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Analysis of User Interfaces in the Sharing Economy

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Analysis of User Interfaces in the Sharing Economy

by

Taylor B. Johnson

A thesis submitted in partial fulfillment
of the requirements for the degree of
Master of Arts
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ABSTRACT

This thesis considers claims of discrimination and the interfaces that six platforms use as companies in the sharing economy.

In 2015, Benjamin Edelman, Michael Luca, and an Svirsky did an experiment with Airbnb to test the discrimination of names that sounded distinctly African American. Before and after their findings, there were members of the community who claimed that they had been discriminated against, some suing the company for not upholding their anti-discrimination policy. This leads to the question of how is one able to discriminate against someone whom they have never met and lives thousands of miles away? What information do they have to hold against them? As a result, this thesis provides a rhetorical analysis of the interfaces of six companies of the sharing economy.

INTRODUCTION

The sharing economy often consists of direct online transactions between individuals as a way to cut out the “middleman.” For example, in ride-sharing or home-sharing, those using these services can cut out the middleman, the corporate hotel and taxi company, often paying less and allowing the service provider to profit, as well. This form of entrepreneurship encourages experiences that are more personal between user and provider and is a way for individuals to take the economy into their own hands. The sharing economy is a generous concept but the interfaces used by many platforms leave minority users exposed in a way that easily allows the majority to discriminate against them, leaving the oppressed and unable to participate in the modern and thriving communities. This is a result of the interfaces, or the online places that enable the interactions between humans and the electronic devices that we use, not being as usable as many creators may think. Interfaces that are not created with usability at the forefront of the design result in many groups being “othered” by dominant groups in the community. It is because of this otherness that this usability transcends into a social justice issue, leaving the field of Technical Communication with a new challenge. Understanding how these interfaces prevent equity across all users is pertinent, as online platforms are becoming a common medium of communication and capitalism. Whether members of these communities are using desktop or mobile devices, the interfaces can have a dramatic effect on the ability of members to participate in the community. The internet being one of the

main modes of finding and spreading information and a common mode of communication, it is clear that the medium has a substantial impact on our daily lives. It is because of this impact and humans constantly being connected via current interfaces that leaves some people more vulnerable than others because of two things that are uncontrollable by them: ethnicity and the interface.

Much of the existing research related to usability or user interface and discrimination focuses on the interface and functionality itself or the borders that remain extant in the technological communities that we use everyday (Noble 2018, Selfe and Selfe 1994, Simmons and Zoetewij 2012). It is crucial to extend usability research into the realm of social justice so that we are able to create interfaces that make these online communities safer for all who participate, leaving those who are marginalized in a position that enables them to interact and navigate within the communities in a less vulnerable way than they are typically forced to by the majority.

I ask, do the user interfaces of six rental websites of the sharing economy enable or encourage the dominant members in these online communities to take discriminatory actions against minority groups in the community? The goals of this research study are to provide aspects of a basic interface that would be most likely to function without discriminatory actions or systemic oppression taking place so that designers know what key parts of an interface can encourage or discourage discrimination. This is a social justice issue that the discipline has discussed previously and will continue to discuss.

Social Justice

Social justice, as a concept in Technical Communication, is not newly explored.

It is an important concept that many technical communicators feel brings value to their work and their field. Natasha Jones and Rebecca Walton (2016) provide the field with a working definition of social justice being, “...social justice research in technical communication investigates how communication broadly defined can amplify the agency of oppressed people—those who are materially, socially, politically, and/or economically under-resourced” (347). Considering this, it is clear how the issue of members of the sharing economy being marginalized in the online spaces would be important to those in the field of Technical Communication.

LITERATURE REVIEW AND CONTEXT

Relevant literature for this study focuses on: discrimination throughout the housing market; a general concept of the sharing economy; individual companies that are a part of the sharing economy and discrimination within the companies; what the sharing economy experience often consists of; users' experiences with certain companies specifically; user interfaces of these companies; and how being able to see the people one is doing transactions with affects the transactions being made in online commerce. There are a number of works that contribute to one or more of the mentioned categories while there are also works that are suiting to only one mentioned category, but provide a different perspective that enables deeper questioning and analysis of the issues at hand.

Claims of Discrimination

Claims of discrimination in the sharing economy are not scarce. Many cases of discrimination have been brought to society's attention via media and news reports, some victims even attempting to sue the company. Gregory Selden, an African American man from Virginia, requested to stay in someone's home and received an immediate response from the host saying that the dates he had requested were already reserved. This led Selden to make two fake Airbnb accounts with white people in the profile photos, which he requested the same dates with from the same host. The immediate response from the host this time was that the dates were available and the two white men were welcome to stay. As a result, Selden filed a

class action lawsuit but was forced to deal with his claim in arbitration as a result of a clause in Airbnb's terms of service that all users sign stating that they cannot pursue Airbnb in a court of law but must handle issues through arbitration. Other users of the sharing economy may be discriminated against but do not always make the decision to pursue class action lawsuits. In April of 2017, Dyne Suh, an Asian who is an American citizen and law student from Riverside, California, had made a reservation for a ski trip. Though she made the reservation for two, she contacted the host and asked if she could bring two friends before embarking on her trip. The host told her that she would be charged for them but that she could bring them. On their drive to the home, Suh contacted the host to ask how much they would be charged, which resulted with the host responding with rude comments that consisted of "You are high," "One word says it all. Asian," and, "[It's]why we have Trump" (Ceuvas, 2016, see Figure 1). The host then proceeded to cancel the reservation, leaving the guest and her friends with no place to go on a cold, stormy night. Though Suh did not press charges, she was emotionally hurt by the host's words. Airbnb banned the host from the Airbnb company in response to the situation.

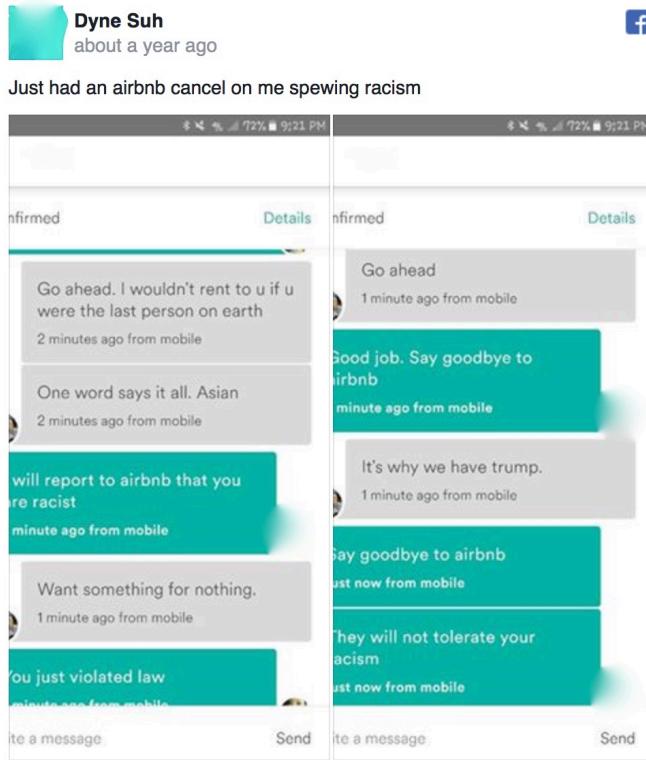


Figure 1: Dyne Suh Conversation

<http://www.news.com.au/travel/travel-updates/incidents/woman-claims-airbnb-booking-was-cancelled-because-she-was-asian/news-story/42da65a1c6251497806bbe8c95bd0be2>

History of Discrimination in the Housing Economy and How it Relates to the Sharing Economy

It is not surprising that many may encounter discrimination in the sharing economy, as many are likely to encounter it everyday in the housing economy in general and have been encountering it for years (Murphy, 2016, Powell 2009, & Yinger, 1998). To begin, The Homeowners' Loan Corporation, which was established in 1933 as a part of President Franklin D. Roosevelt's New Deal, provided benefits for

those purchasing homes that did not exist before 1933. The establishment of the corporation was to allow homeowners to refinance their homes that were defaulted as an effort to prevent foreclosures that were a result of the Great Depression. However, scholars such as John A. Powell (2009) note that these loans were extremely beneficial, “as long as you were white” (p. 26). Powell goes on to talk about the act of redlining and how it prevented minority groups from moving into predominantly white neighborhoods. Powell’s work reveals that discrimination has been a part of our society, legislation, and housing economy for quite some time as Laura Murphy confirmed in her Airbnb report (2016) that discrimination and bias have become a norm in our current culture and society. The discrimination that remains extant is expressed in a different way as a result of the change in technology and the creation of the sharing economy.

In 1998, John Yinger studied the housing market and mentions that “black renters faced a 10.7 percent chance of being excluded altogether from housing made available to comparable white renters and a 23.5 percent chance of learning about fewer apartments,” showing that though redlining may not be legal, acts that could be similarly defined still existed in late 20th century (p. 31). A current version of this discrimination can be seen throughout the renting economy. Hanson and Hawley (2011) expand on Yinger’s work by discussing treatment that minorities receive compared to the treatment that white people encounter in the rental housing market. Through an audit-style experiment, Hanson and Hawley (2011) present findings showing that African Americans are less likely than white people to receive a response from landlords about renting a space (p. 103). These sources show that discrimination

in the housing market has been perpetuated throughout the years, even though the market itself has changed.

When in reference to the sharing economy specifically, Nancy Leong and Aaron Belzer (2017) discuss whether “the sharing economy businesses ameliorates discrimination, or whether they actually worsen it” (p. 105). Though Leong and Belzer (2017) do not provide a solution to ending the discrimination and bias in the sharing economy (as we are all questioning if this is a pragmatic possibility), they add that requiring companies to release reports of disparate treatment would act as an incentive to immediately address the discrimination and bias taking place throughout the companies that compose the sharing economy (p. 2166). Though many thought that acts similar to redlining were not a possibility that one could experience, the minority groups participating in the sharing economy and the scholars studying it show us otherwise.

In “Regulating the Sharing Economy” Vanessa Katz (2015) provided readers with a definition of the sharing economy, issues that were trending in the discussion of the sharing economy, platform issues that companies that participated in the sharing economy have had, and steps that they could have taken to address them. Many companies in the sharing economy have pushed writing reviews to build a reputation system, similar to what Katz suggested, which users can rely on to evaluate other users’ services and conduct, along with “algorithmic filtering to detect unfair or biased reviewers (Katz, 2015, p. 1120).

This leads those in Technical Communication to look for a solution to an act that seems preventable. What can be done to prevent those taking part in the sharing

economy from being exposed to discrimination? The one thing that all users are exposed to is the interface that the companies choose to use. That being said, how can we design these interfaces to be useful *and* function well when in reference to being useful and functioning for all, including marginalized groups, who choose to participate in the community? Selfe and Selfe (1994) discuss the borders that still exist when computers and the internet are brought into a situation. The example used was a personal example that led them to use a different lens to view technology in the classroom through. Though they are focusing on the classroom, their analysis and conclusion can be applied to topics outside of the classroom. Simmons and Zoetewey (2012) focus on the usability aspect of user interfaces specifically and whether or not the interfaces are *actually* usable, not just declared usable by passing usability tests. Using these works in conjunction with a heuristic from Jakob Nielsen (1994), an analysis of the technology and its usability can be executed.

Joon Sang Baek, Sojung Kim, and Yoonyee Pahk (2017) mentioned that there was a lack of research referencing ideas of framework modifications as a result of many disregarding the idea based upon the conclusion that human behavior and its lack of predictability prevents us from being able to anticipate how people will act (so we should not try) (p. 2). Though we may be unable to predict people's behavior, Ray Fisman and Michael Luca (2016) took on the challenge. They discussed design issues that many companies in the sharing economy have had and how they can be addressed. Specifically, they focus on online marketplaces and how companies can modify their user interfaces to prevent or lessen the chances of users being discriminated against. Along with this, they discuss algorithms and how they have a

role in discrimination among users. This will inform my analysis with a more qualitative lens.

RESEARCH METHODOLOGY

My decision to perform this study was to build off of the 2015 Harvard study by Edelman, Luca and Svirsky. They studied whether or not users with names that sounded as if they belonged to certain ethnicities were more apt to face discrimination. Edelman et al., designed a study by creating user accounts with two sets of names, one set “distinctly African-American and the other [set] distinctly White” (p. 2). In lieu of focusing on names specifically, I made the decision to focus on the design interface as a whole. This led to researching how photos can affect people’s perceptions of others and whether or not omitting images and other information on profiles could help companies to lessen the chance of its users being discriminated against. Many scholars (Doleac & Stein 2013, Katz 2015, Ert, Fleischer & Magen 2016, Fagerstrøm, Pawar, Sigurdsson, Foxall, & Mirella Yani-de-Soriano 2017) focus on ways that trust can be built on the platforms and how photos have an effect on this. Eyal Ert, Aliza Fleischer, and Nathan Magen (2016) suggested that the photos in profiles on Airbnb had an effect on the overall experience of using Airbnb and discussed similar characteristics that were referred to as a part of the reputation system by Katz (2015) in relation to the experience as a whole. The work of Asle Fagerstrøm, Sanchit Pawar, Valdimar Sigurdsson, Gordon R. Foxall, and Mirella Yani-de-Soriano (2017) provided a substantial study on the relationship between users’ profile photos and buying and selling behavior on Airbnb based on facial expressions in user images by analyzing the expressions that users make in their photos and how

other users may initially perceive them resulting in increased or decreased revenue for the hosts or acceptance or rejection for the guests. Looking into a different outlet in the online marketplace, Jennifer L. Doleac and Luke C.D. Stein (2013) studied the possibility of discrimination dependent upon the skin color of a person's hand in the photo of an ad. The conclusions that they make show a systemic discrimination of minority groups. The conclusions and methodologies that many of these works presented are helpful in analyzing the relevance of photos and other information companies require users to publicly post on their profiles.

In order to focus on the design of the actual interfaces people have used when participating in the sharing economy, I felt it necessary to also include Rebecca Walton's work "Supporting Human Dignity and Human Rights: A Call to Adopt the First Principle of Human-Centered Design" (2016) in response to her call to action of scholars in Technical Professional Communication to incorporate previous HCD research. The principles that she offered encouraged scholars to keep in mind the fact that users are still people and we should be designing works—studies, interfaces, manuals, etc.—that keep in tact the human's dignity and rights that they automatically receive for being human beings while still considering the power differentials that often affect our works and how they are perceived; in this case, making sure that the interface design does not create inequitable social perils for some users over others. When creators keep human rights and dignity at the forefront of the design in lieu of what may be the most transparent, simple, or aesthetic design, oppressed groups will be less likely to be placed in vulnerable positions in these online spaces.

After reviewing relevant literature I will do a close reading of the rental companies' websites and choose a slight form of participant observation to better familiarize myself with what being a member of these communities requires and exposes one to. The communities being observed include: Airbnb, Noirbnb, TripAdvisor, HomeAway, VRBO, and Innclusive. I chose these companies as a result of many claiming to be the largest, friendliest, or most welcoming to all people. While becoming a member of these communities, I will take notes on the process of becoming a member (information required, policies one has to agree to, etc.) and then focus on the interface and member profile itself. Analyzing the information required and the presentation of member profiles and then comparing this to the information that members have claimed resulted in their being discriminated against will enable me to provide interface design modifications and transaction processes that would decrease the chances of users being discriminated against. Along with this, I will compare each of the user interfaces to each other and the claims of discrimination (when in reference to the general topic of the discrimination, the aspects of the interface being used, etc.) to analyze what aspects of the interfaces are more likely to result in discriminatory acts. I am basing my analysis on a heuristic from Jakob Nielsen (1994) and am only using three parts of the heuristic as a result of this being a limited study.

To look into legitimate claims of discrimination in lieu of just blanket articles claiming that discrimination exists in the sharing economy, I will look into specific news articles and testimony about those in the communities who claim that they have been discriminated against. Some of the users discuss their feelings about what has

happened and delineate the course of events while others discuss their decision to take legal action against the company for allowing the discriminatory behavior to take place on their platform when this is against their terms of service.

Along with the works from the mentioned authors, I will look for other resources that will allow me to deepen my analysis so that I am able to thoroughly investigate all of the companies' interfaces and user experiences in hopes of contributing viable options to the field and designers. As a result, those who have felt "othered" in the past will be less likely to remain in their vulnerable position due to design issues.

Companies Under Study

The companies being studied include Airbnb, Noirbnb, HomeAway, VRBO, TripAdvisor, and Innclusive. Most of these companies are choices easily found on the first page of results when searching for "vacation rentals" online, excluding Airbnb and Noirbnb. All of the companies have extremely similar requirements and processes when signing up; this includes the information required, the member profile, and aspects of the member profile that can be seen by other users. These processes will be delineated in later sections.

Airbnb

Brian Chesky, Joe Gebbia, and Nathan Blecharczyk founded Airbnb in 2008, with the goal of enabling people to immerse themselves in the cultures of the places that they were travelling to. Since then, it has grown to be available in 65,000 cities and 191 countries.

Noirbnb

Noirbnb was founded in 2016 by Stefan Grant. He was motivated by a personal experience and the platform claims that Noirbnb is “the Future of Black Travel” (see figure 2).

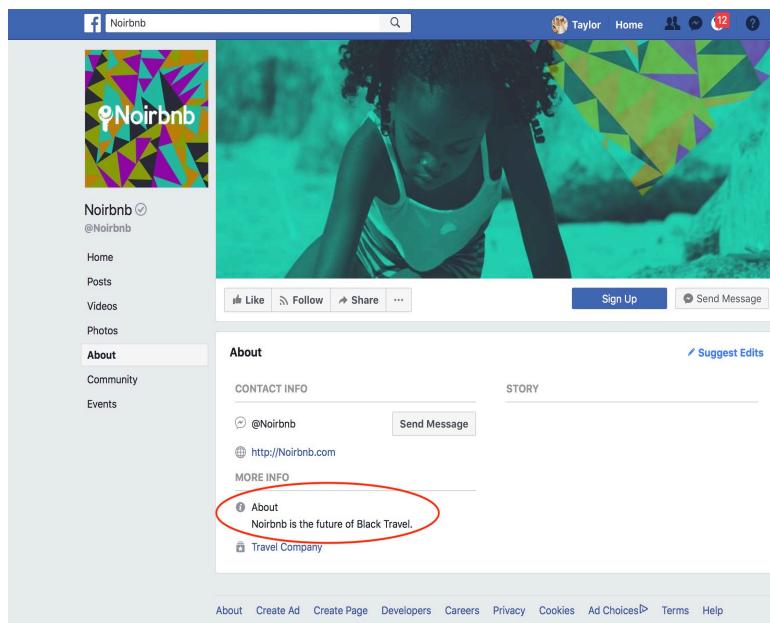


Figure 2: Noirbnb Facebook
(https://www.facebook.com/pg/Noirbnb/about/?ref=page_internal)

Homeway and VRBO

Founded in 2006, Brian Sharples and Carl Shepherd felt that HomeAway was an industry changer. They wanted to change the way people vacationed and make vacationing feel as if where they stayed was their home away from home, hence the name of the company. It is now available in 190 countries with more than 2 million

places to stay. Vacation rentals by owners, or VRBO, is a company within the Homeaway portfolio.

TripAdvisor

TripAdvisor was founded in 2000 by Stephen Kaufer and Nick Shanny. The company focuses on reviews of places to stay, airlines to fly with, attractions, and restaurants to visit to advise their users when booking their vacations. Users receive points for writing reviews, thus increasing the trustworthiness of users and places that they review.

Innclusive

Rohan Gilkes founded Innclusive, available in more than 130 countries, after having a bad Airbnb experience and noticing that others were going through the same hardships as a result of ethnicity and sexual orientation among other things. This resulted in a company that has an aim of being an alternative, not only for those discriminated against, but by those who may not suit that targeted demographics that Airbnb, in particular, seems to market to.

AIRBNB

Reviewing design literature and other websites that provide similar services or are a part of the sharing economy can provide one with the basic information and framework that can be expected by a new user; for example,

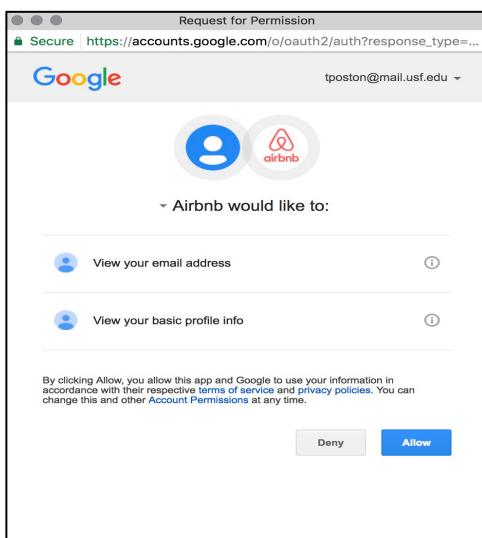


Figure 3: Airbnb Google Sign Up

information such as name, birthdate, and location are to be expected. Keeping this in mind, signing up to be a member of Airbnb was extremely easy and required the same information. Users are given the option to sign up with their Google account, Facebook account, or their email address. When choosing Google users must allow Airbnb to access their email address and basic profile information (see Figure 4). If a user chooses to sign up with Facebook, Airbnb receives one's public profile, friend list, email address, birthday, education history, hometown, current city, and likes but users have the option to edit this to provide less information (see Figure 4). Upon

booking, users are required to confirm their phone number via text message if a user provides a mobile phone. An SMS text is sent to the phone with a confirmation number that must be input into the website when beginning to book.

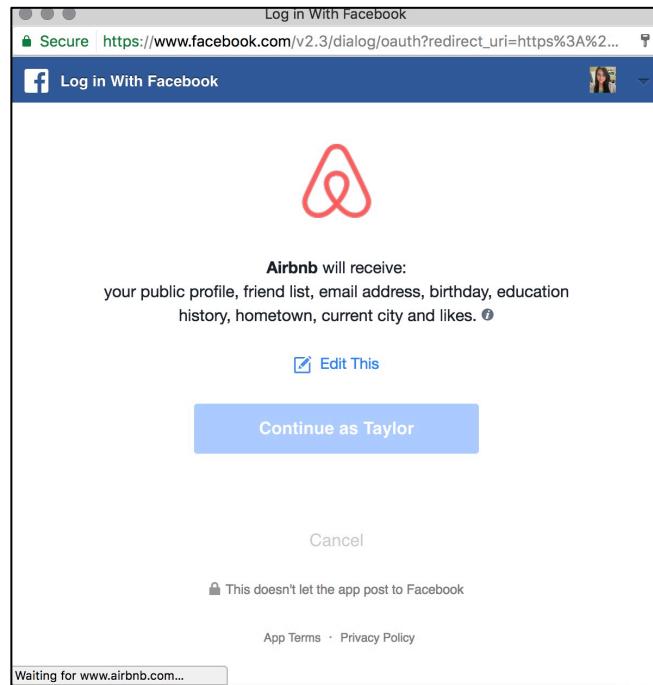


Figure 4: Airbnb Facebook Sign Up

Google

After signing in with Google, I was able to go to my profile (see Figure 5).

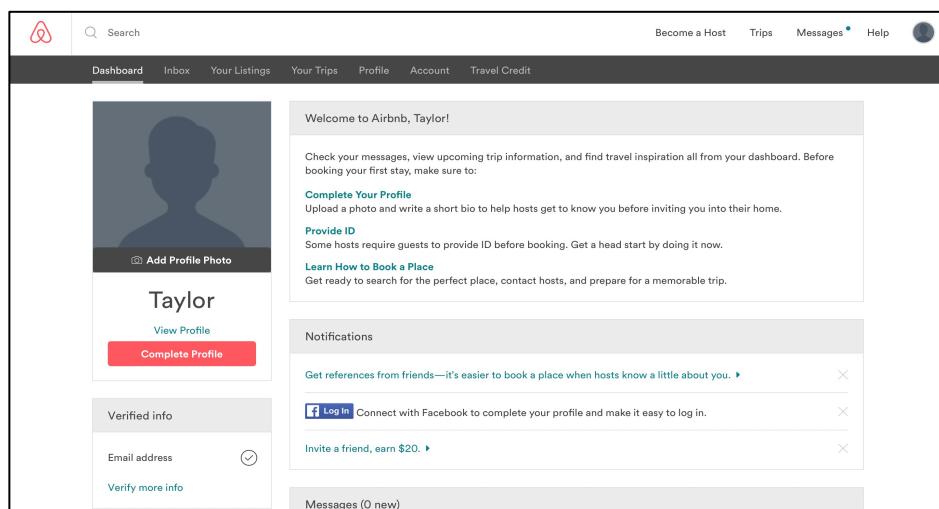


Figure 5: Airbnb Profile with Google Sign Up Information

There are four modules and a blank photo on the personal profile. The photo is rather large when compared to profile images on social media websites such as Facebook and Twitter, and sharing economy rental websites, such as VRBO, and Homeaway. The modules are titled “Verified info,” “Notifications,” “Messages,” and “Welcome to Airbnb, [name]!” Under the welcome module, there are links to complete the profile, provide identification, and learn how to book places. Under the module with notifications users are encouraged to connect their Facebook profile to “make it easy to log in” (see Figure 5). Users are further encouraged to verify their identity with a “Verify more info” link under the Verified info module and a red “Complete Profile” link under the profile image.

Facebook

When signing up with Facebook I was prompted with a “Before you continue” screen. On the screen was the option to Accept or Decline the nondiscrimination policy that Murphy had referred to in her report and a link to learn more (see Figure 6). When signing up with Facebook, the photo that is set as the user’s profile picture is the

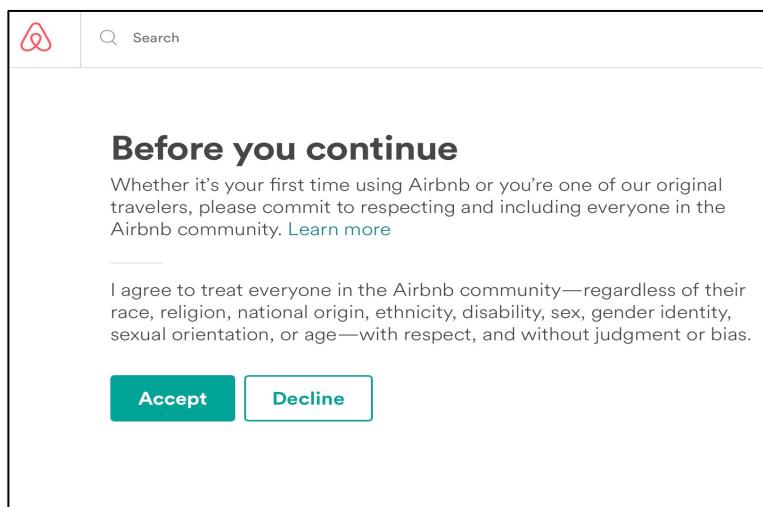


Figure 6: Airbnb Non-discrimination Policy

photo that is uploaded to the Airbnb profile. When editing a profile after signing up with Facebook, far less information is requested and users are given the option to build a list of references by selecting Facebook friends to request for them to vouch for you. On this page, the company places emphasis on being built on trust and reputation. This concept of trust and reputation is also supported by the Reviews tab, which is dedicated to one's reviews from hosts whom they have stayed with previously.

Email

Signing up to be an Airbnb member with one's email calls for the user to manually input much of the information requested (similar to signing up for an account on shopping websites of department stores, such as JCPenney, Macy's, Etc.). After inputting the information, I was immediately prompted with the Nondiscrimination policy and presented with the same profile options as when I was signing up with Google.

Photo ID Verification

Along with being asked to upload a photo, users who sign up with their Google account or by email are provided a link to upload a valid government issued ID. The information underneath the link explains that some hosts on Airbnb require the identification before approving a booking request. I looked into this further by clicking on the link and if hosts require valid identification a user must upload their ID and then take a picture at the time of booking with a webcam so that the host can make sure that the name on your profile matches that of the submitted ID and whether or not the user has completed the process of submitting a valid ID. The

When you'll need to provide ID

Airbnb may ask you to provide ID for several reasons, including if you plan to book an experience or if a host requires that a guest provides ID before booking their place.

If a host requires you to provide ID, only the guest making the booking will be required to provide ID, and you'll need to complete the process before your booking is confirmed. If you need to come back later, go to [airbnb.com/verify](#) and pick up where you left off.

What gets shared with your host

If you're a guest and you're asked to provide ID, your host will see:

- Your profile name and photo.
- Whether you've successfully completed this process.
- The full name on your government ID and whether you're over or under 25 years old.

If you're asked to take a selfie, we may share it with your host under certain circumstances. No other personal information you provide or other details from your ID will be shared with your host.

The name on your ID won't replace the name on your profile. Instead, hosts will see both the name you entered on your profile and the name on your ID. Your selfie won't replace your profile picture.

Figure 7: Reasons for Providing ID (Airbnb)

photos are shared with the host “under certain circumstances” (see Figure 7); however, Airbnb does not provide further information defining or describing what those circumstances might consist of. Another way that the forms of identification are used is to be ran through a service that “checks public records for criminal convictions and sex offender registrations” (see Figure 8) where states allow this by law.

Other ways your ID info is used

Where permitted by applicable law, we may also provide information from your government ID, such as your full name and date of birth, to our service providers to run checks against public records for criminal convictions and sex offender registrations. For now, these checks are limited to users in the United States about whom we have adequate identifying information, such as the user's full name and date of birth. While we believe these checks help us deter fraud and misuse of our services, they don't guarantee that interactions with people who book through Airbnb will be safe or problem-free. Please carefully review our notice about the [limitations of background and registered sex offender checks](#).

About photo matching

Photo matching may provide some useful info, but no facial matching process is always accurate. The effectiveness of a comparison of facial features can vary greatly based on the skill and judgment of the reviewer, the accuracy of the software used, the quality and resolution of the photos, and whether there are significant changes in a person's appearance between the two photos (ex: change in age, change in weight, different outfit). As a result, this process may sometimes “match” photos that are not in fact of the same person, or fail to match photos that are of the same person. Fraudulent users may circumvent even the most sophisticated and diligent efforts to

Figure 8: Other Ways Photo ID Are Used (Airbnb)

How Does This Information Affect Users?

Sharing personal information online is a scary act that can give qualms to many. This is often attributed to the fear of having one's identity, credit card, or banking information stolen, which is a completely rational fear. Getting scammed is often at the forefronts of many people's minds daily, whether in person or online shopping. Considering this, it is understandable that Airbnb has all of these verification measures in place. Unfortunately, some of these precautions result in users being discriminated against.

Photos and Image Sizes

If one has an account on a social media or is a part of an online social network of any sort, it is safe to assume that they have an option of having a profile image to provide others with a visual representation of themselves. Airbnb is no different than many of these sites when in reference to this. They do, however, make their users' profile images much more prominent than many other sites.

After inspecting the webpages of each aforementioned website and getting the pixel measurements of the images I then converted the pixels to inches [Pixels ÷ Dots per inch (DPI)]. The charts show the difference in the image sizes from all four websites in comparison to the photo sizes on the Airbnb profiles in both pixels and inches. Airbnb profile photos are larger in comparison to the other four websites mentioned and, in most cases, larger by a great deal. The larger size that Airbnb has opted for results in the profile photos on their users' profiles to be far more prominent than they may have every intended. This results in hosts (and other users) being able to get a "good look" at the person requesting to rent their space or home

and subliminal (or explicit) bias and discrimination to take place in their transactions. Further, this enables users to claim that discrimination or bias prevented them from having a successful transaction, though this may not actually be the case (as a host may have a better offer or personal plans to stay in the space or home at the time that another user is requesting to stay); situations like this can result in unwanted controversy for the company and unwarranted negativity toward a host.

It could be claimed that Airbnb chose the larger photo size to strengthen the concept of the “Trust and Reputation” platform that the company pushes for by encouraging users to leave reviews of their experiences. That being said, this may have backfired as users attempt to pursue Airbnb in a court of law for discrimination.

The content of the photos may be just as important as the size. Most everyone knows at least one person whose profile photo is their pet or their child or children. No big deal right? On social media websites, this may be true; however, if one is making the decision to be a part of the sharing economy and an image is required for the profile the content is important and can result in a rejected request. Content that may push users away can be as simple as a facial expression. According to Fagerstrøm, Pawar, Sigurdsson, Foxall, and Yani-de-Soriano (2017) a person’s facial expression in their profile photo is likely to deter users from staying in a host’s space or hosts from approving guests to stay in their space, as “the face is a visible sign of other people’s social intentions and motivations and... are therefore critical stimuli in social interaction” (127). This work only adds more emphasis to the significance of the photos on user profiles.

Looking at the content of a photo from a slightly different perspective, discrimination can be encountered in online marketplaces as well as the sharing economy. The content of a photo does not have to be as specific as a facial expression, but the color of one's skin or the markings on one's skin that are present in the photo. By placing numerous ads on Craigslist of the same product and the same picture with different hand models, discrimination was encountered and can be seen by the amount of responses each ad received (Doleac & Luke C.D. Stein, 2013). Though this did not take place on Airbnb directly, the results of the study show that a form of discrimination can take place in any sort of transaction, subliminally or explicitly, based on the in a photo; therefore, the size of the photo enabling potential customers to see more or less of the owner of a product or space can increase or decrease the chance of discrimination taking place toward the owner (host) or buyer (guest).

Transaction Process

The transaction process is clear and concise. When one makes a request to book they are prompted to confirm their phone number if they have not already. After doing so, guests are presented with a mini photo of the host, the house rules, and the price of their anticipated stay (See Figure 9). Guests are to put in how many guests are staying and are encouraged to type in a text box their reason for travelling in and their anticipated plans. After payment information is provided, guests submit their request and wait for host approval. I am unsure of what the hosts see, as I am not a host on the website.

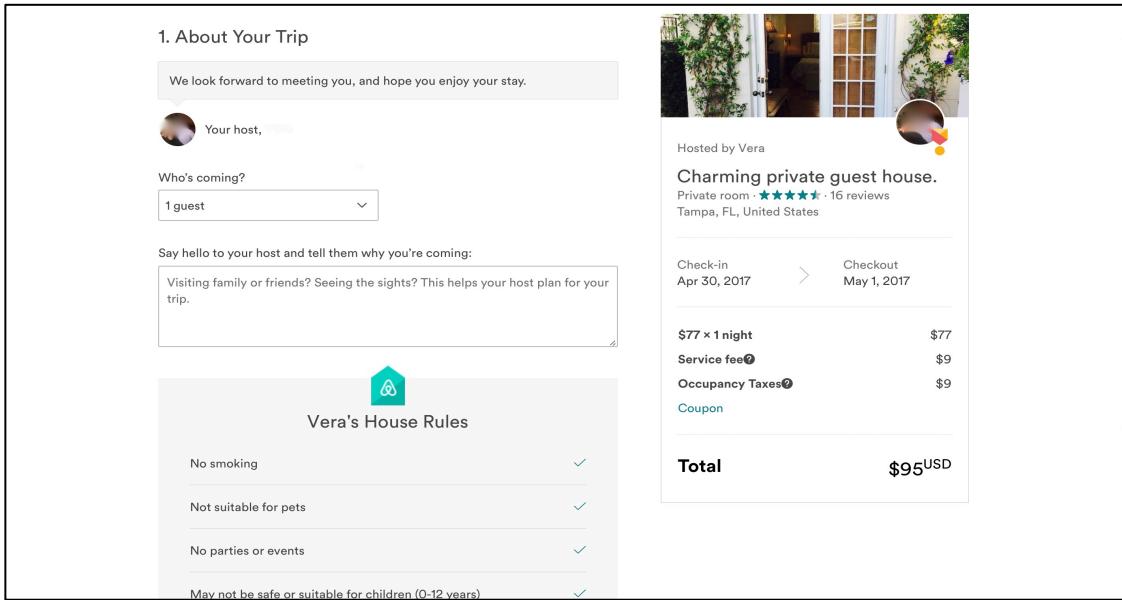


Figure 9: Airbnb Transaction

Instant Book

Airbnb provides hosts with the option to list their home or space as an “Instant Book” listing. Doing so allows guests to instantly book a listing without having to be approved by the host. This prevents guests from being rejected as a result of any discrimination or bias on the part of a host. Having Instant Book be a default setting would reduce the chances of hosts taking the time to look into user profiles and considering rejecting them unless they made a point to turn the setting off.

NOIRBNB

Becoming a part of this community was not possible after starting this study as a result of the website being defunct while the platform is updated. The new version should be released in the Spring of 2018. Until then, I will use what information I can gather from their social media to provide readers with their company culture and the brand itself.

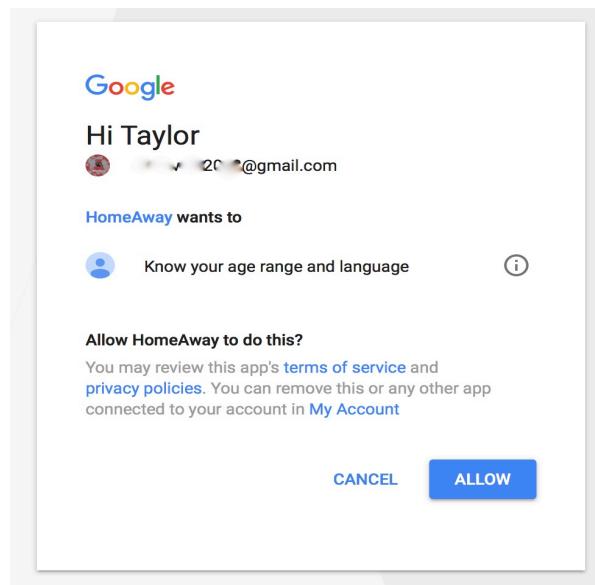
HOMEAWAY AND VRBO

HomeAway can be considered the parent brand that VRBO is a product of, though both are still marketed as separate entities that mention one another. As a result of this, the process of becoming a part of these communities is the same aside from mainly a color difference in the websites and the figures will be from both websites, as they are interchangeable.

Google and FaceBook

When logging in with Google, one simply registers with their information and are informed that the companies will receive their age range and language (see figure 10). By viewing the user's profile, you can see what information has been imported from Google, which includes the user's name, gender, and email. These are not shown on the public profile and the websites make a point to include fine print under "Gender" noting "This is never shared" (see figure 11); along with this, users are

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are informed that the companies will receive their age range and language (see figure 10). By viewing the user's profile, you can see what information has been imported from Google, which includes the user's name, gender, and email. These are not shown on the public profile and the websites make a point to include fine print under "Gender" noting "This is never shared" (see figure 11); along with this, users are encouraged to verify themselves via Facebook with a "Verify with Facebook" link and a helpful hint to verify their identity, with no link or how-to in reference to this (see

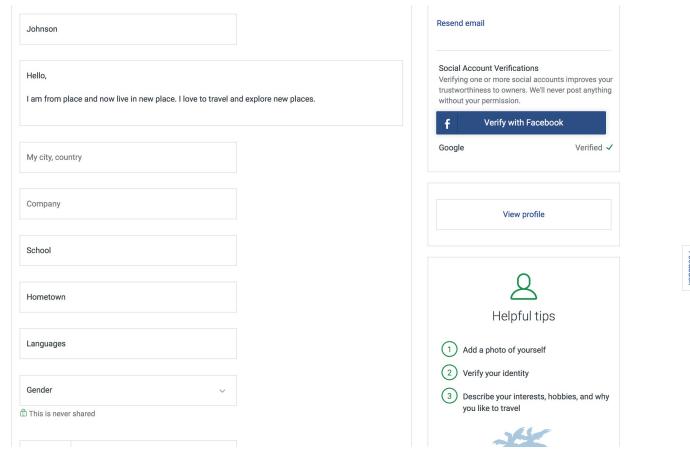


Figure 11: Information Required

figure 11).

If a user chooses to login with Facebook in lieu of Google, the profile looks the same as it did when logging in with Google with the "Verify with Facebook" link saying "verify with Google" and the user's Facebook profile photo is imported as the profile photo for their new account with the companies.

Email

Choosing to login with only an email provides users with an experience that is quite different and somewhat othering in comparison to registering with either of the accounts mentioned previously. Upon registering with an email account only, users

are encouraged to verify their account with Google or Facebook. As can be seen in the earlier figures, users were only provided with a verify with Google or Facebook and no explanation; however, when one registers with only an email, users are given a reason to verify with the other accounts as a result of “improving trustworthiness to owners” (see figure 12).

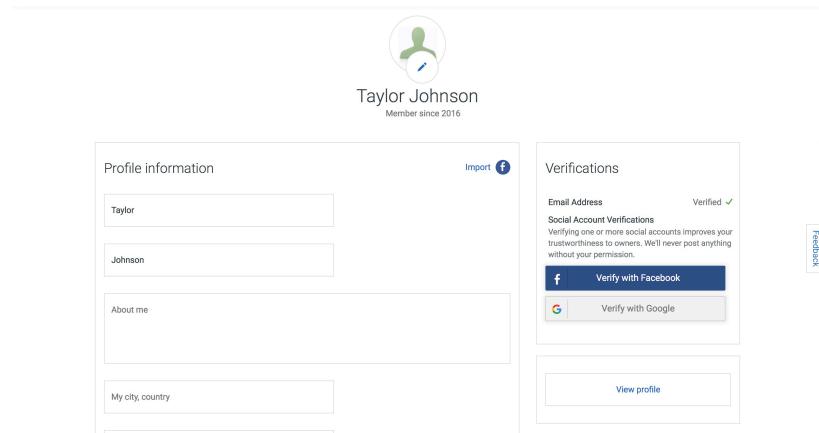


Figure 12: Encouragement to Improve Trustworthiness to Owners

Photo ID Verification

Though there is a helpful tool to verify one's identity, there is not how-to in doing so and you are not prompted to do so when attempting to book as I had assumed one would be.

How Does This Information Affect Users?

These companies have a façade of security and verification, possibly to comfort hosts, but there is no actual verification process that users must go through. This may comfort guests, as they can book without having to expose too much of themselves but hosts have a thin veil of security in place. Hosts are only able to see the users'

photos *after* they have accepted their booking request, so the photos are not seen on the users' public profiles at all (see figure 13).

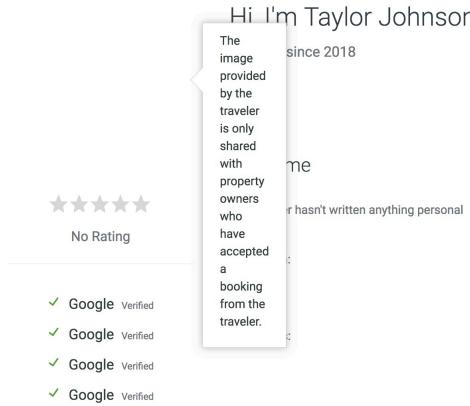


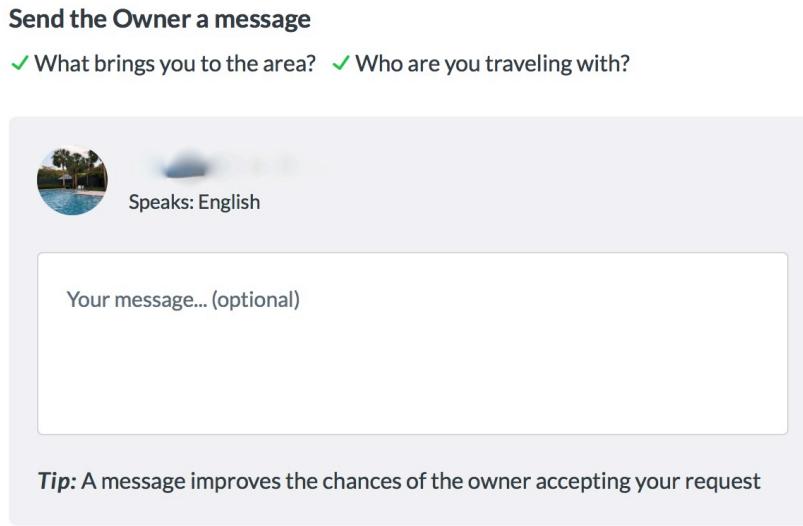
Figure 13: Image Only Shared After Acceptance

Photos and Image Sizes

Users are encouraged to upload a photo of themselves but there is no verification of that photo or requirement for it to even be a photo of a human—I uploaded a photo of my dog with no issues. As mentioned previously, the content of the photos includes no apparent guidelines. Because hosts are not authorized to see user photos until after accepting a booking, this is not exactly relevant to the booking process.

The images sizes appear quite large, as they are. In 2017, the images were much smaller being 1.33 inches by 1.33 inches (100 pixels x 100 pixels); at the time of re-examining these websites in 2018, the companies had increased the image sizes to three inches by three inches (225 pixels x 225 pixels). The reason for this design change is unknown, as the companies did not mention it on their website.

Transaction Process



By clicking 'Continue' you are agreeing to our [Terms and Conditions](#), [Privacy Policy](#), and to receive booking-related texts. Standard messaging rates may apply.

Figure 14: Encouragement to Send Message to Owner

Requesting to book with hosts is a simple process with both HomeAway and VRBO. After inputting dates users want to stay, there is a 24-hour confirmation period. When requesting, users are given the option to send the owner a message and answer the prompted, but not required, questions of “What brings you to the area?” and “Who are you traveling with?” (see figure 14). It is after this request is received that images are shown on one’s public profile; however, when an owner receives this request, they are able to see a five star rating and reviews from other hosts.

Instant Book

Homeaway and VRBO offer an Instant Confirmation option when hosts lists their property. In doing so, they give up the 24-hour confirmation period and option

to look over user profiles prior to approving a booking. Hosts to reserve the right to cancel instant bookings if the guest(s) do not meet stated household rules, policies, or terms and condition, which can vary from host to host.

TRIPADVISOR

TripAdvisor claims focuses on reviews of places to stay, airlines to fly with, restaurants to dine, and entertainment to enjoy. They joined with FlipKey so that they facilitate renting and contracts remain solely between hosts and guests. This leaves guest subject to any rules set forth by owners.

Google

Joining TripAdvisor via a Google account leaves users' age ranges visible on their TripAdvisor profile. Profile photos are not imported from Google accounts so users have the option of not having a profile photo.

Facebook

Deciding to join TripAdvisor with Facebook is similar to the process of joining with Google. The user's TripAdvisor profile shows the age range of the user but the profile photo from Facebook is imported.

Email

If a user decides to join with only an email, there is no information—not even the user's name—shown on the profile. They have the option to update their profile to

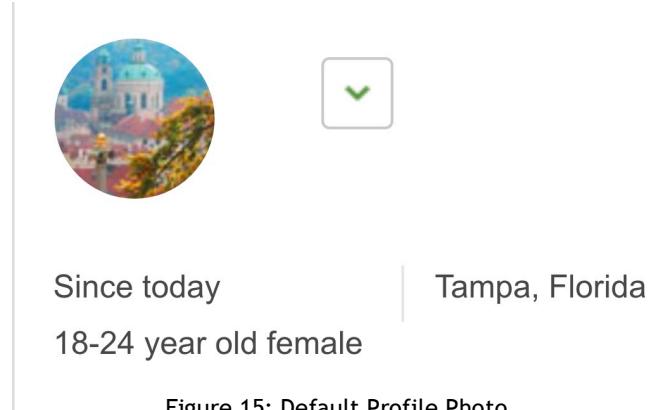


Figure 15: Default Profile Photo

provide information but are not required. A photo is imported, however, it is a default photo of a building that users can barely make out (see figure 15).

Photo ID Verification

There is no photo ID verification throughout the processes of joining TripAdvisor or booking a listing on their website.

How Does This Information Affect Users?

Users are able to earn badges for writing reviews, posting photos, a gaining a record number of readers, writing a record number of reviews, etc. These badges are the main focus of the user profile. The only personal information on the user profile is the age range, if one joins with Google or Facebook, and tags of the kind of traveler one claims to be, which is optional. However, if one opts to input their gender,

location, and text about themselves, this will be revealed on the user profile (see figure 15). This allows users to remain as obscure and private as they may prefer.

Photos and Image Sizes

With the TripAdvisor profiles that I started by joining via Google and Facebook, I easily uploaded a photo of my dog with no issue or verification that it was me. The profile images of TripAdvisor's user profiles are the smallest thus far. They are 0.8 inches by 0.8 inches (60 pixels x 60 pixels). This leaves users able to barely see whatever image has been uploaded. There are no apparent guidelines for the content of the images uploaded to user profiles or in reviews.

Transaction Process

The transaction process is similar to HomeAway and VRBO in that many hosts use a 24-hour confirmation period to review request. Users are able to send a personal message to hosts but are not prompted with suggested questions to

Instant Book

TripAdvisor offers an Instant Book option to hosts and guests. When partaking in this option, guests are able to instantly book without waiting for hosts to view their profiles. TripAdvisor does claim that instant bookings are with third parties and that TripAdvisor will only cancel if they sense fraudulent possibilities; however, if the property becomes unavailable after being booked, the guests will have to contact the hosts directly to resolve (TripAdvisor, Terms of Use 2017).

INNCLUSIVE

Rohan Gilkes, after a bad Airbnb experience, founded Innclusive in 2015. This is made clear in the company's "About Us" tab on their website with details of his experience of discrimination from a host of a different ethnicity on Airbnb. This led Rohan and his team to create a company that celebrates all people and encourages them to be themselves. They have branded the company in a way that "reflects a diverse audience" so that they can "reduce the likelihood that someone that is likely to discriminate would list their properties in the first place" (Why Innclusive 2018). Along with this, they prevent hosts from making dates available to some but not all by preventing dates that were denied to be booked by anyone.

Google

Joining Innclusive with Google provides the company with the user's email and gender and requires the user to input other information, such as birthdate and phone number.

Facebook

Choosing to login with Facebook gives Innclusive permission to receive one's public profile, friend list, and email address. Logging in with Facebook takes the user's profile photo from Facebook and imports to the Innclusive profile but I was still asked to upload a photo.

Email

Joining with an email requires a user to input other information initially, such as the birthdate and a phone number, and then when going to the user profile

The screenshot shows the 'Edit Profile' page from the Innclusive website. On the left, there's a sidebar with navigation links: Dashboard, Messages, Your Listings, Your Trips, Profile (which is selected), Account, and Affiliate. The main area has a heading 'Required'. It includes fields for 'First Name *' (Taylor) and 'Last Name *' (Johnson). Below these, a note says 'This is only shared once you have a confirmed booking with another Innclusive user.' There's also a 'Gender' dropdown under 'I Am *'. A note below it states 'We use this data for analysis and never share it with other users.' Another section for 'Birth Date *' with 'Month', 'Day', and 'Year' dropdowns follows, with a note: 'The magical day you were dropped from the sky by a stork. We use this data for analysis and never share it with other users.' Below that is an 'Email Address *' field with a dropdown arrow, accompanied by the note 'We won't share your private email address with other Innclusive users.' A 'Phone Number *' field is shown with a note: 'This is only shared once you confirmed booking with another Innclusive user. This is how we can all get in touch.' At the bottom right is a red circular icon with a white speech bubble symbol. At the very bottom of the form is a 'SMS Notifications' checkbox with a checked mark.

Figure 16: Information Required to Join Innclusive

requires you to enter additional information including gender with a claim of only using the information for analysis (see figure 16).

Photo ID Verification

There is no photo ID verification with Innclusive.

How Does This Information Affect Users?

Innclusive bases their design decisions on previous user experience, specifically the Rohan Gilkes', founder and CEO. As a result, they prevent the viewing of photos until after a property is booked. This is the company's way of protecting users from photo discrimination.

Photos and Image Sizes

There are no guidelines or verification in place, as users can book without a photo. The size of the photos on the user profiles is 191 pixels x 191 pixels, or 3 inches by 3 inches. This is the second largest of the companies under study.

Transaction Process

The transaction process was fairly easy. Finding a place to book and then booking it is as simple as it seems, for the most part. As soon as one checks the availability of their dates and the confirms this they can enter their payment

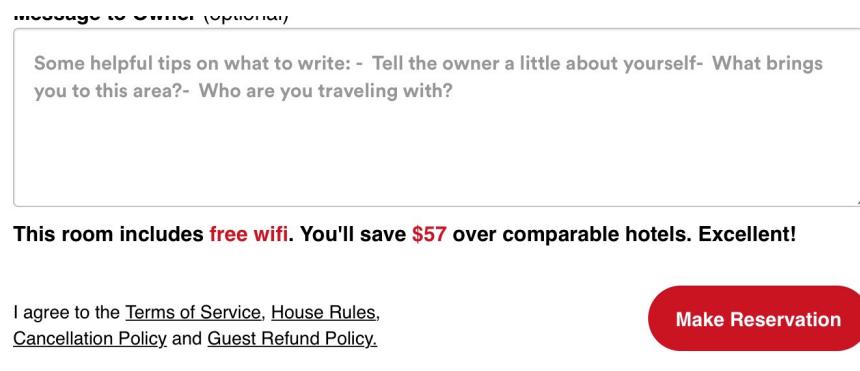


Figure 17: Encouragement to Give Details to Owner

information on the next page and write a message to the host. The text box does have a suggested prompt to include information of why you are traveling to the area and who you are traveling with (Figure 17).

Instant Book

Innclusive's other security measure put into place to prevent discrimination is to have properties available for instant book. The company claims that 99.9% of properties are available for instant book (see Figure 18). This allows users to book

without having to wait for a confirmation period or host to review their profile, thus preventing users from being othered or discriminated against for any reason.

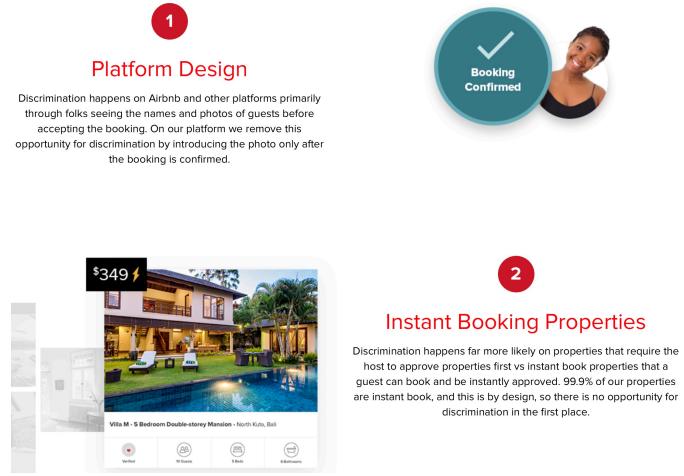


Figure 18: About Innclusive

ANALYSIS

Many companies have common goals in mind to succeed and, for the sake of capitalism, prioritize financial goals. The interfaces that these companies use to achieve these goals have similar features but still vary, which can be seen in their interface design choices. From the homepage to the user profiles to the actual property listings, an underlying motive can be found when looking closely. Focusing on the homepage of websites, which is often the users' first encounter with the company, who the company is targeting and what the company wants to make users feel and think can be determined by the contents of these homepages. Going further than this, the images and language used throughout the websites, mainly the companies' actual pages—not host listings—provide a more specified targeted demographic to be determined. Another strategy of reaching the targeted audience is by removing what is not considered to be relevant to that audience when scaling down websites for use on mobile devices—in other words, what is left? What is important enough to remain? What is important to be there in the first place?

Interfaces

Using parts of the heuristic from *Usability Inspection Methods* (Nielsen 1994), I did a close reading of each company's interface to determine the usability of the interfaces. The heuristic used included: a match between system and reality, flexibility and efficiency of use, and help and documentation standards. Many may

expect the interfaces to be extremely similar, but the companies vary from corporate philosophy all the way to interface design, which can be noted by the results of the usability test.

A match between system and reality refers to how natural and realistic the interface is to the user, in other words is it using the language and concepts that the user would be exposed to in their daily lives. Remaining consistent and to standards of the platform will prevent users from questioning words and situations and whether or not their meaning are the same throughout.

Airbnb uses simple and to-the-point words to describe places and excursions for users, which is great, but it comes off as slightly insincere. Nonetheless, this allows users to fully understand what they will be receiving for their payment. The company uses other terms, such as hospitality, community, experience, and immerse—to define the community that they want users to be a part of. These words can immediately be accessible and make sense to those who have never been othered or singled-out before, but these words in conjunction with the images that Airbnb uses targets those of a white, middle to working class demographic. Many images on their website consist of a white person with locals or have a majority of white people in them. This immediately results in non-white people not feeling welcomed to the hospitable community that Airbnb claims to have.

Innclusive tends to use terms that may be placed in the endearment category, such as love, accept, celebrate, welcoming, and amazing. The company makes a point to make sure users feel welcomed on all pages of the website. When searching



All hosts accept and celebrate people from all backgrounds. **187 listings**

for places to say they have a banner at the top of the page reminding users that “all hosts accept and celebrate users from all backgrounds” (see Figure 19). This is not completely shown via the images that the company uses; however they are more inclusive than other companies. Most of the images consist of all people of color or the majority of color, though they do include an interracial couple (African American and Caucasian) and a few photos of people who are clearly Muslim. This may be off-putting to those who are white, but the company is putting a substantial amount of effort toward being more inclusive, directly via their language and indirectly via their image choices. Along with this, they have a whole page of their website dedicated to explaining they fight against discrimination.

HomeAway and VRBO both use terms that are less personal and more capitalistic. The companies make sure to use words or phrases that are signals of customer service and an economic purchase so that users feel as if they will be taking care of without the expense of corporate hotels. Along with this, many of the photos on the website present users with landscape photos or photos that are specific to properties instead of photos with people in them. This reveals the company’s main focus as business, placing the worry of user experience after this. I marked this as matching the system with the reality of users as a result of users already being accustomed to a capitalistic society.

TripAdvisor uses language in a similar way. The company is very business focused but uses user images to feature many places, which gives the site a personal touch. Interestingly, there are few people in the photos featured on the homepage and throughout the site and the company uses picturesque scenery photos instead

(places that make one say “I want to go there” instead of “I wonder who is there/ if I could be there?”).

Having flexible and efficient interface consists of having an interface that those who are new or experts to the technology, and the concept of the sharing economy in this case, can easily use the system in front of them. This can be as simple as a searching throughout the website or clicking from tab to tab to find the information that is needed by the user.

Airbnb has a very minimalistic design that is overall easy to read, understand, and use. The only issue that some may encounter is the ID verification process. Some will be uncomfortable uploading a photo of their ID online while others will just find the process to be complicated. Innclusive has an extremely simple system and provides users with a website full of images and text that go together seamlessly, making the act of booking a reservation very straightforward. The only issue that they seem to have is an age minimum for certain properties and no way to filter out properties that a user may not qualify for. So, booking is overall wasy as long as you reach the age minimum set by the host.

The websites for HomeAway and VRBO are extremely similar and impersonal but they do a decent job of presenting information to users and getting them from finding a property to booking and payment as easily as possible, aside from users being required to wait the confirmation period set by hosts. TripAdvisor’s interface is very simply business and transaction based throughout, as there is only a small line at the top of the page when booking that notes the confirmation period before a user’s credit card is charged.

If an interface passes the help and documentation standard of evaluation it clearly provides users with an explanation of an error or a process in a language that users can understand. The help and documentation standards seem almost consistent for many of the companies. Airbnb has a mostly transparent and easy to use help system, as long as the question that the user has is a frequently asked question.

Innclusive has a guide of how things work and a chat window with someone available for chat 24/7. And HomeAway, VRBO, and TripAdvisor provide users with a help center so that users can search keywords to find their answer, which seems much more thorough than a frequently asked questions list but would also depend on the actual functionality of the search tool. See Figure 20 below for the results of the interface evaluation.

Table 1: Analysis of Interfaces Based on Nielson's Heuristic

	Match between system and reality	Flexible and Efficient	Help and Documentation
Airbnb	X	✓	-
Noirbnb	n/a	n/a	n/a
Innclusive	✓	✓	✓
HomeAway & VRBO	✓	✓	✓
TripAdvisor	✓	✓	✓

Experience

To focus on the user experience requires one to look into other users' experiences, including those whose experiences may not often be acknowledged or heard. In the case of this study, many users who had experienced any type of discrimination were looked into, along with reviews of the websites or applications in general. Many who have experienced discrimination in the sharing economy may immediately share their experience on social media while others may attempt to contact news outlets. Many cases have been documented and the companies' responses speak volumes.

Discrimination cases that were comprised of white hosts discriminating against non-white people led many to use the hashtag #AirbnbWhileBlack. Two of these people mentioned earlier are the founders and CEOs of Noirbnb and Innclusive. Both Stefan Grant and Rohan Gilkes were attempting to use Airbnb and were discriminated against on their stay or before even booking. Grant's story can be assumed based on the caption of his twitter post: "Yo! The Air BNB we're staying at is so nice, the neighbors thought we were robbing the place & called the cops!" This was the caption on the selfie that Grant posted. He and four African American friends rented a home in a suburban area and after a day of being at the home encountered police checking on the home because a neighbor had called and said that the five people were robbing the home while the family was out of town. The tweet went viral quickly and Airbnb provided plane tickets to Grant and a friend to the company headquarters in San Francisco to talk about what had happened and possible solutions. Grant had pitched the concept of noirbnb, which is an Airbnb for African Americans. Grant

claimed that there was a large market in renting to African Americans, especially those who had encountered discrimination and bias from using Airbnb. Airbnb did not buy Grant's proposal and somewhat stayed in contact with him after the meeting. His comments on the whole situation consisted of, “..Hey guys, our story isn't an isolated case. It has happened, it is happening, and it will happen again. And it will probably get worse” (Griswold, 2016, para. 9) After Airbnb denied the proposal of working together to be more inclusive, Grant founded Noirbnb and began accepting hosts on the platform, embracing people from “all walks of life” (Noirbnb, 2016).

Gilkes dedicates a page of the Innclusive website to tell his sharing economy discrimination story. When he planned to visit a friend he hoped to rent a cabin 2 miles down the road from the friend and her family. He shared this with the host, as the website prompted to share information about who he would be traveling with and what brought him to the area. Upon doing so, he received a message from the host saying that she and her family would actually be at the cabin the week that he reserved. As a result, he changed the dates and let the host know that he is flexible, leaving the host to make no further contact. Gilkes then asked his white friend to request the same dates and the friend was approved immediately. Rohan makes no mention of attempting to contact or sue the company, he does, however, say that his story did go viral and led him to create Innclusive. This story is no different than Gregory Selden's, mentioned earlier, in which he was denied, proceeded to make a fake profile for a white user, and was approved (see Literature Review).

Though many discrimination cases in the sharing economy have been related to ethnicity, they are not always. Producer Shadi Petosky was “honest” and disclosed

that she was transgender to a host. The host responded with, “I really appreciate your honesty. I’ll have to pass though, but thank you...” (see Figure 21). Petosky tweeted

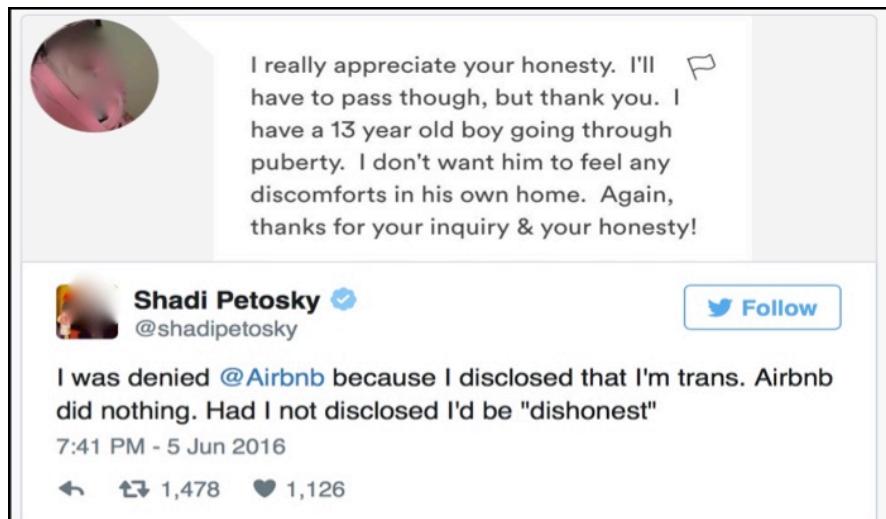


Figure 20: Petosky's Tweet
http://www.dailymail.co.uk/travel/travel_news/article-3629175/Airbnb-host-refused-transgender-woman-concerns-teenage-son-banned-rental-site.html

about the matter letting everyone know that she was discriminated against and the company did nothing about it. A year later, the company banned the host after noting that Petosky’s tweet went viral. Petosky’s gender identity could be assumed by her profile photo, hence the host not having an issue with her staying in her home *until* she sent her a message to inform her that she is transgender because she, “[doesn’t] want to arrive at a scene and feel unsafe” (Bowles, 2016, para. 9). Potesky claimed that the host was, “using a kind of coded language... that [transgender people are] negatively impacting kids or hurting children,” which is hurtful and a way to, “discriminate against trans people” (Bowles, 2016, para. 11). Petosky tweeted about the issue mentioning the company in the tweet that went viral, but they did nothing

until a year later. The company responded by banning the host from the platform because she acted against their nondiscrimination policy which does not allow hosts to discriminate against guests' gender identities, the gender they claim to be, if it is the same as the hosts' genders and they are sharing a space with guest(s); however, if the hosts' spaces are not shared spaces, they cannot discriminate against gender at all.

Though TripAdvisor may not place emphasis on user images or profiles, they do place great emphasis on user reviews. Kristie Love, an avid TripAdvisor user, received the short end of the stick when in reference to TripAdvisor's enthusiasm for reviews. Love vacationed in Mexico and upon returning to her room, found it to be locked with no working key. When she approached a security guard to ask for help he began escorting her and then raped her. When Love wrote a review for the hotel about this and how they did nothing to address the situation, TripAdvisor removed the review as a result of the lack of family- friendly language. Love was shocked that the review was removed and that TripAdvisor removed every time that she attempted to publish it.

DISCUSSION

To conclude, the interfaces in the sharing economy often fail to uphold or support the nondiscrimination policies that companies may have, if they have one at all. As a consequence of the companies' interface designs, many users are automatically exposed to more vulnerability. As a result of the emphasis placed on users' profile photos and their requirement to disclose sensitive and personal information many users are refused to be "shared with" when trying to participate in the sharing economy. I provide suggestions to modify the current interfaces interface so that users are less likely to encounter the discrimination and bias that other users have wrongfully encountered.

It is safe to say that the most prominent issue with the sharing economy's interface designs consists of allowing host to see those who they are renting to before approving a request. This is especially true if profile photos are too large or if a user has a distinguishably non-white name. This exposure enables hosts to see who they are renting to and increases the chance of the incorporation of bias and discrimination into their decision, subliminally or explicitly. When guests are attempting to submit a request to rent someone's space, the host photo is far from conspicuous and prevents the users from truly seeing what their potential hosts may look like. Guests should be afforded this same equality.

Many companies could remove the profile photos completely but this would make companies, such as Innclusive and Noirbnb, feel far less personal and communal

when it comes to user experience and could hurt business in lieu of help or preventing the two mentioned companies from achieving the goal of having a community in lieu of just guests and hosts. Lacking photos would likely have a drastic effect on the reputation and trust concepts of their platform, but this would possibly ease once users grew accustom to the lack of photos on users' profiles. If this were implemented, there would still be other verification processes to prevent users from being scammed, such as the valid government issued photo identification and the live "selfie" that they could require to be taken upon booking. Along with this, companies who use reviews of hosts by guests and guests by hosts could still have the trust-building relationship used to help build and support the trust and reputation company concept overall. Removing photos completely would prevent the discrimination and bias taking place as a result of hosts seeing photos of guests when requests are submitted and would provide guest the dignity and equality that they deserve; however, this is also limited, as Edelman, Luca and Svirsky (2015) prove, by hosts discriminating against guests' names and the way that they "sound."

Another option to prevent hosts from rejecting guests after seeing their photos is to not let them see them at all via Instant Book. Instant Book allows listings to be booked immediately without host approval and can prevent host from discriminating against guests, so having instant book as the default or requiring all listings to be instantly booked could lessen the chance of discrimination. Along with this, an incentive to convince hosts not to reject guests could also be to make the time period requested by the rejected guest(s) unavailable to be rented at all if a host rejects a guest's request, as Innclusive has opted to do.

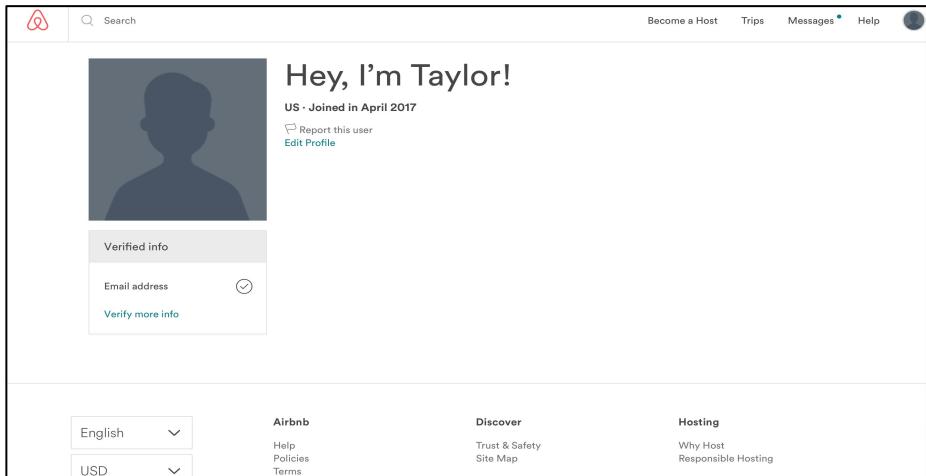


Figure 21: Member Profile Places Emphasis on Photos

Decreasing the amount of information required and displayed on user profiles will also provide guests with more privacy and lessen the feeling of being discriminated against as a result of personal information. Though the amount of information displayed on a user's profile is not substantial, some of the information displayed is irrelevant for hosts to know. This information includes, schools attended, gender, location, and what other accounts they have connected (such as Facebook or Google). Providing information, such as the schools one has attended, also enables hosts to discriminate against those who may not have attended a post-secondary institution or may not hold the same power or privilege that the host holds. As a result of not providing an abundance of information on user profiles, the emphasis placed on photos is further intensified (see Figure 22).

In the end, prompting users to agree to a nondiscrimination policy is not going to result in a lack of discrimination. The cases of Grant, Gilkes, Selden, and Petosky

have proven that this is not the case. The companies of the sharing economy have to consider the humans using the technology at the center of their designs so that users are not discriminated against, in the end, providing users with a design that upholds and supports the concepts of the companies and ensure that all users have the dignity and equality that they have a right to.

CONCLUSION

The research I am doing challenges the design choices of companies and whether or not they are upholding themselves to the standards that they claim. Along with this, I focus on the usability of all users in lieu of just targeted users, as the companies under study claim to cater to all. I deduce that the companies who often claim to be personal and want to cater to all have a far more specific audience in mind, leaving those of other demographics to be othered or discriminated against by the targeted audience. This calls for the field of Technical Communication to dig deeper into social justice by studying user experience from a capitalistic perspective so that we can recognize capitalistic gain while still being oriented in social justice.

My study cannot make broad conclusions but it does raise questions of:

- What are the approval rates of specific ethnicities?
- Who is being oppressed by the current interface designs?
- If a company has a non-discrimination policy but states that all issues must be handled via litigation, where is the social justice in the company offloading any liability?
- Why are we, as the field of technical communication, not already studying interface design and user experience, but refer to Nielsen Norman Group who are only studying these things together?

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