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Sharing is the new having

London School of Economics and Political Science
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1. Background

In the aftermath of the 2008 financial crisis, a new phenomenon appeared as an alternative to private ownership and mass consumption – 'sharing economy'. However, the new characteristic of models based on sharing economy is not sharing per se. In fact, sharing has a longstanding history of being the norm within the family sphere (Rudmin, 2016). What is different about the sharing economy is what is labelled as "stranger sharing"; a type of sharing that encompasses collaborative consumption, interaction among complete strangers and unquestionable dependence on platforms (Frenken & Schor, 2017).

1.1. Defining the Sharing Economy

The ongoing literary debate on where exactly the boundaries of the sharing economy lie has not yet provided us with a concrete and agreed upon definition of the concept of sharing economy. Benkler (2004) takes an anthropological approach, and defines sharing as "non-reciprocal pro-social behaviour", highlighting the differences between sharing, commodity exchange and gift-giving (Belk, 2009). Similarly, comprehensive definitions of sharing economy include C2C – costumer to costumer – sharing (Airbnb), on-demand sharing (Uber) and B2C – business to costumer – sharing (Zipcar), reselling (Ebay) and gifting (Acquier, Daudigeos, & Pinkse, 2017). Frenken et al. (2015) choose a narrower definition and describe sharing economy as "consumers granting each other temporary access to under-utilised physical assets ('idle capacity') possibly for money". Finally, Habibi et al. (2016) state that when the transaction holds more commodity-exchange than sharing characteristics, consumers are motivated by profit-seeking and not by social and community-based feelings, and vice-versa.

For the purpose of this paper, we adhere to Frenken et al.'s (2015) definition of the sharing economy, given its narrow focus renders the concept more applicable in market-based activities. By doing so, the following assumptions hold throughout the paper: (1) assets are shared rather than owned, (2) access is temporary rather than permanent, (3) assets must have spare capacity, and (4) sharing is peer to peer rather than B2C.

1.2. Facts and Figures

In the UK, the most widely used and developed segments of the sharing economy are peer-to-peer lending and crowdfunding – also known as collaborative finance. Peer-to-peer lending alone accounts for 40% of the sharing economy, with accommodation sharing being the second most widely used (37%), followed by car sharing (13%) (PwC, 2016). Airbnb and Uber are the leaders in their respective segments in terms of market capitalization and customer use. Together with on-demand household services (mainly food delivery and DIY) and professional services, such as consulting, sharing-economy-based platforms generated an overall revenue of 4 billion euros across Europe in 2015 (PwC, 2016). Despite the current political turmoil, studies expect the transaction value of the sharing economy to grow from 28 billion euros in 2015 to 35 billion euros by 2025 (PwC, 2016).

Revenues and transaction values facilitated by sharing economy platforms in the UK in 2015

Volumes

- 2%
- 8%
- 13%
- 37%
- 40%

Platform Revenues

- 2%
- 17%
- 38%
- 27%
- 16%

- On-demand professional services
- On-demand household services
- Peer-to-peer transportation
- Peer-to-peer accommodation
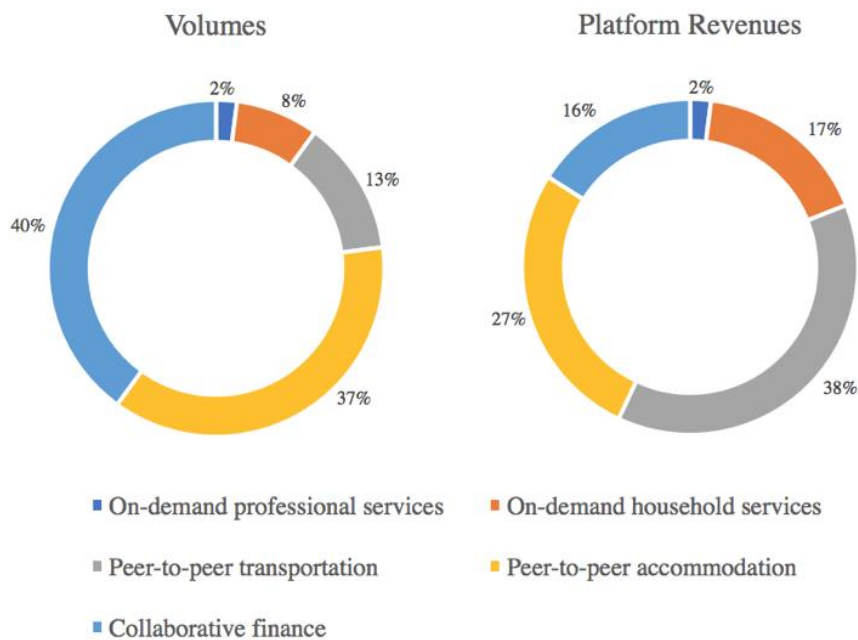- Collaborative finance

Figure 1

1.3.   Short-term accommodation sharing

This paper focuses on the short-term accommodation sharing within Western economies. We choose to centre our attention in Western economies given they are seen as market leaders in the sharing economy innovation space. Additionally, developing economies might benefit from unsustainable practices observed in the Western world given their different political, social and economic structures.

To better understand how short-term accommodation sharing operates, we need to take a closer look at its different forms. Short term accommodation sharing can be broken down into three categories, depending on to the type of platform they operate on. Palgan et al. (2017) propose the following taxonomy:

1. **Free platforms** – not motivated by monetary gains.

    Home-exchange is a platform that enables two parties to mutually exchange their houses for a set period of time and currently has over 65 000 users. (Home-exchange, n.d)

2. **Reciprocal platforms** – motivated by a reciprocal non-monetary exchange, where users become hosts and vice versa.

    CouchSurfing, with its current 12 million members, is a reciprocal platform, originally designed as a non-profit organisation. It aims to provide travellers with a free place to stay during their travels – usually a couch. Couchsurfing views itself as a social network, promoting a large number of online and offline activities and gatherings among its members. (Couchsurfing, n.d)

3. **Rental platforms –** motivated by monetary gains

    Airbnb, with its current 150 million users, is a rental platform that enables users to rent short-term accommodation in exchange for a fee. (Airbnb, n.d)

We will be using this taxonomy throughout the paper, as it provides a comprehensive overview of the short-term accommodation sharing segment that we are analysing.

1.4. Sustainability dimensions of the sharing economy

The sharing economy's impact on sustainability is a widely debated phenomenon (Palgan et al., 2017). On one hand, some experts advocate that it is a sustainable alternative to conventional market exchanges, given it allows for a more efficient use of resources (Frenken, and Schor 2017). On the other hand, the sharing economy is framed as an economy that has the potential to create new markets. By offering lower prices, the sharing economy allows individuals from lower socio-economic groups to participate in the travel industry, eventually leading to an increase in global CO_2 emissions (Frenken and Schor, 2017; Böcker and Meelen, 2017). On top of higher CO_2 levels, the sharing economy can also pose other negative consequences on the environment. The rebound effect, which is defined as the difference between expected and actual environmental savings from efficiency improvements (Vivanco et al., 2016), negates the positive impact of the sharing economy by making individuals more prone to travel and splurge on other activities. (Schor,2014; Palgan et al., 2017).

Important negative side effects can also be identified in the social and economic sphere. Unregulated marketplaces, where unfair competition and tax discrimination arise between sharing platforms and the local hotel industry, are an extended spillover effect of sharing economies (Palgan et al., 2017). Similarly, accommodation sharing increases socio-economic disparities due to rising rents for residents and an uneven distribution of profits, since the most valuable assets usually derive the largest revenues (Frenken, 2017).

Finally, sharing platforms such as Airbnb tend to develop into natural monopolies (Frenken and Schor, 2017), setting high barriers to entry and higher competitive market prices.

ABSTRACT

The purpose of this paper is to analyse the current impact short-term accommodation sharing has in the Western economies in terms of sustainability by focusing on the case of Airbnb. We begin by conducting a general stakeholder analysis of short-term accommodation platforms and their relevant stakeholders. In line with Palgan et al.'s (2017) taxonomy, we segment users and providers of CouchSurfing, Home-exchange and Airbnb according to their motives for participation in the sharing economy. Given its size and monetary exchange focus, we identify Airbnb as the most problematic platform in terms of sustainability, and establish two major problems: (1) negative spill-over effects in cities and (2) non- reciprocal sharing. We then propose two sets of solutions: (a) introducing new regulations and incentives, directed towards governments and local authorities, and (b) creating a social network for home-seekers accompanied by a reward system, directed towards Airbnb. We conclude the paper by considering the limitations of our approach and making suggestions for further research.

2. Introduction

Airbnb defines itself as a world-class trusted community marketplace, where individuals can list, discover and book unique accommodation around the world (Airbnb, n.d.). It was founded in August of 2008 in San Francisco (California) by two roommates, who were struggling due to San Francisco's exorbitant rents. Initially, they turned an air mattress in their living-room into a small bed and breakfast just "to make a few bucks" (Carson, 2016). Nowadays, Airbnb is the leading platform for short-term accommodation stays. It remains a software-based platform, which enables users to make profit from extra space by renting out their properties to other users worldwide. Airbnb's community of users surpasses 150 million members and currently operates in more than 65,000 cities and 191 countries (Airbnb, n.d.). Despite its growth and $30 billion market valuation (Thomas, 2017), Airbnb remains a privately held company. It derives its profit by charging providers a flat 3% service fee per transaction and a variable service fee ranging from 5 to 15% of the total transaction to users (Airbnb, n.d.).

Despite Airbnb's strong focus on the accommodation sphere, its founders view it as a platform that "connects people to unique travel experiences, at any price point" (Airbnb, n.d.). Airbnb is adapting to new market trends by introducing cultural experiences and restaurant bookings as a part of its services. Airbnb is not merely impacting, but also dynamically transforming the hospitality industry as a whole (Zervas, Proserpio & Byers, 2014). The use of sharing economy in the short-term letting housing market is partially, if not fully, responsible for overcrowding of cities, rising property prices and an increase in social inequality, especially in popular tourist destinations. However, given the rapid changes in the hospitality industry and society as a whole, new strategies must be implemented to overcome the negative side-effects of the model and ensure its long-term sustainability.

In this paper, we focus on Airbnb, due to its sharing-economy-based business model and positioning as the leading platform for short-term housing rentals. We aim to examine Airbnb's impact on society, identify major operational inefficiencies and make recommendations to reduce their negative consequences.

3. Stakeholder analysis

To gain a comprehensive understanding of the problems surrounding Airbnb and propose solutions accordingly, we first need to take into account the main stakeholders and their respective points of view. Firstly, we analyse the impact sharing economies have on governments and cities. We then procced by taking a close look at the aggregating platforms themselves and their impact on the traditional accommodation industry. Lastly, we provide an in-depth analysis of the extrinsic and intrinsic motivations that of users' and providers' motivations across all three kinds of short-term accommodation platforms.

Table 1 – Stakeholder Analysis

Stakeholder	Gains	Losses
Governments and cities	• Job creation • Increased tourism • Increased revenue • Cultural diversity	• Need for new regulation • Overcrowding • Rising rents • Rising inequality • Shortage of staff during peak seasons • Job loss in the traditional tourism industry • Higher levels of pollution
Aggregating platforms	• Low operating costs • Shifting risk to providers and users • Lack of geographical constraints • Predictable revenue	• Legal uncertainty • Changing regulation • Prone to cyber attacks • Difficulty in maintaining quality of service
Competitors	• Innovation	• Revenue losses • Urge to reduce costs • Staff layoffs • Lower market-competitive prices

Governments and cities can benefit from aggregating platforms due to the creation of new jobs, classifying providers as »micro-entrepreneurs« (Martin, 2016). Additionally, the platforms increase the influx of tourism not only in cities, but also in otherwise low-populated destinations, where hotels are not easily available. For example, in 2015, 72% of Airbnb properties in San Francisco were located outside the central hotel districts (Airbnb,

2015). However, the rise of sharing accommodation, especially platforms like Airbnb, can result in rising long-term rents, higher levels of noise in neighbourhoods, overcrowding, and shortages of staff and infrastructure to support new masses of tourists – especially during peak seasons (Gurran & Phibbs, 2017). Furthermore, as the industry is still in developing stages, a lot of effort and time is required to develop and enforce new regulations around it.

Meanwhile, the main benefit of aggregating platforms (AirBnb, CouchSurfing and House-exchange) is that they are able to maintain stable revenues and endure very low operating costs (Guttentag, 2015). Their costs are mainly associated with the platform's maintenance, while the risk fully lies on the side of consumers and providers (Martin, 2016). The biggest threat for platforms is potential changes in regulation; as exemplified by the case of Uber in London (Topham, 2017). Governments and cities are still in the process of adjusting their laws to account for sharing economies, which could have a detrimental impact on the platform's operation.

While competitors, such as hotels, can benefit from the existence of platforms by being driven towards innovation themselves; the lack of regulation, which gives sharing economy platforms an unfair advantage, sets the competitors' loss-benefit balance on losses (Juul, 2015). While hotels have a variety of laws and regulations they need to adhere to, sharing economy platforms are not held to the same standards and are often in violation of such laws (Juul, 2015). Furthermore, the rise of these platforms results in revenue losses in the hotel industry due to a lower demand for their services – especially for the lower-priced hotels (Juul, 2015).

3.1. Provider and user segmentation

First, let us look at Table 2 and the case of Couchsurfing. Research conducted by Liu (2012) identified that almost 70% of Couchsurfers are younger than 30 and have low purchasing power. Research also suggests that the more Couchsurfers take part in surfing, the more likely they are to participate in hosting, with up to 90% of the users participating as hosts after 25 surfing experiences (Liu, 2012). Users' main reasons for participation are low costs and the socialising aspect of surfing (Liu, 2012). This is in line with Botsman and Rogers' (2011) claim that the opportunity to make connections and learn about new cultures drives participation in sharing economies.

Table 2 – CouchSurfing

	Motives	Benefits	Limitations
Providers	• Prosocial behaviour • Learning about new cultures • Been users as well	• Socialising • Learning about new cultures • Reputation • Good feeling about helping someone	• Monetary costs instead of gains • Some renters might not want to socialise • Potential risks and uncertainty about the visitor
Users	• Low price • Socialising • Learning about new cultures	• Socialising with locals • Meeting new people	• Lack of privacy • Security • Reciprocity: unspoken rule of giving back

From the case of Home-exchange, it is evident that making connections, socialising and discovering local areas are not only goals of millennials. In fact, most members of the Home-exchange community – who are both users and providers – are between 35 and 64 years old, with only 6% being younger than 34 (Forno & Garibaldi, 2013). Typical users are looking for experiences. While their main motivation is to save money, most of them enjoy the benefits of authentic encounters and building relationships with individuals they are swapping the house with (Grit, 2008) (Table 3). Additionally, they appreciate the benefit of not having to leave their home vacant and having someone looking after their property (Alford & Alford, 2013).

Table 3 – House-Swapping

	Motives	Benefits	Limitations
Users / Providers	- Low price - Authentic experience - Convenience	- Social connection with swappers - Convenient for families with kids - Swappers take care of each other's properties/plants/pets - Access to household items - Platform offers extra insurance	- Lack of listings in some areas - Preparation for the arrival of Swappers is time consuming - Misrepresentation of properties - Security and trust

Upon analysing the demographics and the motivations of the first two taxonomy groups introduced in the background ('reciprocal' and 'free'), we now focus on the market-exchange based sharing economy: the case of Airbnb. However, it is crucial that we first distinguish between users and providers, as both groups have different motives in participating on the Airbnb platform.

Table 4 – Airbnb

	Motives	**Benefits**	**Limitations**
Providers	• Monetary: additional source of income • Socialising • Prosocial behaviour	• Source of untaxed income • Convenience: ease of listing their property • Dynamic pricing: when the demand for certain location is high, so is the payoff	• Legal liability • Change in regulations and Terms and Conditions • Costs not covered by insurance • Neighbour complaints
Users	• Monetary • Experience over possession • Socialising • Anti-industry utility	• Low price • Choice overload • Fast booking process • Flexibility of location • Decision-making power: socialise/private	• No direct contact person at Airbnb • Expectations may not match reality • Exposure to fraud • Dynamic pricing • Language barrier with the host

Firstly, we look at providers who offer their properties on the Airbnb platform, using Quattrone's (2016) research of the London market. The analysis suggests that socio-economic status plays a major part in both the type of properties listed and the motives behind doing so. Houses and entire properties tend to be offered in areas with affluent owners. It is also very common (40% of listings) for owners to have more than one property listed on the platform. Such providers are labelled as "SuperHosts" (Quattrone, 2016). On the

other hand, room offerings tend to be concentrated in low-income yet highly educated parts of town (primarily where students live), as well as suburban areas where citizens from low socio-economic status reside. Conversely, research conducted by Qing (2017) and Rossa et al. (2015) suggests that there is an inverse correlation between average household income and Airbnb room offering density, as participants with lower incomes engage in the sharing economy for additional revenue.

To analyse users, we use clustering offered by Guttentag et al. (2017), which suggests there are 5 distinct segments of users:

1. **The money savers** – predominately drawn to Airbnb by low costs. Whilst they are also attracted by flexibility of location, it is not their main driver.

2. **Interactive novelty seekers** – strongly motivated by the opportunity to interact with locals. They are more likely to share accommodation with the host and are particularly attracted by the trendiness and the novelty factor.

3. **Pragmatic novelty seekers** – also attracted by the novelty factor, however, this group of travellers is not attracted by the opportunity to interact with locals and is more likely to rent out a whole property for themselves.

4. **Home seekers** – particularly attracted by the "homely feel". They are older, well-educated and tend to rent out entire homes given the availability of household amenities. They represent a particular segment of the population, who prefer longer travel stays with a companion.

5. **Collaborative consumers** – particularly motivated by the idea of sharing economy, especially giving money to locals and being environmentally friendly. They are predominantly in their twenties and significantly more likely to use shared accommodation. They use Airbnb as an opportunity to interact with locals and have an authentic experience. They are also the most inclined to become a provider.

Whilst making money is clearly the main motive on the providers' end, for users, money is just one of the many motives involved. However, issues regarding trust affect both users and

providers. From the providers' perspective, how does one open up their home to strangers? (Mittendorf, 2016) Users, however, pose the question from the opposite perspective – how can one be sure that users offering their property on the platform are trustworthy? (Teubner et al, 2016)

4. Problems resulting from Airbnb use

4.1. Negative Spill over effects in cities

Cities around the world struggle to effectively integrate Airbnb and adapt to its rapid growth. Even though Airbnb claims to foster cultural exchange and have positive economic and ecological outcomes (Airbnb, n.d; Schor, 2017), most studies on motivation regarding accommodation sharing have found no correlation between platform use and environmental or sustainability drivers (Palgan, 2017; Tussyadiah, 2016). Airbnb is framed as a housing marketplace, enabling individuals who are motivated primarily by extrinsic motives – money – rather than intrinsic ones to engage in short-term accommodation sharing. Two surveys conducted in the US found that money is an important driver for engaging in accommodation sharing (Tussyadiah, 2016), with tenants going as far as illegally subletting properties without their landlord's consent (Ferguson, 2016). Some providers describe Airbnb as "a self-perpetuating, ka-ching ka-ching money machine […] that can always be used to subsidize rent (Said, 2015)," whereas others use the platform to pay off college debts or as a way to add money to their full-time income (Schor, 2017). Such market-exchange-focused framing, combined with profits being much higher than through regular renting, are direct reasons for the continuously growing number of listings on the platform, reaching a 13.8% annual increase in popular cities such as San Francisco (Said, 2015). Cities are thus experiencing extensive transformations, not only in terms of the types of accommodation offered, but also in terms of rent prices, socio-economic inequality and overcrowding.

Short-term rentals have become so lucrative that landlords often prefer them over renting long-term, some of them becoming super-hosts and managing multiple listing like quasi-hotels (Said, 2015). The larger supply of homestays has led to an unchecked growth of visitors and higher safety risks for both the city and its buildings. A city council in Sydney revealed that "at one point one building had more than 1,000 occupants over what is estimated as would have been the case had those apartments been occupied by ordinary owners or long-term tenants" (Elsworth, 2016). Overcrowding of residential buildings does

not only result in a higher wear and tear of the facilities, but also poses greater risk in case of emergency given tourists' lack of familiarity with the surroundings (Heaton, 2016).

Moreover, since Airbnb's rentals are spread throughout the city, tourists are penetrating and becoming part of residential neighbourhoods. Although such immersion provides a more hands-on cultural experience for tourists, it also creates conflicts between visitors and residents. Research shows that individuals struggle to put themselves in someone else's shoes, especially when they occupy different social positions – visitor versus resident – as they experience discrepant roles and situation demands, having divergent perspectives (Jasper, Moore, Whittaker & Gillespie, 2011). Such conflict in perspectives leads to increased levels of noise, nuisance, traffic, parking and waste (Gurran & Phibbs, 2017) and goes hand in hand with affordability pressures and constant displacements of permanent accommodations (Brosseau, Metcalf & Yu, 2015). Hence, monetary drivers and divergent perspectives between users and providers exacerbate the negative consequences incurred by cities, which would not be so critical if users were also providers.

Another direct consequence of misusing and abusing Airbnb is increased socioeconomic inequality. To participate in Airbnb one needs to legally own a property, and the nicer the property, the higher the profit derived from it. Research shows that only the upper part of the bottom 80% of the population are benefiting from increased income (Schor, 2017). This effect is further magnified given Airbnb does not offer any benefits to the providers who rely on the platform as their main source of income (Schor, 2017). Furthermore, Airbnb is disrupting the hospitality industry by becoming the main competitor of the traditional hospitality industry (Guttentag, 2015; Zervas, Proserpio, & Byers, 2014). Zervas et al. (2014) compare Airbnb listings in Texas against the quarterly revenue of Texas hotels, finding that a 1% increase in Airbnb listings is associated with a 0.05% decrease in hotel income. Lower demand for classic types of accommodation results in a loss of low-skill local jobs and increased idle capacity. As Mark Tanzer, chief executive of the Association of British Travel Agents says, "if uncontrolled, tourism can kill tourism" (Paton, 2016). Nevertheless, it has proven hard to control Airbnb's impact given the inadequacy of current regulations (Gurran & Phibbs, 2017). The existing legal framework varies not only across cities but also across councils, proving compliance with and enforcement of the law highly challenging.

4.2. Users are not providers

Aside from the monetary motivation discussed in the previous section, we argue that Airbnb is currently unsustainable since it promotes a type of sharing that is not quid-pro-quo: most users are not at the same time providers. Instead, Airbnb embodies characteristics seen in commodity- exchange transactions (Habibi et al., 2016).

We hypothesise that one reason for this problem is people's unwillingness to share, since they perceive their home as an extension of themselves and do not want "the other" to enter the private sphere of the "self". Essentially, the theory of the "extended self" presented by Belk (1988) suggests that our identity and sense of self are extended to our possessions and "we are what we own". During the process of self-extension, the line between the "self" and "the other" disappears. The self-extension is not limited to physical objects and can also include persons, places and body parts. While not all our possessions play a role in defining ourselves (Belk, 1988), we argue that our private homes do.

When applied to sharing, the theory of the extended self raises the question of whether our sense of ownership and our sense of self change when we move from owning to sharing. Belk (2014) distinguishes between two types of sharing behaviour: sharing in and sharing out. Sharing in takes place when sharing is perceived as an inclusive act. Ownership is then regarded as common and the recipient is perceived as part of the "aggregate extended self". On the contrary, sharing out involves a type of sharing that preserves the boundaries between self and other and does not expand the extended self beyond the family (Belk, 2014).

We argue that people consider their home as an extension of the self. Homes can even be regarded as the symbolic body of the family (Belk, 1988). Participating in sharing activities, which involve quid-pro-quo sharing, requires people to "share in" i.e. allow guests to be part of the aggregated extended self. However, we see that in the case of Airbnb, most encounters between hosts and guests are one-time encounters, where the boundary between "self" and "other" is clearly defined and where the other is viewed as a "stranger", not as a part of the extended self. Nevertheless, the theory of the extended self cannot provide us with a complete explanation of why people do not participate in more reciprocal forms of sharing. We propose that people may be unwilling to "share in" because of the higher perceived risk and lack of trust involved in reciprocal sharing.

Current literature highlights that peer trust is a central determinant for participation in the sharing economy (Lamberton & Rose, 2012) and is determined by the expectation that the other party will reciprocate (Tanis et al., 2005). Rotter (1971, as cited by Gefen & Straub, 2004) defines interpersonal trust as "an expectancy held by an individual or a group that the word, promise, verbal or written statement of another individual or group can be relied on" (p. 444). Literature indicates that trust is usually built gradually, through enduring interactions with the same partner, which form reliable expectations (Gefen & Straub, 2004; Liu, 2012; Mittendorf & Ostermann, 2017). However, travellers nowadays are very mobile, and accommodation sharing tends to be a one-time encounter, making the building of trust more difficult.

Trust cannot be analysed without taking risk into account, since as risk increases, the likelihood of experiencing trust decreases (Evans et al, 2009). We argue that sharing someone's living space is perceived as riskier than renting an empty space and thus requires more interpersonal trust. The perceived risk of online platforms arises as a consequence of information asymmetry between providers and users, which increases fears of uncertainty and opportunistic behaviour (Kim, Yoon, Zo,2015). Moreover, perceived risk is higher in cases where a formal, legal arrangement is missing. Additionally, free accommodation sharing is seen as riskier than paid-for accommodation, given there is almost no pre-selection and potentially anyone can access it (Mittendorf, 2017). Furthermore, it can also be argued that free accommodation entails a lack of "market". If there is no market, there is also no market regulation and "black sheep" can remain in the market even when their offers might not be trustworthy (Mittendorf, 2017).

People viewing their homes as an extension of their self and the lack of trust associated with reciprocal forms of sharing pose significant problems to ensuring a sustainable sharing economy. We aim to tackle these problems through the introduction of a shared group membership, which has been shown to be a strong predictor of trusting behaviour (Tanis et al., 2005). However, it is important to note that trust alone is not enough to establish more sustainable forms of reciprocal sharing; especially when we take into account individuals with a lower socio-economic status, who do not own a property they could rent out to others.

5. Solutions

5.1. Solutions for governments and local authorities

Our first set of recommendations is directed towards institutions, specifically governments and local authorities. To improve the sustainability of sharing economy, regulatory institutions need to ensure fair competition between Airbnb and its competitors, and incentivise users to partake in real forms of sharing economy.

a) Introducing new regulations

Some of the biggest cities around the world that have been facing overcrowding and rising rents due to the spread of Airbnb, have already started taking actions to tackle the issue. New York, for example, made it illegal to rent a whole apartment via Airbnb for less than 30 days, while San Francisco's providers can only list properties where they reside for at least 275 days a year (Gurran & Phibbs, 2017). Given multiple people own more than one property (Major, 2016), it would go against the notion of sustainability – especially in highly populated areas – to prevent them from renting them out and leaving the property empty. However, to prevent people from exploiting the system and listing large numbers of properties purely to make profit, we propose governments and local authorities limit the amount of properties one can rent out to two properties. One should be the provider's primary residence, where they live for at least 250 days a year, and one could be a weekend/vacation house. We realize the limitations of this approach is that people could still exploit the system by claiming a property is their weekend house, when it is in fact only used to make profit. Nevertheless, we believe that the benefits of this approach outweigh its potential costs.

b) Introducing incentives through nudging

Secondly, we urge governments and local authorities to take an active approach and encourage citizens to engage in real forms of sharing. This could be done by firstly introducing an incentive, namely a tax break, for those that are engaging in Airbnb when renting out their properties. We advance that the tax break should be devised for any owners that rent out their space through Airbnb, both when they rent their own

homes and when they allow their tenants to rent them out. We believe a lot of people, especially millennials (Quattrone, 2016), would be willing to rent out their places when they are away, but are unable to do so given their tenancy agreements render such an activity illegal. We realize the limitation of this approach is that governments would be contributing to the profits of a privately-held corporation. Nevertheless, we believe that given the current state of the world, governments' primary goal should be to ensure sustainability even when such actions benefit privately held companies.

To nudge owners towards engaging in sharing economies, we propose a social-norms campaign based not only on descriptive norms, which include solely information, but also on injunctive norms, which point to what is normally approved or disapproved of within a certain society (Cialdini et al., 1991). When information is used in combination with an approving or disapproving message (a happy or sad smiley face), it tends to have a stronger effect than when information is presented by itself (Schultz et al., 2007). Therefore, we suggest local authorities attach a letter to the owner's Council Tax correspondence, discussing their participation in the sharing economy:

a) To those who already participate in Airbnb: By renting out your residence on Airbnb, you are saving "X pounds" in taxes per year! You are among the 70% of residents in your neighbourhood who are already sharing, great work ☺

b) To those who do not yet participate in Airbnb: Did you know that you could be saving "X pounds" in taxes per year and also helping out the planet by renting out your residence through Airbnb? You are among the 30% of residents in your neighbourhood who are still not sharing ☹

5.2.   Airbnb as Platform

Our second set of recommendations is directed towards Airbnb as a platform, since it currently does not promote reciprocity and social exchange. To solve problems identified in our problem analysis – such as lack of trust and users not participating as providers – we encourage Airbnb to target two specific particular user segments and adapt their platform accordingly:

a) A Social Network for Home Seekers

Through our analysis we identified commonalities among the Home exchange and Home Seekers user groups. We believe that Airbnb would benefit from the introduction a social network, which would cater for both of these particular user segments and allow for the introduction of house swapping into their business model. This new model would enable users to find someone to exchange their home with for a common period of time. However, sharing and swapping your property with a stranger requires high levels of trust (Andriotis & Agiomirgianakis, 2014) and we believe that identity verification through social media is not enough to develop the necessary trust between parties. By creating a specialised social network for the Home Seekers, we are aiming to increase the amount of information users share amongst each other, increase personal interaction and form a house swapping social community. We believe that creating such a community, which is oriented towards 'collaborative travel', would help users identify and sympathise with each other. In turn, it would promote their sense of belongingness within the group (Tajfel & Turner, 1979) and improve trust between members, thus making them more likely to let others into the place they view as part of their extended self, which would in turn reinforce their openness to share with their peers (Tanis et al., 2005).

b) Experiences for Collaborative consumers

We are building on characteristics seen in collaborative consumers, who value experiences, activities and socialising, to promote the introduction of a 'Reward others, reward yourself' scheme in Airbnb. In this particular model, Airbnb should aim to satisfy the intrinsic motivation for new experiences by targeting the competitive nature of collaborative consumers. According to CEB, which surveys

over 90 000 US based millennials each quarter, millennials are more competitive than the previous generation (The Economist, 2015). We propose the introduction of a social ranking within Airbnb that would not only focus on participants becoming hosts, but also on the overall experience provided, including social activities, tours or other non-traditional experiences. In return, the best ranked hosts would not only feel good about themselves for helping fellow peers, but they would also be rewarded with non-financial prizes, such as personalised tours of local sights, or other unique experiences that could be redeemed on their next Airbnb trip. We believe that such a programme would rapidly gain popularity in the Airbnb community and help build the lacking social bond between users and providers, as well as nudge more users into also becoming hosts.

6. Limitations and Conclusion

When introducing the sharing economy, we identified the various interpretations of the concept that exist and decided to use Frenken et al.'s (2015) definition. While this definition is certainly helpful for the purpose of analysing the short-term accommodation sharing, we realize it is narrow in scope and limits our work as it disregards other areas of the ecosystem, such as B2B sharing.

The issue of sustainability of sharing economies is very complex and proves extremely difficult to tackle. As identified from our analysis, there are multiple stakeholders involved. However, and due to various constraints, we could only focus on one platform and propose solutions for the two major stakeholders. Moreover, an important aspect of sustainability is the effect the sharing economies have on the environment. After identifying that most environmental problems related to Airbnb are a result of economic and societal problems, we decided not to include the environment as a specific stakeholder in our analysis. Nevertheless, we believe future research should aim to provide a more comprehensive stakeholder analysis and include the environment as a key player.

Furthermore, out of all the identified consumer segments, we focused our analysis on only two groups - Home Seekers and Collaborative Consumers. However, it is crucial to mention that given the high barriers to entry in the short-term accomodation sharing, members of lower socio-economic strata are not able to participate, which is a major issue by itself.

Similarly, and again due to various contraints, we were unable to use all the theories we initally came up with that could tackle the problem, especially Installation Theory and Social Identity Theory. There are other various relevant theories that would be benefitial, however, we limitted our paper to the ones used given they fitted the concept, depth and lenght of the paper best.

In conclusion, we identified some relevant problems concerning the sustainability of short-term accomodation sharing and proposed some solutions accordingly. For future research, we recommend an empirical approach of data collection, which would not only hypothesise but also test out the predictions. Finally, we suggest expanding the focus of the paper to other regions and thus aiming to provide a more thorough understanding of the sharing sector wordwide.

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"Give advice to a consultant who considers using Installation Theory to design interventions for behavioural change."

Companies, regardless of their size, industry or operational region, rely on consulting services to find advice and support in their most critical issues and opportunities. Consultants bring extensive expertise in issues related but not limited to strategy, marketing, digital transformation and sustainability (Bain, 2017). However, and due to the unceasing technological and digital transformation we are experiencing as a society, to fully understand how a company operates, looking at its business model is no longer enough. The way companies are run is under constant transformation, and aspects such as internal and external communication, regulation and workplace culture need careful consideration. To provide advice that is both profitable yet sustainable, solutions must benefit the entirety of the business and not only its individual components. Many modern companies operate under tight profit margins and strike to drive their fixed and operational costs to their lowest levels. Implementation after implementation, the marginal benefits of cost-reducing strategies become negligent and companies need to strive for efficiency in a key, but often overlooked, part of the organization: its employees. This project introduces Installation Theory as a framework that helps analyse behaviour and determine the factors that must be taken into account to foster a behavioural change.

A consultant's guide to Installation Theory

For the purpose of this project, let us consider that the matter at hand involves a company with large operational inefficiencies caused by employees' performance. Effective behaviour change strategies, even though deployed at the 'employee-as-an-individual' level, must align with the company's operating model. Employees, despite working in teams, are part of an all-inclusive team: the company. Literature on team work recognises that an essential element in a team is its focus toward a common goal (Fisher, Hunter, & Macrosson, 1997; Harris & Harris, 1996). Therefore, even though behavioural changes happen at the 'employee-as-an-individual' level, it is essential to apply Installation Theory to the company's overall operating framework if an intervention is to deliver its intended results.

Figure 1. Installation Theory Framework
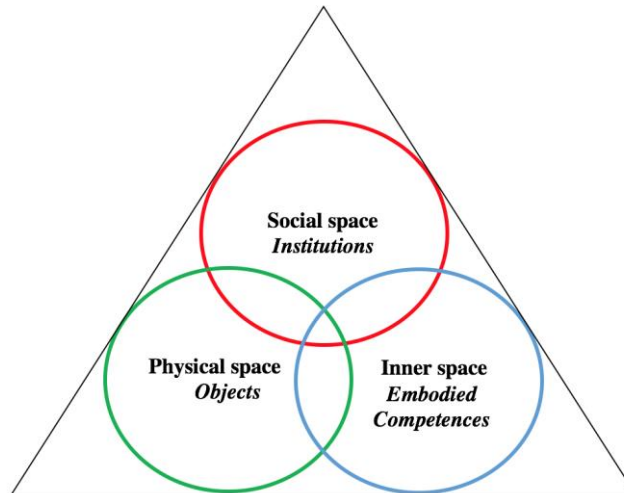
Installation Theory describes sustainable installations as a combination of three layers which assemble locally to produce activity (Lahlou, 2017). When designing interventions that aim to change behaviour, one must understand how actions relate to each of the three layers: (1) the objective physical environment, (2) the subjective embodied interpretative systems and (3) social regulation (Lahlou, 2017). As previously mentioned, and for the purpose of this task, it is beneficial to examine the three layers from a companywide perspective, since effective behaviour changes must be introduced through the company's operating model.

In general terms, a company's operations can be described using the "People, Process, Tool" framework (Gartner's Business Analytics Framework, 2017). Tools account for any of the technological applications that support business processes, decision-making, and storage of information. Examples of widely used tools are CRM (Customer Relationship Management), OLAP (Online Analytical Processes) and workforce data analytics. Processes are the set of mechanisms that dictate how employees execute business operations daily. Standard processes, in retail, for example, include merchandising, buying, pricing and logistics. These set of processes vary from industry to industry. Lastly, employees fall under the people category. Employees are empowered with capabilities, roles, responsibilities and company culture. Nonetheless, to achieve operational excellence, all three parts must operate efficiently both as separate entities and as a single unit.

Figure 2. People Process Tool
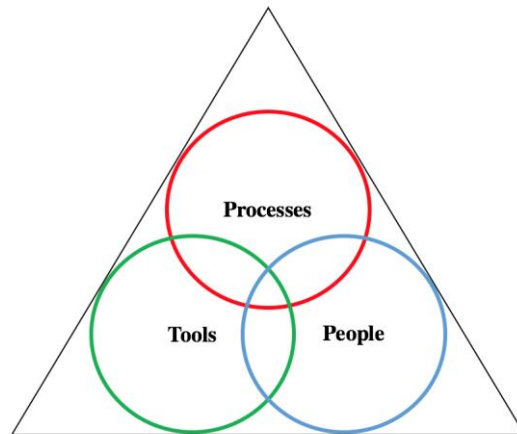
When influencing employees' behaviour, interventions must be introduced, implemented and embedded in its operational model. Moreover, for a change in behaviour to be sustainable, it needs to maintain the quasi-stable state that was previously sustained by the system's relations with its environment (Lahlou, 2017). Installation Theory helps identify the components that drive action. Therefore, when designing interventions for behaviour change, Installation Theory must be used to understand how they can be introduced within the "People, Process, Tool" framework.

The physical layer corresponds to technological applications since they are external to the company and support and constrain activity (Lahlou, 2017). Even though not tangible, technological tools guide employees in their activities by signalling which tasks require action as a project progresses and how to store data among others. Technological tools are thus relevant affordances for a company, which ensure daily operation run smoothly and targets are met. Secondly, the embodied layer equates to people. Employees have embodied interpretative structures, which help them interpret a situation based on their role, responsibilities and the environment. Such embodied interpretative structures enable action to emerge and allow an individual to interact with the situation (Lahlou, 2017). Employees are the living component of companies, and they enact action in companywide and task-specific installations. Finally, the social layer is equivalent to processes. According to Lahlou, institutions create and enforce rules and enable cooperation. At a company level, processes are what determines what is done and ensure each team collaborates and works towards the same goal. If we take pricing as an example, we can see how pricing affects quality and production, and sets boundaries as to how high costs can be. Similarly, pricing works closely with marketing and planning to determine go-to-market strategies and set annual targets.

Figure 3. Sustainable Behavioural Changes
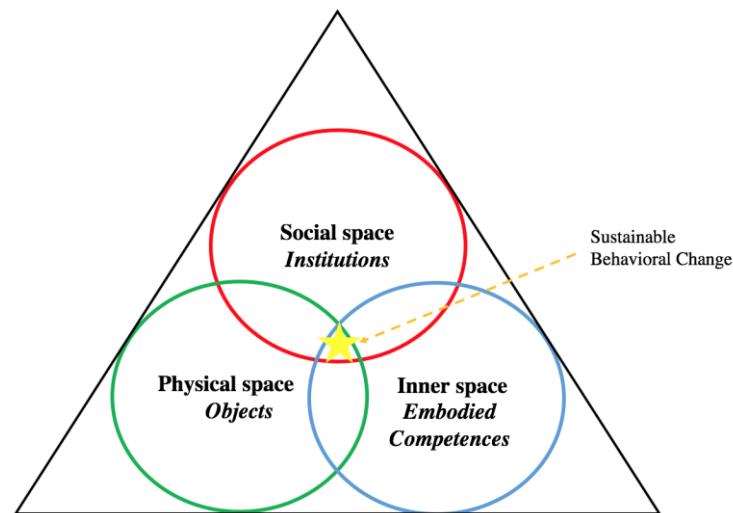
Sustainable behavioural changes occur when interventions create an installation that guides and supports the desired activity at every step (Lahou, 2017). Thus, the next step when designing an intervention would be to observe how prevailing behaviour is guided and supported by the current processes, tools and people. After understanding how the layers interact with each other as behaviour unfolds, changes can be introduced at the crucial steps. However, to ensure interventions support the desired behaviour change, they must maintain the previously observed equilibrium between the layers. Additionally, it is important to note that installations are not static due to the constant interaction between individuals and their environment. Thus, interventions must be designed to facilitate future changes (Lahlou, 2017). Moreover, participants and stakeholders – namely employees and senior corporate officers – should be included and play an active role in the new installation (Bødker, Ehn, Sjogren, & Sundblad, 2000; Schuler & Namioka, 1993). However, and given recent developments in cognitive technologies, the implementation of interventions will have a different agency mix depending on the industry, employees' abilities and type of behavioural change intended. Sometimes, it will prove beneficial to support interventions through individuals, whereas others an automated system may be more effective (Lahlou, 2017). Finally, when installations are disrupted, it is likely that certain individuals will incur negative side-effects. To minimize collateral damage, those who will be affected should are informed in advance (Lahlou, 2017).

Conclusion

Installation Theory is a schematic framework used to analyse behaviour and determine each player's role in an installation (Lahlou, 2017). However, when trying to introduce interventions in a company, they need to be embedded in the company's model. The "People, Process, Tool" framework helps bridge the gap between Installation Theory and the operating model of any given business, and thus helps determine the depth and commitment of each intervention. However, it remains the consultant's responsibility to decide on the intervention's specifics such as content, method of delivery and frequency. Nevertheless, they should ensure all three layers have been taken into consideration to support the unfolding of behaviour (Lahlou, 2017).

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