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Enabling people with impairments to use Airbnb

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Abstract

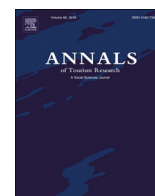
Paid peer-to-peer accommodation networks, including Airbnb, have been accused of excluding people with impairments. This study analyses host and guest posts on the Airbnb hosting community to (1) reveal key barriers preventing people with impairments from fully participating in peer-to-peer accommodation trading, and (2) identify solutions to overcoming these barriers, using as theoretical framework the social model of disability. The key conclusion is that we may be witnessing a fundamental shift in the nature of barriers: as the growing peer-to-peer accommodation sector increases the quantity and variability of accommodation options, the primary challenge is no longer a lack of suitable accommodation (physical barrier), but the identification of suitable accommodation (informational barrier). Informational barriers are potentially easier to overcome.

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Enabling people with impairments to use Airbnb

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ABSTRACT

Paid peer-to-peer accommodation networks, including Airbnb, have been accused of excluding people with impairments. This study analyses host and guest posts on the Airbnb hosting community to (1) reveal key barriers preventing people with impairments from fully participating in peer-to-peer accommodation trading, and (2) identify solutions to overcoming these barriers, using as theoretical framework the social model of disability. The key conclusion is that we may be witnessing a fundamental shift in the nature of barriers: as the growing peer-to-peer accommodation sector increases the quantity and variability of accommodation options, the primary challenge is no longer a *lack* of suitable accommodation (physical barrier), but the *identification* of suitable accommodation (informational barrier). Informational barriers are potentially easier to overcome.

“23% of our population is disabled so surely some consideration should be taken to ensure that they have as good a time with Airbnb as we give our other guests.”

Guest, New Zealand.

Introduction

Peer-to-peer accommodation networks have been accused of not catering to people with impairments because the decentralised nature of accommodation provision is not bound by any regulations to provide minimum accessibility standards. Many countries around the world have laws against discrimination. In the USA, the largest Airbnb market, the *Americans with Disability Act* protects people with mental and physical impairments from being discriminated against at work, on public transport and in accommodations. As a consequence of such laws, commercial short-term accommodation providers are required to take measures to comply, such as setting up a minimum number of rooms to be accessible to people with impairments. This legal framework applies to short-term rentals, such as paid online peer-to-peer accommodation (Dolnicar, 2019) traded on online platforms such as [Airbnb.com](https://www.airbnb.com), except where the property has five rooms or less and the owner of the property also resides there (“hosted rentals”) (US Department of Justice, 2010). Not surprisingly, therefore, there have been calls for anti-discrimination laws and regulations to extend to hosted rentals (e.g. Boxall, Nyanjom, & Slaven, 2018). Public discourse on this issue largely focuses on areas where the accessibility standards of peer-to-peer traded spaces are inferior to other larger establishments such as hotels.

Not discussed extensively in the academic literature or in public discourse, however, is the potential of peer-to-peer accommodation networks to accommodate special needs: one of the key characteristics of peer-to-peer accommodation networks is that

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they offer unique spaces, rather than standardised spaces (Dolnicar, 2018). This variation of accommodation offers makes peer-to-peer accommodation networks uniquely suitable to cater to tourists with impairments. In addition, every single property listing on Airbnb has ample space to describe the accommodation in enough detail to allow people with impairments to assess whether or not it is suitable for them. It is not a priori obvious, therefore, whether peer-to-peer accommodation networks are indeed excluding people with impairments from participating or not. If they are, it is important to understand which measures can be taken to overcome existing barriers. This is the aim of the present study.

Specifically, we analyse conversations on online discussion fora where hosts and guests talk about challenges associated with access to peer-to-peer accommodation for people with impairments and possible solutions. We use as the theoretical framework to guide our netnography the social model of disability. Our study contributes to knowledge on barriers faced by people with impairments in the tourism context, and leads to practical recommendations regarding how participation can be increased by peer-to-peer accommodation networks facilitators, such as Airbnb, hosts and guests with impairments.

The structure of this article is as follows: first, we introduce the social model of disability, which guides the empirical investigation. Next, we discuss the methodology used and report findings using the framework the social model of disability. Finally, we extend the model by including enabling factors for all three types of barriers postulated by the model.

The social model of disability

Historically, disability has been considered from a medical perspective and as a health condition. Disability was viewed as a problem of an individual that made them different to ‘normal’ people, and that needed to be cured or fixed (People with disability Australia, 2018). The social model of disability (Oliver, 1983, 2013) takes a different position, postulating instead that disability is caused by the way society is organised, rather than a person’s impairment (Scope, 2018). According to the social model, disability is caused by three types of barriers: (1) attitudinal barriers; (2) physical barriers and (3) informational and communication barriers. The social model of disability (graphically illustrated in Fig. 1) focuses on identifying these barriers and finding ways to reduce and eventually eliminate them. It avoids blaming individuals for their impairment, recognising instead that impairments are always present in society, and that society needs to enable, rather than disable, people (People with disability Australia, 2018).

Attitudinal barriers

Attitudinal barriers are social and cultural assumptions made about people with impairments that work to discriminate against and exclude them in society. Numerous studies have identified that people with impairments are viewed negatively by others in society in the tourism context (McKercher & Darcy, 2018; Packer, McKercher, & Yau, 2007; Pagan, 2012; Yau & McKercher, 2004), to the extent that some of them attempt to hide their impairment from other people including tourism providers (McKercher, Packer, Yau, & Lam, 2003). Often, negative attitudes are associated with ignorance about people with impairments, what they are capable of, and the extent to which they have a right to be fully included in society. Ignorance is argued to be the most significant issue facing

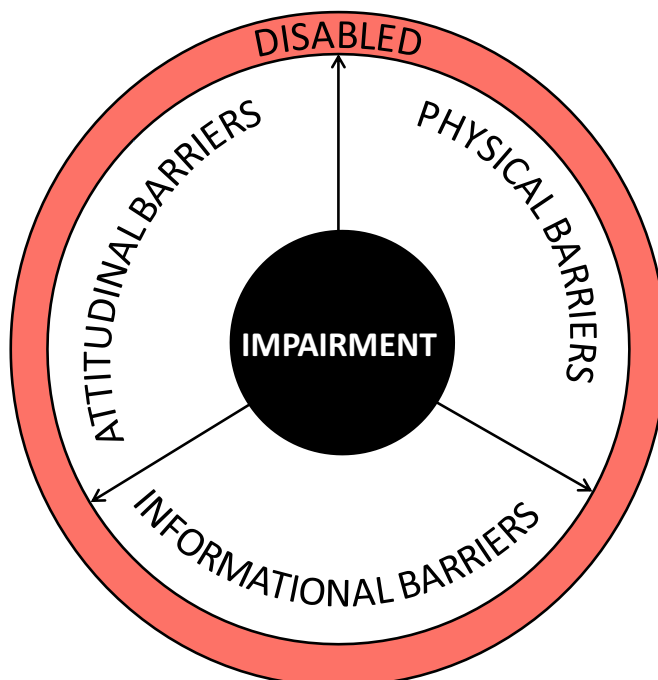


Fig. 1. The social model of disability.

people with impairments because it underpins so many other problems associated with how people with impairments are viewed and treated within society (McKercher & Darcy, 2018). Ignorance affects all aspects of life for people with impairments, in both their personal world and in their dealings with service providers including tourism professionals. People with impairments are regularly overlooked or ignored (Darcy & Pegg, 2011); they report being treated as “second class citizens” (Small, Darcy, & Packer, 2012, p.946), with reactions of others often dependent on the conspicuousness of an individual’s impairment. Ignorance can manifest in a range of ways, including treating people with impairments like they are incapable, offering inappropriate assistance, making disparaging or offensive comments, and openly hostile behaviours (Darcy & Pegg, 2011; Small et al., 2012).

Education is acknowledged as key to improving societal attitudes toward people with impairments (Randle & Reis, 2016). In the context of tourism, educating people can improve attitudes toward people with impairments, whether the information relates specifically to tourism services, or is more general in nature (Bizjak, Knezevic, & Cvetreznik, 2011). While the need for training and education in the tourism industry has long been identified as necessary for overcoming negative attitudes and discrimination against people with impairments (Daruwalla & Darcy, 2005), the tourism industry has not been proactive in developing suitable and accessible resources to facilitate full inclusion. Instead, many tourism operators are satisfied with meeting their minimum obligations with regard to anti-discriminatory legislation and other regulatory requirements.

Physical barriers

Physical barriers are the features of physical and built environment that prevent equal access for people with impairments. Most commonly, physical barriers relate to the architectural and design features that present impediments to full participation of people with impairments. This can take the form of uneven surfaces that present tripping hazards, steps and the need for ramps, inaccessible showers and bathrooms, bed and chair heights, and a wide range of other obstacles (Figueiredo, Eusébio, & Kastenholz, 2012; McKercher & Darcy, 2018). People who use wheelchairs are especially exposed to obstacles, and consequently, are often excluded from experiencing and participating in tourism offerings (McKercher & Darcy, 2018). Wheelchair users experience particular difficulties when trying to access air travel services (Chang & Chen, 2011), and have reported deliberately eating and drinking less before flights to avoid having to use the bathroom facilities on aircraft (Yau & McKercher, 2004).

People with visual impairments are especially vulnerable to physical barriers when travelling. Navigating their way around unfamiliar destinations can be almost impossible if multisensory cues are not present. Tactile aids can be helpful for wayfinding, for example tactile maps can communicate street directions or emergency evacuation procedures, and tactile ground surfaces signal approaching hazards (e.g. the edges of curbs or train platforms) (Small et al., 2012). Audible aids can also be useful in enabling people with visual impairments to navigate their physical surroundings, such as audible road crossings and elevator cues (Packer et al., 2007). Other physical features of public spaces prevent visually impaired people from fully participating in tourism experiences, for example low lighting in restaurants can make it difficult to read menus (which can, embarrassingly, require the full menu to be read to them by wait staff or other diners) or see where food is located on a plate (Small et al., 2012). Other physical barriers include currencies that have bills and coins that are similar in colour and size, and inaccessible customs and immigration forms (Packer et al., 2007).

Information and communication barriers

Information and communication barriers prevent people with impairments from communicating effectively and accessing information. People with impairments rely heavily on relevant and accurate information about the physical properties of a destination in accessible formats (e.g. Easy Read and plain English). Incorrect or misleading information is particularly problematic when it relates to access to facilities and services (Eichhorn, Miller, Michopoulou, & Buhalis, 2008; Pagan, 2012), potentially resulting in a range of negative consequences for people with impairments, including reduced enjoyment, increased costs, cancellation of travel plans and even threats to personal safety (Packer et al., 2007). People with impairments report low levels of confidence in the information provided by tourism operators and often feel the need to clarify and check the information, which can be time consuming and detract from the enjoyment of travel planning (Packer et al., 2007).

Information needs of people with hearing impairments can be problematic at both the planning and experiential stages of travel. In the planning stage, hearing-impaired people cannot access any information sources that do not include captioning (e.g. advertisements and promotions for special travel promotions). When travelling, many tourism offerings assume tourists can hear, such as city and landmark tours, which include audible guides. Cultural attractions like museums and art galleries now offer digital tour guides to explain the different exhibits, however because they are usually audible recordings they are inaccessible to people with hearing impairments. Often, the only option for people with hearing impairments is, if possible, to have someone they are travelling with translate the audible information using sign language. Other cues used by tourists are only in audible format, for example flight and train announcements (McKercher & Darcy, 2018).

People with visual impairments also experience significant barriers when information is not presented appropriately. Many visually impaired people are able to use computers because they install assistive devices on their own computers (e.g. screen readers) (Small et al., 2012). But the enjoyment of planning a holiday is significantly reduced when a person with a visual impairment has to ask someone else to read out information because it is not in a suitable format (Small et al., 2012). Many other forms of tourist information are only provided in printed format, like maps, menus, brochures and signage. While the format of information is often a key barrier, lack of relevant information also represents a major challenge. For example, people with limited mobility need to know whether walking tracks are suitable for them; people relying on the assistance of service animals need to know whether facilities can accommodate their service animal (Small et al., 2012). A range of assistive technologies used by people with impairments in their everyday lives also have the potential to open the door to travel experiences by providing information in suitable formats. These

include, for example, voice-to-text software and voice recognition, screen magnification, ability to change colour schemes and contrast, apps that can read barcodes and scan currency, and GPS navigation systems that feature landmark identification, audible directions and enable personal tracking (Darcy, Maxwell, & Green, 2016; Neven et al., 2017; Thompson, 2018).

The social model of disability is a suitable framework for the present investigation because it offers guidance in identifying and overcoming barriers that disable people with impairments. Overcoming such barriers contributes to the creation of an inclusive and equal society that benefits everyone. The social model of disability is, therefore, recognised as “the best explanation of disability and the best “route map” for achieving equality and real social change for Disabled people” (Inclusion London, 2015, p.5).

Method

We use netnography to gain insights into the shortcomings of peer-to-peer traded accommodation options. Netnography uses an ethnographic research approach in the online context; it is defined as a “qualitative method devised specifically to investigate the consumer behavior of cultures and communities present on the Internet” (Kozinets, 1998, p.366). As such netnography is particularly suitable for the study of constructs existing primarily online or existing because of the availability of an online platform which creates an online community, such as peer-to-peer accommodation network platforms. While the actual tourist and accommodation experience occurs offline, all information and communication before and after the stay is exclusively online. Here, netnography can provide “additional insights into tourism providers’ experiences and challenges, which in turn could help tourism scholars to have a better understanding of both demand and supply” (Tavakoli & Mura, 2018, p.191).

Our study context is online fora specifically related to peer-to-peer accommodation and disability. Such fora are used by both hosts and guests to exchange experiences and recommendations for improvement, thus offering a rich source of insights relating to our research questions. We use the social model of disability as a theoretical framework to identify the barriers that currently disable people with impairments from accessing tourist accommodations through Airbnb. Specifically, the framework calls for the identification of existing attitudinal, physical and informational/communication barriers, and the exploration of ways to overcome them, enabling people with impairments to fully participate on the Airbnb platform.

The forum we study is the Airbnb community forum on hosting (Airbnb Community Center, 2018) which includes a large number of conversations relating to disabled access, each of them typically including a number of posts and replies. We studied posts and replies using the following search terms, which were determined following a review of relevant literature: ‘disabled’, ‘disability’, ‘impairment’, ‘impaired’, ‘access’, ‘accessibility’, ‘deaf’, ‘hearing’, ‘blind’, ‘visual’, ‘physical’, ‘mobility’, ‘intellectual’, ‘cognitive’, ‘sensory’. Approval for data collection was obtained from the university’s Human Research Ethics Committee prior to data collection commencing (approval number 2018/340).

We analysed the qualitative data using the framework method, a flexible but systematic method of data analysis (Gale, Heath, Cameron, Rashid, & Redwood, 2013). The framework method enables the systematic organisation of data into pre-determined codes and categories, which expand according to emerging themes of interest (Gale et al., 2013). For the present study, we analysed raw data (in the form of comments on the public online discussion forum) to (1) reveal barriers faced by travellers with impairments when using peer-to-peer accommodation which align with the barrier categories postulated by the social model of disability (attitudinal, physical and information/communication), and (2) to identify solutions to overcoming these barriers proposed by both guests and hosts. As the analysis progressed, within each barrier category sub-themes emerged and we modified and developed the coding framework accordingly. The final coding framework that resulted from this process included (1) attitudinal barriers: lack of awareness, discrimination, misrepresentation by guests; (2) physical barriers: wheelchair accessibility, other accessibility issues; and (3) informational barriers: hosts providing misleading information, guests obtaining information they need, appropriate terminology/labelling.

The coding process involved team discussion and decision-making. The research team members discussed the appropriate coding of data and agreed on core themes identified in the online comments. As analysis progressed, the coding frame was reviewed and refined in order to identify any expand new emerging codes. We used N-Vivo to manage the data. Throughout the analytic research process we used the framework for qualitative data analysis proposed by Srivastava and Hopwood (2009) which involves continually asking three iterative key questions: (1) what are the data telling us?; (2) what is it we want to know?; and (3) what is the relationship between what the data are telling is and what we want to know?

Results

The first key insight gained from the analysis of conversations on Airbnb hosting fora was that the barriers people with impairments face when using peer-to-peer accommodation cannot be categorised easily into the three barrier types within the social model of disability. The practical barriers they face are typically a combination of two of three of the categories. For example, accessibility challenges (a physical barrier) are often exacerbated because the building features of the property are not communicated clearly on the Airbnb profile of the property (informational/communication barrier). And this lack of clear communication is often a result of host being unaware of the needs of people with impairments (attitudinal barrier). As a consequence, there is some overlap across barrier categories of the social model of disability in the discussion of findings. The overlapping nature of barriers is visualised in Fig. 2 by the broken (dotted) line between the barrier categories.



Fig. 2. Barriers that “disable” people with impairments from fully participating in peer-to-peer accommodation networks, and measures to “enable” them.

Attitudinal barriers

Attitudinal barriers fall into three themes: (1) lack of awareness of needs of people with impairments, (2) discrimination and (3) guests without impairments misrepresenting themselves as having an impairment.

Lack of awareness of needs of people with an impairment

Generally speaking, hosts of peer-to-peer accommodation who have no impairments lack awareness of the needs of people with impairments. As a consequence, hosts frequently self-assess features of their property incorrectly. For example, a host may classify the space as accessible, assuming that spaces without steps are automatically accessible. They are not. For full accessibility other conditions must also be met, including a minimum width of doors and hallways and absence of tripping hazards, as the following quote illustrates:

“Wheelchair” does not mean that you can just get through the door [...] It's not the owners' fault they don't know, but being in a chair has many more issues [than] just stairs.” Guest, USA.

Hosts are also often unaware of their legal responsibilities in relation to service animals. People with certain kinds of impairments rely on a service animal trained to assist them with everyday tasks. Accommodation providers are legally obliged to provide access for those service animals to stay with their owners. Many hosts on peer-to-peer accommodation networks have strict no-pet policies, not realising that service animals are excluded from their no pet house rule. Many hosts do not know that they are breaking the law by denying a guest with an authorized service animal access to their property:

“I really think in most instances it's a host that is trying to be inclusive and is simply uninformed” Host, USA.

Discrimination

Discrimination or perceived discrimination against guests with impairments typically manifests as hosts avoiding guests with impairments, a sentiment reported by people with impairments and hosts themselves. Some hosts have openly decided not to accept guests with impairments, an action that would be subject to discrimination legislation in many jurisdictions:

“Right then I promised myself to make sure guests were healthy enough to safely occupy my suite. That may be discrimination but I cannot have my negligence be a danger to another who won't disclose illness or conditions that are potentially life threatening before booking my suite.” Host, USA.

The main reasons provided by hosts are concerns about guest safety (as illustrated in the quote above) and concerns about liability. Hosts report being stressed and worried about guests with physical impairments potentially injuring themselves while staying at their properties, or not being able to evacuate in the case of an emergency:

“We were on pins and needles for their entire stay, praying that he didn't fall. I didn't dare leave the house with him alone, in case he fell.” Host, USA.

“I was very worried that even though we have fire wall doors and a sprinkler system installed, that this person would not be able to escape in time if there ever were a fire.” Host, Canada.

Some hosts are happy to accommodate guests with impairments, but find – at check in – that the guest has special needs they were not anticipating. One host on the forum describes an instance of a guest in a wheelchair staying for one month. The hosts bought ramps to facilitate greater access both inside and to the outside of the property. Inadvertently, the guest's wheelchair caused damage to both the interior (e.g. glass in the shower area) and exterior (e.g. pool fence) of the property, had his child visit for up to 6 h each day (without checking this was OK with the host), and required the host to lock up their pets while the child was visiting. Although the guest never asked, the host felt they should provide meals for him and the child. The host described feeling as though they were on “egg shells” in their own home. This scenario paints a picture of a well-intentioned host who is unhappy with the guest arrangement, but is unsure how to manage it appropriately and respectfully. Other hosts were quick to advise that the host did not need to provide special treatment for people in wheelchairs, and that the host should explain the house rules to the guest in the usual way:

“...being disabled does not entitle you to expect free care and food”. Guest and Host, UK.

“No you do not have to do everything for him. I'm in a chair and I'm very capable of [...] cooking food for myself. [...] Put it this way if he was able body would you allow him to get away with this, if the answer is no then don't let him just because he is in a chair. Please don't allow yourself to pity him just because he is in a chair.” Guest, Australia.

Some hosts report being reluctant to select accessibility options for their properties in case guests form unrealistic expectations:

“I had ticked some of the accessibility boxes on my listing, as they applied to me: wide doorways, accommodation all on one floor, and a few other things. [...] Check in day came, and it turned out that the guest used a wheelchair full-time. They found that the property wasn't suitable. [...] After that happened, I unchecked all of the accessibility checkboxes to be sure that people wouldn't book again in future, thinking the space is fully accessible when it's not.” Host, Canada.

Both hosts and guests report instances where guests did not disclose their impairment to the host. Hosts expressed concern about this because they worried about the suitability of their property in terms of meeting the guest's needs. They also describe how awkward situations could be avoided by guests asking appropriate questions and providing suitably detailed information to hosts about their own needs.

“My guest booked as a single but had her disabled sister spend a few days here. [...] My small home is not walker friendly [...] and I was concerned about liability due to her lung condition. Host, USA.

Some guests are reluctant to disclose their impairment to hosts, or even have a deliberate practice of non-disclosure, for fear of having their booking rejected. In such cases hosts sometimes report feeling bad because they believe they could have provided a better service for the guest had they known about their impairment before they arrived. In one instance a family with a child who was in a wheelchair booked a property, but did not disclose their child's impairment. The host was more than willing to accommodate the family and noted that had she known about the child's impairment she could have made arrangements that would have made access easier for them. The host reported the parents' explanation:

“...when they mention a disabled child more times than not a booking gets cancelled or rejected on them, so they no longer mention it.”

Host, USA.

There is evidence that some hosts prefer not to accept people with impairments as guests because they are either not sure of how to best meet their needs or because they are concerned about doing the wrong thing and either breaking the law or offending someone. Hosts often overcompensate by treating people with impairments differently to other guests. This strategy can leave hosts feeling resentful and reluctant to accept guests with impairments in future. It also frustrates people with impairments who want to be treated in the same way as everyone else. The hosting community posts suggest that there is still discrimination occurring in peer-to-peer accommodation networks which acts as a significant barrier to people with impairments participating equally in the peer-to-peer trading of accommodation.

Guests misrepresenting themselves as being disabled

Most commonly, misrepresentations of people claiming to be disabled are reported and discussed in the context of assistance animals. There is a degree of confusion among hosts regarding assistance animals. Airbnb's policy (Airbnb, 2018) specifies that assistance animals include both (1) "service animals" – an animal (usually a dog) trained to perform tasks that benefit a person with an impairment and (2) "emotional support animals" – animals used as part of medical treatment and/or therapy but not necessarily trained to perform specific tasks. According to Airbnb's policy, hosts are required to accept assistance animals (even if their property specifies "no pets") and cannot charge for any additional cleaning required or other associated costs. Guests do not have to disclose that they have an assistance animal. However, there is scepticism among hosts in terms of whether some animals are actually assistance animals or merely pets:

"I read somewhere about a woman who traveled with 2 dogs - claiming the 2nd dog was "emotional support" for the first dog. While I am sure there are some legitimate emotional support dogs [...] it had become mainly a scam for people who want to be able to enter anywhere with their dogs." Host, Mexico.

In one case a guest booked two cabins and said they were bringing two support dogs per room, and requested that the usual extra cleaning fee for guests with pets be waived. The host asked for a medical certificate to verify that all four dogs were in fact support animals, but then questioned on the discussion forum whether she was within her rights to request such verification:

"I have a hard time believing that all 4 dogs are support dogs. Was that wrong to ask for a letter from their doctor?" Host, USA.

Where guests can provide the appropriate medical documentation, some hosts are still sceptical about its validity and noted how easy it is to have medical practitioners sign such documentation to force hosts to accept the animals. Hosts also express concerns about Airbnb including emotional support animals in its anti-discriminatory categories, although emotional support animals are not considered service animals under the *Americans with Disabilities Act*.

"I am aware that many people are able to easily convince a licensed mental health professional that they 'need' their pet to be documented/authorized as an 'emotional support animal' but the true intent is that they wish to travel anywhere with the animal and not be challenged on it. I know this first hand, as I am a licensed therapist." Host, USA.

Guests who misrepresent themselves as "disabled" incur just as much rage from people who have genuine impairments and also those who work with people with impairments, as they do from hosts who are subject to such misrepresentation.

"Trust me, those of us who are disabled service dog handlers are just as upset if not more by the people who fraudulent misrepresent themselves as disabled". Guest, USA.

"This is not only an affront to you but also to everyone with a disability who needs a service dog to mitigate that disability." Guest, USA.

Physical barriers

The most common physical barriers experienced by people with impairments to participating in peer-to-peer accommodation trading relate to accessibility issues.

Wheelchair accessibility

Many guests on the Airbnb hosting forum report booking accommodations portrayed as wheelchair accessible, only to find access insufficient for their needs. In some instances, the lack of access was a significant barrier and prevented the guest from even gaining access to the property.

"Went to a listing with a handicapped family member that was ground floor. But there was step up and then down in the entrance, nothing to grab near the toilet, etc. We ended up leaving half the group there and went to a hotel." Guest, USA.

"It is very frustrating to arrive at the host property, thousands of miles away from your home and after long hours of flight, and you find out you cannot even get into the building (stairs, etc.) or the bathroom (door not wide enough, etc.)." Guest, USA.

In other instances properties are wheelchair accessible, but not completely wheelchair functional. For example, a property has a widened entry door, a toilet set out from the wall and a grab rail in the bathroom, but the vanity in the bathroom is too high to use from a sitting position, and the shower does not have a grab rail and a shower chair. In addition, the bathroom and shower floor have

glossy tiles, which is a slipping hazard for someone already not steady on their feet. In such a case it is not technically inaccurate to say that the property is wheelchair accessible. In reality, however, it is significantly lacking in terms of being truly accommodating in all respects for someone in a wheelchair:

“This facility was designed and met all the requirements of a disabled wet area... the one thing they did not take into account is that disabled people actually have to be able to use it!” Guest, Australia.

Other accessibility issues

Other accessibility issues affect older people with arthritis, and people who use walking sticks or walkers and need clear access to different areas of the property and smooth surfaces to avoid tripping and falling.

“My mother is not in a wheelchair, but her knees are so bad she can't do stairs or climb into a regular bathtub. It's such a pain to find a rental to include her on Airbnb!” Guest, USA.

“Difficult access to front door, living room to much furniture and throw rugs creating a trip factor, kitchen door blocked by table making access to deck impossible, bathroom door too narrow for walker. We stayed one night and moved to a place [...] that accommodated my walker.” Guest, USA.

Accessibility issues commonly centre around bathrooms which pose particular hazards – especially slipping and falling – and the potential for injuries caused by slippery and hard surfaces. Common issues include bench designs that allow people to sit while accessing the sink, suitable non-slip chairs to enable sitting in showers, and non-slip flooring that prevents people who are unsteady on their feet from slipping. Accessibility issues were also raised in relation to kitchens, for example people not being able to reach in ovens or on stovetops, not being able to reach high freezers, or not being able to open doors with tricky latches or knobs.

“...the extended [door] handle means i can open door by pushing down with hand instead of turning knob to open/close. good for arthritis and paraplegics or quads w hand paralysis/nerve damage.” Guest, USA.

Guests use the online forum to swap tips for dealing with properties that did not adequately accommodate their needs:

“...when you use a hotel shower put a large towel on the floor of the shower to help prevent slipping. I also put a towel on my shower chair because soap makes the seat slippery.” Guest, USA.

The review of prior literature identified the potentially significant physical barriers to travel faced by people with visual and hearing impairments. The use of generic search terms (e.g. disability) failed to find comments on the discussion forum relating to these types of barriers. Searches of the forum using more specific terms related to visual and hearing impairments (e.g. visual, blindness, hearing, deaf) also failed to produce relevant comments. It seems unlikely that the lack of comments on this issue is because people with these types of impairments are fully and appropriately accommodated on Airbnb (e.g. because of the fact that most privately-owned properties do not have multisensory features like tactile aids and audible cues). More likely, it is because either (1) people who experience these challenges have not participated or contributed to the Airbnb discussion forum or (2) the barriers they face are so significant that they choose not to use Airbnb in the first place. This issue is noted later in the paper and is discussed as a limitation of the present study.

Informational/communication barriers

Our analysis brought to light significant informational and communication barriers that prevent people with impairments from participating effectively in peer-to-peer accommodation trading on Airbnb. We report them in three groups: (1) hosts providing misleading information; (2) guests taking responsibility for obtaining the information they need; and (3) the terminology and labels used in communications enabling people with impairments rather than disabling them.

Hosts providing misleading information

The key issue associated with information provided on the Airbnb booking website is accuracy of property listing information. Sometimes listing information is incorrect and possibly even deliberately misleading. For example, when properties are classified as wheelchair accessible, but have stairs leading to the front door:

“I saw a listing that said accessible that had a flight of stairs to the front door!” Guest, USA.

“probably 50% of listings [...] could be interpreted as been misleading those with disabilities”. Host, New Zealand.

Some discussants suggest that the only way to accurately communicate the accessibility features of accommodations is to provide photos, for example, photos of entry points with rulers being held up to demonstrate the scale of the pictures provided, photos of where handrails are located, and photos of kitchen layouts and the location of appliances.

“Hosts should be required to add pictures to any feature of their home that they claim is an accessibility feature.” Guest, USA.

Hosts also express frustration that the Airbnb system does not allow them to list all of their accommodation features to accurately represent the property. In one case a host stated that his property is 100% wheelchair friendly but was disappointed that there was nowhere on the Airbnb website to let guests know this. Another reported that, having gone to the trouble of providing a detailed

description of the accessibility features of his property, much of the information was modified or deleted by Airbnb:

“In my ‘Amenities’ section of my listing I listed all the disabled features I have in my listing, but guess what! Of my 50 ‘Amenities’ Airbnb have removed all those that refer to ‘disabled friendly’ ... from 50 amenities I posted I now have 37! Don’t blame the hosts.” Host, Australia.

Guest taking responsibility to obtain the information they need

Discussants expressed the view that guests should take responsibility for asking the right questions of hosts to make sure the property is suitable for their specific needs.

“[The guest] absolutely should have asked more questions and communicated better: the situation could have been avoided if she had mentioned the wheelchair or asked about accessibility at all.” Host, Canada.

One guest with an impairment was responding to a host who lost their money after a guest with an impairment arrived to find that the property was not suitable for their needs, and stated:

“Not your fault. Guest is at fault for not speaking with you.” Guest, USA.

Appropriate terminology and labelling

The language used to refer to personal impairments is somewhat controversial. The language used should make people with impairments feel welcome and prevent negative stereotyping by hosts and guests. For example, people in wheelchairs expressed disapproval of the term “wheelchair bound”, implying a permanent attachment to their chair. Some preferred to refer to people with impairments as “differently enabled” to describe their particular situation. Other guests were not bothered by use of the term “disabled” but did object to other more outdated terms for people with disabilities:

“...honestly, being “disabled” the new p.c. terms to me are not necessary. I am not bothered by the term disabled, but “crippled” & “wheelchair bound do get my goat!” Guest, USA.

Based on the review of prior literature we specifically searched for informational and communication barriers that may relate to visual and hearing impairments. Again, no relevant comments were found. This is perhaps not surprising for visual impairments as people with these challenges may be less likely to participate in written online discussion forums that typically feature very small text. No comments were found in relation to informational or communication barriers for people with hearing impairments either, which is possibly due to similar reasons outlined for people with hearing impairments above in relation to physical barriers. Again, this issue is discussed in the limitations section later in the paper and suggested as an avenue for future research.

Enabling people with impairments to trade peer-to-peer accommodation

The insights gained from the netnography reveals measures that can be taken to overcome current barriers and design peer-to-peer listings in a way that enable participation by people with impairments. Fig. 2 uses the model of social disability as a base structure to highlight barriers and approaches to overcoming them. The dotted lines separating the barrier categories indicate that there is substantial overlap and interaction between the three types of barriers postulated by the social model of disability.

Physical barriers cannot be entirely removed from Airbnb properties because they have certain building features that cannot be changed. Some modifications, however, are possible, including the installation of handrails, avoiding loose carpets and mats on the floor that could cause people to trip, or installing bright but dimmable lights that can be dialled to the highest level to help people with visual impairments. Some of these modifications are easy and relatively inexpensive and can be done at any time. Other modifications could be considered as part of renovation projects being undertaken anyway. For example, if bathrooms are being renovated, rough floor tiles should be chosen over glossy, slippery ones. The most powerful measure to overcome physical barriers, however, is for more people with impairments to make their own properties available on peer-to-peer accommodation networks. Those properties are set up perfectly for other guests with similar impairments, thus offering the best possible accommodation option.

Informational and communication barriers are arguably the easiest to overcome. Practically all information the host conveys to the guest about the accommodation is on the Airbnb property listing. It would only take minimal time to include details about the property which are invaluable to people with impairments in terms of being able to assess the suitability of the property given their needs. Instead of hosts limiting themselves to using the standard tick boxes provided by peer-to-peer accommodation network platforms, hosts could offer detailed qualitative descriptions of their property’s “enabling features” and upload pictures which give guests an accurate understanding of what to expect should they choose to book the property. Guests with impairments should be encouraged and empowered to have the confidence to ask the right questions of hosts. This is the only way guests can find out things about the accommodation which are not discussed as part of the property listing.

The property listing is also a good platform to counteract attitudinal barriers. One way of achieving this is to be very conscious of terminology. The property listing should not reinforce stigma and stereotypes, but rather acknowledge that every guest has different needs, even those without impairments. If hosts explicitly state that people with impairments are most welcome, these guests would not feel the need to hide their impairment. Disclosure of the impairment would, in turn, make it easier for hosts to ensure they can meet the needs of guests and could counteract the fear of hosting people with impairments. Overcoming informational barriers has the potential to make a significant contribution toward overcoming attitudinal barriers also.

In addition to improving information and communication, attitudinal barriers can also be overcome through the provision of more educational resources by peer-to-peer accommodation network facilitators to educate hosts about the needs of people with impairments, including providing them with information about laws and regulations regarding discrimination.

Conclusions, limitations and future work

There is no doubt that people with impairments are disadvantaged when looking for holiday accommodation. In the past, the predominant approach to addressing this issue was to put in place anti-discrimination laws and, from them, derive regulations about minimum accessibility requirements for accommodation providers. These requirements vary across accommodation types. The emergence of paid online peer-to-peer accommodation has reignited the debate about accessibility of short-term accommodation, with many arguing an asymmetry of accommodation opportunities where people with impairments are excluded due to a lack of regulation around disabled access in properties listed on peer-to-peer accommodation network platforms. With respect to the conceptual model underlying the present study, discussion on the topic of accessibility relates primarily to physical barriers, an area that is difficult to regulate by law in any effective way. While anti-discrimination laws do extend to short-term accommodations offered by non-commercial providers, they exclude so-called “hosted rentals” where the property being rented to guests is small and also the residence of the host. These exclusions have led to public criticism of peer-to-peer traded spaces as not being accessible enough.

Some peer-to-peer accommodation platform facilitators have reacted by making an effort to improve information provision relating to accessibility. Airbnb, for example, did not initially leverage the fact that properties offered were unique in terms of catering for people with disabilities, leaving a market niche for start-up platform “Accomable” which focused specifically on disabled travellers. Eventually, Airbnb bought Accomable and tasked the Accomable team with modifying the Airbnb platform in a way that would make it easier for travellers with impairments to participate in peer-to-peer trading of short-term accommodation. The result of these efforts is an accessibility section available for properties listed on Airbnb. In this section, guests learn about a number of property features which are critically important to people with physical impairments: step-free access to the home, well-lit and flat path to the entrance, wide doorways throughout the house, wide hallways (at least 91 cm), the availability of an elevator, accessible-height bed, wide clearance to bed and electric profiling bed, step-free access into the bathroom, fixed grab bars for the shower and toilet, accessible-height toilet, roll-in shower, shower chair, bathtub with bath chair, wide clearance to shower and toilet, handheld shower head, no steps in the common areas, a parking space which is at least 2.4 m wide, a mobile hoist, pool with pool hoist and ceiling hoist. But these improvements to the Airbnb website – which mainly involve the inclusion of checklists indicating various aspects of physical accessibility of the property – have failed to overcome many of the barriers faced by travellers with impairments. It has been suggested that there are too many checkboxes, that the content of checkboxes is ambiguous, and that it still fails to provide sufficient information for people with impairments to effectively assess whether a property is suitable for them or not.

Our study of host and guest posts on the Airbnb hosting community forum provided insights into both barriers to the genuine inclusion of people with impairments to participate in peer-to-peer accommodation trading as well as identifying solutions to overcome these barriers. These are summarised, using the framework of the social model of disability in Fig. 2, which points to possible approaches to overcome physical barriers include making modifications to the setup of properties (e.g. removing carpets which may present tripping hazards), minor building modifications (e.g. installing handrails), and considering the needs of people with impairments when undertaking renovations (e.g. choosing non-slip bathroom tiles instead of glossy tiles). The most powerful approach to overcoming the physical barriers, however, is to attract more hosts with impairments to open their – perfectly equipped – homes to other travellers with impairments. Key approaches to overcome information and communication barriers include: providing more detailed descriptions of all features of the property, which make it suitable for people with specific impairments and illustrate them with pictures that show the precise setup. Hosts should also proactively encourage people with impairments to declare their impairment to initiate constructive communication between host and guest on whether the property is suitable or can be made suitable. Information provision also emerges as the most promising measure to overcome attitudinal barriers. Hosts should choose terminology carefully to avoid alienating people with impairments, potentially making them feel that they have to keep their impairment a secret to secure the booking. This could be done by openly stating that people with impairments are welcome, but that the host would like to know their exact needs so guests and hosts can jointly assess whether the property is suitable. Peer-to-peer accommodation network platforms have an important role to play in overcoming attitudinal barriers: they need to educate hosts about what they can do to make their properties accessible to people with impairments, what language to use on their property listings, and also their legal obligations in terms of accommodating people with impairments. Most importantly, however, peer-to-peer accommodation network facilitators need to acknowledge the wide and diverse range of impairments which need to be catered for. Providing information relating to wheelchair access is an excellent start, but the same kind of information needs to be provided for many other impairments that have the potential to exclude people with impairments from participating in peer-to-peer accommodation trading.

Interestingly, the posts analysed in this study – much in contrast to public debate – have focused very strongly on tangible measures that can be taken by peer-to-peer network facilitators and hosts to make short-term accommodations offered by non-commercial hosts more accessible. The options of increasing regulation or taxing hosts a fee which would then fund accessible accommodation offers, while discussed by academics, does not appear to be the solution of choice for travellers with impairments, giving the impression that they wish to participate in peer-to-peer trading like any other tourist. Their primary request is that they be given the information they require to make an informed decision about the suitability of a property.

In terms of the model of social disability, results from the present study highlight informational barriers as a key cause of frustration for people with impairments, and also the key mechanism that could potentially overcome the barriers they face. This is a

new way of viewing accessibility in tourism: not as a problem of physical barriers tolerated by delinquent accommodation providers that require strict regulations to force them into compliance, but rather as a challenge of overcoming informational barriers. With millions of short-term accommodation options available globally, and new hosts joining peer-to-peer trading networks every minute, the new challenge is to make a wide range of accessible options visible and provide as much detail about them as possible. In other words, it is not so much about making currently inaccessible accommodations accessible, but instead improving the quantity and quality of information available for the rapidly increasing number of accommodation options available, such that there is greater chance of people finding an option that suits their individual needs. In so doing, people with impairments would be empowered to genuinely participate in peer-to-peer trading: by researching alternative accommodation options and selecting the one that most suits them.

Such empowerment could significantly grow the segment of tourists who have impairments, a group which has already started to attract the attention of destination marketers aiming to target them (Cloquet, Palomino, Shaw, Stephen, & Taylor, 2017; Vila, Darcy, & Gonzalez, 2015). These marketing strategies currently include improving access to facilities and tourist attractions, educating the tourism industry to have greater awareness of the needs of people with impairments and valuing them as an important segment of tourists, and including of people with impairments in promotional materials. As the segment expands, and destination marketers compete for the growing market of tourists with impairments, such marketing strategies are likely to become more wide-ranging, innovative and sophisticated. Destinations that position themselves as specialising in tourism for people with impairments are also likely to develop a reputation of being socially responsible, and this enhanced image is likely to extend to other stakeholders, including local tourism organisations, community partners, peer-to-peer accommodation networks and individual hosts.

Findings from the present study represent a fundamental shift in how we conceptualise accessibility in tourism, because previously the focus has been on overcoming physical barriers in the social model of disability. We suggest that it is actually informational barriers that stand in the way of equality for people with impairments in the context of short-term rental accommodation. The external development that has led to this fundamental shift is the substantial increase in the quantity and variability of short-term accommodation options, triggered by the success of paid online peer-to-peer accommodation networks. Consequently, the new challenge for people with impairments, and the accommodation sector more broadly, is to *identify* suitable accommodations, rather than to *construct* suitable accommodations. This is, first and foremost, an informational challenge.

The present study is limited to the analysis of comments made by both Airbnb guests and hosts on the topic of disability and disabled access on the Airbnb discussion forum. Consequently, we expect the findings to be conservative in the sense that people with impairments who have not attempted to participate in peer-to-peer accommodation may have different barriers to participation. Future work should examine this, preferably through interviews with people with a wide range of different impairments who have a desire to travel away from home and a need for accommodation options that cater to their needs. Another important area for future research relates to the willingness of people with impairments to become hosts on peer-to-peer accommodation trading platforms. Homes of people with specific impairments are optimally set up to enable other people with similar impairments to stay. Increasing the number of property listings hosted by people with impairments – along with the provision of detailed information about these properties to overcome informational barriers – represents an entirely different, decentralised approach to making short-term accommodation of different kinds truly accessible and usable to people with impairments.

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References

- Airbnb (2018). What is an assistance animal? Retrieved 27 November, 2018, from <https://www.airbnb.com.au/help/article/1869/what-is-an-assistance-animal?q=assistance%20animals>.
- Airbnb Community Center (2018). "Hosting" discussion room. Retrieved 29 November, 2018, from <https://community.withairbnb.com/t5/Hosting/bd-p/listing-and-reservations>.
- Bizjak, B., Knezevic, M., & Cvretznik, S. (2011). Attitude change towards guests with disabilities: Reflections from tourism students. *Annals of Tourism Research*, 38(3), 842–857.
- Boxall, K., Nyanjom, J., & Slaven, J. (2018). Disability, hospitality and the new sharing economy. *International Journal of Contemporary Hospitality Management*, 30(1), 539–556.
- Chang, Y.-C., & Chen, C.-F. (2011). Identifying mobility service needs for disabled air passengers. *Tourism Management*, 32(5), 1214–1217.
- Cloquet, I., Palomino, M., Shaw, G., Stephen, G., & Taylor, T. (2017). Disability, social inclusion and the marketing of tourist attractions. *Journal of Sustainable Tourism*, 26(2), 221–237.
- Darcy, S., Maxwell, H., & Green, J. (2016). Disability citizenship and independence through mobile technology? A study exploring adoption and use of a mobile technology platform. *Disability & Society*, 31(4), 497–519.
- Darcy, S., & Pegg, S. (2011). Towards strategic intent: Perceptions of disability service provision amongst hotel accommodation managers. *International Journal of Hospitality Management*, 30(2), 468–476.
- Daruwalla, P., & Darcy, S. (2005). Personal and societal attitudes to disability. *Annals of Tourism Research*, 32(3), 549–570.
- Dolnicar, S. (2018). Unique features of peer-to-peer accommodation networks. In S. Dolnicar (Ed.), *Peer-to-peer accommodation networks: Pushing the boundaries* (pp. 1–14). Oxford: Goodfellow Publishers.
- Dolnicar, S. (2019). A review of research into paid online peer-to-peer accommodation. Launching the annals of tourism research virtual special issue on peer-to-peer accommodation. *Annals of Tourism Research*. <https://doi.org/10.1016/j.annals.2019.1002.1003>.
- Eichhorn, V., Miller, G., Michopoulou, E., & Buhalis, D. (2008). Enabling access to tourism through information schemes? *Annals of Tourism Research*, 35(1), 189–210.
- Figueiredo, E., Eusébio, C., & Kastenholz, E. (2012). How diverse are tourists with disabilities? A pilot study on accessible leisure tourism experiences in Portugal. *International Journal of Tourism Research*, 14(6), 531–550.
- Gale, N. K., Heath, G., Cameron, E., Rashid, S., & Redwood, S. (2013). Using the framework method for the analysis of qualitative data in multi-disciplinary health

- research. *BMC Medical Research Methodology*, 13(1), 117.
- Inclusion London (2015). Fact sheet: The social model of disability. Retrieved 29 November, 2018, from https://www.inclusionlondon.org.uk/wp-content/uploads/2015/05/FactSheets_TheSocialModel.pdf.
- Kozinets, R. V. (1998). On netnography: Initial reflections on consumer research investigations of cyberculture. In J. W. A. J. W. Hutchinson (Ed.), *ACR North American advances* (Vol. Vol. 25, pp. 366–371). Provo, UT: Association for Consumer Research.
- McKercher, B., & Darcy, S. (2018). Re-conceptualizing barriers to travel by people with disabilities. *Tourism Management Perspectives*, 26, 59–66.
- McKercher, B., Packer, T., Yau, M. K., & Lam, P. (2003). Travel agents as facilitators or inhibitors of travel: Perceptions of people with disabilities. *Tourism Management*, 24(4), 465–474.
- Neven, A., Vanrompay, Y., Declercq, K., Janssens, D., Wets, G., Dekelver, J., et al. (2017). Viamigo: Monitoring tool to support independent travel by persons with intellectual disabilities. *Transportation Research Record*, 2650(1), 25–32.
- Oliver, M. (1983). *Social work with disabled people*. Basingstoke: Macmillan.
- Oliver, M. (2013). The social model of disability: Thirty years on. *Disability & Society*, 28(7), 1024–1026.
- Packer, T. L., McKercher, B., & Yau, M. K. (2007). Understanding the complex interplay between tourism, disability and environmental contexts. *Disability and Rehabilitation*, 29(4), 281–292.
- Pagan, R. (2012). Time allocation in tourism for people with disabilities. *Annals of Tourism Research*, 39(3), 1514–1537.
- People with disability Australia (2018). Social model of disability. Retrieved 26 November, 2018, from <https://pwd.org.au/resources/social-model-of-disability/>.
- Randle, M., & Reis, S. (2016). Changing community attitudes toward greater inclusion of people with disabilities: A rapid literature review. Retrieved 29 November, 2018, from https://www.facs.nsw.gov.au/_data/assets/file/0008/372608/Rapid-Review-V3-interactive.pdf.
- Scope (2018). The social model of disability. Retrieved 26 November, 2018, from <https://www.scope.org.uk/about-us/our-brand/social-model-of-disability>.
- Small, J., Darcy, S., & Packer, T. (2012). The embodied tourist experiences of people with vision impairment: Management implications beyond the visual gaze. *Tourism Management*, 33(4), 941–950.
- Srivastava, P., & Hopwood, N. (2009). A practical iterative framework for qualitative data analysis. *International Journal of Qualitative Methods*, 8(1), 76–84.
- Tavakoli, R., & Mura, P. (2018). Netnography in tourism – Beyond web 2.0. *Annals of Tourism Research*, 73, 190–192.
- Thompson, S. (2018). *Mobile technology and inclusion of persons with disabilities*. Brighton, UK.
- US Department of Justice (2010). Americans with disabilities act title III regulations. Retrieved 19 February, 2019, from https://www.ada.gov/regs2010/titleIII_2010/titleIII_2010_regulations.htm.
- Vila, T. D., Darcy, S., & Gonzalez, E. A. (2015). Competing for the disability tourism market - a comparative exploration of the factors of accessible tourism competitiveness in Spain and Australia. *Tourism Management*, 47, 261–272.
- Yau, M. K.-s., & McKercher, B. (2004). Traveling with a disability: More than an access issue. *Annals of Tourism Research*, 31(4), 946–960.

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