Using Stakeholder Theory to Examine Drivers' Stake in Uber

Ning F. Ma*, Chien Wen Yuan†, Moojan Ghafurian*, Benjamin V. Hanrahan*
*Pennsylvania State University, †Fu Jen University
nzm37@psu.edu, 138679@mail.fju.edu.tw, moojan@psu.edu, bvh10@ist.psu.edu

ABSTRACT
Uber is a ride-sharing platform that is part of the 'gig-economy,' where the platform supports and coordinates a labor market in which there are a large number of ephemeral, piecemeal jobs. Despite numerous efforts to understand the impacts of these platforms and their algorithms on Uber drivers, how to better serve and support drivers with these platforms remains an open challenge. In this paper, we frame Uber through the lens of Stakeholder Theory to highlight drivers' position in the workplace, which helps inform the design of a more ethical and effective platform. To this end, we analyzed Uber drivers' forum discussions about their lived experiences of working with the Uber platform. We identify and discuss the impact of the stakes that drivers have in relation to both the Uber corporation and their passengers, and look at how these stakes impact both the platform and drivers' practices.

ACM Classification Keywords
H.5.m. Information Interfaces and Presentation (e.g. HCI)

Author Keywords
On-demand work, stakeholder theory, Uber, platform

INTRODUCTION
Ride sharing companies represent one of the major industries in the gig-economy [14]. A common claim of the gig-economy – which Uber itself purports – is that workers may work *'whenever they want'*, *'wherever they want'*, and that they can *'be their own boss'* [50]. This claim, at least in the case of Uber, is not always supported by Uber and its platform [52]. This is primarily due to the various barriers that drivers face to their agency in terms of information/power asymmetries [52], algorithmic management [36, 58], and emotional labor [48].

In this paper, we seek to add to this body of research by framing Uber through the lens of Stakeholder Theory [20, 42] (an ethical theory that, in part, more broadly frames the responsibilities of organizational management), in order to more deeply analyze and enunciate drivers' experiences with the platform. Specifically, we extract drivers' stakes from the various discussions of their frustrations and breakdowns experienced while using Uber and interacting with riders. In fact, our very motivation for using Stakeholder Theory stemmed from the discussions drivers had about their expectations as independent contractors, both in regards to their relationship with Uber and their passengers and how that expectation was being breached.

The lens of Stakeholder Theory seems particularly pertinent at this moment in the progression of on-demand labor platforms. Much in the way that Freeman argued against a managerial style that was wholly justified in regards to *stockholders* [20], we argue against a design philosophy that is wholly justified in regards to *consumers*. In other words, as Freeman was reacting in part to Friedman's claim that "*The Social Responsibility of Business Is to Create Profits*" [21], we are reacting to what seems to be the design philosophy of Uber that *The Social Responsibility of Platforms Is to Serve Consumer Needs*. In this paper, we argue that while taking a more stakeholder-centric design perspective is certainly better in the ethical sense – in that it would create a better work environment – this perspective is also important in the instrumental sense – in that more agentic, informed interactions would be beneficial to both passengers and Uber.

We ground our analysis in the discussions between U.S.-based Uber drivers on online forums – as most of the 'shop-talk' for these platforms occurs in digital spaces [40] – about their lived experiences working on the Uber platform. Particularly, we aim to understand the nature of their day-to-day interactions with other stakeholders in regards to activities in decision making [5], evaluation [36, 58, 7], and expenses and earning [49, 33]. Within the workplace, we examine drivers' perception of their position in the corporation, how they express this position via the platform, and what the stakes of their interactions are.

In this paper, our main contributions are: 1) identifying and discussing the stakes of drivers and their position within the workplace; and 2) leveraging Stakeholder Theory to both frame current functionality and as a basis to improve said functionality.

RELATED WORK
In this section, we first introduce Stakeholder Theory, where we outline the origin of the theory, its development, challenges in applying the theory, and how it has been applied in practice.

CHI 2018, April 21–26, 2018, Montréal, QC, Canada.

http://dx.doi.org/10.1145/3173574.3173657

We then present related work on on-demand labor platforms through the lens of Stakeholder Theory.

Stakeholder Theory

Stakeholder Theory is a managerial concept, which was initially in response to the then – and perhaps still – dominant stockholder-centric management model [22, 32]. A *stockholder* is defined as an owner of corporate stock [2], whereas a *stakeholder* is defined as someone who is involved in or affected by a course of action [1]. The type of stockholder-centric management model that Stakeholder Theory is in reaction to, is embodied by Mitlon Friedman's claim that *"The Social Responsibility of Business is to Increase its Profits"* [22]. Specifically, Stakeholder Theory argues against the notion that all management decisions should be guided by their impact on stockholders [20]. Instead, one of the foundations of Stakeholder Theory recognizes that a core management responsibility is the general obligation to maintain an equitable and workable balance between the interests of stockholders, employees, customers, communities, and general public at large [3]. They argue that this outlook aligns with the original reason for the corporate entity to exist in the first place, which was in part because of their ability to serve the broader community and all of its stakeholders [4]. Of course, theorists recognize that balancing these interests is quite difficult in practice due to the complex, contradictory nature of the different interests involved [13].

One device that stakeholder theorists have used to deal with the complexity of balancing various stakeholders is varying the scope of stakeholder identity and legitimacy. Inspired by Igor Ansoff's work in the early 1960s, Freeman and Reed proposed a *wide* definition and a *narrow* definition of a stakeholder [20, 9]: in the *wide* definition, a stakeholder is any identifiable group or individual who can affect the achievement of an organization's objectives or who is affected by the achievement of an organization's objectives; whereas in the *narrow* definition, stakeholder is identified as any group or individual on which the organization is dependent for its continued survival [20]. In this paper, we use the *narrow* definition of stakeholders, where the core stakeholders are the Uber company (i.e., shareholders, employees etc.), drivers, and passengers. That said, we acknowledge that other external stakeholders (e.g., taxi drivers, community etc.) exist according to the *wide* definition, we leave the examination of these stakeholders to future work.

As part of the on-going effort in the theoretical and normative underpinnings of Stakeholder Theory [61, 20, 42], researchers have argued for various normative cores of stakeholder theory [61]. That said, the various cores are not necessarily thought of as mutually-exclusive and many proponents are pluralists [17]. One of the more significant cores argues that the stockholder-centric management theory is morally suspect and is no longer a workable model for strategic and organizational management [19] – this is sometimes referred to as the *Kantian core* [46, 15]. One of the underpinnings of this core is the rejection of the *separation thesis*, which assumes that business and ethics are contradictory of each other. Instead, Freeman argued that companies should ask for the purpose of its existence beyond profit [17]. Another core centers around stakeholder relationships being mutually beneficial and relatively just, in that they should require mutual sacrifices proportional to the benefits accepted [47] – i.e., the *fairness core* [46]. Last, the *feminist* core frames organizations as a network of relationships [10]. Recognizing the relatedness of stakeholders means that an individual stakeholder cannot succeed without the success of other stakeholders.

Challenges in Applying Stakeholder Theory

Since the early phases of Stakeholder Theory, researchers have recognized and argued about the difficulties in actually applying it [27, 38, 45, 39, 46]. As one might expect, some have argued that a manager's responsibility is to utilize their resources in pursuit of the specific purposes for which that business is constituted [27]; others claim that the fiduciary responsibility of business are downplayed by Stakeholder Theory [38]. In response to this argument, stakeholder theorists posit that this obligation should not be absolute, and that including stockholders as an important stakeholders is not anathema to the theory [45].

Another challenge is the claim that it is impossible to manage and maximize competing interests or values among the different stakeholders [42, 31]. This argument is a bit of a straw man, in that Stakeholder Theory is not necessarily about maximizing competing interests, or even equalizing said interests; instead it emphasizes the moral obligation of corporations and their managers to take into account the interests of relevant stakeholders [46]. In specific response to this criticism, theorists pointed to the narrow definition of stakeholder, arguing that failing to address these stakeholders' interests would almost certainly undermine those of the stockholders, therefore managers must – and often do – take into account the interest of stakeholders [61].

We can imagine that similar arguments can be made for platforms like Uber, where one might argue for serving the passengers above the drivers. We as designers of these platforms, can draw from some of the existing arguments around stakeholders to argue for more equitable treatment of all users of these platforms. In the following section, we look at how Stakeholder Theory is used in the practice of management.

Stakeholder Theory in Practice

As Stakeholder Theory is meant, in some ways, to provide guidance for managers [6], there have been a more recent emphasis on how to apply the theory in practice [8, 60, 37]. This has manifested itself primarily in firms that practice corporate social responsibility (CSR) [43] or sustainability (in the financial, environmental, and social sense) [55]. Along these lines, Wheeler and Davis found that the good will and social capital of the organization can be generated by applying a broader, more inclusive definition of stakeholders and taking this into account in decision making [60]. In other work, researchers found that proper stakeholder management and identification is crucial for CSR measures to stakeholders outside of the corporation [37]. Sillanpaa [54] further related her experience with the U.K. government-sponsored Ethical Trading Initiative, arguing that external, accountable CSR audits can give corporations a competitive advantage, as stakeholders increasingly expect them to respond to their moral concerns.

Stakeholder Theory has also been relatively adaptive to other applications: healthcare organizations [59], non-profits (e.g., parks and conservation projects) [12], nongovernmental organizations (NGOs) [57], and higher education [28]. We envision that there are ample opportunities to apply Stakeholder Theory to Uber and other on-demand labor platforms, with the potential to provide meaningful guidance for building a balanced, effective workplace for all stakeholders and their interests. We illustrate this potential in the following section, where we frame the literature through the lens of the different moral cores of Stakeholder Theory.

Rideshare and Related Platforms

There have been a number of studies that investigated the various practices and experiences of workers on rideshare platforms [33, 5] and crowd-based platforms [40, 41]. These papers, particularly in the crowd-sourcing domain, often aim at highlighting stakeholders that have been marginalized or forgotten, at times trying to interrupt power imbalances [26, 34] and the invisibility of workers [40, 30] on these platforms. This is quite plainly parallel to Stakeholder Theory's response to stockholder-centric philosophy, in that corporations are making design and management decisions primarily in regards to how it will impact customers at the expense of workers. Therefore, we can use the framing of Stakeholder theory to unpack existing literature in terms of the different moral cores.

One of the first moral cores that we see in the literature is the *feminist* one. Early on, researchers recognized that these platforms were heavily mediating, if not undermining, the relationships between stakeholders and that it would benefit both the worker and the organization to better support these relationships [44]. At the same time, this core can be seen when researchers called to attention the the invisibility of workers within these relationships and the disproportionate accountability of each stakeholder to one another – often in favor of the customers [30, 40]. Building on this, researchers began to more specifically examine how the platform mediates the relationship between stakeholders (e.g., drivers and riders or Turkers and requesters). That is, on these different platforms there are information and power asymmetries between the customers and providers that are in favor of the corporation's interests at the expense of either the drivers [52] or Turkers [26]. As we see it this core is continuing to be engaged by the work in algorithmic management [36], where the algorithm is – in effect – mediating much of the relationship between the driver and passenger. It seems that these platforms stand in the way of forming more equitable relationships among stakeholders.

One example of a knock-on effect of these asymmetrical relationships is the things that they do not take into account, e.g., the role that emotional labor plays in navigating these mediated relationships. On ride-sharing platforms, drivers go to great lengths to ensure that they are competitive with the experiences that other drivers are providing – activities which are not accounted for or remunerated [48]. Another knock-on effect of this asymmetry is illustrated by how bias is practiced on the various platforms [25, 51, 56, 24]. For example, race and gender were found to be correlated with performance metrics (which impacts opportunities for new assignments) [24, 51], or even – in the case of AirBnB – is associated with lower remuneration [14]. In part, these biases are rooted in how the functionality and anonymous structure of these platforms lead to a lack of accountability in the relationships that they purport to support [25].

Contemporaneously to the works that adopt the feminist core, researchers started to engage with what we see as parallel to the *fairness core*. That is, researchers began to specifically call into question how the benefits of these implementations and capabilities of these platforms were structured in regards to all stakeholders [34]. In this line of work researchers examine different directions of functionality that might make these platforms more beneficial to workers in terms of better pay, more engaging work, and career advancements [34]. We would argue that much of the work examining remuneration falls into the fairness core (e.g. [11, 29]).

While not completely separate from the fairness or feminist core, the *Kantian* core is embodied by work that looks specifically at the workers' situation and calls into question the ethical sustainability of the platform approach. For example, Martin et al. [40] specifically call into question the low pay, opaque policies, and precarious position of these workers. Further work has highlighted the amplified uncertainties of workers on ridesharing platforms in regards to driver and passenger welfare [5, 33], unfair labor practice [35], as well as low-income labor [49].

We do not intend to suggest that these cores provide an absolute categorization or taxonomy of the existing work – no one piece of work fits perfectly into a single categorization. However, we do suggest that these cores provide different lenses that one can apply to various phenomena to engage different questions and issues with respect to stakeholders on Uber. As such, in this paper we first uncover the stakes of the driver stakeholder on Uber by grounding the stakes in their conversations about their expectation about what is due to them and how that expectation is breached. We then discuss these various stakes by engaging the various moral cores of Stakeholder Theory to further understand the consequences and potential solutions to the breaches of these stakes.

METHOD

In this study, we have primarily borrowed the approach used in Martin et al.'s work examining Amazon Mechanical Turk [40]. That is, when collecting our data on the Uber forum, we selected posts that seemed to ring true to the community and were not just an isolated, unique phenomena. However, instead of using a more ethnographic approach to understanding the data, we iteratively coded the forum posts and met numerous times as a group to ensure transferability, credibility, and trustworthiness, criteria used for evaluating qualitative data. In the following subsections, we present our data collection, sampling strategies, and data analysis in this process.

Data Collection

We took an exploratory approach to analyze one of the most active Uber forums, which has 93,000 active members and over 150,000 discussions. The average number of users on

this forum at any given point is around 1,000. It seemed to us that most of the active members were U.S.-based and the discussions were overwhelmingly in English. We chose a forum as our data collection site because the drivers were not co-located, therefore their exchanges occurred primarily online.

The forum is divided into many sections, and we mainly focused on the most active sections: 1) the *Advice* section (containing over 9400 threads) where drivers seek help, suggestions, techniques, and answers regarding different practices; 2) the *Complaints* section (containing over 6300 threads) where drivers express their emotions and react to others'; 3) the *News* section (containing over 4600 threads), which holds discussions of major press coverage related to Uber; and 4) the *Technology* section (containing over 2500 threads) where drivers discuss their apps, software, phone, GPS, and dashboards. We did not include less active or less relevant sections; for example, "people", "pay," and "stories" also attract much use, but we did not include them because "people" was used for self-introduction on the forum, whereas posts on "story" and "pay" overlapped with contents on "complaints" section. We have captured data posted back from January of 2014 to April of 2017 and we analyzed a total of 1132 threads. Specifically, we analyzed: 234 threads in *Advice* section; 352 in *Complaints*; 339 in *News*; and 207 in *Technology* To verify issues that were discussed on the forum, we sometimes cross-referenced Uber official policies and media coverage.

Sampling Strategies

The sheer volume of content on the forum made it impossible for us to qualitatively evaluate every post. Uber also updates their service (e.g., UberPool was introduced later) in ways that sometimes render some posts obsolete, which we excluded from analysis. To start our analysis, we first selected "most recent" threads (in order to reflect the most up-to-date practices) and threads that contain more than 50 comments (which serves as a primary way to determine the importance and relevance of a topic). We did make a few exceptions if a particular thread had an interesting topic or discussion, but had fewer than 50 comments. For threads with duplicate themes, we did not include them if they did not provide new information. Along these lines, we also stopped including posts within a thread when we had reached saturation.

While collecting data from the forum, we did not disclose the study to the members of the forum. In consideration of driver's privacy, precautions were taken in presenting the data. We do not include screen names nor the forum name in our analysis. All that said, the screen names of the forum users are already psuedo-anonymous and overwhelmingly do not contain identifying information. We have tried to faithfully represent the concerns of drivers in their own words, and hope that they find this to be a fair and honest portrayal of working with Uber.

RESULTS

As mentioned above, our analysis uses the narrow definition [20] of stakeholder in which stakeholders are the parties that constitute the very existence of an organization and at the same time, depend on the organization in order to achieve their individual goals [18]. In Uber's case, stakeholders are the passengers, drivers, and the Uber corporation. Admittedly, it is useful and interesting to take a wider view [20] of stakeholder identification where several additional, important stakeholders are identified, e.g., taxi drivers or government officials. However, we did not find many discussions of these stakeholders on the forum and they are not directly involved in the day-to-day practices of drivers.

In this section, we first identify the stakes that drivers have in Uber (i.e., "what is expected and due" to them [62]) by grounding them in their discussions on how they are being breached, and what the consequences of these breaches are.

Autonomy as a Stake

An underlying topic in the drivers' discussion is how they see themselves and their relationship with Uber, and to a lesser extent with passengers. Drivers themselves seemed to enjoy and expect the freedom of being self-employed, while at times expressing skepticism about the realities of this classification. As Uber is officially concerned, they frame drivers as "partners"[1] and their legal designation is as independent contractors. This classification is consistent with drivers' perspective, but at times inconsistent with the actual practice of Uber [52]. From drivers' conversations, some of Uber's policies and functionalities treat drivers more as employees and less as independent contractors. This goes against the drivers' expectation and stake in this relationship; they interpret themselves as having less responsibility towards Uber.

> *"Uber drivers are not employees, they are private contractors, so they get to choose what work to bid on[...]" (D1)*

A primary manifestation of this stake is that drivers feel that they should have more control and agency over the types of jobs that they take. That is, as drivers understand it, they are working on their own terms due to the nature of the relationship between themselves and Uber. As such, they take their freedom to do business their own way quite seriously and chafe at some of the controls implemented by Uber. One forum user indicated that if Uber does want to be able to exert control over the types of rides that a driver takes, then the relationship should be changed.

> *"Whether or not I can make the money I need to make by going 20 minutes away or even an hour away is my business, NOT THEIRS!!!! If they want it to be their business, then I become their employee. So as long as Uber wants to keep drivers as independent contractors and not employees, passengers who are long distances away from drivers are just going to have to hope drivers are willing to come get them[...]" (D2)*

In the above example, the forum member considered that Uber is more concerned about providing complete coverage for the rides requested, as opposed to providing rides that are 'worth it' to the drivers. The assignment functionality is one place where the tension between how drivers view what is due to

[1] https://help.uber.com/partners

them (i.e. their stakes) and what Uber provides them. This is seen in the presentation of a ride request to drivers, where drivers experience a "random" quality to the requests. In the example below, the driver continues to explain how they had no input into the parameters of their requests.

> *"Uber just randomly sets the distance that I can get a request from. I had no say in it. They didn't ask me. They just set it. And they change it from time to time, again without any of my input at all." (D2)*

This randomness is experienced both as a breach of their stake in the interaction and as a lack of agency. It is compounded by the fact that drivers have less than 15 seconds to decide whether to accept or reject the request without being able to know what constitutes the request, such as the destination and pick up location of the request. This becomes more important for drivers when the base pay rate is low, as they have to be extra cautious of requests that are far away, but the distance of the ride is quite short. In other words, it costs more money to get to the pickup location than the ride would pay. Drivers seem to be constantly calculating the cost-benefit of all rides, without support from Uber.

> *"I got a ping to a very rural address 18 minutes away. I sent a text, asked the passenger where he was going. He sent back an address, about .7 miles away from the pickup location in his same shitty backwoods neighborhood." (D5)*

That is, much in the way that Stakeholder Theory recognized that managerial decisions were justified solely in regards to how they would impact stockholders [20], in Uber's case, drivers perceive that decisions around policy and functionality are made solely in terms of their impact on passengers. At times this makes it seem like Uber wants all of the benefits of having employees, without any of the responsibilities. This seems to be a violation of the *fairness* core in Stakeholder Theory, where the various stakeholders have sacrifices proportional to their benefits. This breach is recognized and discussed by the drivers.

> *"make no mistake..you're a cab driver using an app to be connected with fares. they use the term rideshare to get around all the legalities of it." (D3)*

Even with this recognition, the majority of drivers still framed themselves as independent from Uber, in that they were *sharing rides* and *not* providing conventional cab services. One manifestation of this perception was that some drivers drew a clear boundary between their responsibilities to passengers and Uber's responsibility to passengers. That is, they framed connecting drivers to passengers as one of the passenger's or Uber's stakes, and not their own. Mainly, some drivers did not feel terribly obligated to find a passenger once they had arrived at a pick up location.

> *"I have literally come to the pickup spot and I see the eventual passenger right away [...] After 3 minutes they get in realizing I am their Uber and ask why I didn't call to them. Like I'm supposed to shout out "Pedro, where are you ?" to everyone I see [...] The system is designed for the pax to find the driver, not vice versa. " (D4)*

Within this interaction, the driver had chosen to share a ride, but they did not feel it was their responsibility to guarantee that a passenger was picked up. In this example, the passenger did seem to expect that it was the driver's responsibility to identify and arrange the pickup with the passenger. This shows how what is due to each party is unclear at times, such as whether or not the rides on Uber are a collaboration between partners, or a service provided to passengers.

Earnings/Expenses as a Stake

Obviously, a clear expectation of what is due to drivers is that they will earn a reasonable wage that is more than what covers their expenses, as one of their primary motivations to drive Uber is to make an extra buck [36]. Drivers seem to be constantly performing cost-benefit calculus while working on the Uber platform.

In terms of the fare on Uber, each one is calculated by adding a base fare, time, and distance rates, after which Uber takes a cut of around 25%. In addition to this cut, passengers are also charged a booking fee (approximately $1-2) on each ride[2]. On top of this, the base fare rate varies depending on demand and can drastically change the cost-benefit of driving at a particular time, as one driver explains:

> *"Most of us are at $.75/mile, which means $.60 after uber cut, which means $.30 if only half ur miles are paid (typical). So you actually LOSE $.27/mile (using IRS $.57). You LOSE a little on each trip, but can try to make it up on volume!" (D6)*

Aside from this base fare rate, drivers have to budget for a variety of expenses such as gas, car maintenance, tolls, taxes and local fees. Experienced drivers outlined the additional *"accessories,"* which were divided into *"suggested basics"* and *"optional items"*. *"Suggested basics"* include, among other things, a car phone holder, sickness bags, wet wipes, water, and mints. *"Optional items"* include items like a dash camera for recording inside and outside of the car, battery vacuum cleaner, and a large towel. In a different thread, a driver shared their budget from a month that was *"high maintenance"*. This itemized budget showed that the driver was making around $9/hour working 120 hours for the month, far from what Uber had advertised. Admitting that this is not a typical month, the driver speculated:

> *"The fact of the matter is this, of course maintenance costs will have ups and downs and looking at any single month or repair job is not the whole story. ...but there is almost nothing that I can think of to justify the low roi (return on investment) on my time if this single maintenance job is a precursor to others." (D7)*

One expense that new drivers did not seem to factor in the cost-benefit calculus was car depreciation. This depreciation was part of why experienced drivers often did not recommend starting with ridesharing. After a certain amount of driving, the

[2]https://www.uber.com/info/how-much-do-drivers-with-uber-make/

profit margin for drivers goes down due to increased expenses on car maintenance, taxes, and depreciation, and at times the driver only breaks even. One full-time driver explained how they ended up in a worse economic situation than when they started Uber:

> *"Did my taxes and can't pay it[...] Now i have a huge IRS bill of $5000 i can't pay. Uber their low rates, pool rides and high percentage they take after car repairs, etc i totally now broke and forced into bankruptcy. I voluntarily gave my car back to bank, 50,000 miles in 9 months most all the money went to repairs tires brakes and huge car payment so bad i'm now bankrupt." (D8)*

Drivers are unable to make adjustments to their cost-benefit calculus by setting their own prices; they can only opt-out when the price is too low. This is somewhat contradictory to the "partner" or independent contractor status of drivers, and calls into question the ethical sustainability of this model (i.e. the *Kantian core*). In this case, the independent contractor has only indirect input into Uber's pricing. One case that we came across in the forum was a driver who was frustrated when Uber breached their expectation of providing support and having some amount of concern about their ability to earn a living. In this case, the driver had received support from Uber to "put" them into a new car[3]. However, once the driver had committed, Uber dropped their rates and made changes in the calculus of driving full-time with Uber.

> *"Uber is freaking scam they put me in new car then they drop the rates ! How I m gonna pay for it now ? I had to sell my other car !! Driving pax in brand new car for 0.90 cents a mile what a joke !! " (D9)*

Managing Stakes with the Uber Platform

Drivers' stakes of autonomy and earning seem to be tightly coupled with each other in many of the interactions that are mediated by Uber and its platform. Drivers discussed many specific features that Uber had implemented on its platform and how they led to a variety of challenges and breakdowns. Many of these challenges were centered around satisfying the stakes outlined in the previous sections.

A theme often discussed in these threads was the high degree of automation in managing and coordinating rides, a key set of functionality that Uber relies on to function, which recalls a bit of the *Feminist core* in how Uber and the platform are mediating and structuring relationships and defining 'good' outcomes. For instance, while drivers certainly recognize that automation is necessary to implement a system like Uber, the role the algorithms and functionality currently play seems somewhat at odds with drivers' view of themselves. In order to satisfy drivers' stake of earning, this more *laissez faire* algorithmic management style requires them to sacrifice the very autonomy, to some extent, that attracted them to Uber. In this way, Uber and its platform appear as the operating authority by which drivers are feeling controlled and managed, as opposed to drivers leveraging the platform to independently make decisions and exercise control.

> *"Year of the driver my a$$! Just another way for this ridiculous company to control us so called independent contractors. I don't pickup at high schools, Wal-Mart's and other such type places from past experience so I know the addresses when they pop up and I can just ignore them. We know Uber doesn't deactivate for low acceptance so I could care less what mine is. Now of course the pickup address is hidden and you can't tell from the map where the pickup really is essentially forcing acceptance. Only then can you see the address and will have to take it or cancel which will increase cancel rate and lead to deactivation. These scumbags know exactly what they are doing, more control, more opacity leaving the driver little choice in how to operate independently!" (D10)*

That is, while Uber and the drivers frame themselves as independent contractors, the platform lacks this nuance. Instead, it assigns tasks to drivers and dictates the parameters and remuneration around these tasks, treating drivers more as employees and less as independent partners. Drivers however, look for ways to protect their stakes and assert their agency in spite of the platform. In the remainder of this section, we discuss some of the specific instances where drivers discussed how Uber and its platform had breached their stakes.

Ratings

A common way that Uber breached the stakes of drivers was in a lack of transparency. Transparency was especially an issue when drivers and passengers have different understandings (or a lack of understanding) about the meaning of the interaction and information provided. One prototypical example of this general phenomenon were the discussions around the role of and how they received ratings from passengers. This rating system is ostensibly how Uber leverages passengers to crowdsource the quality control and supervision of drivers, by letting passengers evaluate their drivers' performance [52]. The drivers expressed their exasperation with the rating system and its lack of accountability,

> *"Honestly you can't tell what a Pax rated you. When people say that they were rated 1* it is because they know they said or did something that the Pax would not like and mostly it resulted in a 1 star rating." (D14)*

Drivers even at times accused Uber of manipulating the ratings, or at the very least capitalizing on their fears of being blocked.

> *"There is no accountability from Uber as to the tabulation of this rating, and it seems like they have created an algorithm to automatically downrate new drivers for the purpose of fear. In other words, the customers are not downrating, Uber are doing it, to manipulate new drivers psychology so they go over the top with service like mints, water etc. Uber have refused to address this topic despite several communications with them." (D11)*

> *"Rating system works well. Fear of deactivation is a good motivator." (D12)*

[3]Uber's offical website under Vehicle Solutions: Need a car? We can connect you to partners who offer exclusive vehicle deals that can get you on the road and earning. Many offer no mileage caps and flexible return policies so you can drive and earn as much as you want. https://www.uber.com/drive/

This practice leaves room for non-clarified messages about driver's rating from anonymous passengers, breaching their autonomy to improve their performance. That is, drivers seemed to feel a lack of agency in affecting any meaningful change in these ratings. In the end, experienced drivers noted that because these ratings did not provide much actionable information and they had no idea who made the complaint, they decided that:

> *"it really doesn't matter because there is no reward for high ratings. Just gotta make sure that I don't go below the threshold." (D13)*

Other drivers claimed – perhaps correctly – that passengers do not always know what to base their ratings on. In order to educate passengers – and avoid being blocked by the platform – one driver went so far as to print a sign explaining that a 5 is the only 'acceptable' score as far as Uber was concerned, he summarized the surprise of passengers and the breach by Uber.

> *Having this in my car for a day has blown pax minds. They don't realize a 4= "eff you driver". Be your own Uber marketer since they suck obviously and tweak/provide recommendations. (D15)*

Drivers' frustration with Uber's rating system, which was rooted in its lack of transparency and accountability with respect to passengers' ratings (specifically regarding what their complaints were and who made them), sometimes led drivers down a path of suspicion. One driver believed that he suffered from biased ratings, which was particularly problematic as he had just started and was in danger of being deactivated.

> *"This is my 4th day driving. My rating now stands at 4.64 [...] I just can't figure out why my rating are borderline deactivation level. This is crazy. I'm curious, especially to hear from other young(ish) black male drivers if they are constantly on the borderline as well. " (D16)*

Support

Along these lines, when drivers feel like their autonomy and ability to earn has been breached, there is very little recourse available to them. In several cases, drivers discussed the limited support that Uber provides to drivers on the road, where most of the time, all that the drivers have are the FAQs available in the help menu of the driver app. While Uber *does* have local offices called 'Green Hubs' for drivers with emergency issues, drivers discussed how these support stations are staffed by third parties and rarely provide solutions to drivers' problems. In a thread where one of the forum moderators provided advice to new drivers, they warned that:

> *"Uber support is well known for not addressing your issue. They supply preprogrammed answers which are based on key words resulting in unrelated responses. You need to persist." (D17)*

UberPool

Another mechanism that Uber has deployed is *UberPool*, where passengers can join a car that already has passengers. Drivers in the forum almost unanimously declared their commitment in avoiding UberPool because it was a *"scam"* and it was just *"ripping off"* drivers. According to drivers, UberPool is designed to have them work "multiple tasks at once" where they could have earned the fares in separate rides. That said, drivers were not completely able to avoid UberPool as one driver explains:

> *"Uber Pool has been forced onto UberX drivers in many markets. Since it's a losing proposition, it makes earning a living wage very difficult to attain for drivers. UberX, itself, is actually hard to make profitable in many markets because of the up front costs to drivers and the actual weekly payout. But to force UberX drivers to do Uber Pool is a very unethical thing. Here, look at this thread. People are trying to get out, but they're being forced to do Uber Pool." (D18)*

Drivers felt that they were being taken advantage of and that they were not earning the amount that they felt was due to them.

Surge Pricing

Along the same lines of UberPool were the discussions around surge pricing. Surge pricing is employed when there is a higher demand for rides than there is a supply of drivers; the price of a ride increases and those passengers that have an extraordinary need (or extra funds) can still get a timely and reliable ride by paying a higher fare[4]. Each surge usually only lasts a few minutes, and is of great interest to drivers, because the fare can be substantially higher. However, taking advantage of surges proves quite difficult in practice for drivers. This is partly because while a driver may be within a surge zone, picking up a passenger outside of that zoning will not be eligible for surge pricing. A big factor is that, because of the short duration of a surge, it is quite easy for passengers to just wait until surge goes away.

> *"I cant tell you how many times i've in surge zone with no ping [...] as they said its a tool to lure people in [...] Pax are smart now and simply wait it out" (D19)*

A lack of nuance in how surges are defined and handled seems ineffective from the drivers' point of view. Drivers seemed to feel like they were being manipulated or "lured" in and their autonomy breached.

Drivers Response and Assertion of Stakes

The structure of and information available for some of the functionality that mediates the interactions between the passenger and the driver is sometimes at odds with the goals of the driver. For instance, drivers are unable to access the destination of a ride prior to accepting it. That said, as outlined in an above example, drivers are not passive in these interactions and still look to protect and assert their stakes, which in this specific case may lead drivers to cancel a ride when they find out the actual destination.

We saw a number of responses and strategies on the part of drivers when it seemed that their stakes were being breached. Sometimes these were relatively innocuous, at other times

[4]https://help.uber.com/h/e9375d5e-917b-4bc5-8142-23b89a440eec

they directly impacted passengers, and indirectly impacted the Uber corporation.

Attrition

Something that may impact Uber in the long-term, is the cumulative effect of repeated breaches of drivers' stakes. Many drivers on the forum who were not satisfied with their relationship with Uber and often expressed their suspicions about being exploited and their growing to distrust the platform. In the following example, a driver expressed Uber's lack of effort into developing relationships with drivers as a reason for leaving.

> *"I haven't driven since last Saturday, and I'm not sure if I will ever go out again. I kind of stumbled into this rideshare subculture while looking for a living wage where I'm at. While it's an interesting world, it certainly is rife with exploitation and treachery [...] What these companies are banking on is a continual churn of new drivers, who obviously can't serve customers as well as seasoned veterans, in order to trap enough into regular driving because of a poor job market and the draw of a quick, though low, dollar." (D18)*

Throughout the forum, we came across drivers reporting that they were leaving Uber (of course we had no way of knowing whether this was just 'blowing off steam' or they actually did leave the platform). A main reason that drivers cited was the little amount of effort that Uber has put into maintaining a long term relationship with their 'partners'.

The reported attrition and dissatisfaction of drivers indicates a key argument for Stakeholder Theory, mainly that the corporation exists at the pleasure of the stakeholders [15]. Meaning, if Uber suffers from high amount of driver attrition, it will likely impact passengers in the longer term (particularly if there are very few drivers).

Cancellation

A reaction that impacted passengers directly – in fact it was one of the few reasons a passenger would post on the forum – was when a driver, after learning more details about the ride, cancelled the passenger's ride request. In such a thread, a passenger complained that a driver contacted them right after accepting the request to confirm the destination to see whether it is "worth it." After finding out that the ride was too far away, the driver proceeded to cancel the ride. Many of the forum members expressed support for the driver's behavior and explained the reasoning to the passenger. In their explanation, they specifically cite the stake of earning and how they feel that Uber is not doing enough to ensure that this stake is respected. In essence, the manner in which Uber implemented this functionality only took into account how it directly impacted passengers and left drivers out of the equation.

> *"Unfortunately, sometimes drivers have to do things like that to make sure they don't lose money on a trip. The ride share companies are all too happy to send a driver on a trip that will end up with a net loss for that driver. They could easily make sure that all trips are profitable with the information they have [...] The fact is that they don't look out for us [...]" (D20)*

In another post on the forum, a passenger similarly reported that they were kicked out of a ride once the driver realized it was an UberPool request. Again drivers showed limited sympathy and explained their reasoning directly citing Uber's role in breaching the earning stake.

> *"Sorry for your bad experience, but Uber either needs to pay drivers more for UberPool trips, let drivers chose to not participate in it, or just get rid of Uberpool all together. It really sucks for drivers. Until Uber solves this problem, it's going to be a problem for everyone involved." (D2)*

These examples clearly show how focusing on one stakeholder at the expense of another, is actually self defeating. In some ways, not properly balancing stakes evokes the very problems that the corporation seeks to avoid.

Response to Biases

One rather complicated situation where various aspects of Uber and its platform converged to breach the stakes of drivers, was when they suspected they were the victims of bias. This was especially true when drivers belong to a minority and receive low ratings for reasons that are unknown to them. It is easy for them to speculate – with ample reasons at times – that it is related to a particular bias on account of passengers. That said, in the forums it seemed that biases were being exercised by both drivers and passengers. The functionality where discussions of suspected bias occurred the most was around ratings. In the following quote, a user agreed with a poster who was concerned that they had suffered from biased ratings.

> *"If I were black and got deactivated I'd be screaming from the hilltops about racism. It's probably THE best argument against the rating system there is [...] But anyone who thinks race isn't a factor (and ageism and sexism) in any system is deluded." (D21)*

It seems clear that the lack of transparency behind the reasoning for passengers' ratings opens the door to biased ratings that are unfettered by the system. At the very least, this lack of accountability leads to a lot of suspicions. Drivers even speculated that Uber assigns certain types of people to certain types of areas:

> *"I think as much as possible Uber tries to send us black drivers into the "hood" [....] To pick up black passengers [....] This morning I was at the air port the 3rd one to go out [....] when I get a ping ...] I look at my phone, and see the pax is 25 min away and has a very ethnic specific name." (D22)*

In all cases, the overriding concern was whether or not they would continue to be able to earn on Uber. As a result of all of these factors, fellow drivers encouraged this specific driver to be more selective about what types of neighborhoods or distances that he traveled for his passengers. Some drivers even go so far as to implement their own pro-active biases in response to these perceived threats to their earning potential.

> *"I'm not ignorant of the racial tensions in this country right now. I'm sure there's some real animosity. I think*

there's something about Rap too that brings out the hate. Now when I see a group of black guys I'm automatically going to just hit cancel. I hate saying that too because I love my black friends but what are you going to do."(D23)

The impacts of these types of strategies are not lost on the drivers. They are well aware of what is happening and the consequences of their actions. However, they place some amount of blame on Uber, as Uber and its platform do not sufficiently balance their stakes in the workplace.

"Uber has brought back redlining with its boost incentives. It is subsidizing the rides of the well off, mostly white passengers on the west side and leaving minorities and lower income residents in Central LA and South LA with fewer drivers. Uber, [...] are the ones responsible for ride share redlining [...] " (D24)

"Redlining" is a practice that originates in more traditional taxi companies where the companies refused fares from low-income communities. This practice was dealt with legislation back then, but now seems to be reemerging on Uber [25].

DISCUSSION

In this paper, we have outlined two of the primary stakes that drivers on the Uber platform expect to be due to them. Simply put, these are the ability to earn a reasonable wage and to do so on their own terms with a degree of autonomy. In order to illustrate these stakes, we presented how the drivers discussed when these stakes were being breached. Looking at Uber through the lens of Stakeholder Theory helps to better enunciate the current situation as well as to outline a path forward.

Why Stakeholder Theory?

One of the primary reasons to apply Stakeholder Theory to Uber is that Uber, in a quite literal sense, implements the management of their workforce via their platform [36]. Therefore, constructing a platform such as Uber is, in many ways, a *managerial* act and it is informative and useful to draw from a managerial research tradition like Stakeholder Theory. Stakeholder Theory itself is particularly elucidating for this type of platform design as it gives us a way to talk about who, in terms of which stakeholder groups, is being considered in various managerial decisions, or in Uber's case, decisions on functionality. Since Stakeholder Theory was originally a reaction to stockholder-driven managerial decisions, we can leverage its lessons as a reaction to profit-driven design decisions.

More specifically, while it is obvious that Uber wants to provide the most convenient, cost-effective service for passengers and maximize their financial gain, they are not motivated to create an equal amount of value for drivers, which seems especially true in shaping how interactions are mediated via their platform. It seems from the outside that Uber may not be sufficiently balancing drivers' stakes in the design of their platform – which is true of similar platforms [30, 40]. In this case, the Stakeholder Theory literature gives us a framework with which to discuss *why* Uber should care about balancing these stakes.

Of course, as in the past with Stakeholder Theory, corporations are not always called to action simply because 'it is the right thing to do.' Freeman argues that corporations should be about collaboratively creating common value as the ends [17]. One of the motivations for corporations to pay attention to these common values and individual stakes is enunciated in the *consequence argument* [19]. This argument highlights that the interests of stakeholders are often joint (e.g., both Uber and drivers want to provide quality rides to passengers), and that if one stakeholder benefits at the expense of others, then that stakeholder will eventually incur one of several possible consequences. These consequences include leaving the stakeholder network, constraining actions of corporations via political processes, and inventing new methods to satisfy their demands.

We argue that in the case of Uber, the breach in the various stakes of the drivers is evidence that an imbalance of benefits has occurred, and that furthermore, drivers' assertion of stakes is evidence of consequences to these breaches. That is, when Uber (on purpose or not) takes away the power for drivers to decide which rides to take – which further pushes them into the background of the platform – drivers would assert their position in the market and circumvents the system to continue to make their decisions – the behavior Uber was specifically trying to avoid. When Uber impedes on drivers' ability to earn an adequate wage – either through various policies or new functionality, e.g., UberPool – drivers have been avoiding or abandoning that functionality as we observed.

For drivers to stay on the platform, they find ways to create value and assert their stakes, sometimes to the detriment of other stakeholders. We expect that continued breaches to these stakes could bring further, more severe consequences.That is, if drivers' stakes continue to be breached, eventually they may chase the high-quality drivers away and end up with low quality drivers (e.g., resulting from low retention) and dissatisfied passengers. Additionally, if drivers do not feel that their stakes are important to the corporation, they could also assert and protect their stakes in a new network (e.g., changing platform, unionize, etc.). Therefore, Uber might as well be more constructively and proactively balancing the stakes of drivers, or it seems at minimum they will evoke the very types of behaviors they seeks to avoid.

In fact, we see evidence of stakeholders asserting and protecting their stakes in other work and on other platforms. For example, in the case of Uber we can see in this work and in others [51, 25] that drivers are reacting with proactive biases towards groups the suspect will impede on their ability to earn. On Amazon Mechanical Turk, we see workers react to customers posting low-paying tasks (a breach in the earning stake), by breaching their respective quality stake ('you get what you pay for') [40]. On Amazon Mechanical Turk, we also see workers collectively working to assert their stake of fair pay in a number of ways: on forums [40]; with tools [26, 30]; or through various campaigns [53]. Therefore, we see applying Stakeholder Theory to this research trajectory as a means of providing a better way to link user behaviors and

appropriations with the platform's functionality and organizational policies.

Design Implications of Better Balancing Stakes

Stakeholder Theory provides us with a lens with which we can not only frame existing functionality, but design and justify new functionality specifically to Uber. To illustrate this, we outline two pieces of functionality that were repeatedly discussed by drivers as breaching their stakes: the first being how ratings are given and acted upon; the second being how drivers get assigned rides by Uber.

Whether or not it was intentional, the current design of the rating system is not balancing the stakes of the drivers. While Uber has made improvements to its system, namely the compliments system[5], where passengers can highlight what they especially liked about the ride. However, even with this system a poor rating does not provide any actionable information to drivers, and there is still confusion by the passengers about what the different scores connote (i.e. a 4 is 'unacceptable') [23]. This confusion and opaqueness leads to a host of problems for drivers, and to a lesser extent passengers. Instead of the existing system, we propose to drop the star-based system and define a set of more deliberate, informative ratings for providing feedback. We propose a system that takes a set of similar facets to the compliment system, and uses them as yes/no prompts that asks directly about aspects of the ride. For example: *was the driver on time*; *was the car clean*; *did the driver take an efficient route*; *would you use this driver again*. This might have multiple impacts: 1) it forces Uber to deliberately define the expectations that it sees as the most important; 2) it provides a clear message to the passenger as to what they are actually providing ratings for; 3) it provides actionable feedback for drivers. This slightly more nuanced rating system, could also be linked to drivers' profiles, where they could indicate their type of service (e.g. talkative or quiet, music preferences), which would increase the autonomy of the driver in specifying exactly what type of service their passengers can expect.

Another aspect where drivers discussed their frustration, was how Uber seems to randomly assign rides to them. This also can lead to a negative impact on passengers when drivers sometimes cancel their request. Perhaps, instead of the current system, Uber could give the drivers an increased ability to be more explicit about the types of rides that they prefer. When it was necessary to violate these preferences, Uber would need to give an account as to why the recommendation was issued. Drivers could define the types of rides in terms of whether or not it was 'worth it', e.g., pickup location, ride distance, base pay rate, etc. As the current algorithmic management works almost exclusively "one-directional" where drivers having little say for the assignment of rides, providing them with a bit more agency in specifying the types of rides that they would like to make, would enable them to re-negotiate their relationship with the platform [23]. While this may cut some riders out of the service, we would argue that this is already happening, it is just not explicitly captured in the platform. Instead, if drivers were better able to declare their preferences, Uber would be more able to proactively detect when an area was being underserved and respond accordingly.

Paying better attention to how stakes are being balanced/breached, will result not only in more autonomy for the drivers, but likely a better experience on the part of passengers, and may have longer term benefits such as reduced attrition and a pool of more skilled drivers.

Looking Forward

Uber structures itself differently from more traditional corporations, which are more reliant on their internal stakeholders and have more investment in their pool of labor. Part of what enables Uber's structure is the lack of human supervision and the delegation of managerial acts to the platform. A side effect of this setup is that there is very little on-boarding or recruitment costs for Uber, meaning that Uber does not have much of a stake in training and retaining its workers compared to other organizations. This confluence of factors means that Uber can focus on maximizing the experience of passengers to the detriment of its drivers.

At least in the United States, this type of structure, which capitalizes on the independent contractor classification [16] is becoming more common for diverse types of work (e.g. Amazon Mechanical Turk, TaskRabbit, etc.). While platforms and the algorithms that enable them are clearly necessary to enable these types of exchanges, it is not clearly necessary for the mediation to be opaque, where stakeholders have limited knowledge, agency, and autonomy over how it mediates their interactions. Instead, these algorithms could increase the autonomy and agency of its users to self-manage, that is, they could increase not just the amount of transparency of these algorithms but to also increase the amount of control users have over them.

We see Stakeholder Theory as a concrete path forward in discussing and improving on-demand platform-based labor exchanges. As these platforms are becoming more ubiquitous, we need better ways to argue and advocate for the people whose lives are impacted by interacting with these systems.

LIMITATIONS

We have faithfully attempted to depict an accurate picture of the forum as we understood the experience of drivers for Uber; however there are limitations to our study. First, our investigation has focused on the drivers' perspectives; therefore we base our understanding of other stakeholders on the drivers' understanding. Second, due to the number of posts that exists in the forum, we applied sampling strategies that fit our research purpose, which may lose some details. Out of twenty-five sections in the forum, we selected the four most related sections for evaluation and omitted others that overlapped or were location specific.

In the forum, we saw many drivers complaining about how little effort Uber puts into things like driver retention. That said, the members who post on the forum are likely a biased sample of the total Uber driver population. However, we believe that this is still a faithful source of experiences presented by authentic Uber drivers.

[5] https://newsroom.uber.com/compliments/

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