Research note

The sharing economy and digital discrimination: The case of Airbnb

Mingming Cheng[a,*], Carmel Foley[b]

[a] Department of Tourism, University of Otago, Dunedin, New Zealand
[b] University of Technology Sydney, UTS Business School, Ultimo, NSW 2007, Australia

ARTICLE INFO

ABSTRACT

Digital discrimination has become a buzz word following the recent reports of racial and other discrimination associated with Airbnb. This issue is perceived to pose serious concerns with the rapid growth of the sharing economy. This research derives insights into digital discrimination through the lens of a series of online newspaper comments made in response to an article reporting Airbnb's new anti-discrimination policy. The data were analysed by using text-mining and co-stakeholder analysis. The visualized network and each stakeholder's surrounding discourse reveal that digital discrimination contains multiple layers and meaning constructions. This paper provides a starting point for tourism and hospitality researchers to contribute to the thinking around the digital discrimination with the rapid growth of the sharing economy.

1. Introduction

The sharing economy has many positive aspects. At one end of the spectrum community gardens, car-sharing programs, food co-ops and other small, not-for-profit entities are growing, pooling and sharing resources for the benefit of their members. At the other end we have large-scale enterprises like Uber and Airbnb; privately-owned, funded by venture capital, providing employment for many and making money for their shareholders (Martin, 2016; Cheng, 2016). These large-scale enterprises, in particular, make excellent use of Internet platforms to connect an enormous web of small entrepreneurs with a global market. However, the sharing economy does have its share of issues (Cheng, 2016), and this paper focuses on the problem of digital discrimination in the case of Airbnb.

Airbnb operates an Internet platform that creates opportunities for Airbnb users to choose/reject potential hosts and guests on the basis of race, and sexual orientation (Edelman et al., 2016; Ahuja and Lyons, 2017). In response to criticism in the media and lawsuits, Airbnb launched an anti-discrimination directive to users to counter the problem (Airbnb, 2016). However, a significant digital backlash from Airbnb users who believe they have the right to choose "who comes into their home" and "whose home they enter" has been evident in the form of online comments responding to mainstream media articles. Using text mining and co-stakeholder analysis, we examined comments made online in response to the Guardian's coverage of the release of Airbnb's anti-discrimination policy. With reference to the blurring of the lines between formal and informal discrimination, we unpack the online discourse and provide an initial understanding of the complex nature of digital discrimination.

2. Digital discrimination

The term digital discrimination is used to define a range of circumstances in which a person or group is treated less favorably than another person or group based on their background and/or certain personal characteristics with regards to Internet. For example, digital discrimination is the term used to describe the lack of access some social groups have to Internet-based resources and opportunities, such as in the case of school children in low socioeconomic areas without access to computers, or websites that do not accommodate the needs of people with visual impairments (Weidmann et al., 2016). Digital discrimination also occurs in the context of decision making processes based on the mining of data that reduces access for certain social groups to housing, employment, education, goods and services (Fisman and Luca, 2016). Fisman and Luca (2016) point out that the algorithms behind the decision making process can "inherit the prejudices of prior decision makers and may simply reflect the widespread biases that persist in society at large that contain preexisting patterns of exclusion and inequality" (Barocas and Selbst, 2016, p. 671). For example, Sketchfactor App allows the geotaging of people's behavior to give a racial profile of different city areas (Rutkin, 2016).

In the case of Airbnb and similar sharing economy internet platforms, digital discrimination refers to instances in which the internet is being used to directly discriminate against people on the basis of race, religious beliefs and sexual orientation (Edelman and Geradin, 2015; Edelman et al., 2016). As such, Airbnb has been accused of creating

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discrimination by allowing hosts to choose who they would like to host in the system. Airbnb's operating system appears to be allowing hosts and guests to assess the digital profile of each other and to direct, accept and decline requests for accommodation in a discriminatory manner around race and sexual orientation (Edelman and Geradin, 2015). Edelman et al. (2016) suggest that Airbnb should remove names and pictures from its platform and push to expand the use of an instant booking system to combat potential discrimination. However, the complexity of the issues is yet to be teased out. Current academic investigations attribute the problem to the design of Airbnb's platforms. This over-simplified understanding prevents the public from forming a coherent understanding of the issue and developing better and effective strategies to address the ongoing discrimination concerns.

Bearing this in mind, this research aims to provide an initial understanding of the complex nature of digital discrimination through carefully unpacking public online discourse around discrimination on Airbnb by using text-mining and co-stakeholder analysis approaches. This paper does not aim to generalize findings or cover all of the issues of discrimination surrounding Airbnb, but rather it views online comments as a window to generate a better and deeper understanding of complex issues such as discrimination. It aims to provide empirical evidence and a baseline to aid future researchers in assessing the emerging concept of "digital discrimination".

3. Methods

The 217 digital comments made in response to The Guardian's release of the news article conerning Airbnb's new policy in addressing discrimination (Hynes, 2016) were examined. The comments ranged from a few to nearly 300 words. The comments extracted are the personal views of the readers of the newspaper. It is not possible to know whether all of the commentators have had an Airbnb experience in the past, although some of the commentators have clearly highlighted their involvement in Airbnb as guest or host. However, these comments collectively reflect public responses to, and framings of, digital discrimination around Airbnb (Hanna et al., 2016).

Three stages were involved in the data analysis process. First, each comment was read and re-read to identify the key stakeholders through an interactive process. Second, co-stakeholder analysis was performed and the results were visualized in a network by using the software Gephi. The co-stakeholder approach is based on the co-occurrence of stakeholders in each reader's comment as a way to measure the relationship strength of each stakeholders in the public discourse (Schweinsberg et al., 2017).Third, text-mining of the comments related to each stakeholder was performed using the qualitative analysis software – Leximancer (4.0 edition).

4. Finding and discussion

The co-stakeholder analysis presents a visualized network of perceived stakeholders in the discourse (Fig. 1). It clearly shows that guests, Airbnb and host parties form a strong circle and occupy the central position within the network. This central position is not surprising considering the nature of the role each of these stakeholders play. The associated discourse suggests that hosts and guests have both the right to discriminate due to the private nature of transaction, and the responsibility not to discriminate as a condition of the formal business transaction. Representative comments about guest and host positions are provided in Table 1.

(The size of node represents the number of times certain stakeholders mentioned, and the thickness of the line indicates the number of co-occurrences between two stakeholders)

As the medium between host and guest, Airbnb is economically, morally and legally driven to address this imbalance. The visualized conceptual map (Fig. 2) clearly shows that in the reader's mind, discrimination at Airbnb is based on sexual orientation, gender, and race
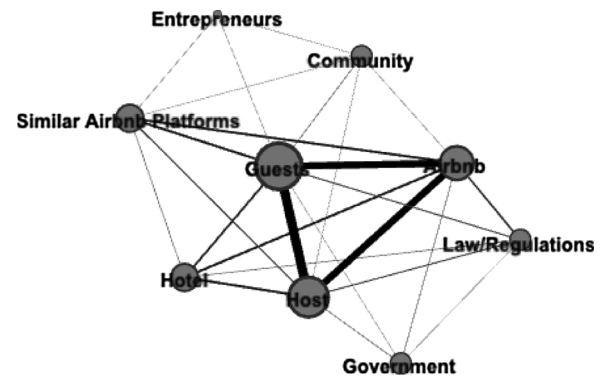

Fig. 1. Visualized network of stakeholders.

(*gay, lady, black* in red). From an economic perspective, if Airbnb fails to address the discrimination issues, it risks losing its market share, from which competitors will gain (e.g. similar Airbnb platforms) (*money, business* in dark green). From a regulation perspective, Airbnb is clearly affected by both moral and legal considerations – how Airbnb properly establishes the rules (*rules* in grey); subsequently makes users accept these rules (*accept* in dark green) and enforces these rules. As mentioned earlier, the hosts hold the view that as the owners of the property, they retain the freedom to make their own choice as to who they would prefer to host (*freedom, choice* in blue).

However, while these three stakeholders occupy the central position, other stakeholders also contribute to the debate. *Law/Regulations* highlighted the importance of establishing a regulatory framework for each of these three stakeholders. This argument is premised on the concern that Airbnb alone will be unlikely to effectively solve the discrimination issues. *Government* points to the need that government should maintain effective legal enforcement of the law as well as proactively engage with the three central players. One reader even suggested that as an alternative, local councils should create a network of existing service providers and visitor information centers to compete with Airbnb. *Hotel* was mainly concerned their anti-discrimination practices and how their practices could be applied in solving the complicated discriminatory issues in the context of Airbnb. This discourse shows a series of concerns about the direct transfer of existing practices from hotels to Airbnb without considering the private relationship building and sharing characteristics of Airbnb. *Similar Airbnb Platforms* represent the fact that similar service platforms, such as spareroom.com, have emerged to compete with Airbnb to take the disenchanted customers. This alerts both Airbnb and those who are discriminated against about alternative places to spend their money. The other two stakeholders – *entrepreneurs* and *community* also emerged. *Entrepreneurs* highlight the opportunities provided by this neglected market to create new business models, while *community* stresses the need for the central players to have the responsibility to attend to the welfare and wellbeing of the community.

5. Conclusion

The visualized network and each stakeholder's surrounding discourse reveal another layer of complexity that has been overlooked in the literature. The design of Airbnb's booking system creates opportunities for established off-line patterns of discrimination to flourish in the online platform by entailing "personalization" (Edelman et al., 2016; Kakar et al., 2017). This emerging concept of digital discrimination is complex with multiple layers and meaning constructions. That is, while Airbnb stands in between hosts and guests to mediate the host-guest experience, digital discrimination engenders a form of subjectivity. Airbnb creates space for different stakeholders to influence how people and spaces are shaped, perceived, included and excluded. This is in line with an increasing awareness in the literature of the

Table 1
Sample comments representing the discourse around discrimination[*].

	Right to informally discriminate	Responsibility not to discriminate
Guests	As a guest, sharing an apartment/house with someone who discriminates him/her is uncomfortable or even dangerous experience	All people have a right to use Airbnb without discrimination.
	Data exemplar	Data exemplar
	Good initiative for the whole apartment side of air bnb but a bad idea for the shared part. Its not great that people are rejected on race etc. But by forcing the issue you can place an african tourist in a neonazis flat. At best unpleasant at worst dangerous.	More than once in my life I've got the distinct impression racists are just not that bright. The concept of all human beings being exactly the same is one which they simply cannot wrap their heads around.
Hosts	All the hosts have a right to comfort/freedom from choosing who they would like to host because they are the owner and it is private transaction.	As Airbnb is a business transaction, all the hosts should obey the rules/law against discrimination
	Guests can choose to a proper commercial establishment – a hotel with legal safeguards against discrimination	
	Data exemplar	Data exemplar
	This is a private transaction and I have to respect the other party's feelings about that transaction even if I don't agree with them. So if you or I feel we are victims of prejudice then we just go to a proper commercial establishment – a hotel – where there are legal safeguards against discrimination.	Anyone operating any sort of business becomes governed by countless rules and regulations. If you CHOOSE to operate the business then you have to accept the regulations governing it. This is never controversial when it comes to food safety or hygiene or whatever, but is suddenly treated as a human rights violation when it comes to businesses obeying equality law.
	…people might only be comfortable with certain types in their house. Again, the little old lady might not feel comfortable with young men. If Airbnb force her to take in randoms, then she won't use the service.There is an element of high risk involved with the service. I don't think people will accept randoms	

[*] These comments have not been edited for typographical and/or grammatical errors.
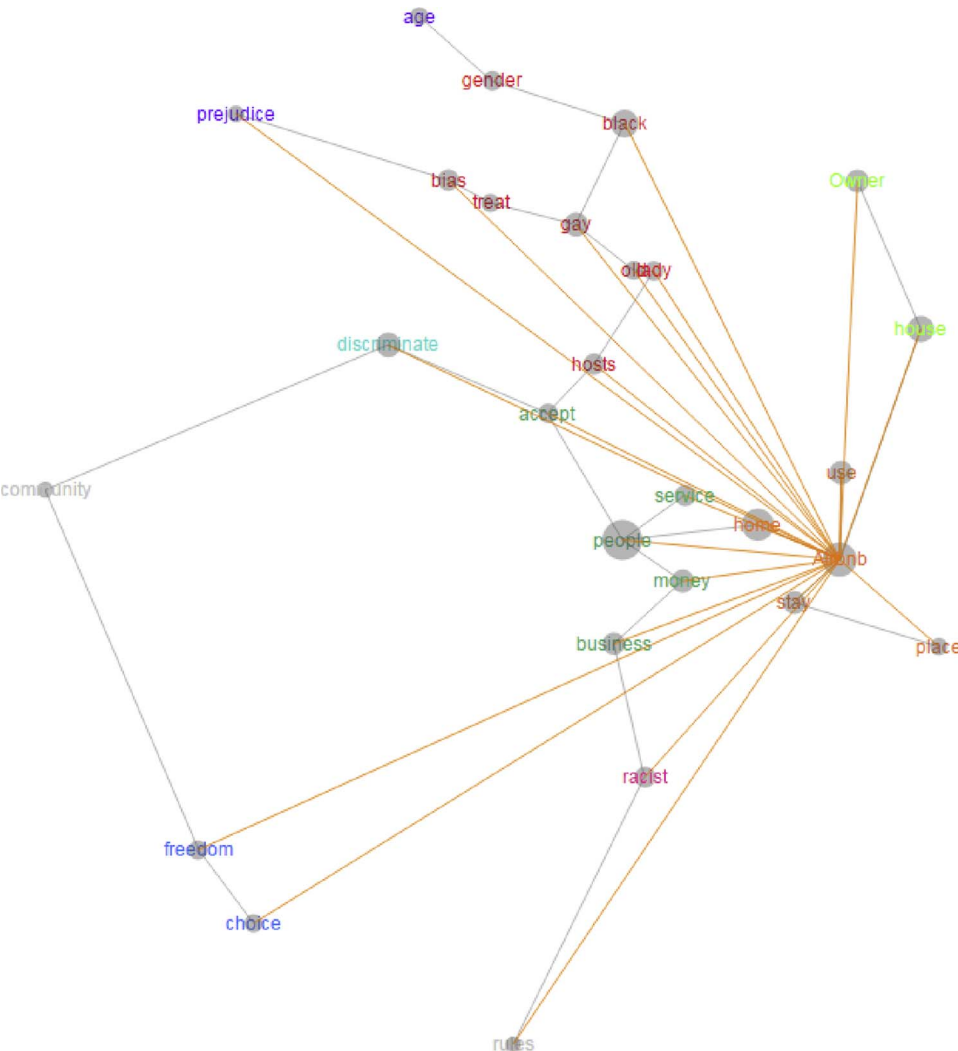

Fig. 2. Visualized concepts: Airbnb and digital discrimination.

inadequacies of a single solution of pressuring Airbnb to a collective action to mitigate digital discrimination in Airbnb (Cui et al., 2016; Edelman and Geradin, 2015; Todisco, 2015). One recent article that supports collective efforts offers three potential solutions through 1) a legal solution by bringing enforcement action against individual Airbnb users; 2) a political solution by lobbying policy makers/congress to change their policy/laws; and 3) a social solution by pushing Airbnb to change (Todisco, 2015). As such, this research note does not intend the findings to be seen as definitive or all-inclusive. Rather, by taking a network perspective and presenting various stakeholder perspectives drawn from the medium of public responses to the issues at stake, we view this paper as a window for tourism and hospitality researchers to contribute to the thinking around the digital discrimination with the rapid growth of the sharing economy. Hence, this research note invites future research and debates around the discrimination issues in the sharing economy.

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