

# AIRBNB AND DIGITAL DISCRIMINATION

## Background

As cash-strapped roommates living in San Francisco in 2007, Brian Chesky and Joe Gebbia developed a simple idea in the face of an upcoming Industrial Design Conference where hotel rooms in the city would be scarce and expensive: rent out space in their apartment as a way to combine networking and the ability to generate some extra income. While the initial debut of “AirBed & Breakfast” was conceived as a short-term fix, the feedback the founders received and the buzz around the conference propelled them to develop the idea further, bringing in Nathan Blecharczyk as a third co-founder.

During its first two years, the founders faced a series of critical choices, from the scope of activities that the site would serve (e.g., would they move beyond the initial focus on cheap lodging during peak demand events such as conferences or hurricanes?), to how they would attract customers to the site (e.g., would they spam craigslist or rely on more organic word-of-mouth methods?), and how they would deal with the fact that they were essentially building the world’s largest lodging business (i.e., how proactive should they be about ensuring that hosts and guests paid hotel taxes, etc.). Their experience at Y Combinator in 2009 was particularly critical, allowing them to refine and commit to a broad business model, gain traction in the important New York market, and attract both traditional venture capitalists and investors with “star power” such as Ashton Kutcher.

## The Service

The core service and business model of Airbnb have largely remained the same since 2009. The primary users of the site are “hosts” and “guests.” As part of the registration process, users must build a personal profile that allows others on the site to learn about them (e.g., nearly all users upload a picture, and include some background information),

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see reviews and ratings by other users with whom they have interacted as hosts or guests, and provide financial information for payment processing.

Once on the site, hosts can upload detailed descriptions of their home (and themselves), including pictures, potential restrictions (or not) on the use of particular facilities, and have the ability to specify specific prices for particular times, stay lengths, and additional services (maid service, etc.). Guests, on the other hand, can browse the site searching for properties, filtering by detailed criteria, including precise location (down to the level of individual addresses), price, amenities, and restrictions (see **Exhibit 2**). Once a guest finds a property she would like to reserve, she can “Request to Book.” This alerts the host to a potential booking, and also allows the potential host to view the guest’s personal profile. The host and guest may then communicate regarding the reservation via messaging within the site (an algorithm ensures that messaging occurs within the site, by hiding the guest and host’s contact information.) The host can then choose to accept or decline the reservation request (host responses are usually required within 24 hours of the initial booking request). Airbnb takes the guest’s payment at the time of the reservation, and then holds that payment until the booking begins and the host is paid. At the conclusion of the booking, both the guest and host can leave reviews for one another, which can be viewed on their public profiles. Airbnb charges a service fee to guests of 6-12% (depending on the size of the booking) and a 3% fee to hosts.

By 2016, Airbnb has facilitated more than 60 million guest experiences, includes 2 million listings covering 34,000 cities and 191 countries. One million people stay with them each night! In its most recent funding round, Airbnb was valued at \$30 billion.

## **Controversies**

Given its novel approach to facilitating short-term lodging options, it is perhaps not surprising that Airbnb has been almost as controversial as it has been successful. The incumbents in the hotel industry have been adamant that, as a direct competitor offering similar services to the traditional hotel industry, Airbnb and its hosts should be required to bear the same legal burdens and taxes as traditional lodging options. The primary focus of industry ire has been the ability of Airbnb hosts to avoid hotel guest taxes. As emphasized by Starwood Hotels founder Barry Sternlicht:

What we want in the lodging industry is a fair playing field. We want them to pay the same occupancy taxes and sales taxes that guests in our hotels have to pay. That’s absolutely required. That is one of the big benefits Airbnb has, that they don’t pay those taxes. In cities like New York it’s a 20% load. So that’s not

fair. And the unions will take care of that for us. Because they will argue — and they're right — that it will hurt a lot of union jobs all over the country.<sup>1</sup>

These calls to actions have resulted in varied outcomes in different cities. In Barcelona, for example, the government has fined Airbnb for infringing on regional property rental laws, while Germany has passed laws requiring local government approval for short-term rentals. The rapid rise of Airbnb also has resulted in a high level of concern about the impact of the platform on short-term lodging markets (including any number of forums on the opportunities and challenges of the “sharing economy”). Chesky and his co-founders have argued that their innovative services are actually helping to spur economic opportunity. “I don't think we're ruining any city. We started this company to help pay the rent on our San Francisco apartment, and we feel that in many cases we help people stay in their homes by giving them supplemental income.” Recently Airbnb has recognized that long-term sustainability requires them to collaborate with cities to collect accommodation taxes and address other concerns. They have forged partnerships with some cities (e.g., San Francisco) and developed a new technology built on the platform to collect taxes.

While hotel taxes might directly influence the competitiveness of Airbnb relative to traditional hotels and motels, more fundamental issues have arisen over the well-being and safety of hosts. Notably, in 2011, an Airbnb host named “EJ” returned home after her “guests” departed to find her property in deplorable condition. She wrote about her experience in her blog: “They smashed a hole through a locked closet door, and found the passport, cash, credit card and grandmother's jewelry I had hidden inside. They took my camera, my iPod, an old laptop, and my external backup drive filled with photos, journals... my entire life.”<sup>2</sup>

Airbnb was slow in its response, leading to a media firestorm, including negative coverage in *The Wall Street Journal*, *The New York Times*, *San Francisco Chronicle*, *USA Today*, and the blogosphere. Shocked into action, the company responded with a host of new approaches to enhance security, safety and the customer service experience (including a \$50,000 Airbnb Guarantee for property damage coverage, a 24-hour Customer Hotline, and a doubled Customer Support team). Brian Chesky himself issued a profuse apology to the entire Airbnb community:

We felt paralyzed, and over the last four weeks, we have really screwed things up...In the last few days we have had a crash course in crisis management. I hope this can be a valuable lesson to other businesses about what *not to do* in a time of crisis, and why you should always uphold your values and trust your instincts.<sup>3</sup>

In 2013, the company also began to require a government ID as part of the registration process.

## **Airbnb Values**

As Airbnb has grown, it has been distinctively public about its expression of the values of its founders and the guiding principles of the company. Most notably, in July 2014, Brian Chesky rolled out a new campaign and logo designed to highlight the core values of the company: “the idea at the core of our company: belonging.”<sup>4</sup> The founders articulate the core of Airbnb as a “sense of place and belonging, connection and sharing, acceptance and safety.” While the company has grown impressively, profitability is not necessarily the goal. “This is a revolution created by everyone being connected to everyone else... We in the sharing economy represent what happens when the Internet moves into your neighborhood. I believe we're just in Chapter 2 of a really long book about this age. There's huge growth ahead of us.”

## **The Harvard Studies**

As a reputation-based online platform where hosts and guests can evaluate each other's profiles when choosing among property listings, Airbnb is upfront that “trust is what makes it work.”<sup>5</sup> An unintended consequence of this approach was brought to light in 2014, when Ben Edelman and Michael Luca of the Harvard Business School issued a working paper on “digital discrimination.” The authors undertake an empirical analysis of all Airbnb listings in New York from July, 2012, focusing on whether hosts whose picture or name appears to indicate that they are African-American end up charging less for their property, even after controlling (in a detailed way using independent evaluators as well as the prior user ratings) for the quality and attractiveness of the property and its location. The main finding of the paper is that “non-black hosts charge approximately 12% more than black hosts for the equivalent rental.”

The authors point out that their “findings highlight the prevalence of discrimination in online marketplaces” and emphasize that, under current regulation, the practices of Airbnb are not against the law. Instead, they acknowledge that “if Airbnb were to take action to reduce the extent of discrimination, the decision would be driven by ethics, rather than profit or the law.” (p. 7). In their conclusion, they highlight how reducing host information could serve as a remedy:

We note the many contexts in which online platforms specifically withhold information from market participants...Airbnb itself prohibits (and runs software to prevent) hosts and guests from sharing email addresses or phone numbers

before a booking is made, lest this information exchange let parties contract directly and avoid Airbnb fees. Given Airbnb's careful consideration of what information is available to guests and hosts, Airbnb might consider eliminating or reducing the prominence of host photos: It is not immediately obvious what beneficial information these photos provide, while they risk facilitating discrimination by guests.

In a recent paper to assess discrimination against the guests, Benjamin Edelman, Michael Luca, and Dan Svirsky (2016) run an experiment randomly drawing 6,400 properties with listed availability eight weeks out. They sent messages inquiring about availability, varying only guest name (African-American and White sounding names, like Lakisha versus Allison, or Jamal versus Brad). They found lower acceptance rates for guests who are African American, a difference that persists whether the host is African American or White, whether the host is male or female, whether or not the host shares the property with the guest, and whether the property is cheap or expensive. They estimate that the hosts incur a cost to discriminate of approximately 65 dollars.

Based on the findings of race discrimination against African-American guests and hosts, the authors are calling for the users to take action. They have created a "Debias Yourself" App to remove users' pictures and names (see **Exhibit 3**)<sup>6</sup>:

We created the Debias Yourself browser plugin to give hosts the power to fight this problem. When a guest contacts a host, Debias Yourself removes information that can facilitate discrimination. A host can view the guest's message and past reviews without having to see the guest's face or name. This way, the host can review and accept guest requests on a nondiscriminatory basis, considering a guest's request on the merits (such as dates, number of people, and purpose of the visit) without information that conveys race, gender, or age (such as name and photograph). While we designed the Debias Yourself browser plugin primarily for hosts, the plugin can also be used by guests who wish to evaluate properties without regard to host characteristics.

### **Airbnb Response So Far**

Airbnb was slow to respond to the discrimination findings. Finally, in September 2016 they published a report, "Airbnb's Work to Fight Discrimination and Build Inclusion" by Laura Murphy (a well-known expert in civil liberties). The report presents a series of policy and product changes to help fight discrimination and bias (see **Exhibit 1**), and cautions the readers that "No one company can eliminate racism and discrimination. Fighting bias is an ongoing task that requires constant vigilance from all of us."

## Choosing A Platform Design at Airbnb<sup>1</sup>

You and your team are part of the growing management team at Airbnb, responsible for ensuring the alignment between the values the company articulates and the choices the company makes on a day-to-day basis. The entire management team has reviewed the Harvard study, and Airbnb data scientists have concluded that the core finding of the two Harvard studies is valid: an unintended consequence of the current platform choices is a high level of racial discrimination, perhaps reflecting implicit biases. A number of options have been raised, with three options extensively discussed: each of these approaches has been determined to be technically feasible.

- 1) *The Edelman/Luca Option: Limiting Host and Guest Information.* This option reduces the information available to guests as they browse properties (by limiting pictures or racial identifiers of hosts), while hosts would not be able to access elements of guest profiles that provided race information until after they had accepted a reservation request.
- 2) *The Transparency Option: A Personalized Implicit Bias Report.* Rather than limiting information, Airbnb could develop a personalized and confidential report for all hosts and guests documenting their level of implicit bias. This report will use the browsing and choice history of each user to create an implicit bias score which could be monitored over time by the user. This option allows users maximal freedom, and also leverages the “big data” that Airbnb is developing regarding its user community.
- 3) *The Neutrality Option: Maintain Current Platform Design.* This option would involve maintaining the site as is, while continuing to emphasize the importance of inclusion and non-discrimination. This option would reflect the view that, while Airbnb is opposed to discriminatory behavior, its hosts and guests have the right to make independent decisions based on their own values and preferences.

As well, other options have been suggested, including letting hosts and guests opt into a “badge” system if they document their commitment to diversity in their lodging choices, or randomization, where the pictures and names on Airbnb would be altered in order to create uncertainty about particular demographic characteristics such as race.

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<sup>1</sup> This exercise is a simulation and does not reflect Airbnb data analysis beyond the Harvard study nor the internal deliberations of Airbnb.

## Exhibits

### Exhibit 1: Airbnb's Policy and Product Changes<sup>7</sup> (pp. 10-12)

**The Airbnb Community Commitment.** Airbnb believes everyone in the Airbnb community should be held to a standard that goes above and beyond what is required by law. Beginning November 1, 2016, everyone who uses Airbnb around the world will be asked to affirmatively agree to uphold the following commitment before they book a listing or share their space on the Airbnb platform: *"We believe that no matter who you are, where you are from, or where you travel, you should be able to belong in the Airbnb community. By joining this community, you commit to treat all fellow members of this community, regardless of race, religion, national origin, disability, sex, gender identity, sexual orientation or age, with respect, and without judgment or bias."*

**A Permanent, Full-Time Product Team to Fight Bias and Promote Diversity.** Airbnb has assembled a permanent team of engineers, data scientists, researchers, and designers whose sole purpose is to advance belonging and inclusion and to root out bias.

**Encouraging the Growth of Instant Book Listings.** Airbnb wants to make booking a listing easy for everyone. Instant Book allows certain listings to be booked immediately—without prior host approval of a specific guest. Airbnb will accelerate the use of Instant Book with a goal of making one million listings bookable via Instant Book by January 2017.

**Going Beyond Photos.** Profile photos help hosts and guests get to know one another and can serve as an important security feature. At the same time, some have asked Airbnb to remove profile photos from the platform. Airbnb's new product team dedicated to fighting discrimination will experiment with reducing the prominence of guest photos in the booking process and enhancing other parts of host and guests' profiles with objective information.

**Enforcing the Rules, Supporting Our Community.** To improve its response to discrimination complaints and better enforce its policies, Airbnb overhauled its enforcement protocols. The Airbnb team developed new tools to quickly and reliably route concerns regarding discrimination to a group of trained specialists who are dedicated to both identifying and combatting discrimination.

**Open Doors.** Airbnb is committed to implementing solutions that help ensure everyone can use the site to find a place to stay. If someone is discriminated against while using the platform, Airbnb wants to make it right. To achieve this goal, Airbnb is instituting Open Doors. Under Open Doors, if a guest is not able to book a listing because they have been discriminated against, Airbnb will ensure the guest finds a place to stay.

**Welcome to Our Home: Addressing Unconscious Bias & Bringing People Together.** In order to help create a world where anyone can belong anywhere, Airbnb will offer new training to help people learn how to fight bias. As the program develops, we will highlight hosts who have completed this training.

**A Diverse Workforce, A Diverse Community.** Airbnb realizes that becoming a more diverse company will make it a stronger company. Airbnb wants to ensure its workforce is more diverse and has work to do to achieve this goal. The company will implement the Diversity Rule, a new Airbnb policy that will mandate that all candidate pools for senior-level positions include women and candidates from underrepresented backgrounds. Airbnb will also expand efforts to bring economic opportunities to minority-owned business and encourage more people from underrepresented populations to use Airbnb.

Source: *Company*

## Exhibit 2: Searching on Airbnb

Figure A: Sample Search

airbnb Cambridge, MA, United States

Price range: \$10 to \$280, Average: \$328

Filters: Amenities, Neighborhoods

Only 22 listings left for these dates. We recommend booking a place soon.

Additional fees apply. Taxes may be added.

1 Br loft style in heart of Cambridge Centr...  
Entire home/apt · 2 guests · ★★★★★ · 67 reviews · \$200

Vintage Design 1-Bedroom in Best Location  
Entire home/apt · 3 guests · ★★★★★ · 98 reviews · \$259

Map showing listings with prices: \$25, \$105, \$267, \$279, \$250, \$270, \$200, \$255, \$260, \$182, \$110, \$270.

Figure B: List of Amenities and Restrictions

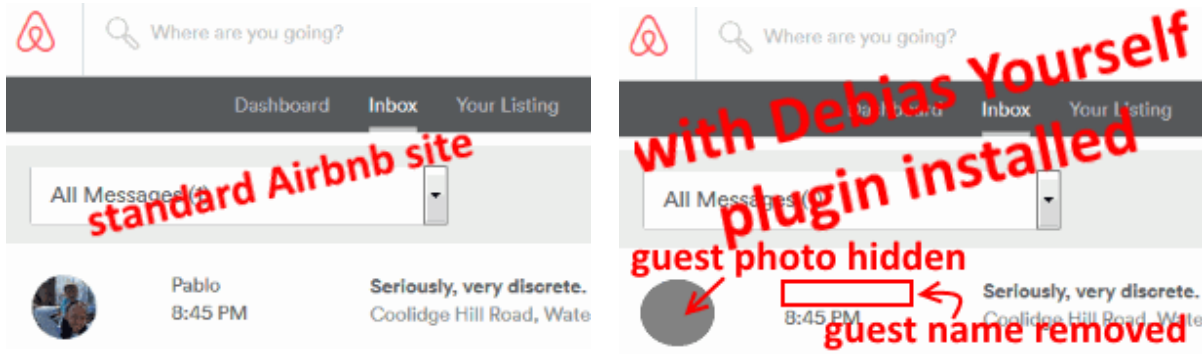
- |           |   |  |   |
|-----------|---|--|---|
| Amenities | <input type="checkbox"/> Wireless Internet        | <input type="checkbox"/> Pool                      | <input type="checkbox"/> Kitchen                  |
|           | <input type="checkbox"/> 24-hour check-in         | <input type="checkbox"/> Air conditioning          | <input type="checkbox"/> Breakfast                |
|           | <input type="checkbox"/> Buzzer/wireless intercom | <input type="checkbox"/> Cable TV                  | <input type="checkbox"/> Carbon monoxide detector |
|           | <input type="checkbox"/> Doorman                  | <input type="checkbox"/> Dryer                     | <input type="checkbox"/> Elevator in building     |
|           | <input type="checkbox"/> Essentials               | <input type="checkbox"/> Family/kid friendly       | <input type="checkbox"/> Fire extinguisher        |
|           | <input type="checkbox"/> First aid kit            | <input type="checkbox"/> Free parking on premises  | <input type="checkbox"/> Gym                      |
|           | <input type="checkbox"/> Hair dryer               | <input type="checkbox"/> Hangers                   | <input type="checkbox"/> Heating                  |
|           | <input type="checkbox"/> Hot tub                  | <input type="checkbox"/> Indoor fireplace          | <input type="checkbox"/> Internet                 |
|           | <input type="checkbox"/> Iron                     | <input type="checkbox"/> Laptop friendly workspace | <input type="checkbox"/> Lock on bedroom door     |
|           | <input type="checkbox"/> Pets allowed             | <input type="checkbox"/> Safety card               | <input type="checkbox"/> Shampoo                  |
|           | <input type="checkbox"/> Smoke detector           | <input type="checkbox"/> Smoking allowed           | <input type="checkbox"/> Suitable for events      |
|           | <input type="checkbox"/> TV                       | <input type="checkbox"/> Washer                    | <input type="checkbox"/> Wheelchair accessible    |

Source: Company



### Exhibit 3: Debias Yourself

The plugin modifies Chrome so that certain portions of specified sites are not shown. At present, the plugin hides the name and face of guests requesting to stay with Airbnb hosts.



The plugin also removes Airbnb users' names and photos from most of the rest of the Airbnb site – letting users focus on substance, like listing characteristics and review text, without risking discrimination based on irrelevant personal details.

Source: *Debias Yourself website*

## References

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<sup>1</sup> Jason Clampet, "Starwood Hotels Founder Says Airbnb is 'Changing the Landscape,'" *Skift*, October 2015, <http://skift.com/2015/10/13/starwood-hotels-founder-says-airbnb-is-changing-the-landscape/>, accessed May 2019.

<sup>2</sup> EJ. "Violated: A traveler's lost faith, a difficult lesson learned," *EJ Around the World, Blogspot*, June 29, 2011, <http://ejroundtheworld.blogspot.com/2011/06/violated-travelers-lost-faith-difficult.html>, accessed May 2019.

<sup>3</sup> Brian Chesky, "Our Commitment to Trust and Safety", *Airbnb* (blog), August 1, 2011, <http://blog.airbnb.com/our-commitment-to-trust-and-safety>, accessed May 2019.

<sup>4</sup> Brian Chesky, "Belong Anywhere", *Airbnb* (blog), July 16, 2014, <http://blog.airbnb.com/belong-anywhere/>, accessed May 2019.

<sup>5</sup> Airbnb website, <https://www.airbnb.com/trust>, accessed May 2019.

<sup>6</sup> Debias Yourself website, <http://debiasyourself.org/>, accessed May 2019.

<sup>7</sup> Laura W. Murphy, "Airbnb's Work to Fight Discrimination and Build Inclusion," *Airbnb* (blog), September 8, 2016, [https://blog.airbnb.com/wp-content/uploads/2016/09/REPORT\\_Airbnbs-Work-to-Fight-Discrimination-and-Build-Inclusion.pdf](https://blog.airbnb.com/wp-content/uploads/2016/09/REPORT_Airbnbs-Work-to-Fight-Discrimination-and-Build-Inclusion.pdf), accessed June 2019.