide our analyses; namely: a) the motivations to engage in Airbnb, b) the role of money in the interchange process, c) host-guest interactions through Airbnb, and d) the means in which hosts choose their guests. In addition, we further guided our analysis by two questions not studied in (Ikkala and Lampinen 2015), namely the issue of safety given the increasing level of insecurity in Mexico and the effects of Airbnb on the local communities, both economically and socially. The interviews were audio-recorded, translated (when necessary) and transcribed into English. In the following, we refer to the participants by pseudonymous to protect their anonymity.

5 RESULTS

This section introduces the analysis of the interviews with respect to our five research questions. Whenever appropriate, themes related to multiple RQs are presented jointly.

5.1 Motivations to host on Airbnb (RQ1 and RQ3)

The interviews suggest that monetary gains offered by Airbnb are a key driver for hosts to engage in Airbnb. In some cases, the money made by hosting is a significant part of the income used to cover living expenses. The economic landscape in Mexico is challenging and people are finding creative ways of making use of their resources and skills to help them keep a reasonable income level. Gerardo, for instance, is a young father of two small children who was looking for a job to improve his income. He lives in Guanajuato City and used to work in

	Pseudonym	Gender	Age	Country	Host	Guest
1	Ana	F	65	México	✓	
2	Isaac	M	28	México	✓	
3	Elena	F	63	México	✓	
4	Gerardo	M	29	México	✓	
5	María	F	60	México	✓	
6	Kelly	F	66	US	✓	✓
7	Sonia	F	63	México	✓	✓
8	Joana	F	27	México	✓	✓
9	Abel	M	40	México		✓
10	Shawn	M	29	US		✓
11	Olivia	F	42	México		✓
12	Adela	F	45	Spain		✓
13	Ernesto	M	30	México		✓
14	Teresa	F	23	México		✓
15	Zolena	F	32	France		✓
16	Cina	F	20	China		✓
17	Paulina	F	30	México		✓
18	Emi	F	23	México		✓
19	Cintia	F	32	México		✓
20	Petra	F	40	México		✓

Table 4. Participants population. Key: Male (M), Female (F). Our population includes 5 males and 15 females, 5 international visitors and 15 Mexican nationals, 5 hosts, 12 guests and 3 host/guests.

Leon city (the largest city in the state, 37 miles away). He was unhappy about not being able to spend time with his family due to a long commute. When he learned about Airbnb, he decided to set up a rental listing with the expectation of improving his financial situation and have more time available to interact with his family:

"I used to work in León City. I had to commute every day since I did not have work opportunities here, and had to work far. I wanted to spend more time with my family and also wanted to improve my financial situation. By end of 2014 I learned about Airbnb and decided to go for it. It is a tool that allows you to share, make money and save time." (Gerardo, 29)

Over time, he realized that Airbnb was popular among international visitors and convinced his parents to subscribe to Airbnb to advertise a house that they had previously rented in the local market. At present, Gerardo is self-employed as the manager of the accommodations that he, his parents, and some relatives have set for rental trough Airbnb in Guanajuato and San Miguel de Allende.

Two other example cases are Ana, a 65 years-old a piano concertist, and MarÃŋa, a 62 year-old retiree for whom the earnings obtained though Airbnb are an important part of their income. Ana shares two rooms in her beautiful house located in Guanajuato's city center:

"I am a piano concert player and in the summer of 2008 I did not have that many concerts to play perhaps due to the economic crisis. At that time, I read an article in the New York Times about Airbnb, and decided to try sharing economy platforms. At first I consider VRBO, which offers high-end accommodation rentals, perhaps more money, but later I decided, for several reasons, that Airbnb was a better option." (Ana, 65)

Maria used to rent a house in a traditional fashion, but she was not satisfied with the outcome, and decided not to rent any more until she learned about Airbnb. At present, she rents a room and a house, and feels that this service provided a useful framework to exchange hospitality for money:

"The [Airbnb] platform is highly recommendable because you can make money with your own resources [...] it is a good way for a family to make money with dignity." (María, 60)

The case of Isaac and Eli is different. They are a young couple that lives in Guanajuato city. Few years ago, they got a loan and bought an old building located in the city center, and initially set up a bed and breakfast. They were looking for ways of improving their gains, and eventually they decided to rent rooms through Airbnb. For them, this service is an effective medium to bring new and old guests to their accommodation:

"I think we work very well with Airbnb. In contrast with other online platforms such as Trip Advisor and our own website, the [Airbnb] platform has brought many travellers to our spaces, and as a consequence our income has increased. We never had someone who had found our place through Trip Advisor. I think only few people had contacted us through our business website. Many of our guests recommend our place to their friends and because of that the number of people who visit us has increased. We have been able to trace back the guests who recommended our place to several friends that stayed with us. It is a good business, and we try to treat them the best possible way." (Isaac, 28)

Despite the fact that for our host participants the financial gains are the main reason to offer their places on Airbnb, it is also clear from the interviews that there are social aspects that engage hosts in a successful Airbnb exchange. We suggest that such success relates to practices rooted in hospitality traditions that permeate the Mexican culture, in particular in places that welcome visitors all year long, such as Guanajuato and San Miguel de Allende. Values and

traditions are of high importance and lead to exchanges that, after the initial used of the platform, continue during the duration of the stay through interaction between host and guest. Ana believes that the interaction between guests and host with regard to sharing art, culture, and traditions is fundamental while traveling. During the interview she referred to great travellers interested in culture and music to stress that direct interaction is a key element of traveling:

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"If you read the letters or diaries of the great travellers of the Age of the Enlightenment and later on, specially those interested in art and culture, you will see that they talk a lot about the interaction they had during their travels. Interaction with people is a key element while traveling. Once I had a guest that came from Germany and suggested her to attend to an evening concert in the Teatro JuÃqrez. This theatre is an iconic architectural and cultural venue in Guanajuato. The next day, she warmly said to me -I was so hungry for art and culture, I don't know how to thank you for telling me about the concertse said. As a host, one can provide a good space to stay, perhaps a good cup of coffee and a roof with a magnificent view of the city. But we can also provide opinions about this country and educate people about the Mexican culture and the beauty of our cities." (Ana, 65)

The opportunity to meet new people from around the world and expand the possibility of new ways of interacting with people and sharing local knowledge are valuable incentives for our host participants. For Elena, a retired accountant who takes care of her husband, renting their space through Airbnb goes beyond improving her income. Elena feels that her hosting experiences are enriching and give her the opportunity to feel active:

"For me [hosting through Airbnb] has been enriching because I feel very active. I like to interact with people. I like to enrich my life with this interaction and their experiences. We gain a lot as hosts. We also promote our city and give personalized service to our guest. In this way, one also gains personal experiences." (Elena, 63)

Sharing local knowledge with guests is quite important for hosts, particularly for those visitors who are not familiar with the realities of cities in the developing world, which are often better enjoyed with the help of a local resident, in many cases, as part of a cultural learning experience:

"I wrote a document that I don't share to anybody except with my guests and some friends. I have a version in Spanish and English. It is not a city guide because there is a lot of information already published. There are a lot of resources where to find information today. Rather, I like to write about my favourite places for eating, visits to museums like the Gene Byron, or cultural activities including the presentations of the University of Guanajuato Symphonic Orchestra. For those guests that will stay longer and want to use the kitchen, I show them how to move in the city without a car. You don't need go to big grocery stores. You can walk to the various small shops that are available all over the city, the fruit store, the chocolate store, and so on." (Sonia, 63)

5.2 Airbnb from the perspective of hosts and guests (RQ2 and RQ3)

Hosts. Our participant hosts pointed out that the financial and social gains obtained through Airbnb affect their local communities in two ways. First, hosts managing one or more listings require help to provide a good service to their guest. This is often accomplished by hiring one or more local inhabitants, who have a good understanding of the "ins and outs of the city." Common tasks for hired people include cleaning, cooking, and driving. For hosts providing more professional services, local inhabitants are hired for tasks such as managing and maintaining host accommodations. Job creation in the Airbnb context could be beneficial to local communities. Gerardo points out that:

"Our experience as host is very nice because we can create few jobs for local people, who also benefits from the [Airbnb] platform. From the person that do the cleaning, the garden, and cooking and for those guests that are provided with breakfast; in this way we all grow as a community." (Gerardo, 29)

Second, as illustrated by the excerpts presented in the previous section, hosts are eager to provide their guests with local advice by recommending places or services. This is an important function for improving the quality of touristic services in their cities. Promoters provide this kind of local advice, which often times get a commission for bringing visitors to specific places such as hotels or restaurants. However, the quality of service in these

places is not necessarily good. In contrast, our participant hosts happily offer recommendations to guests on the basis of personal experiences, and actual assessment of quality. Airbnb hosts have the opportunity to improve visitor experiences in their city through personalized advice.

"I believe that Guanajuato has a problem with touristic intermediaries. Not necessarily because someone is charging money for taking visitors or tourists to a certain place, there is a guarantee that a place offers service quality. If a visitor perceives a bad service, he [or she] will never recommend the city and will never come back again. On the other hand, when they come with us, they can appreciate how beautiful Guanajuato is, because we are giving them suggestions to the best places in town." (María, 60)

Guests. Our international guests share diverse points of view, some of which contrast with the views of participant hosts. In general, international guests have an overall positive experience with Airbnb in Mexico, and think that the concept provides a meaningful and more direct way of connecting people and help individuals and communities to improve their economic condition. Shawn is a 34 year-old American traveler who spent some time visiting Guanajuato:

"[..] I came across this great place in Guanajuato. [It] has a view of the city, beautiful home and affordable. I have been here for one month an a week. I have used Airbnb twice and both times it's been great. Rapid response. Everything has been smooth sailing with that. [...] the advantages of being in someone's home in my opinion far surpass the advantages of staying in a hotel. Airbnb allows you to meet people in a more informal setting to see how people really live. It is more like traveling than being a tourist. I think [Airbnb] is a good way for a community that is struggling or going through job loss; if you have bills to pay, rent a room, it's a more practical way to make ends meet.' (Shawn, 34)

Adela is a 45 year-old consultant born in Spain. Her views complement those of Shawn with regard to the Airbnb concept of sharing economy:

"Our [Airbnb] experience is positive. Any platform that allows citizens participate, and that allows finding new models that are different from our current [traditional] models, and which are more human, more solidary, that bring people closer, it's better. We are now in a transition; we are adapting to reconcile virtual and person-to-person interactions." (Adela, 45)

However, some of our international guests expressed concern about possible negative impact of Airbnb in Mexico. They put forward arguments related to the fact the Airbnb is poorly regulated in some countries such as Mexico. They speak from their experiences in countries such as the US and France. They argue that in towns and cities that have Airbnb presence, the cost of housing tends to increase. This also happens in places were Airbnb regulations are more strict because there is no practical way to enforce rules. It is an open question if Airbnb has a negative impact in Mexican cities. Kelly, an American citizen who worked in Silicon Valley for many years, comments about these issues:

"Airbnb is not good because prices tend to go up whereever it arrives. I live in a small town of 500 people that is 30 minutes north of San Francisco. Two years ago you could rent a room in a house for 750 dollars a month. Today, people are asking for 100 dollars per night, so it is almost impossible to find an affordable room these days. This could also happen here [...] I also have a tiny apartment in Paris and there is a law that allows owners to rent their accommodations through any sharing economy platform only when they are on vacation. However, this law is very difficult to enforce. Also, apartments in Paris use electronic codes for accessing the space. These codes are shared with visitors all the time, which raises security concerns." (Kelly, 66)

According to these views, Airbnb has become a service for high-income or very high-income travellers and tourists in some cities in the world. In this regard, we examined the cost of Airbnb rentals in Guanajuato and San Miguel de Allende during the month of October 2015 (the month of the Cervantino Festival) and found out that in 1:14 • Salvador Ruiz-Correa, Itzia Ruiz-Correa, Carlo Olmos-Carrillo, Fatima Alba Rendón-Huerta, Beatriz Ramirez-Salazar, Laurent Son Nguyen, and Daniel Gatica-Perez

Guanajuato the cost of a room per night was on average similar to the prices of a standard hotel room in the city. However, rentals in San Miguel de Allende reach prices that compare to those in expensive European cities (see Table 1 for median prices in summer 2015 in the two studies cities). These observation are supported by previous research suggesting that the majority of listings in most cities are entire homes, many of which are rented all year round, which cause disruption in the housing market and the life of communities [InsideAirbnb 2017].

Participant domestic guests share some of the positive views expressed by some of our international guests. Teresa, a 23 years-old student, summarizes positive aspects of her Airbnb experience with regard to benefits to the local community:

"I think that sharing economy such as Airbnb is good for Guanajuato because one generates an exchange of resources and money among people, which not necessarily need to have a formal business to generate resources. It is a way to circulate money within the community, and offers alternative services that cannot be found in traditional places such as hotels and hostels." (Teresa, 23)

5.3 Safety and control (RQ4)

Hosts. Our participant hosts emphasized the importance of having the possibility of selecting their guests on the basis of the profiles, comments and ratings available in the platform. These tools provided by the platform create a sense of certainty, control and safety at the time of accepting or rejecting a booking. For our hosts it is also important that their guests add comments and ratings to their profile page, so they can have an idea of their perceived performance as hosts. Ernesto, one of our participant guests who also has experienced Airbnb as a host, comments:

"The Airbnb platform is safe [...] if you want to rent your house you choose a person that has experience with the [Airbnb] platform as a traveler or tourist. You can read the profiles and the evaluations, and opinions that other hosts have about them. And you as a guest can also evaluate your host to make sure he or she provided what was promised. In this way we can evaluate ourselves." (Ernesto 30)

Along the same lines, Isaac is pleased that the rules are very clear in the Airbnb platform, and that he has control on who can use his space. He comments:

"The [Airbnb] platform is a site where everything is very clear. One can set house rules. [...] For instance, we are vegetarian and we don't like people to bring animal meat or alcohol inside our spaces. When someone sees our rules in the platform and agrees, this is the type of people that accept and want to be with us. In this way we can chose the type of people that we want for the space." (Isaac, 28)

Guests. Participant international guests share the views of hosts to some extent. They rely on the platform to select the type of accommodation and the profile of the host along the comments of guests that have previously used the space. This gives them a sense of safety. Zolena is a 32 year-old woman from France that uses Airbnb for traveling in France. At the time of the interview, she was traveling across Mexico.

"I use Airbnb to travel in France with my friends. I have also traveled to Poland and Spain. I have had very good experience. This time I made a reservation trough Airbnb to visit Mexico alone. I feel very safe. I can always ask my host what to do and what not to do. They also give me advise for visits to nice places. I feel safe in Mexico with Airbnb." (Zolena, 32)

Along similar lines, Olivia, a 42 year-old visitor from England, considers that the profiles and reviews of potential hosts help her find an accommodation and host that match her expectations, in particularly those related to safety. This also gives her a sense of control to select the best hosting option for her.

"I feel safe using Airbnb in Mexico, although I am quite cautious. I will usually only stay at an accommodation where there is women listed as a host, or if there is only a man listed as the host there will be lots and lots of good reviews from women." (Olivia, 42)

Our descriptive analysis in Section 3 showed that above 85% of the listings in Guanajuato and San Miguel de Allende had a description of the space available for guest to review (Table 2). The average number of guest reviews per listing is 9.6±19.7 in Guanajuato and 4.9±8.7 in San Miguel de Allende, with an average of 80.8 and 77.0 words per review, respectively (Figure 4). These data supports the observation that the social features available in the Airbnb platform are relevant to our interviewed hosts and international guests cited above [Jung et al. 2016].

Our domestic guests are more cautious regarding the use of the information for selecting their accommodation through Airbnb. Although they agree that the information on the platform is useful, they bring up two arguments to support a degree of skepticism. The first one is that the Airbnb platform only shows pictures of the accommodation. Therefore, it is difficult to know how safe and convenient is the neighborhood where the accommodation is located. Although the space for rent may look very nice in the pictures, the context surrounding the place may not be safe for visitors and travellers. The second argument is that the information provided in the platform may not be accurate enough. This view was shared by four of our domestic guests (Abel, Olivia, Ernesto and Teresa). Abel, a 40 year-old professor living in Mexico city made the strongest and clearest comments about his experiences with regard to these issues:

"The Airbnb [concept] has some disadvantages that we have identified through our experience with the platform. I can think of three or four main issues. First, one cannot be sure about the actual conditions of the space advertised in the platform. Second, one cannot be sure that the space actually has the facilities offered through the platform. One has to pay and then you find out whether what is advertised is true or not. We had an experience in which a host offered a room in her house, but when we arrived we realized that the host was renting a trailer that was in extremely poor condition. In another occasion, we found out that WiFi signal was not available in a place that was advertised as having Internet services. The third problem is that hosts are not obliged to show pictures of their neighborhood, the streets, the surroundings. This is very important in places that are not safe. If you are in downtown Paris, maybe there is nothing to be worried about. But this is not the case in Mexico. I would not rent a space to go with my wife if the neighborhood is dangerous. I think this third issue is the most important in the case of Airbnb use in Mexico." (Abel 40)

Beyond the perceptions and comments provided by some of our domestic guest with regard to the issue of safety in México within the Airbnb context, the National Safety Commission has documented a variety of safety issues in touristic cities in México (including those listed in Airbnb) [Governing-Ministry 2018]. Providing this kind of contextual information could be useful for Airbnb guest to best decide where to stay in some Mexican cities.

5.4 Airbnb practices and family ties in Mexico (RQ5)

Family ties play a significant role in the everyday life of people in México. We suggest that this is one reason why an entire family can be involved with a hospitality network, specifically if the family keeps the traditional role of support network and safety net. Middle-class families are likely to be attracted to systems like Airbnb because they are constantly looking for ways for improving or sustaining their income, as pointed out by some of our interviewed hosts (Section 5.1). Families living in small cities such as Guanajuato and San Miguel are likely to have strong family ties, which gives them the opportunity of engaging successfully in systems like Airbnb.

Airbnb is in general an expensive option for individual visitors to stay in Guanajuato or San Miguel de Allende. However, for large families, Airbnb offers an affordable cost. Large Mexican families often travel together, and traditional accommodation services can be expensive for large groups. Some of the Airbnb listings in Guanajuato advertise entire houses that provide all the necessary tools for a family to share and interact with relatives and friends within a more private setting in comparison with a hotel or a bed & breakfast. For most Mexican families, sharing plays a big role in maintaining the social fabric. This tradition is rooted in ancient widespread practices.

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Activities like bartering was a key forms of economic exchange that enabled families articulate their social and economic life during the pre-hispanic and colonial periods [Villegas 2010]. Bartering was practiced in regional markets or bazaars called *tianguis* or *tiyannkitzly* in the native Náhuatl language. This bazaar tradition continues in many cases essentially unchanged into the present day [Rubio 2014]. This is the case of several thriving markets in Guanajuato and San Miguel de Allende cities.

"[Airbnb] fosters family life. If you arrive to a hotel, there are activities people can do. But being all together inside a house one can have a chance to connect, to be together and share, without having to spend a lot of money. [...] Our guest had been very happy with us because they were able to make teams [with families and/or friends] and do things together" (Maria, 60)

5.5 Perception of popularity and affordability of Airbnb in Mexico (RQ5)

To complement our study, we run a short purposive sample survey to 40 respondents who were interviewed on popular streets of Guanajuato city [Kothari 2013]. The survey was aimed at understanding the popularity of Airbnb during the peak tourist season in this city (i.e. during the International Cervantino Festival). Team members worked on Friday and Saturday nights. They recruited volunteers from groups of people attending cultural activities in Guanajuato City. Volunteers were not given any compensation for their participation. The survey applied to the participant volunteers included three questions: 1) Are you Mexican? 2) Do you know Airbnb? 3) On this trip, are you staying with Airbnb? For the first question, 28 Mexican nationals and 12 international visitors participated in the survey. Thirteen of the survey participants (32.5%) did not know about Airbnb. Regarding actual accommodation, respondents (20%) were staying with an Airbnb host. From the remaining participants, 13 stayed at hotels, 12 at hostels, 3 with friends, and 4 somewhere else. In other words, 80% of respondents did not use Airbnb. We also interviewed some individuals involved with the organization of the Festival. They stated that the international artists participating in the event stayed at local hotels.

These findings complement those obtained from the online Airbnb data. As pointed out in Section 3, close to 75% percent of the guest reviews are written in English, which suggests that a limited number of Mexican visitors used Airbnb spaces at the time of the study. In Guanajuato the mean cost per night is \$63.5 USD, which amounts close to 10% of the average monthly wage in the city –according to official data provided by the Mexican Ministry of Labor [Labor-Ministry 2017]. The average cost per night of a hotel room is \$49 USD, which is also expensive for average-income visitors (see Table 2). In San Miguel de Allende, the average cost of an Airbnb space in this city is \$150.6 USD, which is 46% higher than the average cost of a hotel room in the city (\$103.1 USD).

6 DISCUSSION

We now discuss the main findings of our study with regard to our research questions (Table 4), point out the main limitations and reflect about further research directions. The key findings are the following.

Motivations to host on Airbnb (RQ1). Monetary gains are the key driver for our participant hosts to participate on Airbnb. Hosts leverage the opportunities provided by Airbnb to generate a significant amount of money, which is used to cover living expenses. Hosting on Airbnb also strengthens practices rooted in traditions that benefit host and guests during the time of the exchanges; namely, sharing local knowledge and cultural expressions are reinforced in this context. Our data suggests that the for-profit, extrinsic motivation of Airbnb hosting might not overshadow but on the contrary strengthen cultural and knowledge exchanges, which can be seen as intrinsic motivations of hosts [Cook and Rice 2006].

Attitudes of hosts towards Airbnb (RQ2). There are social aspects that engage hosts in a successful Airbnb exchange, which relates to practices rooted in hospitality traditions that are part of the Mexican culture. Values and traditions are of high importance and and can lead to rich and fulfilling hospitality exchanges. Host-guest hospitality exchanges rely on sharing space, knowledge of the local context, and cultural values. Sharing in this

DO1. Heat Mating tiere	Haste.
RQ1: Host Motivations	Hosts: (1) Monetary gains are the key extrinsic motivation. (2) Monetary exchanges nevertheless reinforce sharing of local knowledge and cultural ex-
	pressions (intrinsic motivation).
RQ2 & RQ3: Hosts	Hosts:
and Guests Perceptions/Benefits	(1) Host-guest hospitality exchanges seem to rely on sharing local traditions and culture.(2) Sharing the cultural context seems to improve hosts' social features available in the platform.
	(3) Host practices could lead to the creation of jobs that support the local economy.(4) Monetary gains are used for sustaining income and covering living expenses.
	Guests:
	(1) Airbnb could ultimately lead to inflating the cost of renting a space.
	(2) Only high-end travellers may have access to Airbnb rentals.
	(3) The platform provides useful information to manage exchanges.
RQ4: Safety	Hosts:
	(1) The platform provides useful information to manage exchanges.
	(2) The platform elicits impressions of control and safety for booking a place.
	(3) Overall experience is positive. Hosts did not report problems with their previous guests.
	Guests:
	(1) International guests have an overall sense of safety.(2) Domestic guests are more cautious regarding the use of information for selecting their accommodation.
	(3) The platform does not provide contextual information regarding accommodations listed.
	(4) Lack of contextual information is an issue due to security concerns in some Mexican cities.
	(5) There is no mechanism to verify the actual state of an accommodation prior to arrival.
RQ5: Airbnb practices	
and family ties in Mexico	(1) Sharing resources among family members and the community is a cultural practice in Mexico that supports: social cohesion, a good quality of life, and a flourishing tourism industry.(2) Airbnb provides a suitable context for family sharing.
	(3) Airbnb hosting is an attractive means for middle-class Mexican families to improve/sustain their income.
	(4) Families in Guanajuato and San Miguel have strong family ties, which enable them to engage in Airbnb.
	(5) Airbnb rentals for large groups can be less expensive than those provided by bed & breakfast and hotels, enabling access to large Mexican families.
	(6) Families visiting Guanajuato and San Miguel de Allende can share and interact with relatives and friends within a more private setting and lower cost by renting through Airbnb.

Table 5. Research findings summary (RQ1-RQ5).

way not only benefits the host (as he or she becomes more popular in the platform) but also returns economic benefits to the local business and touristic places recommended by the host.

Airbnb impact (RQ3). On the basis of observed data, the impact of Airbnb is two fold:

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 - Airbnb host practices may lead to the creation of informal jobs that support the economy of the local
 community. Hosts that leverage the opportunities offered by Airbnb often hire people form the local
 community to conduct informal jobs like cleaning or cooking. According to official government statistics,
 the informal economy in Mexico contributes, on average, 26% of the gross domestic product and 59.8%
 percent of the population participates in informal economy [Mexican Institute of Statistics 2015].
 - On the other hand, from the perspective of some guests, Airbnb can have a negative impact. The arrival of Airbnb can increase significantly the cost of renting a space, thus creating a situation in which only high-end travellers or tourist can have access to rentals. This is the case of San Miguel de Allende, where renting a room can be as expensive as renting a room in expensive cities of the developed world. Access to Airbnb rentals for domestic visitors is difficult because Airbnb is likely to gives rise to differences in accessibility in Guanajuato and San Miguel de Allende based on socio-economic status and geography. While this in principle might not be different than the situation with the traditional hotel industry, it poses questions on how different Airbnb really is when it comes to who can stay there. This finding coincides with the report of an increased cost of rentals provided by some of the international guests interviewed in our study [Rogers 2015; Thebault-Spieker et al. 2015]. This finding relates to the observation in [Dillahunt et al. 2016], which discusses how some sharing economy platforms "contributed to the vicious cycle of recreating disadvantage, and have offered little benefit to the very individuals who could stand to benefit the most." However, the possibility of differential Airbnb and hotel accessibility for a large population of visitors to Guanajuato and San Miguel de Allende could incentivize the development of sharing economy platforms that offer a reasonable rental cost for low- and middle-income populations.

Airbnb popularity in Mexico (RQ3). The results of our street survey showed that 13 out of 28 Mexican tourists did not know about Airbnb; 8 out of 12 international tourists stayed with Airbnb hosts, and 4 stayed at hotels. Mexican tourists preferred hotels and hostels. The findings derived form our interviews and the short survey suggest the following hypothesis that could be addressed as part of future work: (1) Airbnb is mainly used by international visitors to Guanajuato and San Miguel de Allende; (2) While Guanajuato prices are competitive for foreign visitors and wealthier Mexicans, San Miguel de Allende prices can be as expensive as in Europe, and visitors are mostly international; (3) While Airbnb is slowly being integrated into middle-class Mexican culture, for working-class Mexican tourists, Airbnb remains unknown or is not attractive as rentals are prohibitively expensive.

Airbnb safety and control (RQ4). Airbnb users consider in general that the platform provides useful information that allows them to manage the booking process. Data provided by the platform elicit a sense of security. However some local guests suggest that the lack of contextual information (i.e. the characteristics of the neighborhood where the accommodation is located) is an important problem when renting a space in Mexico, as there are some locations in the cities that suffer from serious safety issues. The differentiated perception of security among domestic visitors and foreign visitors due to the knowledge of local context (or lack thereof) would have to be studied at greater length. For instance, to our knowledge it is not known how Airbnb is used in Mexican cities where insecurity is a serious issue. In contrast, studies of how socio-technical systems like Twitter are used by people regarding security in such cities have been documented in the social media literature [Monroy-Hernández et al. 2015].

Airbnb practices in Mexico vs. those in the developed world (RQ5). We finish this section by discussing how our findings differ from and thus complement previous studies, notably the work of Lampinen et al., which was a starting point for our work:

• In the work of [Ikkala and Lampinen 2014], it is first concluded that money is not the main driver for hosts to participate on Airbnb, and hosts perceive the money obtained from Airbnb as supplementary income. In contrast, we found from the interviews that Airbnb in Mexico not only provides significant

(and much needed) income to individual hosts, but also create jobs in the informal economy. The monetary factor becomes even more relevant if we take into account the regulatory housing policies in countries like Mexico. The differences in overall economic value associated to Airbnb between our study hosts and those studied in developed countries closely resemble trends reported in previous work studying online crowdwork [Ross et al. 2010], where MTurk workers from India reported to significantly depend more on the income made on the platform than US workers.

- Research reported in developed cities found that social interaction is often driven by that perception that interaction with people from around the world may lead to enjoyable and/or interesting experiences. Nevertheless, such expectations do not necessarily conform with the actual experience due to several reasons (i.e. time restrictions, differences in interests and disposition, etc.) [Ikkala and Lampinen 2014]. We found that host-guest interactions take place in a framework with traditional custom of sharing space, resources, knowledge of local context, and cultural values on the one hand, and a genuine interest in knowing a rich culture, on the other. We found that hosts' attitudes are in general friendly and open towards their guests, which for most part are international visitors, as pointed out in Section 5.5.
- We found initial evidence of a differentiated perception of safety in Airbnb among domestic and foreign visitors, which emerges from the context that locals have about everyday life. This issue is not only referred at the level of individual hosts and venues, but at a larger, geographic level. To the best of our knowledge, previous works on Airbnb practices have not addressed topics such as the role of culture and traditions, the creation of informal jobs that support the economic growth of the local community, and safety issues related to the lack of contextual information in the Airbnb platform.
- We suggest that strong family ties, which are a traditional trend in Guanajuato and San Miguel de Allende, are one of the reasons why hospitality networks such as Airbnb can be engaged by entire families, particularly those in the middle class, which are concerned about sustaining or improving their income through the collective effort (Section 5.4). Sharing resources among family members and the community is a cultural practice that supports the social cohesion required for these cities to maintain a good quality of life and a flourishing tourism industry. The works by [Dillahunt and Malone 2015] and [Dillahunt et al. 2016]. identify success factors and challenges of the digital-sharing economy for disadvantaged neighborhoods or financially constrained individuals in the US, and suggests the need for linking community members and collective efficiency to strengthen income generation. These findings are closely related to those observed in our study. For instance, [Dillahunt et al. 2016] found that applications such as Airbnb "would be beneficial if they could create jobs and revenue, and foster reciprocity among these [disadvantaged] communities..." We believe that our findings provide supporting evidence to some of the claims found in these works.
- In Guanajuato and San Miguel de Allende there is some evidence of differentiated access to Airbnb rentals based on socio-economic background and geography. Further research is required to confirm this claim, and to quantitatively assess if this phenomenon also occurs in cities of the developed world and the kind of impact it may have for local communities.
- From previous work, there is evidence that Airbnb is disrupting housing and communities in the developed world. Our study suggests that in the two studied cities, the net gains obtained through Airbnb benefit both hosts and their immediate social circles. However, the aggregated effects of this trend on the local rental market, the hotel industry, and the whole community need to be studied as part of future work. During the high tourist season Guanajuato and San Miguel de Allende cities report high hotel occupation rates [Tourism-Ministry 2017]. This might be, however, a first step of a process that could lead to that situation if not properly regulated, as it has been the case in cities in the developed world.

Our study has some methodological limitations. First, due to the privacy rules of Airbnb, contacting and recruiting Airbnb members as study participants was a non-trivial task, which limited the final number of interviewees. 1:20 • Salvador Ruiz-Correa, Itzia Ruiz-Correa, Carlo Olmos-Carrillo, Fatima Alba Rendón-Huerta, Beatriz Ramirez-Salazar, Laurent Son Nguyen, and Daniel Gatica-Perez

Second, due to the lack of publicly available, official historical data for the studied cities, it is difficult to compare between past and present traditional renting trends and those observed in Airbnb. This information would be useful to support our observation that Airbnb may give rise to differences in accessibility, e.g. by mapping both historical prices of house rentals in San Miguel de Allende and the number of Airbnb listings over time. One possibility to collect this data would be through contacts with travel agencies and real estate agencies in Guanajuato and San Miguel de Allende. This remains as a topic of future research.

7 CONCLUSION

This paper presented a qualitative study of twenty interviews, complemented by basic quantitative online data and a street survey, to elucidate some of the basic Airbnb hospitality exchange practices in Mexico, a major touristic country in the developing world. The findings of our work add to the growing literature on the human and economic relations that systems like Airbnb enable. Participants in our study were not chosen to correspond to a statistically representative sample of Airbnb hosts and guests in Guanajuato and San Miguel de Allende. Our sample of hosts only includes residents of Mexico. However, a review of Airbnb listings in these cities reveals that there are many owners that are nationals from other countries (US and Canada.) Although some of these owners are resident retirees, others might conduct remote hosting or hire a manager to take care of their property. Furthermore, some of the participant guests were recruited with the help of our participant hosts, and perhaps those guests on average had overall positive experiences. We acknowledge these sources of bias. Nevertheless, our qualitative work is a first step to examine the Airbnb phenomenon in a developing country, where sharing principles have been practiced for centuries.

Our initial findings regarding the role of culture and traditions, the creation of informal jobs, and the concerns about safety, require confirmation from additional qualitative and quantitative studies in other touristic sites. Traditions and culture vary significantly across cities in Mexico. For example, Cancun City in the Yucatan Peninsula has a very large number of high-end international visitors who give the city an international atmosphere. On the other side of the spectrum, Oaxaca City is home to ethnic groups who have inhabited the region for centuries and keep traditions involving peer-to-peer exchanges alive.

Regarding future work, a first direction has to do with improving the generality of the results presented here. This could include a mixed-method, qualitative-quantitative approach to revisit our research questions in the case of other cities in Mexico or Latin America. Second, the study of regulation of Airbnb in Mexico and other developing countries requires methods that provide quantitative evidence to design ways to address the negative consequences of poor regulation. Finally, given the role that Airbnb has regarding the creation of informal jobs, future research could also study this particular phenomenon in depth.

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