

The Gig Economy

Gig jobs have become a structural aspect of contemporary economic landscape, creating unique social and technological challenges. How can policies and design solutions better protect gig workers and mitigate the risks participants face?

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Recent technological advances have significantly altered the landscape of modern life. It is now easier than ever to meet strangers or to acquire deep knowledge of obscure subjects, which were previously the exclusive domain of experts. Soon, automated vehicles will deliver us from place to place along with the things we buy. Yet, the biggest revolution may be unfolding before our eyes without receiving much notice: More and more people are now part of the “gig economy.” This is the informal definition for people who make a living by sharing and selling services and goods on platforms like Airbnb, Uber, Lyft, Task Rabbit, and so forth [1].

In what follows, we highlight some of the characteristics of the jobs that the gig economy is creating. Because of the unique characteristics of gig jobs, we also emphasize three key aspects we think can increase the protection (legal and economic) generally associated with these jobs. Policy makers have a fundamental role to play that is perhaps different from what most observers of the gig economy have discussed.

A key aspect of the gig economy is its reliance on trust. The role of trust in the gig economy has been segmented into two parts: interpersonal trust,

as in the trust that a host places on a guest in an Airbnb exchange (and vice versa); and trust in the platform, as in the trust that all users have in a given website (its rating system, procedures for screening out malicious users, general fairness, and so on). While much has been written on the topic of trust in online communities, here we take a different perspective and explore the topic of how to design platforms that amplify both aspects of trust.

CHARACTERISTICS OF GIG JOBS

A short history of the word “gig” illustrates some key aspects of this new

economic sector. Recently, NPR aired a commentary on the gig economy [2]. It was Jack Kerouac who first used the word “gig” to describe a job that he held temporarily as a part-time brakeman for a San Jose railroad company. For him and the hipsters of the 1950s and 1960s a gig meant any job a person would do when his or her real self was somewhere else. A gig gave you money but nothing else—not an identity, not a career, not friends. A gig was the opposite of a real job that, at the time, meant having a stable income, the protection of strong unions, and the prospect of a career. A real job meant a



lifetime commitment, while a gig was the opposite of it.

Lifetime jobs have now almost completely disappeared, and the technological revolution we are experiencing has created new opportunities for jobs. A key difference exists between the gig job of the 1950s and the gig jobs of today. Kerouac and his contemporaries turned their jobs into gigs, when they refused to accept the commitments, expectations, and identities that usually came with those jobs. The jobs of today are structurally uncommitted, free of expectations, and undefined. While a 1950s hipster would explain that his or her job

was just a gig, a hipster today who drives for Uber would not need utter such statements. The jobs that Airbnb, TaskRabbit, and other technological companies are creating are gigs by default.

Emphasizing that gig jobs are a structural aspect of the contemporary economic landscape allows us to better see the unique challenges created by gig jobs. Although gig jobs are structurally precarious, the key issue is our legal and policy environment is not set up to regulate these new types of occupations. Therefore the question should not be how to turn gig jobs into stable jobs, but rather how to create a minimum level of

legal protections that make it possible to have multiple gig jobs.

Among the many protections that we see relevant, we identify three of particular importance:

1. **Provide training.** While gig jobs may be perceived as not requiring any skills, this is a gross simplification. As many of us have directly experienced, there are key differences between good and not so good hosts in Airbnb; everyone can distinguish a good Uber driver from a bad one. The skills necessary for these jobs are not taught formally anywhere, at least not yet, but they make a real difference. Private companies can

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provide the training, while policy makers can make such training mandatory.

2. Access to benefits. Current access to benefits (pension and welfare) remains strongly tied to holding a permanent job. Government should create rules and incentives, such that participants of the gig economy will be able to access the benefits once reserved exclusively to those who had lifetime jobs. Governments should also regulate some key aspects of how holders of gig jobs get compensated. (What fraction of the profit goes to the performer of the service/owner of the good, and what portion goes to the platform that makes the exchange possible?)

3. Stop enforcing rules that protect special interests. The goal of turning gig jobs into lifetime jobs is unattainable. An Uber driver is not a taxi driver. More importantly, if Uber were a regular taxi company, it would not exist. Instead, an Uber driver is a dad who has free time in the morning before getting the kids from school and wants or needs extra money; an Airbnb host is a painter in London who has an extra room in her flat that she rents so she can continue painting. By enforcing regulations that try to make gig jobs permanent, governments around the world are simply protecting special interests. Gig jobs are not synonymous with exploitation, because the performer can decide when to stop or quit and when to restart.

Pundits and casual observers of the gig economy may view these three points with skepticism. Besides being precarious, gig jobs do not pay as much as their equivalents. By advocating for more protections for gig jobs aren't we just making the division between precarious and stable jobs even harder to cross? Aren't we simply advocating for a widening of the gap that separates the rich (presumably the holders of stable jobs) from everybody else?

On average, gig jobs do not generate the same stable salaries that traditional jobs used to. In large part this is because there are many people who can be drivers, hosts, taskers, pet-sitters, and, more generally, service providers in the gig economy. This contributes to a certain degree of salary instability for the whole sector.

A process of this kind happened during the Industrial Revolution at the

end of the 18th century. Like today, new technologies threatened and ultimately disrupted centuries old industries like weaving and transportation. People accused the new firms of creating unskilled jobs that paid little. Like today, those mostly against the new technology were those who had the most to lose. Just as some weavers in England began smashing the power looms, today taxi drivers riot against the arrival of Uber or similar transportation companies in their cities and towns.

Now and then, these protests are not just against one company or one technology, but are instead more accurately defined as acts of resistance fueled by the fear of a vanishing social world. Further, the new emerging social world, with its precarious gig jobs, promises to be much worse than the older one. Indeed, the dawn of the modern era was dense with pain and exploitation. One has only to read the description of the living conditions of workers in 19th century Manchester (UK) to become convinced mass poverty was one of the main outcomes of the Industrial Revolution. Yet, what this picture neglects is in the long run, the technological developments connected with the Industrial Revolution have produced more jobs than they have eliminated and have contributed significantly to an increase in living conditions. The improvements created by technology are not immediate. James Bessen argues it took a generation to see the impact of the power loom in creating higher wages and with that, better living conditions [3]. In the beginning the picture looked a lot bleaker. At the end, the technology of the Industrial Revolution gave birth not just to many new jobs but to a new social world—modernity.

DESIGNING FOR TRUST

One unique feature of the gig economy is people are constantly engaging with strangers to trust them with the jobs they need to get done; or reaching out to potential clients to do the job for them. Without the traditional way of assessing the credentials of the employee or employer, such as the years spent at a specific company, gig economy creates a constant shift in roles and responsibilities—the very factors that made the job more efficient and flexible. This also

creates challenges for people on both ends of the job market when assessing the trustworthiness of each other. After all, with all these choices of potential people who can do the job, why should one choose one over the other?

The design of platforms becomes of key importance for how people interact in the gig economy. Specifically, we highlight how people use different signals to assess the trustworthiness of other participants on the platform, and how these socio-technological platforms should take into consideration how people communicate and form impressions online in order to design a neutral platform where the “good” workers can be rewarded while the “bad” actors be punished.

Take the design decisions around photos for example. We know from different eye tracking studies that online photos with faces attract people’s attention. Riegelsberger and colleagues found “the presence of photos reduced participants’ ability to identify vendors with good and bad reputations—the perceived trustworthiness of poorly performing vendors was increased, whereas that of vendors with good reputation was decreased” [4]. With the “vendors” in the gig economy becoming individuals, the platform as a marketplace should design carefully, by providing the right piece of information to users when they are making different kinds of decisions.

One useful framework to address this design challenge gig economy platforms face is signaling theory. According to signaling theory [5], there are different types of signals: some are assessment signals, where the signal actually reflects the quality of the characteristics it represents; others are conventional signals, which is when the connection of signal to the quality of characteristics it represents is merely through convention, such as making promises. In the context of a sharing economy, an ideal reputation system with reviews provides signals that are in principle assessment signals. While profile elements, such as names, photos, as well as self-description constitute conventional signals.

The problem with assessment signals is the “cold start” problem that all reputation systems face. Participants of the platform need to estab-

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lish themselves over time, by building a track record of trustworthiness. On the other hand, the problem of conventional signals is they are not always reliable, and hence may cause problems of biases and stereotypes. These two types of signals together on different platforms may have a mixed effect of making people comfortable engaging in the platform in the first place, while at the same time, causing some biases and discrimination, albeit sometimes unintentionally.

From a HCI point of view, platforms that facilitate the gig economy should distinguish assessment signals from conventional signals, in order to highlight the right kind of information at critical points when people are making decisions. For example, when requesting to pool in an Uber, or deciding whether to pick up a passenger, the neutral information to rely on to make the decision should be the efficiency of the route, rather than some factors that may cause systematic bias and results in redlining, underserving a specific population (such as those with a lower economic status).

CONCLUSION

The gig jobs of today are different from the gig jobs of the 1950s and a key role of policy makers is to extend the protections that regular jobs afford to gig jobs. There is also a parallelism between the digital revolution we are currently experiencing and the Industrial Revolution. The points of similarity are at the moment limited to the social and economic tensions generated by accelerating technological development. The history of the Industrial Revolution

is one of pain, misery, and poverty at the beginning and of rising living standards at the end. Is the gig economy a first step in a similar progression? Or is the technology of today fundamentally different from the technology of the past, in that machines are becoming more intelligent and substituting humans? Nobody has a definitive answer to questions of this type.

We suspect, however, the machines will not be able to replace humans anytime soon. Indeed, very hard problems, such as whom to trust and how to measure the trustworthiness of others, do not seem to go away. Actually, because of the nature of the gig economy, problems of this kind appear more prevalent than ever before. We highlighted some designing principles for creating platforms that facilitate trust. A suggestion for students interested in creating socio-technological systems is thus to focus not just on the technical aspects that make a website work, but also on the social elements that facilitate interactions in a platform. We think combining sociological imagination with technological skills is a fundamental step for achieving a successful design.

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