

Unveiling Platforms:

Investigating and visualising
lack of transparency and inequality
in lean platforms

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Unveiling Platforms:

Investigating and visualising lack of transparency and inequality
in lean platforms



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Abstract

English

The business model known as “lean platforms” profits from two or more groups interacting while depending the least possible on platform possessed items. Airbnb, Uber and Deliveroo are examples of that, as their core services benefit from third party workers and assets like houses, cars or bicycles. These platforms made aspects of consumer lives simpler: having a car, a bed or meal in a few taps or clicks is now a common experience for many who can afford it. They also offered flexible ways for workers to make money and provided new sales channels for partners like restaurants, shops or property managers. They succeeded at the speed typical of the digital world and are almost totally mediated by digital interfaces. But, as investigated in the research chapters of this thesis, platform issues like privacy breaches, misleading fees, bad work conditions, gentrification and tax evasion are rampant.

This thesis design artifact tackles one of the possible causers of issues in platforms: lacking transparency in their numbers and practices. It does so from a communication design point of view in two ways. Firstly by exposing, through data visualisation, numbers about platforms that are hard to obtain and/or compare. Secondly by providing brief analysis of user misleading strategies present in their interfaces.

Unveiling Platforms is a website for platform users that aims to provide a simple and effective way to collect and to visualise crowd-sourced data on platforms. Users can upload transaction data or submit tricks that were spotted in a platform and workers can add their remuneration summaries. The resulting data is calculated and displayed in the website in 3 ways: in a summarized “card” layout (Home), in full detail (Platform Overview page) and in a comparable two columns view (Compare).

The artifact seeks to empower users in making informed decisions about platforms. It aims to do so in a way that is as simple as using a platform. After achieving a significant user base and popularity, the website’s desired impact would be that of encouraging platforms to make less unequal and more transparent choices towards their users.

Italiano

Il modello di business delle piattaforme *lean* (snelle) si beneficia di due o più gruppi che interagiscono e dipende il meno possibile dagli risorse posseduti dalla piattaforma. Airbnb, Uber e Deliveroo ne sono un esempio, poiché sono beneficiati dai lavoratori e risorse di terze parti come case, auto o biciclette. Queste piattaforme hanno semplificato la vita dei consumatori: avere un'auto, un letto o un pasto in pochi tocchi o clic è ormai un'esperienza comune. Hanno anche offerto flessibilità per i lavoratori e nuovi canali di vendita per partner come ristoranti, negozi o gestori di proprietà. Hanno raggiunto il successo nella velocità del mondo digitale e sono quasi totalmente mediati dalle interfacce digitali. Ma, come indagato nella ricerca di questa tesi, problemi come violazioni della privacy, tariffe fuorvianti, cattive condizioni di lavoro, gentrificazione ed evasione fiscale sono dilaganti.

L'artefatto di design in questa tesi affronta uno dei possibili causatori di questi problemi: la mancanza di trasparenza nei numeri e pratiche delle piattaforme. Lo approccia quindi dal punto di vista del design della comunicazione, in primo esponendo, attraverso la visualizzazione dei dati, numeri difficili da ottenere o confrontare; in secondo, fornendo una breve analisi delle strategie fuorvianti presenti nelle interfacce.

Unveiling Platforms è un sito web che si propone di fornire un modo semplice ed efficace per raccogliere e visualizzare dati sulle piattaforme. Gli utenti possono caricare i dati delle transazioni o inviare trucchi che sono stati individuati in una piattaforma e i lavoratori possono aggiungere i propri riepiloghi delle retribuzioni. I dati risultanti vengono calcolati e visualizzati nel sito Web in 3 modi: in un layout riepilogativo (Home), in dettaglio (Platform Overview) e in una visualizzazione comparabile (Compare).

Il sito cerca di consentire agli utenti di prendere decisioni informate sulle piattaforme in un modo semplice. Dopo aver raggiunto una base utenti e popolarità significative, l'impatto desiderato sarebbe quello di incoraggiare le piattaforme a fare scelte meno disuguali e più trasparenti nei confronti dei propri utenti.

1.

Presentation

Theme

About Platforms

Throughout the last decade and especially from 2015 onwards, the world has experienced a rise in the amount of online platforms and services aiming to facilitate human life, from delivery to marketplaces to hiring for small tasks.

According to the Organisation for Economic Cooperation and Development (OECD), an online platform is «a digital service that facilitates interactions between two or more distinct but interdependent sets of users». These two or more users can be private individuals, companies or independent contractors.

The areas of business in which platforms operate are wide. Taking in consideration that many companies are shifting towards this business method and that already existing platforms are more and more diversifying their areas of action, the concept of “platformization” has and is spreading across various areas. An example of a company that was born as a platform and kept expanding its activities is Amazon. Founded in 1994⁽¹⁾ as an online book reseller, the company expanded to selling basically any kind of good online, including food. To complement its book business it started selling e-reader Kindle; to get into the movie business Amazon Studios was created, distributing its films through Prime Video; for the internet of things there are the Alexa devices; and for online cloud infrastructure, AWS (Amazon Web Services), with almost half of the sectors market share⁽²⁾. The branches in which Amazon makes business are not limited to the ones mentioned here, but those are enough to paint the company’s picture as a reference in platformization across different sectors.

A less easily perceivable example is Rolls-Royce Holdings PLC, the second largest manufacturer of aircraft engines in the world. According to Srnicek in his book Platform Capitalism, Rolls Royce provides their “goods as a service”. Instead of selling the engine to plane manufacturers, the company charges airlines for every hour the engines operate. They not only manufacture the engine but also collect the data from every flight they take, using this data to improve engine fuel consumption and life in operation, closing a circle of control that allows for advantages over its competitors.

Founded in 2009, Uber is perhaps a more recognizable example of a platform company. The company markets itself as a platform

1. Hall, M., *Amazon.com*, Encyclopaedia Britannica, 09/08/2019. <https://www.britannica.com/topic/Amazon.com/>, visited september 2020.

2. Su, J., *Amazon Owns Nearly Half Of The Public-Cloud Infrastructure Market Worth Over \$32 Billion: Report*, Forbes, 2019. <https://www.forbes.com/sites/jeanbaptiste/2019/08/02/amazon-owns-nearly-half-of-the-public-cloud-infrastructure-market-worth-over-32-billion-report/#4c2739d529e0> visited september 2020.

that connects passengers to drivers through a mobile app. Popular worldwide and, by many metrics, also very successful, Uber is also an example of a “lean platform”: they do not own major infrastructure or the vehicles. The cars are owned and driven by their “partner drivers” which are hired as individual contractors. The main difference on this kind of platforms is that, even more than other platforms, they are heavily focused on the technology that constitutes the platform and the touchpoints that enable access to this technology, which are generally an app and/or a website.

Another thing in common among many of the most popular lean platforms is the lack of clear legal definitions commonly resulting in polemics about how they should be defined. Platforms claim themselves as mere connectors that link a consumer to a “partner” that is responsible for providing the good or service. Departing from this assumption, it’s important to note platforms usually delegate the most responsibility possible to these partners, since they would be the ones actually providing the service. But this self-claimed status of a simple connector, however, seems to be simplistic. Sarah Gainsforth, author of the book “Airbnb città merce”, comments in a 2020 article⁽³⁾ how hospitality platform AirBnB regulates and partially creates the listings and that due to this, it becomes “much more than a simple platform”. This affirmation could likely be applied to other platforms as they also regulate listings, process payments, dictate rules for the service, stipulate or suggest prices, track and trade user data and venture many other fields that take them beyond the claim of being solely connectors.

Focus Area

This research will focus on lean platforms. This is a business model that generally translates into a platform that does not own (or own as little as possible) the assets required to operate the service and that transfers costs and responsibilities to its partners-users. Examples are Uber, whose transportation service is based on cars owned or rented by the drivers; AirBnB, that has more listings than the 6 biggest hotel companies combined⁽⁴⁾ without having bought any of the real-estate it announces; or any delivery company that relies on couriers riding their own bikes with zero to low employment bonds.

Lean platforms also rely heavily on information technology and, as mentioned before, have apps and websites as their main touchpoints. These digital products use various techniques to fulfil the platform agendas and their users needs and desires. Many of the techniques affecting transparency in these platforms fall into or are typically used by the fields of user interface, user experience and commu-

3. Gainsforth, S., *Piattaforme digitali e spazio urbano. Il caso Airbnb*, Critica Urbana, 2020. <https://criticaurbana.com/piattaforme-digitali-e-spazio-urbano-il-caso-airbnb> visited september 2020.

4. Airbnb, *Airbnb Hosts Share More Than Six Million Listings Around the World*, 2020. <https://news.airbnb.com/airbnb-hosts-share-more-than-six-million-listings-around-the-world/> visited september 2020.

nication design hence making this a potentially interesting field for a communication design thesis. Some of the topics that will be dealt with are gamification, mechanisms to convey trust and reputation, content design and storytelling.

A deeper explanation on these kinds of platforms, as well as more detailed information on how and why they may have succeeded and what are some of the issues raised by them is shown in the next chapter, “Lean Platforms”.

As even the lean platform market is too broad to be thoroughly studied, this research will focus on lean online platforms operating in the transit, on demand delivery and accommodation sectors. These are some of the sectors with the most prominent active platforms. This research is also circumscribed by the fact that only platforms that deal with at least one final private user and one private non-employee “partner” will be considered. An example of a final private user would be a passenger that is driven by a private non-employee “partner” on a ride-hailing app or, in the same order, a person receiving food from a bike courier at his doorstep after having ordered it through a platform.

A limited number of platforms within such constraints was chosen for the study and they will be discussed deeper in the “Platform Data Collection” chapter.

Motivations and Goals

It might be important for the reader to comprehend the motivation behind deciding to write a thesis themed around lean platforms and their problematics. It revolves around two connected factors. The first is the personal experience of the author with these kinds of platforms in an earlier moment, both in the part of a consumer and also as an AirBnB host. The second, with seeds definitely rooted in that previous personal experience, talks about the perception of lacking transparency for platform users and inequality in social, economical and data terms in the users relation to the platform.

Personal Experience

In this section I briefly change to a first person point of view to explain why my personal experience with lean platforms motivated me to do this work. In 2014 I completed my undergraduate in Graphic Design in Curitiba, Brazil. The five preceding years saw a

boom of smartphone sales⁽⁵⁾: 426% increase from 2010 to 2014 and consequent rise in new apps and services that were revolutionizing the world and, in many ways, the practices of a designer. 2014 was also the year of the Fifa World Cup in Brazil and I decided to list one of our house's spare bedrooms on AirBnb. Curitiba, albeit its 2 million inhabitants, has little tourist vocation. But the hugeness of the upcoming event, as expected, did bring many travellers and I ended up hosting around 5 bookings during that period. My first guests worked mainly in the technological area: there were a few engineers and a developer, and hosting them was a very interesting and fun experience. It felt like a genuinely good way to meet people from different places. And to make some extra money while providing accommodation that would likely have cost guests much more if they had stayed in a hotel.

Two years later, in 2016, I ordered an Uber for the first time and in a country whose language I didn't speak. It showed price estimates and without cash involved I seemed to have lower chances of getting cheated. The experience was positive and not long after that trip Uber started operations in my hometown, back in Brazil. Since Brazilian streets are not the most secure and public transit is far from ideal, travelling safely anywhere at any time for less than a taxi was a thrill. In the early months of operation most drivers I'd ask worked with something else and drove as a side gig. They did it for the money but also for the experience, more or less as I myself as an AirBnB host.

But observing the statistics at that time could help preview what would come next. In 2014, when Uber launched in Rio de Janeiro and then São Paulo, Brazil had around 7% of its population unemployed⁽⁶⁾. From then up to when Uber launched in my city, in early 2016, unemployment rose to around 11%. Up to the moment of writing, February 2020, it maintained similar levels, varying from 11% to 13%. This provides a clue on a personal perception that more and more drivers are working full hours. While data on the amount of drivers working full time is not easily retrievable, in 2018 Uber capped⁽⁷⁾ the daily limit for driving at 12 hours, which may be interpreted as a hint that drivers were spending long hours on the platform.

At this point the scenario was of intense competition between platforms and large driver availability. Platform would lower prices for the final users, usually lowering driver's shares of the fare as well. And to attract new drivers, platforms initially charged drivers lower percentages only to later raise them to "normal" standards, likely because more drivers means more reliable and cheaper service for

5. Statista, *Number of smartphones sold to end users worldwide from 2007 to 2021, 2020.* <https://www.statista.com/statistics/263437/global-smartphone-sales-to-end-users-since-2007/> visited september 2020.

6. Instituto Brasileiro de Geografia e Estatística, *Taxa de desocupação, jan-fev-mar 2012 - mai-jun-jul 2020.* https://www.ibge.gov.br/estatisticas/sociais/trabalho/9173-pesquisa-nacional-por-amostra-de-domicilios-continua-trimestral.html?=&t=series-historicas&utm_source=landing&utm_medium=explica&utm_campaign=desemprego visited september 2020.

7. Uber, *Another step to prevent drowsy driving, 2018.* <https://www.uber.com/newsroom/drowsydriving> visited september 2020.

the customer. In short, the general strategy was to scale the user base up as fast as possible while maintaining the customer satisfied. The trigger to choose this theme was the role of on demand delivery platforms during the break of the Covid-19 crisis in Milan, which happened in consonance to the start of this writing. During the lockdown I'd see bike couriers gathered in the square in front of my house, waiting for the next order to pop-up in their apps. More than ever, they travelled around the city conveniently delivering food and goods to those with means and conditions to stay home. At least in the first weeks, platforms did not provide any protective equipment or guidance and with no financial aid for sick days, many of these couriers were indirectly incentivized to work even if presenting symptoms, posing a threat for themselves and customers. This abandonment helped corroborate the perception of inequality, especially seeing how share prices for such companies rose⁽⁸⁾ in that period.

I chose to narrate my experience to illustrate how my perception of platforms took time to change from an exciting, seemingly beneficial innovation to a much more wary view. Many of the issues generated by lean platforms are enabled by legislative vacuums, economic interests, widespread techno-solutionism and also, of course, many other reasons. But one factor intrigued me the most: the non-transparent way in which platforms present themselves, concealing true interests and practices through, among other things, design.

Expose The Lack of Transparency

The concept of “shared economy” is heavily marketed by lean platforms. It suggests an empowered user and a society where more people have access to more things and experiences, similar to the early perceptions I had when hosting my first guests on AirBnB. But the latest evidence suggests platforms are concentrating power and feeding social inequality - practices that are nothing like sharing. To help sustain this discourse platforms manipulate transparency, many times operating through design techniques.

The role of the designer and its work is never free of political and social bias. While this has been mentioned as far as from 1971 in Victor Papanek’s “Design for The Real World” to more recent work such as Ruben Pater’s 2016 “The Politics of Design”⁽⁹⁾, it is a fact often ignored or under-represented when discussing design for platforms.

8. Frazer, S., *Food delivery firm Just Eat Takeaway.com jumps, here's why*, Shares Magazine, 2020. <https://www.sharesmagazine.co.uk/news/shares/food-delivery-firm-just-eat-takeaway-com-jumps-heres-why> visited september 2020.

9. Pater, R., *The Politics of Design: A (Not So) Global Manual for Visual Communication*, BIS Publishers, 2018.

‘I must agree that the designer bears a responsibility for the way the products he designs are received at the market-place. But this is still a narrow and parochial view. The designer’s responsibility must go far beyond these considerations. His

social and moral judgement must be brought into play long before he begins to design, since he has to make a judgement, an a priori judgement at that, as to whether the products he is asked to design or redesign merit his attention at all. In other words, will his design be on the side of the social good or not.'

Victor Papanek, *Design for The Real World* (1971)

This project aims to expose transparency and inequality in lean platforms. That means investigating, explaining and visualizing the actively induced manipulation of transparency through design. And also displaying the inequality in platform's relations with workers, partners and the communities in which they are present.

Platforms use various approaches to hide or mask information in their interfaces. One way of doing that is by pure omission: users are generally aware of how much they pay or receive for a service, but not the percentages involved for the other parts of the transaction. And even when this information is disclosed it can be incomplete or misleading. A person ordering food is not aware of how much the restaurant or the worker is receiving and what is the amount cashed in by the platform. A driver is often not provided precise information about how much a trip will pay, how the calculation is done and how much the passenger paid. With such information in hand it could be easier to judge if fees are compatible with the service one enjoys or provides. This could lead to a decision of purchasing directly at the business, in person, through the phone or even in another platform. For service providers, it would allow them to search for more advantageous fees in another app.

Another strategy used are carefully designed psychological and cognitive tricks that can be played with different user interface elements such as illustrations, misleading buttons, unusual or complicated process flows inside the interface, etc. The result is that they may conceal or show only favourable pieces of information; induce specific kinds of purchase; promote partners in unfair ways, etc.

Many of these strategies used are relatable or can be considered a kind of dark pattern, which is a term coined in 2010 by user experience specialist Harry Brignull. These patterns are conceived to influence users on doing something that wouldn't otherwise be done and are not necessarily positive for them. They can be done in a variety of different ways such as confusing and/or unnecessarily long dialog boxes, misleading buttons shapes or labels, visual hierarchy that highlight a specific option, etc. The website darkpatterns.org analyses these patterns and categorizes them into 12 different types⁽¹⁰⁾, based on strategy and function criteria.

Goals

After confronting the precarious state of the platform workers summed up with user's lack of information autonomy to the billion dollar valuations some platforms made, it becomes clear that this inequality deserves to be researched and exposed.

My aim with this project is to explore and convey through communication design the issues and inequalities of lean platforms and how they are occulted by lacking transparency, in a way that is as easy to obtain and comprehend as getting food or a car to your doorstep. Having in mind that socially sustainable and fair trade practices are already a trend practiced in various fields, this kind of research could inform audiences about issues with platforms and, hopefully, help to reduce them.

Navigating the Research

This thesis is divided into six main parts, starting with this **Presentation** (1), where an overview and motivation are presented. Next is **Lean Platforms** (2), which explains what are lean platforms, their story, benefits, threats, how they thrived, etc. It is followed by **Transparency** (3), a chapter where some of the strategies for achieving transparency and regulating lean platforms and other correlated activities are mentioned. The goal here is to gather a rationale by investigating current or past initiatives that aim to minimize the threats exposed in part 2, even if they are not necessarily linked to communication design. The sequence proceeds with **Designing (the lack of) Transparency** (4), where some of the design techniques for manipulating transparency are identified and commented. Then, on **Platform Data Collection** (5) the evaluation of the platforms that serve as a sample for the project is explained. The explanation and the data resulting from this evaluation and the learnings and inspiration obtained from the **Similar Analysis** (6) culminate in the presentation of the **Artifact** (7). In this chapter the project takes shape into a communication design artifact: a transparency portal that aims to reveal, in an easily comprehensible and user empowering way what is "hidden" in lean platforms: money flows, fees, tricks, etc. The last structural part is **Forecast and Conclusion** (8), where speculation is done on the future of lean platforms and on how the communication design artifact could evolve and contribute to less unequal practices for these platforms. The last part concludes the thesis work and has the self-explanatory title of **Bibliography** (9).

10. [Darkpatterns.org](https://darkpatterns.org/types-of-dark-pattern), *Types of dark pattern*. <https://darkpatterns.org/types-of-dark-pattern> visited september 2020.

2.

Lean platforms

What are platforms?

As a business model, platforms are facilitators in the process of exchanging value, generally between consumers and producers, be in the form of products or services. Although they generally focus on f connecting two main audiences (e.g. seller and buyer) they may also involve other parts in the process, such as the part responsible for delivering a product or enabling a service.

Types of platforms

There are various types of platforms. According to Srnicek in his 2017 book “Platform Capitalism”, there are five types of platforms: Advertising Platforms (Google and Facebook, for example, considering ad is their main revenue); Cloud Platforms (such as AWS, short for Amazon Web Services); Industrial Platforms, Product Platforms and Lean Platforms.

Even inside each category the range of activities and target audiences vary widely. Rolls Royce, for example, is a Product Platform that does not deal with consumer goods: it has been a pioneer in the jet engine business by not selling the engine but instead charging a fee from airlines for every hour flown. As a matter of fact, the company has released in February 2020 Yocova⁽¹⁾, a “data-led digital platform” for aviation where data can be exchanged and sold.

Defining a Lean Platform

The object of this research and design project narrows down to the so-called lean platforms, sometimes known as virtual platforms. For generating its core value, they rely on assets that are not a property of the platform. They act as a contemporary, highly scalable version of a middleman, selling services and taking advantage of goods, property and workforce that are not in their possession or payment roll. Lean platforms pay the parts involved and get their share out of every transaction but, unlike a “regular” middleman, have unprecedented scalability. If a physical warehouse shop acts as the middleman between a few factories and their customers, to sell 100 items they have to store, pack and ship each of these items. The work and investment to sell 10.000 items will be much bigger. For lean platforms in a digital environment and no big “physical” world commitments it would take much less effort to go from 100 to 10.000 items or transactions.

11. Yocova, *Introducing Yocova*, 10 February 2020. <https://www.rolls-royce.com/media/press-releases/2020/10-02-2020-intelligentengine-introducing-yocova-a-new-digital-platform-designed.aspx> visited september 2020.

Who takes part in a lean platform?

The number of parts involved in this type of platform vary: in a platform like AirBnB there are 3 parts involved: the first is (1) the platform itself, that lists and promotes a property owned/managed by a second part (2) to a consumer (3) willing to take advantage of it for a specified amount of time. In the case of most food delivery services, there are 4 parts involved: the platform (1) that provides an app or website with a page and products of a restaurant (2) that has its food delivered by a courier (3) to a final consumer (4). It's not hard to imagine that the number of parts can always grow: if a cleaning crew was hired directly through AirBnB or a delivery order included a combo composed of food from restaurant A and drinks from restaurant B, they would respectively add one extra part to the processes mentioned before.

Conflictual terminology

Gig economy and sharing economy are terms very much related and often used to define a lean platform. But there are a few differences to be noted. Gig economy as a term might be as recent as 2015⁽¹²⁾ but its meaning is that of a worker doing multiple jobs to build an income, as was the case with most workers before the 19th century. With industrialization, labour laws and the creation of trade unions, gradually more people gained access to a formal job. After the 2008 crisis these "unaffiliated workers" went digital and became part of the new, freshly named but long-standing gig economy.

The difference now is that instead of, for example, going to the harbour and lining up to get a day job unloading ships, people were logging into apps to find on-demand jobs. And since these jobs many times involve using an asset of their property or on their possession of use, it has received the name of sharing economy. In short, lots of today's gig workers access the shared economy through lean platforms.

Another concept closely related to lean platforms is that of peer-to-peer. The term is used in file sharing and computing, meaning a network where a computer acts as a server for other computers without the need of a central server. Translated to the reality of lean platforms, it usually means one peer provides a good or a service desired by another user. The use of the term peer to peer, however, is usually misleading as with lean platforms there is a third part - the platform itself - participating in the process. In this case, even the goods or services are exchanged between peers, the exchange is mediated by a central "server" that exercises some kind of control.

12. Google Trends, Search for "gig economy". <https://trends.google.com/trends/explore?date=all&q=gig%20economy> visited september 2020.

How users benefit from platforms

Most lean platforms do offer benefits for all the parts involved or, as we may learn better on “Threats”, they do so at least on the short term. The capability to provide an instant solution to problems in various areas is what lean platforms claim to do best. In the following lines we discuss how these benefits can be perceived by each of the parts involved.

Consumers

Anyone that took a cab 5 or more years ago and that did the same now, be it an actual cab or something like Uber can understand two core benefits that successful lean platforms manage to offer their users: lower costs and convenience. In many places this combination led to transformation in various sectors. Not only going around by Uber or Lyft or Cabify is more affordable than it was before with taxis but also taxis had to adapt to this new reality by lowering their prices and taking part into similar transportation apps.

When travelling, finding a place to stay is also more convenient and sometimes cheaper with AirBnB. In this case, the trustworthiness that the platform conveys to both guests and hosts is one of its great values: informal short term rentals were always there, but not in this scale.

Ordering food delivery from basically anywhere - since now any small restaurant who couldn't otherwise afford a courier - is also a convenience achieved with the advent of lean platforms.

Workers

A few reasons might explain why these platforms are attractive for people who intend to work on them. There is a low degree of bureaucracy from the moment they first sign in to the when the first earnings arrive. Since the amount of workers is generally in the order of hundreds or more per city and it's common not to have offices of such platforms in most of the cities they operate, oversight and control is very shallow. This allows the work for groups that couldn't and, in some terms, shouldn't work, such as under-aged people or immigrants without work visas. If on a societal level the latter is quite problematic, on the personal level of the workers motivation, the story probably changes.

Most platforms require the workers to own (or rent) the tools necessary for their work. These platforms take advantage of the fact that many workers already have the tool at their disposal, like a car owner who decides to generate some profit driving it for a platform. Delivery workers, for example, even if not in possession of a car or motorbike can start working with the very low investment of a bike. When workers do not have or cannot acquire the required tool, there is the option of renting such a tool - a rent that in many cases is executed by the platform itself or a company it partners with.

Also, many of these platforms pay per week or even per transaction, providing a very agile remuneration for workers who are often in bad financial conditions. Another factor to be considered is the highly advertised flexibility regarding when one is willing to work, allowing this kind of work as a second activity or only if/when they need extra money.

Partners

Private

For this case, let's consider asset owners as mostly - but not only - private people that own a good or a property and that have the desire to earn money with it. Someone renting a room in their own house is an example of that. A person renting a car is also another example. While such activities have been around for a long time, the platforms made it easy for non professional hosts or private individuals to easily take advantage of existing assets.

People could now make some extra money by renting their cars, hosting guests in an extra room or even temporarily moving to somebody else's house to rent their entire apartments. And all of this with some degree of safety and trust that was sustained by the platforms. Overall, by using an already existing asset and demanding little investment, be it of time or money, this allowed many, especially those in situations of economical fragility, to help balance out their budgets. At least in an early stage, as it will be possible to find out on "Threats".

Most asset owners that take part in lean platforms are not presented with fees to be paid on their side. Nonetheless, they continue being responsible for expenses that would exist even without any participation on the platform (insurance, house mortgages or rent, local taxes) and may become responsible for new incurring taxes charged by some cities and countries when these private assets are put to use on a platform.

Businesses partners

These are businesses that use the platforms such as restaurants, bars, pharmacies, supermarkets, shops, etc. They can also be considered partners of the platform. The main generic advantage for this public in taking part in a lean platform is that of gaining access to a service, product or infrastructure without having to invest heavily on its purchase, development or maintenance.

Businesses are generally welcoming of delivery platforms as these help in reaching a bigger audience without much compromise. There is no need to buy or rent delivery vehicles and, more importantly, none of the legal or practical responsibilities of having a dedicated delivery person like recruiting, providing an employment contract and insurance, paying extra taxes, etcetera.

Chosen Types of Lean Platforms

As mentioned before, this work will focus on lean online platforms operating in the transit, on demand delivery and accommodation sectors. These three sectors were chosen as they host the most prominent platforms on markets that were either created or brutally reinvented by such platforms. This section will present in further detail what is the common *modus operandi* for lean platforms in each sector, without focusing specifically on a single company. It talks about what and how they operate, what is the third party asset or worker they benefit from.

Chapter **Platform Data Collection** will use one of each type of platforms cited there as a sample for data collection.

Transit

Lean platforms dealing with transit can be understood as those providing services known as ride-sharing, car sharing, ride-hailing as well as other forms of passenger transportation or vehicle rentals. They are generally focused on providing services and vehicles within urban or metropolitan areas, but there are exceptions to this trend.

Uber is likely the most well known ride-hailing app worldwide, with 70% of the US market share (Lyft has the remaining 30%). But there are also many other strong players such as Chinese DiDi, with presence in Brazil with the 99 brand; Cabify in Spain and Latin America; Ola in India or GoJek in Southeast Asia. The general premise

of these platforms is to transport passengers in an efficient way from point A to B, generally in medium to large urban areas, with the trip being requested through an app and assigned to a partner driver nearby. The biggest advantage they tend to present over regular private transport is lower price and also cashless payment and a highest perceived level of reliability. The fare usually consists of a fixed value plus an amount multiplied by time and length and is paid by the rider (usually) through the app before (in the event of fixed prices) or after the trip. The driver will receive that fare minus the platform commission that starts at around 5% and goes up to a more common standard of around 25%.

BlaBlaCar, released to many European countries in 2012, operates in a different structure, allowing drivers to offer vacant seats on their cars for longer trips. These seats are offered at a price that contributes to pay the expenses of the trip, but do not generate profit. As a comparison, a trip of around 120 km from Curitiba to Ponta Grossa, Brazil, costs around R\$ 25 with BlaBlaCar (per pax) and circa R\$ 200 with Uber (per car). The platform charges the passenger for a “pass” that allows for the access of the service. The driver sets a price for the trip (this price is suggested and limited by the platform to avoid abuse) and receives it without any fees from the travellers. While the company has kept its business model of not offering drivers any profit, it has developed new products. BlaBlaLines offers shared trips to daily commuters and BlaBlaBus, launched in mid 2019 after buying Ouibus, is a long distance bus company that complements the portfolio and suggests new and more integrated transport solutions for the company’s future.

Another way of offering transit solutions to consumers is by letting them rent a car. But differently from regular car rental services is the fact that companies such as Turo or Getaround are platforms allowing to rent cars from private owners that willingly listed them there. By charging fees for the “matchmaking” service (which may include protections for both owner and renter such as insurance) over an asset owned by a third party, these are examples of lean platforms that do not depend on “partner” workers.

Accommodation

AirBnB was founded with the intention of allowing people to be hosted in private houses for a price that was lower than hotels while giving homeowners the chance to complement their earnings. Focusing, at least idealistically on shared rooms or private rooms with shared houses, AirBnB grew to a platform with many users that administer more than 10 properties at once and whose earnings

come mostly from “entire house” offerings that are often booked through long periods of the year. That makes it easy to understand how it derived from a shared stay beginning to a more commercial approach with a scale big enough to disrupt regular rent prices in major cities. The platform works with listings available online. A user selects a property and is either automatically approved or has to wait for the owner/manager approval. The price for the entire stay is paid to the platform, with daily rates, cleaning fees and service fees disclosed. The owner will then receive the money paid minus the service fee, which ranges around 10 to 30% depending on the price and length of the stay.

Booking.com or Hotels.com are well established accommodation platforms that focus mainly in hotels and other kinds of serviced stays. To cope with the change initiated by AirBnB, they started catering also to homeowners that wanted to list their rooms online. But as they originally dealt with many already established hotels and lodging structures, they don't have a consistent way of dealing with payments as does AirBnB. One can book a hotel through Booking, pay it directly at the hotel and then Booking will charge the hotel a commission for that reservation. Also, dealing with official accommodation structures takes out much of the need for promoting trust AirBnB is known to promote as, theoretically, the trust is contained in the idea of an official accommodation and needs less reinforcement in this case.

13. La Monica, P., *GrubHub is getting crushed in the food delivery wars. The stock is nose-diving 40%*, CNN Business, 30/10/2019. <https://edition.cnn.com/2019/10/29/investing/grubhub-earnings-food-delivery/index.html> visited september 2020.

14. Waters, R., *Food delivery wars are just beginning. Ructions reflect arrival of deep-pocketed competitors in highly fragmented market*, Financial Times, 01/08/2019. <https://www.ft.com/content/7c0bb90a-b46f-11e9-8cb2-799a3a8cf37b> visited september 2020.

15. Sterling, T.; Sandle, P., *Delivery wars: Prosus's \$6 billion offer for Just Eat sets up food fight with Takeaway*, Reuters, 22/10/2019. <https://www.reuters.com/article/us-just-eat-m-a-prosus/delivery-wars-prosus-6-billion-offer-for-just-eat-sets-up-food-fight-with-takeaway-idUSKBNIX1143> visited september 2020.

On Demand Delivery

Most of the popular on demand delivery platforms deal with food. Some even operate dark kitchens (also known as cloud or ghost kitchens), aimed on producing only food to be delivered through the platforms. But as products from supermarkets, pharmacies and other conveniences become available among these platforms, referring to them as “on demand delivery” provides a more apprehensive outlook than, for example, “food delivery”. As of April 2020 media outlets such as CNN⁽¹³⁾, Financial Times⁽¹⁴⁾, Reuters⁽¹⁵⁾ and many others, when reporting about the competition in the on demand delivery sector, use the term “delivery war”. That is a reflection of the fact that the sector is far from consolidated and such high competition means varying popularity for services among different countries and cities.

These platforms generally operate with a merchant, usually a restaurant, registering on the platform and providing a list of items available for delivery.

In some cases, the business is required to pay a participation fee to get started in the platform, sometimes also being provided with dedicated hardware for the operations. The product offering is generally accompanied by photography, an asset that is considered of huge importance specially by the food delivery platforms: Grubhub, for example, appealed to Amazon Mechanical Turk⁽¹⁶⁾, paying humans to rank food photo quality in the hope that this work would help train computer vision algorithms in the future. The overall part played by the platform is that of promoting the items in an attractive and easy to purchase way to the consumer. And that includes guaranteeing, through a series of metrics, UX/UI choices and contractual agreements that the item will get to the consumer as fast as possible.

A typical transaction includes 4 different parts: platform, consumer, merchant (e.g.: restaurant, pharmacy) and the worker delivering the order. In this case, fees vary by city and are not easily retrievable from the platforms websites. The list below provides approximative values charged by some delivery platforms to the restaurants:

- Uber Eats: 20 to 30% of the total order + fixed fee for consumer.⁽¹⁷⁾
- Deliveroo: 30% of total order + € 2.50 for consumer. ⁽¹⁸⁾
- JustEat: 15 to 25% + € 2.40 for consumer.⁽¹⁸⁾

In some cases (such as with Glovo), the platforms also offer the convenience of providing items from an unlisted business. Anything that could be bought on regular street shops can be requested - as long as it fits into the courier's bag and does not exceed a certain weight limitation. A person desiring, for example, flour and eggs can place the request for the two products on the app. A courier can accept the request and proceed to any supermarket or deli to buy the items. As the requested items are not predictable and so aren't the places where they can be found, the businesses in which the courier buys them are not affiliated with the platform and have to be paid as any regular transaction from a walk-in customer would be paid. For this, some platforms provide debit cards for couriers, others provide reimbursement (sometimes directly by the consumers). The item is then delivered for the consumer, who is able to obtain a product for its street price plus a delivery fee.

Some on demand delivery platforms also provide point to point delivery of an object, working basically as a courier between a sender and a receiver. In this case, either the sender or the receiver will pay the platform for that delivery service. The platform, in its turn, will keep its share (a fee or commission) and transfer the remainder of that initial payment to the worker making the delivery. In this case instead of 4 financially involved parts there are only 3, since there's no restaurant or any other brick and mortar business involved.

16. Kulkarni, R., *Using Amazon Mechanical Turk to crowdsource data on the quality of food images*, Grubhub Bytes, 05/12/2018. <https://bytes.grubhub.com/using-amazon-mechanical-turk-to-crowdsource-data-on-the-quality-of-food-images-90b66cbf01c7> visited september 2020.

17. Zhou, N., *UberEats to change 'unfair' contracts with restaurants after ACCC investigation*, The Guardian, 17/07/2019. <https://www.theguardian.com/technology/2019/jul/17/ubereats-to-change-unfair-contract-that-forces-restaurants-to-pay-all-refunds> visited september 2020.

18. Venini, I. G., *Chi ci guadagna con il delivery?*, Ristoranti, 05/09/2016. <https://www.ristorantiweb.com/tendenze/chi-ci-guadagna-con-il-delivery/> visited september 2020.

How they Thrive

This chapter started by exposing the benefits offered by lean platforms to the parts they involve in their activities. Now, the benefits they take for themselves and the conjectures that allow for their success will be discussed.

Fortuitous times

According to Srnicek (2017) the 2008 crisis acted as one of the enablers of the tremendous growth of technology companies and, amongst them, companies that would become or were already born with the characteristics of lean platforms. In short words, the scenario before the crisis was that of a warmed up housing and mortgage market. Banks, due to newly introduced regulations, were allowed to sell mortgage-backed products to investors and ended up generating a higher demand for mortgages.

The saturated housing market collapsed, bringing together banks and investors. To help counterbalance the effects of the crisis, federal banks injected large amounts of bailout money into the financial system. As a later consequence, banks across the world strongly lowered interest rates. With so called conservative investments and real estate giving very low returns, large scale investors start funneling funds into yet risky but now more attractive tech companies.

The same crisis of 2008 triggered higher unemployment rates in the United States⁽¹⁹⁾, Europe⁽²⁰⁾ and various other parts of the world. That meant now that technology companies had money flowing in their accounts and, at the same time, there was a huge surplus of people outside of formal employment. Also according to the author, there was a growth of 25% on offshore wealth, that is, money being sent from the US to tax havens. And if this money left the country, it means that much of the tax it would pay being there is simply not going to exist, diminishing the national government revenues. While the usage of tax havens was not something new, summed up to the previously mentioned effects of rising unemployment (and consequent higher need for social welfare costs) it becomes another argument towards justifying austerity.

With a great number of investments being funnelled to technology companies and a contemporaneous high percentile of unemployed people outside governmental safety nets, it becomes easier to understand why this kind of informal “gig” work for the platforms was suddenly becoming more and more attractive.

19. BLS Spotlight on statistics, *The Recession of 2007–2009*, BLS.gov, 02/2012. https://www.bls.gov/spotlight/2012/recession/pdf/recession_bls_spotlight.pdf visited september 2020.

20. Eurostat Statistics Explained, *Archive: Impact of the economic crisis on unemployment*, 28/01/2014. https://ec.europa.eu/eurostat/statistics-explained/index.php/Archive:Impact_of_the_economic_crisis_on_unemployment visited september 2020.

The value of raw data

Data is the raw material being extracted by the “surveillance capitalism”. This is the term coined by Shoshana Zuboff in her investigations of the

Platforms use it in their benefit in a somewhat monopolistic way: they are developed in a manner that allows data to be extracted, analysed, used to improve their services and, often, to sell it to other parties. AirBnB, for example, likely uses the searches from their users (extract) to feed in the auto-pricing suggestions the algorithms (analyse) that, within a user defined range, control the nightly rates for a certain region or city (use).

Surveillance capitalism is not inevitable but it is unprecedented. It operates through the instrumentation of the digital milieu, as it relies on the increasingly ubiquitous institutionalization of digital instruments to feed on, and even shape, every aspect of every human's experience.

Shoshana Zuboff in “
Surveillance Capitalism and the Challenge of Collective Action” ⁽²¹⁾

Hypothetically, they could also sell this data that shows how “desirable” a region is to real estate developers searching for a new place to build or a new property to buy. Food delivery apps know which are the most popular dishes and the areas in the city that order food the most. This would be valuable information for someone willing to open a dark kitchen⁽²²⁾ as being closer to their buyers makes delivery cheaper and faster and knowing what people want the most would streamline production and decrease waiting times.

Network effect

Taking advantage of the network effect is generally one of the reasons why platforms become successful. This term is used to designate a situation in which the more users a platform has, the more useful it becomes for everybody else.

Once again taking Uber as an example, the more users it has on the rider side, the more attractive it becomes for drivers, since they will be more likely to quickly make a paid trip. And the more drivers it has, the more interesting it becomes for riders as well, as these won't wait long for a car. This principle is easily reproducible not only within lean but with other kinds of online companies: the more users Google has, the more accurate the research becomes. And with more Facebook users, there is little motivation to create a profile elsewhere, since most of your other friends will already be there.

21. Zuboff, S., *Surveillance Capitalism and the Challenge of Collective Action*, New Labor Forum, 01/2019. <https://newlaborforum.cuny.edu/2019/01/22/surveillance-capitalism/> visited september 2020.

22. Isaac, M.; Yafee-Bellany, D., *The Rise of the Virtual Restaurant*, The New York Times, 14/08/2019. <https://www.nytimes.com/2019/08/14/technology/uber-eats-ghost-kitchens.html> visited september 2020.

Threats

As the platforms gave way to new opportunities for workers and businesses, they also created threatening conjunctures that reach beyond active platform members. Negative effects are being felt by governments, municipalities, businesses, citizens and many others. Some of these threats are presented, divided into five main areas of influence: Control, Precarization, Taxes, Gentrification and Tourism, and Dependence and Free Market.

Control

Since platforms have an almost monopolistic approach to data, they are also in great power to control their users in various manners, such as:

User ban polemics: There are a few reports of people that lost access to platforms without any explanation⁽²³⁾. Even if cases like this are scarcely reported, the dependence some users have on the platforms they work in may refrain them from complaining or searching out for help on social media or other channels that are open to the public;

Non-consensual listings: For food delivery, there are reports of platforms including restaurants or their listings without their consent⁽²⁴⁾. Even if the restaurant offers no official delivery alternatives or if they offer only food to go (and not delivery), platforms have reportedly generated orders through their riders on behalf of the final consumers. These may generate a demand that is unwanted or hard to be met by the restaurants;

Exclusivity: some restaurants are facing the prohibition of using private couriers: some platforms do not allow participating restaurants to also deliver food through a privately hired dedicated courier and;

Aggressive advertising: There are also complaints of platforms advertising internal restaurant pages so aggressively that they end up undermining the advertising efforts - and the consequent direct, platform-free earnings - from the restaurant itself. Google, back in 2015⁽²⁵⁾, has added food delivery platforms links inside a restaurant search result, in what they call the knowledge panel. Later, likely after complaints from the restaurants, the option to remove such features was introduced⁽²⁶⁾ in late 2019.

Precarization

Concerns over job precariousness have been fuelled by the type of work required and promoted by platforms. It is a polemic topic as

23. **Cunningham, J.**, *Digital Exile: How I Got Banned for Life from Airbnb*, Medium, 13/07/2018. <https://medium.com/@jacksoncunningham/digital-exile-how-i-got-banned-for-life-from-airbnb-615434c6eeba> visited september 2020.

24. **Pershan, C.**, 'We Don't Even Do Takeout': Why, Then, Is This Restaurant on Seamless? Eater, 29/01/2020. <https://www.eater.com/2020/1/29/2113416/grubhub-seamless-kin-khao-online-delivery-mistake-doordash> visited september 2020.

25. **Schwartz, B.**, *Google Adds Link To Place Food Delivery Orders, Make Doctor Appointments & More*, Search Engine Land, 07/05/2015. <https://searchengineland.com/google-adds-link-to-place-food-delivery-orders-make-doctor-appointments-more-220517> visited september 2020.

26. **Roesler, P.**, *Restaurant Owners Can Remove 3rd Party Online Order CTA from Google My Business*, Inc. Magazine, 30/09/2019. <https://www.inc.com/peter-roesler/restaurant-owners-can-remove-3rd-party-online-order-cta-from-google-my-business.html> visited september 2020.

most platforms do not consider workers as employees and hence provide them no rights while, in the practical side, a large portion of these workers depend on the platforms for their sustenance. That means working on these platforms not as a part-time side gig but for many hours a day, a factor for which they were criticized. Some, like Uber Eats, ended limiting “shifts”⁽²⁷⁾ to a maximum of 12 hours.

Another form of precariousness and exploitation comes from workers that lack legal work permits. That includes, for example, some immigrants, asylum seekers and under-aged people. This has been mostly reported on delivery apps, likely because deliveries can be made on a bike, which requires no registration for the vehicle or its rider. Since most platforms have some kind of right to work verification, including sending documents and taking part in personal meetings to activate the account, this kind of violation is being done in a simple way: by wrongly registered users that lend or rent their accounts to those not allowed to work. The NY Times reported cases in France⁽²⁸⁾, such as one under-age courier that earned an average of € 200 weekly and had to pay, in the same period, € 100 to rent the account. While this practice is forbidden by the platforms, due to the scale of most operations they are, for now, hard to be discovered.

Taxes

Digital platforms are in a core discussion also around taxation. According to some, they are contributing to the erosion of the tax base, an issue that could lead to lessening social security even more, what could eventually lead more people to precarious work. In the United Kingdom The Good Law Project⁽²⁹⁾ have an ongoing court case against Uber, who allegedly should have paid VAT on the taxi services they offered. The Organization for Economic Co-Operation and Development (OECD) is also tackling the subject⁽³⁰⁾, as well as countries like Italy.⁽³¹⁾

The general line of thought and action is on how to tax platforms, since they often take advantage of dated pre-internet regulations to be exempt. As Thomas Philippon in his book “How America Gave Up On Free Markets” points out, after comparing top US companies of today to those from the past, “the stars of today are not making much more than the stars of the past. They just keep more of it.”

Some local governments are advancing negotiations with platforms. Local municipalities in countries such as Brazil, France, India and Italy, to name a few, have agreements with AirBnB⁽³²⁾, making the platform responsible to charge and later forward tourism taxes for properties within their jurisdictions. As each city may have a

27. Rosenblat, A., *Uber May Have Imposed 12-Hour Driving Limits, but It's Still Pushing Drivers in Other Troubling Ways*, Slate, 02/03/2018. <https://slate.com/technology/2018/03/uber-may-have-imposed-12-hour-driving-limits-but-its-still-pushing-drivers-in-other-troubling-ways.html> visited september 2020.

28. Alderman, L., *Food-Delivery Couriers Exploit Desperate Migrants in France*, The New York Times, 16/06/2019. <https://www.nytimes.com/2019/06/16/business/uber-eats-deliveroo-glovo-migrants.html> visited september 2020.

29. Good Law Project, *Uber Cases*, 2020. <https://goodlawproject.org/case/uber-case/> visited september 2020.

30. OECD, *The Role of Digital Platforms in the Collection of VAT/GST on Online Sales*, OECD, Paris, 2019. <http://www.oecd.org/tax/consumption/the-role-of-digital-platforms-in-the-collection-of-vat-gst-on-online-sales.pdf> visited september 2020.

31. Polacco, G.; Carne, A., *INSIGHT: Italy—Digital Platforms Expected to Respond on Tax Matters*, Bloomberg Tax, 20/08/2019. <https://news.bloombergtax.com/daily-tax-report-international/insight-italy-digital-platforms-expected-to-respond-on-tax-matters> visited september 2020.

different policy on taxing short stay accommodations, achieving such agreements is a troublesome activity that likely goes against the fast moving expansionist desires of online platforms.

Gentrification and Tourism

The relation between gentrification and tourism is long known since before platforms existed but, in this case, accommodation platforms helped boost up the speed and capillarity of this phenomena. The general way this has been happening is when listings are made in a city with tourist potential, often offering prices much lower than those from hotels and/or the opportunity to “live like a local”, a motto that is, in many times, advertised by AirBnB itself.

Property owners then realize that even charging less than typical established accommodation resources like hotels and professional bed and breakfasts results in monthly returns way bigger than what regular, long term tenants pay. Gradually the long term tenants, the ones that actually live there as locals because they are locals, have to move due to an overall increase in rent prizes that was driven or accelerated by short term stays.

This kind of change is reflected not only on residential prices but also on other commercial activities that start to adapt to cater a more tourist audience that’s generally willing to pay more than locals for a same kind of good or service. Pricing out locals from the area is already a major social issue on a municipal level, but it’s also one of the paradoxical results of marketing to tourists the opportunity of “living like a local”.

While this situation could happen with non-platformized tourist rental modalities, the scale it reaches with platforms is unprecedented as the risks and the initial investment to list a property drop considerably. And big platforms like AirBnB have enough capital to invest into battling laws that go against their interests. And they have already proven to be, as Tom Slee titles a section of his 2015 book, “Economical with the truth”. By providing for their defences only what corroborates the platform’s publicized “sharing economy” spirit and arbitrarily ignoring data that help to really understand the problems it causes, as exemplified in the book when discussing dispute between the platform and the Attorney General of New York.

Dependence and Free Market

According to Srnicek taking in consideration the aforementioned tendency of network effects, it is possible to understand that there

32. AirBnB, Taxes, 2020.
https://www.airbnb.com/help/topic/1058/impostos?locale=en&_set_bev_on_new_domain=1586419825_ZjlkNDRjYmVmZjMx visited september 2020.

is “a tendency towards monopolization is built into the DNA of platforms”. Some of the previously exposed threats may already be considered signs that, without regulation, monopolised or overly powerful companies are likely to raise prices and customers may experience a lower level of service and/or a higher level of exploitation and dependence. The antitrust investigations⁽³³⁾ on Google, Facebook, Amazon or Apple serve as a reminder of these potential consequences. This issue can be considered even more tangible when you consider the amount of companies that are not yet lucrative and are still being heavily backed by venture capital on their quest for market share.

Another interesting aspect to note that is a consequence and also endangers the free market is that of monopsony. According to Philippon (2019)⁽³⁴⁾ having a monopsony means being that one is able to “exert market power on its employees and suppliers because they have few other places to sell their labor or their goods and services”. In a conjecture of abundance of surplus workers, legal or not, summed up to fragile economies, it’s easy to relate the concept of monopsony to what many lean platforms are doing with their workers, asset owners and businesses.

Alternatives and Circumventions

As the advantages but also the issues regarding online platforms become undeniably clearer worldwide, various are trying to approach the platform economy in a more social, economical and sustainable way. This can happen in various forms, be it (re)creating platforms from scratch with a cooperative view on its core or participating in the policy level by informing and acting towards more ethically sound practices in the area.

Cooperative Platforms and Services

Journalist Laura Traldi wrote an article in 2018⁽³⁵⁾ asking “Can collaborative platforms give the sharing economy a fairer future?”. This article explores initiatives such as Up&Go⁽³⁶⁾, a co-op online platform for cleaning services in which cleaners become owner-members of it instead of “partners”. As a result, claims the co-op platform, cleaners earn more, leaving a sole 5% to run the system. The article also mentions how taking advantage of existing similar services could be a good option. Italy, exemplified on the website, is a country with a historical background of successful cooperatives and, according to

33. **Jeans, D.**, *A \$200 Billion Threat: Google, Facebook And Big Tech Gear Up For Summer Antitrust Battle*, Forbes, 02/06/2020. <https://www.forbes.com/sites/davidjeans/2020/06/02/a-200-billion-threat-google-facebook-apple-amazon-antitrust-battle/#61349f4d489c> visited september 2020.

34. **Philippon, T.**, *The Great Reversal: How America Gave Up On Free Markets*, The Belknap Press of Harvard University Press, Cambridge, Massachusetts, London, England, 2019, First printing.

35. **Traldi, L.**, *Can collaborative platforms give the sharing economy a fairer future?*, Design Large, 22/02/2018. <https://www.designatlarge.it/collaborative-platforms-future-sharing-economy/?lang=en> visited september 2020.

36. **Up&Go**, <https://www.upandgo.coop/pages/about> visited september 2020.

researcher Elena Como who was interviewed for the article, co-ops “are the most suitable entities to create a proper sharing economy”. The other side, however, is that often these existing institutions are not well update technologically-wise.

Fairbnb.coop⁽³⁷⁾ is another interesting example still on its early operation days. As the name suggests, it aims to provide a fairer alternative to short stays platforms and it does so by mimicking, on its interface side, much of what AirBnB does. The same way as its competitor, owners list a property on the platform and charge a nightly price for the stay. Fairbnb then charges adds a commission valued at 15% of the stay price, keeping one half and providing the other half to a social project. The project has to “help residents and/or promote sustainable tourism” in the same location where the stay took place. The website features a calculator⁽³⁸⁾ that helps foresee its possible benefits.

Driver’s Seat⁽³⁹⁾ is not a platform but an app made to run on-demand drivers phones while they are working. The app collects data from the rides being taken in the platforms, in the same way platforms like Uber or Lyft would do. The difference is that it provides insight on the collected data directly to the driver. In this way, according to the company, the driver can benefit from insights and the possibility of analyzing its own data in a way that was previously accessible only to the platforms. Also, due to its cooperative nature, whenever Driver’s Seat sells any of the data collected, the profits are split among its participating drivers.

Coopcycle⁽⁴⁰⁾ claims its place as the European federation of bike delivery coops. It is managed by the cooperatives it houses and it provides an open software dedicated for delivery coops only. The software, as with mainstream non-coop on demand delivery companies, provides both browser and app touchpoints for couriers, consumers and restaurants with an API included to communicate with external e-commerce software. Overall it helps to diminish possible technological barriers for local groups trying to start delivery co-ops.

37. **Fairbnb.coop**, <https://fairbnb.coop/> visited september 2020.

38. **Fairbnb.coop**, *Calculator*, <https://fairbnb.coop/fairbnb-potential/> visited september 2020.

39. **Driver’s Seat**, <https://www.driversseat.co/> visited september 2020.

40. **CoopCycle**, *We Soocialize Bike Delivery*, <https://coopcycle.org/en/> visited september 2020

On The Policy and Collective Level

As mentioned before when talking about The Good Law Project, there are already groups acting against platform abuses and threats on the policy, legal and communitarian level. These organizations, albeit having a similar goal vary widely in size, status and type of action.

There are communication channels on Youtube, social media and other online spots catered to workers on these platforms. As an example, The Rideshare Guy ⁽⁴¹⁾ evolved to the degree of a portal that aims to inform “rideshare” drivers about the latest important news in the field. These kind of channels are not necessarily critical: many focus on informing about particular caveats and give tips on how to make more money on the platforms.

Collectives defending the rights and trying to act on regulation for delivery apps are appearing around Europe and active on the streets and in social media. The Collectif des livreurs autonomes de Paris⁽⁴²⁾ or CLAP (Collective of Autonomous Couriers of Paris) and Deliverance Milano⁽⁴³⁾ in Italy (present not only in Milan but also in other cities) are examples of that. These groups are generally self organized and try to fill in a void by acting on bureaucratic levels, claiming action from the government, as well as on a practical level, such as lending free bikes for riders not to stop working after mechanical failures or distributing masks and gloves during the Covid-19 pandemic.

Chapter Conclusion

This is by no means a comprehensive evaluation of all the aspects (benefits, threats, possible actions or other topics) within the platform economy scenario. But it serves as an introductory piece to understand the comprehensiveness of this relatively recent way of providing and benefiting or obtaining services and products. By presenting and analysing evidence, the idea is to convey to the reader the importance of taking action to control these platforms actively in a way that their benefits are not shadowed by their threats.

41. The Rideshare Guy. <https://therideshareguy.com/> visited september 2020.

42. CLAP, Collectif des Livreurs Autonomes de Paris. <https://www.facebook.com/clap75/> visited september 2020.

43. Deliverance Milano. <https://www.facebook.com/deliverancemilano/> visited september 2020.

3.

Transparency

Definition

This chapter defines what is the general understanding of transparency for this project, why and for whom it matters, how it is being practiced and what is its importance and relations with lean platforms and design.

By definition transparency is the condition of an object of being susceptible to the passage of light and thus allowing visibility through it. In practice, it usually relates to fair practices that benefit the society. For example, from a governmental and institutional point of view, as pointed by Transparency.org⁽⁴⁴⁾, being transparent helps to expose “the systems and networks that enable corruption”. In a corporate environment, transparency is linked to governance and to a company revealing their strategies, finance and data to investors and outside public, even if only partially.

It is interesting and important to disclose that the field of human-computer interaction or software engineering often uses the term transparency in a contrasting and potentially confusing way. In this area transparency is used to designate something invisible, such as a background action in a system. In this jargon, for example, if a system compresses files in the background to minimize overall file-sizes without the user’s knowledge, it is doing so “transparently”. This strategy is generally done with the intent of enhancing user experience by eliminating unnecessary stimulus.

To avoid terminology confusion, the use of the term transparent or transparency in this work must be understood as an intent towards more visibility and not as an effort aiming for invisibility (as in the HCI case).

Transparency and platforms

44. TransparencyInternational,

The global coalition against corruption, Cnet, 12/06/2020.
<https://www.cnet.com/news/airbnb-finally-settles-lawsuit-against-nyc-and-hands-over-host-data/#:~:text=Airbnb%20announced%20Friday%20that%20it's,those%20people%20violating%20city%20rules>, visited september 2020

While using most platforms is as hassle-free as registering with your email account and tapping a few buttons, the same cannot be said about obtaining precise information on fees and policies for a platform company. The perception of transparency may vary also according to who is using the platform. A consumer generally knows the total price being paid for something but not necessarily how much of that money goes to the platform, to the restaurant or to the

courier. A “partner” driving for a platform, for example, isn’t always aware upfront of how much a ride will pay, how much the passenger is paying, what is the pay per time or kilometer, etc. Not only this information is hard or impossible to find, it also can change algorithmically for every new ride or order, making transparency goals even harder to be followed. Needless to say, however, that on the platform side transparency is nearly ubiquitous, as the companies hold information from every participating user or partner, going from transactions to location data or whatever else was accepted within their terms of service.

In conclusion, data from lean platforms is not easily available and very far from being transparent. For that reason, as this project aims to expose and visualize transparency and inequality in lean platforms, it also has to pass the stage of retrieving this data. Some other investigative projects are mentioned in the chapter “Similar Research”. The specific process of data investigation for this project and its consequent evaluation is described in the chapter “Platform Data Collection”.

Transparency versus Privacy

Some discussions about transparency come up against the arguments of privacy, especially regarding governmental requests. While the debate about whether or not online companies should give governments access to their users data extends beyond the limits of lean platforms, it can be valuable to see how platforms, by following their own interests, deal with this matter.

One example is when the City of New York capped short term rentals to a maximum of 30 days in a year, but to enforce this ban the city needed platforms - Airbnb, in that case - to provide them information on users. It then asked AirBnB to provide address, contact and transaction information regarding the hosts, entering a legal dispute that lasted about two years and culminated in an agreement ⁽⁴⁵⁾ favourable to the handout of the data. They initially denied the handout of information by claiming it was a violation of user’s privacy - a strategic move to deny transparency and present it in an almost altruistic way, even though the 30-day limitation clearly contrasted their interests as it would affect Airbnb’s revenue in the city of New York.

Another symbolic case is that of Uber. The company was accused of displaying a “God’s View” of its data in a party in 2011 and later, in 2016, it was said to be spying on passengers⁽⁴⁶⁾ - among such passengers was pop-star Beyoncé. According to accusations, it also

45. Kerr, D., *Airbnb finally settles lawsuit against NYC and hands over host data*, Cnet, 12/06/2020. <https://www.cnet.com/news/airbnb-finally-settles-lawsuit-against-nyc-and-hands-over-host-data/#:~:text=Airbnb%20announced%20Friday%20that%20it's,those%20people%20violating%20city%20rules>, visited september 2020

46. Hill, K., *'God View': Uber Allegedly Stalked Users For Party-Goers' Viewing Pleasure (Updated)*, Forbes, 03/10/2014. ['God View': Uber Allegedly Stalked Users For Party-Goers' Viewing Pleasure \(Updated\)](https://www.forbes.com/sites/kerryhill/2014/03/10/god-view-uber-allegedly-stalked-users-for-party-goers-viewing-pleasure/), visited september 2020.

failed to properly disclose data-breaches⁽⁴⁷⁾ and for that had to pay large sums for settlements in the USA and Europe. It also used to track users' location even after a ride was ended - a policy that, after strong criticism, was later revoked⁽⁴⁸⁾.

A last but yet interesting example that shows how Uber exercises its power on user privacy occurred in 2019⁽⁴⁹⁾ in the United Kingdom, with similar cases also in the United States. A driver claimed in court that he should be classified as a “worker”, which would entitle him to minimum wage and paid vacation. Uber used the driver's data in their possession to argue he didn't made minimum wage only in the days in which he refused too many rides. This data, though, in a clear example of lacking transparency, was not available for the driver, who had to make a formal claim to the company to access it.

Initiatives on Transparency

There is a general encouragement towards having transparency as a value to be practiced in governmental, private and even personal levels. With this and the previously mentioned importance status reached by lean platforms, it is understandable why many regulators, observatories and watch dogs are spending time and investing money on analysing lean platforms and its surrounding areas. In order to comply with this and other regulations and demands, websites and portals for transparency have been implemented from the municipal to the national level, and in private companies from any industry, be it human resources or energy distribution. In the two following subsections these two kinds of initiatives towards transparency are briefly presented.

Policy is important, but it will not move quickly enough to solve some problems. Other problems will simply go unresolved due to the political power of the industries involved, no matter how strong the policy arguments are.

Stephanie Hankey, S., Tuszynski, M. “Efficiency and madness”

Governmental Transparency Portals

Digitalization brought the possibility to change the way citizens access information from their governments. Many governments have freedom of information laws with extensive reach but very bureaucratic procedures, often requiring citizens to make formal requirements to access information. This kind of situation makes it harder, in practical terms, for the information to be obtained. The

47. Somerville, H., *Uber to pay \$148 million to settle data breach cover-up with U.S. states*, Reuters, 26/09/2018. <https://www.reuters.com/article/us-uber-databreach/uber-settles-for-148-million-with-50-us-states-over-2016-data-breach-idUSKCN1M62A> visited september 2020

48. Toor, A., *Uber will no longer track your location after your ride is over*, The Verge, 29/08/2017. <https://www.theverge.com/2017/8/29/16219542/uber-location-tracking-app-ios-android-privacy> visited september 2020

49. Holder, S., *For Ride-Hailing Drivers, Data Is Power*, City Lab, 22/08/2019. <https://www.bloomberg.com/news/articles/2019-08-22/why-uber-drivers-are-fighting-for-their-data> visited september 2020.

creation of easy to use transparency portals represent a breakthrough as they enable citizens to analyse open data by making it indexed and searchable in a way that it becomes accessible for citizens with little time or experience in obtaining public data.

By default most government data is considered open data, as opposed to data from private companies like lean platforms. But complicated and often polemic situations can arise when lean platforms start taking up the space, gaining the community influence and collecting data in levels that often surpass or conflict with those typically expected from governmental organs. Thereby, it is interesting to consider how and if strategies used in governmental transparency portals should and would work for conveying information on lean platforms.

Regulators and Watchdogs

There are already active organizations serving the purpose of watching, analysing, making policy or actually regulating online platforms. They vary in factors such as size, intention, political and economic organization, etc. Briefly portraying these organizations is a way to understand what is being done and, more importantly for a communication designer, how the information is being presented.

The Platform Observatory⁽⁵⁰⁾ is a group with 15 participants that monitors online platforms in the European Union aiming “to advise and support the Commission in its policy making in relation to online platforms”. It’s also responsible for monitoring the implementation of Regulation (EU) 2019/1150 “on promoting fairness and transparency for business users of online intermediation services”. Their website has a repository of downloadable researches that were produced in the area and two sections promoting interaction: “Get Involved” aims to gather possible participants for surveys and interviews and “Flag your issue” is a place to send issues so that the Observatory may consider them in their studies. These two sections are dedicated to Business Users and Platform Representatives, without any mention to partner workers or their representative groups.

RSA, the United Kingdom’s “Royal Society for the encouragement of Arts, Manufactures and Commerce” tackles the gig economy in its publications and in the 2017 report “RSA Good Gigs”⁽⁵¹⁾. The report provides interesting statistics and researches for the United Kingdom on what they name “gig economy” scenario, a terminology that as previously mentioned, is closely related to lean platforms.

50. Observatory on the Online Platform Economy, The Observatory monitors and analyses developments in the online platform economy to enable informed and flexible policy making in the EU. <https://platformobservatory.eu/> visited september 2020

51. Balaram, B.; Warden, J.; Wallace-Stephens, F., Good Gigs, A fairer future for the UK's gig economy, RSA, Action and Research Centre, 04/2017. <https://criticaurbana.com/piattaforme-digitali-e-spazio-urbano-il-caso-airbnb> visited september 2020.

A design view on transparency

Almost all the previously mentioned initiatives and definitions of transparency start from a policy-making, administrative or governmental point of view. Those aspects are important to be mentioned so that a general concept of transparency as well as recent transparency-related issues with platforms are well introduced and understood.

But from now on this project will cover the effects of design on transparency. That is: how design techniques affect user experience in a way that the perception of transparency is affected; how to identify such techniques and how to use communication design to help raise awareness on the issues of (lacking) transparency and inequality in platforms.

It's arguable that design techniques may affect transparency in platforms in many ways. In an advertising piece, in a product-service-system context, etc.

Nevertheless, the main touchpoint between users and the platforms are the interfaces designed by these platforms and run by the users in their personal devices. This is why these communication products and how they affect transparency are the focus of this work.

These interfaces generally are present in mobile applications and websites, for example. It is possible to consider such interfaces as the main touchpoints as they are essential enablers of the transactions and without those the viability of lean platforms would be heavily reduced or even impossible.

The next chapter will introduce some of the identified design techniques that act on these interfaces and that may manipulate the levels of transparency between platforms and its users.

4.

**Designing
(the lack of)
transparency**

Introduction

As most of the interaction with platforms occur through their digital interfaces, be it in an app or a website, some design areas and user experience techniques are of particular importance for these companies. These areas and techniques can reach high levels of pertinence for the products and, depending on the intentions of those operating them, they can also negatively influence the degree of transparency in a platform. As a general rule, these interface applied techniques take advantage of various human psychological tendencies to guide and hide intentions and information that could otherwise generate different answers.

Identifying the techniques

These techniques for manipulating transparency are, in many cases, examples or very similar to the concept of dark pattern. This name is employed to describe many tricks used in online products to, according to the website [DarkPatterns.org](https://darkpatterns.org), "make you do things that you didn't mean to". Run by social anthropologist Alexander Darlington and founded by "UX Specialist" Harry Brignull the website invites people to use Twitter to reveal dark patterns, in order to try making pressure on the companies using them. The website also lists and exemplifies 12 types of dark patterns. Some are relatable to the techniques presented in this chapter while others, although operating with similar intentions, are more connected to business intentions than design.

The 12 Types of Dark Patterns and their descriptions (reproduction from darkpatterns.org⁽⁵²⁾)

- **Trick questions**
While filling in a form you respond to a question that tricks you into giving an answer you didn't intend. When glanced upon quickly the question appears to ask one thing, but when read carefully it asks another thing entirely.
- **Sneak into Basket**
You attempt to purchase something, but somewhere in the purchasing journey the site sneaks an additional item into your

52. **DarkPatterns**, TYPES OF DARK PATTERN. <https://darkpatterns.org/types-of-dark-pattern.html> visited september 2020.

basket, often through the use of an opt-out radio button or checkbox on a prior page.

- **Roach Motel**

You get into a situation very easily, but then you find it is hard to get out of it (e.g. a premium subscription).

- **Privacy Zuckering**

You are tricked into publicly sharing more information about yourself than you really intended to. Named after Facebook CEO Mark Zuckerberg.

- **Price Comparison Prevention**

The retailer makes it hard for you to compare the price of an item with another item, so you cannot make an informed decision.

- **Misdirection**

The design purposefully focuses your attention on one thing in order to distract your attention from another.

- **Hidden Costs**

You get to the last step of the checkout process, only to discover some unexpected charges have appeared, e.g. delivery charges, tax, etc.

- **Bait and Switch**

You set out to do one thing, but a different, undesirable thing happens instead.

- **Confirmshaming**

The act of guilt-tripping the user into opting into something. The option to decline is worded in such a way as to shame the user into compliance.

- **Disguised Ads**

Adverts that are disguised as other kinds of content or navigation, in order to get you to click on them.

- **Forced Continuity**

When your free trial with a service comes to an end and your credit card silently starts getting charged without any warning. In some cases this is made even worse by making it difficult to cancel the membership.

- **Friend Spam**

The product asks for your email or social media permissions under the pretence it will be used for a desirable outcome (e.g. finding friends), but then spams all your contacts in a message that claims to be from you

This chapter goes into further detail on how Gamification, Trust and Reputation, Content Design and Ranking and Filtering are used by platforms to deceive users. The author grouped these techniques by affinity in these four categories, so as to make its understanding clearer, serving also as a starting point for the exposition of information in the artifact. These four categories are among the

ones most observed as problematic but, especially in the fast moving tech sector, are surely not the only possible ones influencing lean platforms.

Gamification

According to the Merriam-Webster English dictionary the word first appeared in 2006 to define “the process of adding games or game-like elements to something (such as a task) so as to encourage participation”. It consists of deliberately applying aspects of fun, offering rewards, presenting and promoting competition or, for example, using storytelling in a non-game application is commonly referred to as gamification. Gamification has been applied in areas like education, fitness, marketing and many more.

Online platforms are also taking advantage of this resource for various purposes and in different ways for its distinct audiences. Customers, partners and workers may all be subject to gamification techniques, but not in the same manner or for the same reasons. The sole use of gamification does not necessarily constitute an issue for the user but, as put in article published by the American Marketing Association⁽⁵³⁾, it “can make for a powerful and unethical tool if used incorrectly”. That same article mentions gamification specialist Yu-kai Chou who, in his personal website⁽⁵⁴⁾, has written that gamification is (as many other things) manipulation. In close connection to the theme of this project, Chou believes ethical gamification occurs when there is full transparency on the intended purpose of the gamified process and when the user explicitly accepts that technique of persuasion.

Score systems, similar to those from video games, are an example of gamification in platforms. Workers that drive for ride-hailing apps are presented with weekly reports for their ratings. US based driver Sarah Mason argues⁽⁵⁵⁾ companies target people’s “desire to be of service, to be liked, to be good.” And that when drivers are rated low, there’s the motivation for them to drive and increase it, whereas when they are rated high, it serves as a reminder to keep the good work. An example is that when an Uber driver is disconnected, that is, not driving, the app screen might show a successful, highly rated review, serving as a positive incentive to get back online.

Apps also show drivers heat maps showing rises in demand, even if the user is far from the hotspots and regardless of the fact these

53. **Conick, H.**, *Gamification is Manipulative. Is It Ethical?*, American Marketing Association, 30/07/2019. <https://www.ama.org/marketing-news/gamification-is-manipulative-is-it-ethical/> visited september 2020.

54. **Chou, Y.**, *Gamification, Manipulation, and Ethics*. <https://yukaichou.com/gamification-study/gamification-manipulation-ethics/> visited september 2020.

55. **Mason, S.**, *High score, low pay: why the gig economy loves gamification*, The Guardian, 20/11/2018. <https://www.theguardian.com/business/2018/nov/20/high-score-low-pay-gamification-lyft-uber-drivers-ride-hailing-gig-economy> visited september 2020.

demands may end at any time. Another strategy is the use of “challenges” where drivers have to reach a certain number of rides in a limited time to earn a bonus. Drivers may set a weekly goal for how much money they would like to earn and, as pointed by Jay Cradeur on this post⁽⁵⁶⁾, apps such as Lyft promptly give the option to raise the goal as soon as you reach it. According to Cradeur, the more apps promote these acts of “instant gratification, the more our human nature to acquire will be activated and the harder we will work to achieve our goals”.

The concept of motivation by feedback seen in ride-hailing is also present in Airbnb, where it’s accompanied by the “Superhost” badge. Upon achieving a set of goals (a number of 5 star reviews, zero cancellations, good response rates and more), an AirBnB host is “rewarded” with the Superhost badge, which serves as a motivator and is also a criteria for searches made by guests, giving these Superhosts bigger visibility. As an extra factor, for every 4 times one is rewarded the Superhost badge, an incentive is given in the form of vouchers to be used by the host on AirBnB accommodations or experiences.

Gamification *per-se* is not an issue affecting transparency. It is often a useful resource to enhance the user experience and it can make applications and systems more interesting to use while also enhancing user’s productivity. But they can be problematic depending on how they are used. According to Niels van Doorn, gamification, specially on platforms featuring dynamic pricing, will more and more be used to “1) keep workers from leaving the platform, 2) nudge them to work on specific times and in particular areas, and 3) motivate them to take on more work” and this may cause a greater “sense of inequality and competition among couriers”. In addition to that, gamified experiences can be used to mask facts that would be otherwise unappealing to platform users, harnessing the rationality of decision-making.

Trust and Reputation

History and importance

Lean platforms and shared economy are two terms that have a lot in common and are often replaced for each other. This happens because there are generally one or more unknown individuals taking part in the services of lean platforms, that is, “sharing” his or her

56. Cradeur, J., *The Gamification of the Rideshare Driver Experience*, Ride Share Guy, 10/10/2018. <https://therideshareguy.com/gamification-of-rideshare-driving/> visited september 2020.

property or labour on behalf of other “peers”. And for this sharing to occur, trust is an essential component. Since the conflictual terminology has been mentioned in the previous chapter, let’s focus here solely on trust and its accompanying supporter, reputation.

Trust online in peer to peer platforms is not a recent matter. Ebay was founded in 1995 as a peer to peer auctions website as far as 1998, according to the Internet Wayback Machine, trust measures were already in action: for a US\$ 5 annual fee, users would submit official document data to eBay which, in partnership with a consumer and business information company, would grant a “Verified eBay User” status to those passing the verification. According to the website in 1998, the aim was to “to help build privacy, security, and trust for e-commerce over the Internet”.

Reputation versus regulation

“The Sharing Economy is at the cutting edge of a push for “algorithmic regulation” in which rules protecting consumers are replaced by ratings and software algorithms.”

Slee, T. “What Yours Is Mine”.

Reputation is one of the key values raised by those defending⁽⁵⁷⁾ that lean economy platforms should remain free of regulation. A common say among digital companies is that regulation is not capable of following the speed in which changes happen online. Many online platforms use the argument that self regulatory schemes are enough to keep and raise standards and good practices in their services, eliminating or softening the need for regulation.

The regular consumer, as stated by Slee (2015) is not able to “reasonably inspect the condition of a vehicle’s brakes”, the same way this same average customer would not be able to evaluate if a house in AirBnB is compliant to fire regulations for bed and breakfasts.

There is also the factor that in most cases only users are allowed to interfere in the reputation systems. While from a broader perspective, this looks like a fair way of running the system, it’s interesting to note that a neighbour would not be able to properly comment on actions taken by an AirBnB host or guest. This example helps to understand how “it is difficult to compare regulation and online reputation mechanisms when it comes to the protection of public values.” (Ranchordas, 2018) ⁽⁵⁸⁾.

57.Chovanculiak, R.; Rod, A.; Nikolova, D.; Šumskis, D., *Less regulation, more reputation! Case Study: the sharing economy in transportation and accommodation*. 4Liberty.eu. https://iness.sk/sites/default/files/media/file/Less%20regulation%20more%20reputation_INESS_4liberty_Sharing_Economy.pdf visited september 2020.

Metrics and scales

In an academic research about trust on Ebay from 2002⁽⁵⁹⁾ by Resnick and Zeckhauser a term called “High-Courtesy-Equilibrium” was coined. It was used to define a tendency among online reputation systems to generally give positive feedback. These early discoveries unfolded in similar ways to present-day lean platforms.

In the previously mentioned book by Slee there is a comparison among ranking systems on Netflix and Yelp (a rating site for restaurants and other small businesses) with those on “sharing economy” platforms, always using a 1 to 5 scale. On both Netflix and Yelp the rankings majority of classifications range around 3.5 while still having some presence on the smaller (1 to 2) and larger (4 to 5) spectrum. A somewhat smooth ascending and descending curve can be drawn over the parameters. On the sharing economy side, with AirBnB, there is a massive prominence of stays ranked around 4,5 and 5,0 out of 5 and this trend is even stronger with BlaBlaCar, where almost all of the reviews are ranked 5 out of 5. In Uber, when a user gives a feedback of 4 stars or less (out of a maximum of 5) it is mandatory to describe what kind of problem occurred.

The company is also known for deactivating drivers with scores lower than 4.6. Likely aware of this fact and following the previously described High-Courtesy-Equilibrium, it is common that riders rate drivers as 5 stars even if the ride was undeserving of the highest possible classification.

Another possibly misleading reputation strategy is that of using unusual patterns for the ratings. JustEat, for example, uses a six star rating instead of the common 1 to 5 or 1 to 10 scale of points. It then

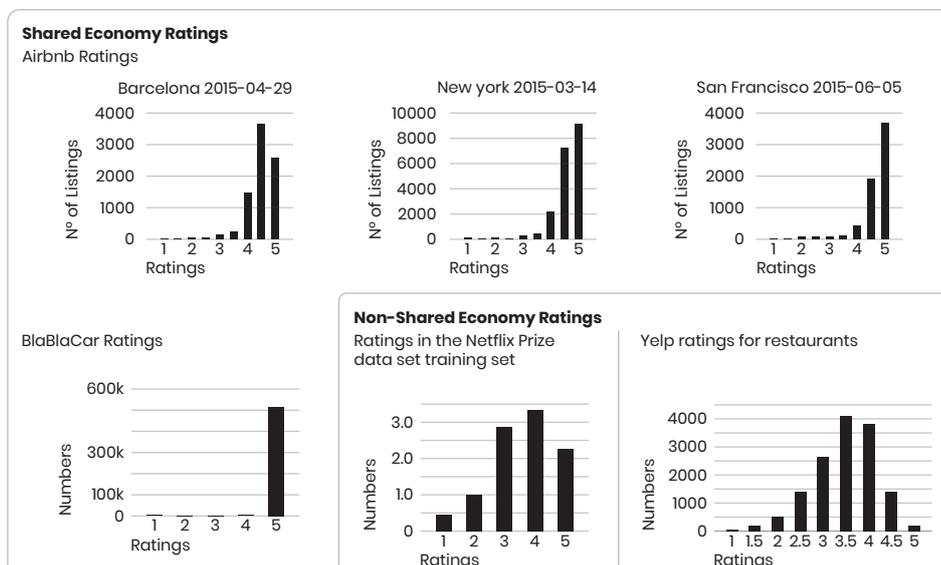


Fig. 1: Ratings - Redesigned charts with approximative values based on charts from “What’s Yours is Mine” by Tom Slee

58. Ranchordas, S., *Public Values, Private Regulators: Between Regulation and Reputation in the Sharing Economy* (September 20, 2018). *13 Law & Ethics of Human Rights* (2019, Forthcoming), University of Groningen Faculty of Law Research Paper No. 27/2018. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3252524 visited september 2020.

59. Resnick, P.; Zeckhauser, R., *Trust Among Strangers in Internet Transactions: Empirical Analysis of eBay’s Reputation System*. 2002. <https://cseweb.ucsd.edu/groups/csag/html/teaching/cse225s04/Reading%20list/E-bay-Empirical-BodegaBay.pdf> visited september 2020.

becomes “easier” for restaurants to obtain a punctuation of 4.00 out of 6.00, which would translate to 3.33 in a 1 to 5 scale. The stars are filled in red according to the numeric rating: a 4.5 out of 6 means that 4 and a half stars are filled and one star and a half is left unfilled. The visual prominence of the unfilled stars is much lower than the others, being drawn in a thin outline with shade of grey lighter than that of the text. If one does not realise the scale is 1 to 6 instead of 1 to 5, a higher perception of quality will be conveyed. And even for those understanding the correct scale, there is still an issue, as comparing a scale of 1 to 6 to the commonly known 1 to 5 is not an easy task when the user’s priority is that of rapidly choosing a restaurant.

These facts are supportive of the perception of Slee, who states that “reputation systems fail in their basic task of distinguishing high quality or trustworthy offerings from lower-quality or untrustworthy offerings.”

Portability

Lastly, another interesting is mentioned by Nies van Doorn, the principal investigator behind the website Platform Labor: the general lack of portability for reputation in the platforms. In an article⁽⁶⁰⁾, the author comments on human expectations and temporal domains that likely exceed that of a platform - or of the user’s participation in that platform. This psychological feature is opposed to the fact that all reputation a user builds in a platform is mostly locked within that platform. One with a “Superhost” badge on AirBnB can’t convert this status to another hospitality platform, the same way a highly rated cleaner in a certain platform would not be able to start out in another platform with that rating. This means that, reputation-wise, they are tied to a platform, leading to curious workarounds such as cleaners posting screenshots of their ranked platform profiles in other websites. Creativity apart, this shows yet another flaw undermining the idea that reputation alone replaces regulation.

Some aspects of trust and reputation within platforms, from a first look, may not seem like influencing transparency from a design point of view. But it helps to understand these strategies as deliberate and iterated design choices made by educated professionals to protect the interests of the platform. The idea being sold is that these strategies act as substitutes to public safeguard (regulation) while relying on often biased ratings that are enforced and applied with minimal disclosure to users. And from this point of view, it becomes easier to notice the lack of transparency.

60. Platform Labor, *On Data Assets and Meta-platforms*, <https://platformlabor.net/blog/on-data-assets-and-meta-platforms> visited september 2020.

Content Design

This area talks about the management of what goes inside a digital product in terms of content, which includes but is not limited to text, photography, illustration, videos, animations, sound, etc. A more recent⁽⁶¹⁾ subdivision of content design goes by the name of UX Writing and is devoted specifically to text and other verbal content like voices. According to GOV.UK guidelines on content design, “good content⁽⁶²⁾ design allows people to do or find out what they need” as opposed to not being able to find what’s necessary or to complete a certain operation they intended or had to perform. With that in mind, the next lines explore how platforms craft content design to navigate the thin lines between user’s needs, user’s desires and platform’s interests.

Images

Photography and illustration are important components of most lean platforms. In the case of photography, one of its uses is that of allowing partners (restaurants or hosts, for example) to display their offerings to the customer.

In a page suggesting why photography⁽⁶³⁾ is important, Deliveroo states that by having photos of only 10% of the menu can boost orders by 12% compared to having no photos. AirBnB claims professional photography can increase bookings in up to 40%. And their blog post with tips for good photography⁽⁶⁴⁾ comments that it helps to “draw in potential guests, highlight what’s amazing, and set their expectations appropriately”. Uber Eats provides a series of rules⁽⁶⁵⁾ to help photos look more enticing and to allow them for approval in the platform. Many of the largest platforms have a dedicated blog post or website section to explain why photos are important and how they should be photographed. Such pages are keen on suggesting techniques that valorize what’s being offered, such as photographing a room from its corner to give it a more spacious look or framing dish on the center of the image, keeping enough free area around so the customer can better understand scale. Attention to detail is translated on AirBnB to “highlight unique amenities” and exemplified by a cup of tea over a table. Uber Eats suggests that, when possible, one should “add a garnish to create a splash of color”.

Platforms clearly recognize the value and stimulate the use of the best possible photography available, some even requiring exclusivity,

61. **Google Trends**, Search “ux writing” and “content design”. <https://trends.google.com/trends/explore?date=today%205-y&q=%22ux%20writing%22%22content%20design%22> visited september 2020.

62. **Government Digital Service**, *Content design: planning, writing and managing content*. Gov.uk, 25/02/2016 (updated 12/11/2020). <https://www.gov.uk/guidance/content-design/what-is-content-design> visited september 2020.

63. **Spawton-Rice, A.**, *Photography: Showcase your food*. Deliveroo. <https://help.deliveroo.com/en/articles/3151927-photography-showcase-your-food> visited september 2020.

64. **Blog AirBnB**, *Top 5 photo tips for a stellar listing*. <https://blog.airbnb.com/top-5-photo-tips-for-a-stellar-listing/> visited september 2020.

65. **Uber Eats for Restaurants**, *Restaurant menu photography guidelines*. <https://about.ubereats.com/en/restaurant-photos/> visited september 2020.

such as Deliveroo who “will not accept images from other online ordering platforms.” But even if gains resulting from photography are both for the partner and the platform, the responsibility of photographing is completely delegated to the partner. Some of the platforms even have photographers as “secondary” partners. In the case of photo shoots booked through AirBnB, the payment will be deducted from the following stays.

Photography is also used to enhance the feeling of security among peers, allowing them mutual recognition through the platforms. A consumer is allowed to see a photo of an Uber driver or an AirBnB host. The same is true for the partners who are usually also shown pictures of the guests or passengers they are about to engage with. In this case, facial recognition might be applied to confirm platform users and their conformity to the pictures in previously uploaded documents. In between rides drivers, for example, may be requested to take a picture or record a video to validate their identity. This strategy avoids drivers from “lending” their account, as another person would - generally - not pass the validation test.

In short, photography is used on platforms for two main reasons. The first is to generate desire, similarly to how advertising has been for at least a century. And the second, to provide some reassurance: behind the platform there is a real room with the bed you'll sleep on, a real driver that will pick you up and a plate of food with the ingredients you were expecting. Everything theoretically backed up against “false advertising” by the reputation and rating systems mentioned before.

Illustrations have a slightly different use. Like in other businesses, they are commonly used by platforms to reinforce brand identity and to bring their storytelling a visual presence. But there is a chance that in the lean platform's case illustration has the power to play an even more important role due to the very nature of these platforms. Consider the fact that most photography on such platforms are user generated and/or provided. And that the physical touchpoints (vehicles, houses, workers, hosts, meals) are unpredictably heterogeneous, even if some screening is done and rules are agreed upon. That said, illustration's power of abstraction can help to mediate this heterogeneity into each platform's brand discourse. An example of this is how, by taking inspiration from famous automobile brands, Uber crafted a 3D fleet⁽⁶⁶⁾ with each vehicle trying to translate their brand identity for the more than 50 types of transportation services they offer.

From a more practical point of view, they are also useful in cases that do not require or allow high levels of uniqueness or specificity.

66. Klimczak, E., *Upgrading Uber's 3D fleet*, Medium, 04/03/2019. <https://medium.com/uber-design/upgrading-ubers-3d-fleet-4662c3e1081> visited september 2020.

In that same case of Uber, for example, the consumer is presented with services like UberX, Uber Black, UberXL, etc and for each the illustration reflects the main service characteristics (simpler vehicles; bigger and higher-end black cars, large vehicles, etc). As the consumer is not able to choose a specific car or driver, illustration is useful to differentiate services even if the “real” visual aspects of the service may vary.

Text

Choosing the right words is an important part of user interface and user experience as, according to the AirBnB design team⁽⁶⁷⁾, “words can make or break a user experience”. And, as pointed out by John Zeratzky⁽⁶⁸⁾ about his work with Google Ventures, a mobile-focused world with smaller screens result in restricted room for superfluous words, meaning that “the stakes are even higher—people will read the copy in your products”. These reasons help explain why this area, often called UX writing, has been gaining traction as a sub-division of UX design.

Zeratzky claims that when writing for UX, clarity should always be considered by “clearly, succinctly, and elegantly” saying what is needed to say. And that clarity should always come before branding, even if writing is a powerful way to communicate brand personality. But having clarity as a main value does not mean transparency is being achieved because, as put by that same author, the best approach for those writing is to “just tell your users what you want them to know”. And the way platforms write is often permeated with evasive information, overly-positive discourses, biased phrasing and other verbal artifacts.

An early exploration of these kinds of discourse was produced by analysing the pages in on-demand delivery platforms catering to new couriers. There are repetitive mentions of the opportunity to earn money, but no factual information on the amount of money that can be made with deliveries, be it in absolute values or estimates. There are no details on prices for necessary equipment such as the backpack, which are charged by some platforms.

Another big sales proposition is that of flexibility, which is often used in the same phrase as the promises of earning money. The argument for flexibility also comes in the form of making your own ours and working autonomously. There is no mention of the fact that most couriers are allowed to work in specific time slots with availability determined often by their assiduity or compliance to goals stipulated

67. Cooper, J., *Words Shape Design: Writers should be deeply involved in product design.* AirBnB Design. <https://airbnb.design/words-shape-design-2/> visited september 2020.

68. Zeratzky, J., *From Google Ventures: 5 Rules For Writing Great Interface Copy.* Fast Company, 18/02/2014. <https://www.fastcompany.com/3026463/from-google-ventures-5-rules-for-writing-great-interface-copy> visited september 2020.

by platforms, which is something that arguably goes against the largely advertised flexibility. As a last example are various calls to action suggesting agility in the signing up process like “Apply Now”, “Sign Up In Minutes” or “be on the road in less than 24h”. But there is no explanation of how long the evaluation of the application might take. Transparency in these cases is negatively affected by the choice of emotionally appealing arguments and a concealment of policies and data that would enable courier candidates to make more informed decisions and comparisons. For a last example of the power of content design, we will see how UX writing together with an illustration group in a powerful way. Former content designer at BlaBlaCar, Paul Stairmand wrote articles that elucidate some of the ways in which UX writing can orientate the user on taking the decisions more in-line with the platform’s desires. One of the articles is entitled “The Power of Simple Questions”⁽⁶⁹⁾ and the other⁽⁷⁰⁾ mentions how they “revolutionized” their product design by basing their UX writing decisions on a hypothetical conversation between the platform and its user.

To recapitulate and give some context, BlaBlaCar is a ride-sharing service popular in trips between cities. Drivers offer vacant seats in exchange for a fee that doesn’t open space for lucrative driving but does help to cover trip costs. Since most cars do accommodate 3 people in the back seat but not in a comfortable manner, it is of BlaBlaCar’s intention that drivers accept only two passengers in the back seat. The previous solution for that was a check-box section no bigger than a third of the screen with the text “Max. 2 in the back seats - Guarantee max. 2 people in the back of the car (preferred by passengers)”. After the “revolutionised” content design strategies were applied, it was changed to a full screen section with the question “Want your passengers to be comfortable? Keep the middle seat empty.” followed by an illustration of two passengers in a seat, one with an open magazine and the other with one leg crossed, suggesting the comfort of an empty middle seat. The user may answer a direct “Confirm” or a heavily biased “No, I’ll squeeze in 3 [Passengers]”. While this attitude does help to preserve the comfort of the passengers, which are also platform users, it’s a clear example of a platform strongly “suggesting” how the user should behave. It is also an example of “Confirm Shaming”, a type of dark pattern listed on Dark-Pattern.org.

Storytelling

Praised in many areas of communication, storytelling is by no means exclusive to design solutions that are applied on lean platforms. But it is an important area to be explored, as many platforms do rely on storytelling, sometimes even coupling it to the vast data they have at

69. Stairmand, P., *The power of simple questions*, Medium, 19/08/2016. <https://medium.com/blablacar-design/the-power-of-simple-questions-38222ee8f096> visited september 2020.

70. Stairmand, P., *How content revolutionised the way we do product design*, Medium, 29/05/2017. <https://medium.com/blablacar-design/how-content-revolutionised-the-way-we-do-product-design-cbeb3a3c7ab6> visited september 2020.

Color caption

- Earnings
- Flexibility
- Requirements
- "Benefits"
- Call to action
- How to

Flexible work, competitive fees

Choose when to work

Make money with Deliveroo

Things you'll need

Added perks

Get started

Discover Deliveroo

Legal

Deliver with Uber Eats in Italy

Delivering Uber Eats orders

How it works

More information

Requirements to become an Uber Eats courier partner in Italy

How to get started

Want to start making money delivering with Uber Eats?

Deliver with Just Eat

Sign Up Now

Decide if and when to deliver

Get Paid Weekly

How To Get Started

Questions

Deliver with Just Eat

You decide what you earn

Sign up, and be on the road in less than 24h

What is a Glovo courier?

What's the process?

What does Glovo offer?

Will I have a contract?

When can I get started?

Will I have a contract?

What does it mean to be independently contracted?

Fig. 2: Early comparison chart on the "become a courier" page in the websites of 4 on demand delivery platforms

their disposal. Naturally, each type of platform has peculiarities on their storytelling discourses, but there are some things in common specially regarding to which kind of user the discourse is directed to. These characteristics that are discernible from a mere observation of tag lines and signature phrases, which are perhaps one of the most synthetic ways to analyse the arguments behind a company's storytelling practices.

To the consumer (a passenger, one ordering food or a guest) the general argument is that of easiness and accessibility. AirBnB uses "Belong anywhere". Uber went from "Everyone's private driver" to "Get there. Your day belongs to you.". Glovo uses a straight forward "Food delivery and more" in english speaking markets as well as very similar translation in the spanish and croatian markets. In italian it changes to "La tua città a domicilio", which translates to something as "Your city, delivered".

The concept of easy and abundant access is of course not limited to the tag lines. Uber is known for showing moving cars around a user's location in its home screen map, as if those were available drivers. However, those cars have many times been reported as fictitious representations with no relation to real drivers. Some food delivery platforms show smaller than real distance measurements from the user's location to the restaurants, which may influence the perception how fast and fresh the food could arrive. Just Eat distances shown were about half of the actual distances calculated by Google Maps. Deliveroo has the same issue, but variation is of around 20%: it seems like they calculate distances "as the crow flies" instead of ground routes. For on-demand platforms that heavily rely on distance and route calculation to charge users and pay couriers, these disparities seem unlikely to come from naïve intentions.

On the worker (drivers, couriers) side there's a strong entrepreneurship argument of "being your own boss", and enjoying flexibility, self-achievement and a fast way to earn money. Some platforms also factor in the "benefits" of working with them, such as being able to "relax or discover new parts of the city" in between deliveries (Uber Eats). Others mention expected behaviours like having a "smile on their faces", because they should "spread good vibes and cheer" (Glovo). This reflects also a common and uplifting representation of the worker as a dynamic, hero-like well-doer, conveyed not only through taglines but also photography and illustration.

There is, however, little or no mention of how much they might earn by working an hour or a day on the platform. Although these values are variable and built up by many different factors, no estimation or basis for calculation are generally provided.

As for the partner side (restaurants, bars and other shops), the main argument changes to reaching new clientele and increasing profits. Compared to the other audiences, here numbers play a bigger role in the message. Uber⁽⁷¹⁾ states that for “60% of operators” delivery resulted in “incremental sales”; Doordash⁽⁷²⁾ argues that “92% of orders come from entirely new customers”, Deliveroo⁽⁷³⁾ claims being able to ramp sales up to 30% and so on. Even if just like for workers earning money is the attraction, it seems like here platforms feel a greater need for disclosing numbers.

The information mentioned above was taken from the pages that invite these partners-to-be into the platform. Although presenting numbers may seem like a more transparent approach, most of those are an average or a maximum threshold not reached by all restaurants. Also, information on the percentage of commissions taken by the platform and other fees are not always promptly disclosed on these pages, characterizing some lack of transparency.

Ranks, Filters and Categories

The way platforms automatically rank results, the configurations they allow for their filters and how they categorize listings might be misleading for the customer. In many cases, ranking and filtering is connected to measurable data of trust and reputation: rarely a bad rated restaurant or apartment, for example, will appear firstly in a list. Even with the issues mentioned on “Trust and Reputation”, the default action of ranking first the most trustworthy may protect the consumer against a bad service. And the limited options for filtering may make up for a simpler, faster and more satisfactory user experience. But the issue is that these factors also have the power to heavily direct users to what the platform desires.

Airbnb, for example, gives users the ability to filter a large amount of characteristics when searching for a stay. After selecting the destination, dates and number of guests, there are three main filters. Cancellation flexibility (2 options), type of place (4 options) and price (range slider from minimum to maximum). There is also a button called “More filters” with 10 extra groups of filters, some offering more than 4 options each. Up to this point, it seems that the platform offers a lot of control for the user. But when you choose, for example, a price range, there’s no option to rank the properties by price. All the results that match selected criteria appear without compre-

71. Uber Eats for Restaurants, Partner with Uber Eats and do more for your restaurant. <https://www.ubereats.com/restaurant/en-GB/signup> visited september 2020.

72. DoorDash, Increase your takeout sales. <https://get.doordash.com/> visited september 2020.

73. Deliveroo, Diventa subito partner di Deliveroo. <https://restaurants.deliveroo.com/it-it/> visited september 2020.

hensible order. It is not possible, for example, to easily see which is the cheapest available listing, as no “low to high” filter is available and even if the price range is set to the lowest point, not necessarily there will be a result in the lower range. The fact that AirBnB ignores the use of ascending or descending filters, perhaps one of the most common filters in the market, and that it confirms on their website that the “exact list of features we consider is confidential”⁽⁷⁴⁾ is an example of lack of transparency executed through UX choices.

Food delivery platforms rank their listings usually by serving the user what their algorithms consider more appropriate. As food is ordered on demand, these rankings are highly susceptible to the hour of the day a user accesses the platform. Deliveroo calls this ranking type “Recommended”, JustEat (UK) names it “Best Match”, iFood (BR) calls it “Standard Ordination” and UberEats “Picked for You”. With this, platforms aim to achieve the highest possible conversion rates, that is, the number of access resulting in a purchase. As with AirBnB, the criteria used is not disclosed and may vary across platforms. The lack of understanding on how the algorithms rank the results can, again, be considered as lacking transparency.

74. AirBnB Help Center,
*What factors determine
how my listing appears in
search results?* https://www.airbnb.com/help/article/39/what-factors-determine-how-my-listing-appears-in-search-results?set_beve_on_new_domain=1595178593_NzQ0MGlxNzE3QGVj&locale=en
visited september 2020.

5.

Platform Data Collection

Data Collection Model

The previous chapters explained what lean platforms are and how they operate. With that knowledge in mind, it becomes possible to elaborate more efficient strategies for the collection of data present in platforms. In this chapter it is going to be explained how this model for collection of data was developed, taking the shape of a questionnaire.

The questionnaire is a tool created in this project that guides the collection and organization of data from lean platforms. This chapter serves as the starting point for the crowdsourced data insertion forms that will be discussed on chapter 7, where this thesis design artifact is presented.

The data collection process was conceived to suit the platforms that are the object of this project. As described on chapter 2, these are “lean online platforms operating in the transit, on demand delivery and accommodation sectors”. All of the chosen sample platforms are also inside the previously mentioned circumscription. While the process was created with that circumscription in mind, platforms from other sectors or that do not necessarily fall into the “lean” category could potentially be evaluated by this questionnaire.

This questionnaire is divided in two parts. The first is about a **general platform analysis** with both a quantitative and qualitative part. It requires a deeper look on the platform app and communication channels as well as in sources like CrunchBase and other business intelligence fonts. The second part is related to a **specific transaction** inside a given platform. This part, while shorter than the other, can be trickier to have the information sourced out as it asks responders to obtain information from as least two platform parts, such as the consumer and the worker, for example. Or from parts that might not be in reach of the average consumer, like workers and partners (like restaurants, for example). The following paragraphs details each part of the questionnaire and their specific goals.

General Platform Analysis

The **quantitative part** is composed of numerical statistics about a platform. These will serve as the base to allow the user to comprehend the size of a platform (in revenue, number of employees, partners, consumers, etc.). This data collection might deal with approximative data as, especially with non-publicly traded

companies, information may not come from an official source and/or may vary. As results may vary, a single platform can benefit from multiple quantitative evaluations, since a larger sample can provide a more trustworthy average data.

The **qualitative part** is an analysis from the communication design point of view of the user journeys of Consumers, Partners and Workers, the three main users identified in chapter 2. Those groups are analysed through the optics of the four aspects studied in the previous chapter, “Designing (the lack of) Transparency”. The aspects were Gamification, Trust and Reputation, Content Design, Ranks, Filters and Categories. Summed to that, it is investigated whether parts of the journey present the user with “dark patterns” or any other potentially misleading design strategy.

Specific Transaction

This part of the data collection has an investigative-quantitative nature. It is investigative as, ideally, it is necessary to get multiple sources of data on the same transaction, each source from one of the participant of that transaction. These participants, or parts as they are generally referred to, are usually the consumer, the worker and the partners.

In a real life example, that means that to analyse a single order of food through a delivery platform it would be necessary to have the customer receipt with the full price paid, the worker’s remuneration information specifically for that order and, lastly, a source stating the amount of money the restaurant received for that order after discounting platform fees and commissions.

Having all that information for a single order, while ideal, is complicated. But even data from a single part of the transaction is valuable, as there are ways to calculate the missing data in estimated or fairly precise manners. The examples below help to understand the potential even of an “incomplete” data collection, that is, one that is missing some kind of source for one of its involved parts:

Example 1

- **Available Transaction Information:** Uber ride customer receipt (with price paid, time, distance and eventual multiplier or discounts)
- **Possibly obtainable information:** Uber fare calculation for drivers in the city in which the trip occurred (base fare, price per distance, price per time, price waiting, etc.)

- **Potential result:** by subtracting the calculated driver fare from the price paid by the consumer, we can estimate the amount of money in that trip that went to the driver and to the platform.

Example 2

- Available Transaction Information: Deliveroo courier shows app screen in a video, possible to read his remuneration, order items current position, restaurant pickup point and final delivery destination
- Possibly obtainable information: simulate a similar order with the same items and address and obtaining its price
- Potential result: solely with the available transaction information it is possible to calculate an estimate remuneration per hour for the worker. With the simulate info its possible to compare the amount paid for delivery with the amount actually received by the worker. Discrepancy in this value, positive or negative, are likely being paid or received by the platform or the restaurant.

To obtain this kind of information, the person collecting the data may ask the parts for the information, search in videos or forums for screenshots of app screens containing such information, etc.

Testing with Sample platforms

With the intent of testing its applicability, the questionnaire was responded by the author for three sample platforms, one of each type (Transit, Accommodation and On-Demand Delivery). There is a brief report on why that platform was chosen; how parts of the questionnaire were answered and where data was sourced from. That was done with the purpose of illustrating possible case scenarios of users collecting data in distinct ways.

Transit: Uber

- **Reason of choice:** Uber is by far the largest lean platform operating on the transit sector with operations in more than 60 countries.
- **General Platform Analysis:** as Uber is a publicly traded company, obtaining information and reports was not a complicated task. In order to grasp how the app used by workers operates a large array of Youtube videos and Reddit posts is available, many times providing screenshots that serve as evidence to the responses.
- **Specific Transaction**
 - **Available information:** customer receipt for a trip in São Paulo, information of remuneration for that city.

- **Remarks:** obtaining receipts from both customer and worker (driver) is the sole way to have an exact picture on specific transactions. Reliable estimates can be made solely with customer receipts when remuneration data is available for the city in which the trip occurred but such info on remuneration is not always available or easy to source.

On-Demand Delivery: Deliveroo

- **Reason of choice:** as the two other platforms are California based and sector leaders, this evaluation shifted to a growingly popular, yet not market leader delivery platform in Europe, as to broaden the variety of the analysis.
- **General Platform Analysis:** as was the case with AirBnB, Deliveroo is a private company and some of the data collected came from estimations by business intelligence websites. The analysis of the app from the worker or the partner perspective is not possible without an active account for each kind of user. For this matter, Youtube videos where users show and tell how the app work were used as source material.
- **Specific Transaction**
 - **Available information:** Youtube videos by workers (delivery workers) explaining how to use the platform that show the app running on-screen, the own website and app of Deliveroo
 - **Remarks:** the transaction featured on this analysis is not a complete one as it does not feature the restaurant side which, in the viewed case, is a McDonalds unit in Italy. Many large chains have specific agreements with delivery platforms. To analyse transactions between consumers and partners (restaurants) it is likely easier to go after smaller establishments because it could be easier to obtain information.

Accommodation: AirBnB

- **Reason of choice:** AirBnB is by and large the biggest in its field by most metrics. Taking the number of downloads on Google Play Store (23/09/2020), Airbnb accounts for more than 50 million downloads while competitors HomeAway accounts for 5 million and VRBO for a single million
- **General Platform Analysis:** part of the analysis was facilitated by the fact the author already used AirBnB on both guest and hosting sides. AirBnB not being a publicly listed company makes obtaining data such as revenue harder so estimates from specialized websites had to be considered.
- **Specific Transaction**

General Platform Analysis - Quantitative

1- General-Quantitative		1		2		3		4		5		6		7		
Time ID	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
Use same ID from previous questionnaire	Choose or write the platform name	What is the type of the platform being evaluated?	How many times was the app installed from Google Play Store?	What is the current or latest number of consumers, workers, partners, employees and listings? Choose region for the data and write the values or mark if they not available.	What is the total or estimated market capitalization of the platform?	Who invested in the platform and how much was invested?	What was the platform's latest year?									
	Region	Workers	Partners	Employees	Listings	Evidence	Investors	Investment	Total amount (USD)	Investment (Summa appraised)	Evidence	Year				
10/04/2020 0824	Uber	Taxi	500,000,000+	Worldwide/Total Amount for Platform	2,000,000,000	Not applicable	20000	Not applicable	Not applicable	79,000,000,000	24,700,000,000	2009	2009			
10/04/2020 0825	Airbnb	Accommodation	50,000,000+	Worldwide/Total Amount for Platform	Not applicable	3000000	900	Not applicable	30,000,000,000	5,400,000,000	2008	2008				
21/09/2020 0830	Deliveroo	On-Demand_Delivery	50,000,000+	Worldwide/Total Amount for Platform	30,000,000	35000	800	Not applicable	100,000,000,000	1,000,000,000	2008	2008				

Transaction Questionnaires

2 - Accomodation - Transaction		1		2		3		4		5		6		7	
Response ID	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Use same ID from previous questionnaire	In which city, country and currency did the transaction take place?	What's the total amount paid by the consumer in the transaction? Which items/subtotals compose that amount?	What is the amount earned by the partner in the transaction? Which items/subtotals compose that amount?	What is the amount earned by the worker in the transaction? Which items/subtotals compose that amount?	What is the amount earned by the partner in the transaction? Which items/subtotals compose that amount?	What is the amount earned by the worker in the transaction? Which items/subtotals compose that amount?	What is the amount earned by the partner in the transaction? Which items/subtotals compose that amount?	What is the amount earned by the worker in the transaction? Which items/subtotals compose that amount?	What is the amount earned by the partner in the transaction? Which items/subtotals compose that amount?	What is the amount earned by the worker in the transaction? Which items/subtotals compose that amount?	What is the amount earned by the partner in the transaction? Which items/subtotals compose that amount?	What is the amount earned by the worker in the transaction? Which items/subtotals compose that amount?	What is the amount earned by the partner in the transaction? Which items/subtotals compose that amount?	What is the amount earned by the worker in the transaction? Which items/subtotals compose that amount?	What is the amount earned by the partner in the transaction? Which items/subtotals compose that amount?
	Country and Currency	Total	Platform service fee	Cleaning Fee	Other taxes	Other fees	Other taxes								
17/07/2020 0112	BRZL (Brazilian Real)	Curtiba	447.42	302	0	34.42	16								

2 - On Demand Delivery - Transaction		1		2		3		4		5		6		7	
Response ID	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Use same ID from previous questionnaire	In which city, country and currency did the transaction take place?	What's the total amount paid by the consumer in the transaction? Which items/subtotals compose that amount?	What is the amount earned by the partner in the transaction? Which items/subtotals compose that amount?	What is the amount earned by the worker in the transaction? Which items/subtotals compose that amount?	What is the amount earned by the partner in the transaction? Which items/subtotals compose that amount?	What is the amount earned by the worker in the transaction? Which items/subtotals compose that amount?	What is the amount earned by the partner in the transaction? Which items/subtotals compose that amount?	What is the amount earned by the worker in the transaction? Which items/subtotals compose that amount?	What is the amount earned by the partner in the transaction? Which items/subtotals compose that amount?	What is the amount earned by the worker in the transaction? Which items/subtotals compose that amount?	What is the amount earned by the partner in the transaction? Which items/subtotals compose that amount?	What is the amount earned by the worker in the transaction? Which items/subtotals compose that amount?	What is the amount earned by the partner in the transaction? Which items/subtotals compose that amount?	What is the amount earned by the worker in the transaction? Which items/subtotals compose that amount?	What is the amount earned by the partner in the transaction? Which items/subtotals compose that amount?
	Country and Currency	Total	Platform service fee	Delivery fee	Service fee	Extra Fee	Other taxes	Other fees	Other taxes						
21/09/2020 0830	UK (pound)	Ames, PG	17.8	17.6	0	0.2									

2 - Transit - Transaction		1		2		3		4		5		6		7	
Response ID	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Use same ID from previous questionnaire	In which city, country and currency did the transaction take place?	How much does the driver earn in that city and how is this value composed? Consider the local currency previously selected.	What's the total amount paid by the consumer in the transaction? What if a price surge was with in and also toll, city tax and other values that do not go to the platform and the driver?	What is the amount earned by the partner in the transaction? Which items/subtotals compose that amount?	What is the amount earned by the worker in the transaction? Which items/subtotals compose that amount?	What is the amount earned by the partner in the transaction? Which items/subtotals compose that amount?	What is the amount earned by the worker in the transaction? Which items/subtotals compose that amount?	What is the amount earned by the partner in the transaction? Which items/subtotals compose that amount?	What is the amount earned by the worker in the transaction? Which items/subtotals compose that amount?	What is the amount earned by the partner in the transaction? Which items/subtotals compose that amount?	What is the amount earned by the worker in the transaction? Which items/subtotals compose that amount?	What is the amount earned by the partner in the transaction? Which items/subtotals compose that amount?	What is the amount earned by the worker in the transaction? Which items/subtotals compose that amount?	What is the amount earned by the partner in the transaction? Which items/subtotals compose that amount?	What is the amount earned by the worker in the transaction? Which items/subtotals compose that amount?
	Country and Currency	City	Base Price Earned by Driver	Cost Cost Earned by Driver	Amount earned by driver	Amount Earned by km	Total	Tax/Price	Tolls	City tax	Other taxes	Other fees	Other taxes	Other fees	Other taxes
10/04/2020 0824	BRZL (Brazilian Real)	Sao Paulo	1.5		0.19	1.05	12.46	11.1	0.02	0.59					

Qualitative Questionnaires

3 - Accomodation - Qualitative		1		2		3		4		5		6		7		8		9			
Response ID	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19		
Use same ID from previous questionnaire	Can you see the prices of the service without having to sign or log in?	Is there a price breakdown available when making orders in the platform?	Is there a rating system for the listing (the property) that is visible by the user? If yes, which is its scale and what is the minimum rate accepted?	What are the available "sort by" categories? Which one is chosen by default?	What is the full address of the listing made available for the customer?	What is the term used to designate the partner?	To which degree is the pre-empting partner presented with info on remuneration when accessing the "become partner" or similar pages in platform sites?	Are payments to the partner processed through the platform?	Who is responsible for choosing the prices practised by the partner?												
	Choose the option	Select option	Scale	Symbol	Scale starting number	Scale max number	Minimum accepted rate	Map if found	Select default sort by category or indicate the sorting available	What available categories, comma separated	Select the option	Yes	6.2	7.1	8.1	8.2	9.1	9.2			
17/04/2020 0816	Yes. It is possible	https://id	Yes. Breakdown	https://id	Star	1	5	https://drive.google.com/	Rating is impossible to sor	Cancellation Flex	https://id	Address	https://id	Host	https://id	The platform fee	https://id	Yes and solely th	https://id	Partner can choo	https://id

3 - On Demand Delivery - Qualitative		1		2		3		4		5		6		7		8		9	
Response ID	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Use same ID from previous questionnaire	Can you see the prices of the service without having to sign or log in?	Respond either 2.1 or 2.2.	Is there a system rating the partner that is visible by the user? If yes, which is the icon or symbol used to display it, the scale and the minimum rate accepted?	Is there a system rating the worker that is visible by the user? If yes, which is the icon or symbol used to display it, the scale and the minimum rate accepted?	What are the available "sort by" categories? Which one is chosen by default?	What is the term used to designate the partner?	To which degree is the pre-empting partner presented with info on remuneration when accessing the "become partner" or similar pages in platform sites?	Are payments to the partner processed through the platform?	Who is responsible for choosing the prices practised by the partner?										
	Choose the option	Select answer	Scale	Symbol	Scale starting number	Scale max number	Minimum accepted rate	Map if found	Select default sort by category or indicate the sorting available	What available categories, comma separated	Select the option	Yes	6.2	7.1	8.1	8.2	9.1	9.2	
21/09/2020 0830	Yes. It is possible	https://id	Price shown is et	https://id	Star	1	5	https://id	Rating is	https://id	Recommended	Distance, Recom	Rider	https://id					

Partner		17		18		19		20		21		22		23		24	
Response ID	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	
Use same ID from previous questionnaire	What is the term used to designate the partner?	Which kind of info on remuneration is the partner to be presented with on "become a partner" or "become a driver/partner" or similar pages in platform sites?	Does the platform have listings on businesses (restaurants, shops, etc) without the consent of this same businesses?	Are payments to the partner processed through the platform?	Who is responsible for choosing the prices for what is practised by the partner?	Does the platform offer the option to automatically select or escalate prices of products advertised by partner?	Is there an online/offline switch or time brackets for partners?	Does the app sends notifications that try to convince the partner to get online or to work more?									
	Write	17.1	17.2	18.1	18.2	19.1	19.2	20.1	20.2	21.1	21.2	22.1	22.2	23.1	23.2	24.1	24.2
Partner	https://id	There is informat	https://drive	No. There are no	Yes and solely by	https://id	Partner can choo	https://id	No.	No. There is no q	There are time b	https://id	No. There are no				

3 - Transit - Qualitative		1		2		3		4		5		6		7		
Response ID	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
Use same ID from previous questionnaire	Can you see the prices of the service without having to sign or log in?	Is there a price breakdown available in the platform-see? Respond either 2.1 or 2.2.	Are there rating or star of elements suggesting the vicinity of available vehicles and/or their estimated time of arrival before confirming the request?	Is there a system rating the worker that is visible by the user? If yes, which is the icon or symbol used to display it, the scale and the minimum rate accepted?	What is the term used to designate the partner?	To which degree is the pre-empting partner presented with info on remuneration when accessing the "become a driver/partner" or similar pages in platform sites?	Are payments to the partner processed through the platform?	Who is responsible for choosing the prices practised by the partner?								
	Choose the option	For fixed/real price	For estimate pricing	Scale	Symbol	Scale starting number	Scale max number	Minimum accepted rate	Map if found	Select default sort by category or indicate the sorting available	What available categories, comma separated	Select the option	Yes	6.2	7.1	
10/04/2020 0824	Yes. It is possible	https://id	Price shown is estimate at	https://id	Star	1	5	https://id	https://id	Star	1	5	https://id	Star	1	5

Fig. 3: Tabulated questionnaire results. Zoom for detail in the PDF.

- **Available information:** customer email confirmation for booking with price paid, partner (host) receipt for same booking
- **Remarks:** compared to other types of platforms, in services like AirBnB consumers and partners usually interact for a longer time and exchange more contact information. With such there can be a bigger opening to ask for transaction data (receipt) from the other part. Ex.: guest asks host for the receipt on how much host received for that booking. It is also possible to list a property in the platform with no cost or validations (as is the case with transit and delivery platforms). This allows one reliably simulate a reservation, understanding exactly how much the consumer pays and the partner receives.

Results and tabulation

The results from the questionnaire were tabulated in a Google Spreadsheets as it was a suitable enough solution for the initial sample yet still flexible and easily convertible to a more advanced database if necessary.

This questionnaires were an important step that provided valuable clues on which will be the necessary questions to be asked in the artifact's data collection system. The ability to make comparisons comes from a standardized data collection method, and that was also tested in this chapter. The process of answering and tabulating the responses to the questionnaire also generated or moulded many of the informational requirements for the artifact.

6.

Similar Analysis

Intro

This chapter explains and showcases projects and services that are considered similar to the artifacts whose design process and project is displayed in the next chapter.

The meaning of similarity in this case is to be taken very broadly. In this case a “similar” means that, among one or some of the characteristics of the evaluated items there is at least some potentially valuable reference for this thesis design artifact, even if in a general view the evaluated items present themselves as fairly dissonant from the artifacts. These similar projects are analysed and, sometimes, compared, in order to enrich the bases for designing the artifacts.

The final artifacts - website, browser extension and app - are specifically targeted at platforms and make use of diverse techniques and resources such as data visualization, guides, comparisons, etc. None of the researched similars is enough alike the desired result or contains all of the various resources and techniques that are to be used. For this reason various types of similars were researched and their analysis is highly focused on which important points that similar has that can lead to inspiring or serving as a reference to the design of one of the artifacts. The analysis mention also points that might be considered negative for the project, serving as a reference also of what not to pursue on the design of the artifacts.

The following list shows a brief summary of this similars. It classifies them by type and provides a brief introductory explanation of what they are and why they are interesting for this project.

Comparison Databases

- **EWG Food Scores:** A website that classifies food products. Observing the way it composes scores for food from various data points and parameters can be valuable for the website.
- **Expatistan:** A continuously refreshed collaborative database on the cost of living among various cities and countries in the world. Features an interesting use of collaborative numerical data that can be useful for the collaborative transactions in the artifact.
- **Vira Casacas da Câmara:** shows how Brazilian deputies changer political parties in 2018. Provides a compelling use of storytelling and visual metaphors and uses a card based design in a way that can be utilized in the website artifact of this thesis.

- **Versus.com:** website for comparison categories of products, services and even cities. Interesting for how it approaches the necessary flexibility in UI/UX for all the diverse comparing categories. Also valuable for how it applies a score system and the visualizations for both quantifiable and qualitative data points.

Investigative Initiatives

- **Inside AirBnB:** a project that aims to gather data about AirBnB listings so as to observe how they are making an influence on the real estate and habitation situation of cities. Valuable use of investigative data and data visualization for social goals.
- **Scandaglio:** multi “chapter” project that aims to provide “instruments and practices” to investigate the city. Investigative data, use of storytelling and data visualization, social goals.

Browser Extension

- **UberCheats:** a browser extension that “reads” Uber driver receipts and helps them understand whether Uber may have underpaid the driver in a specific ride.

Comparison Databases

EWG Food Scores

Much like platforms, food products are different among then but provide opportunities to be classified with the same or similar parameter. A granola bar and tomato sauce are definitely different but they can be classified according to the amount of sugar or calories, for example. The way EWG Food Scores (www.ewg.org/foodscores) analyses food is interesting as it presents solutions similars to those listed as necessary for the project on chapter 5. These similarities include: the score based on multiple parameters, the fact it shows the methodology used for evaluation; the existence of “user guides”.

There’s no possibility of comparing products in a same page, a resource observed in other sites that may help empowering users to choose one item over the other. It also presents an undesired degree of clutter and complexity in its visual elements that should not serve as a reference for the project.

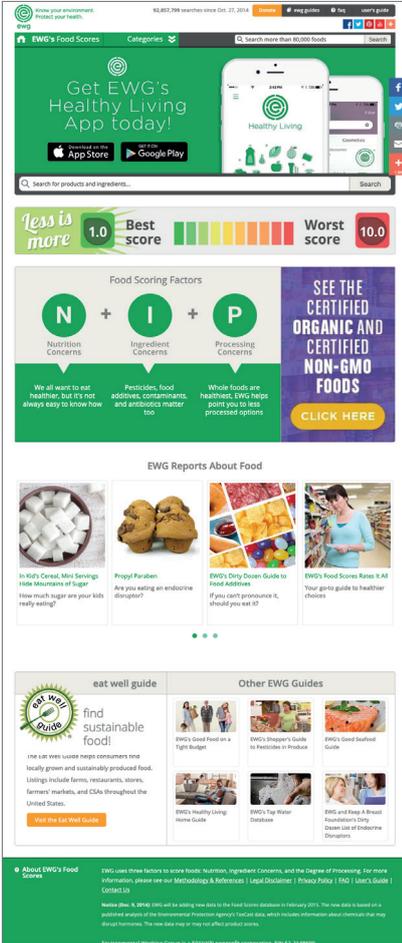


Fig. 4: EWG Foodscores homepage

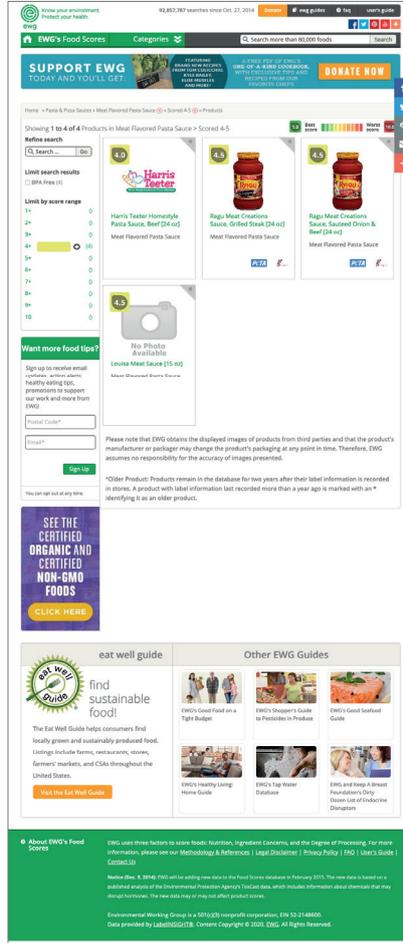


Fig. 5: EWG Foodscores product browsing page

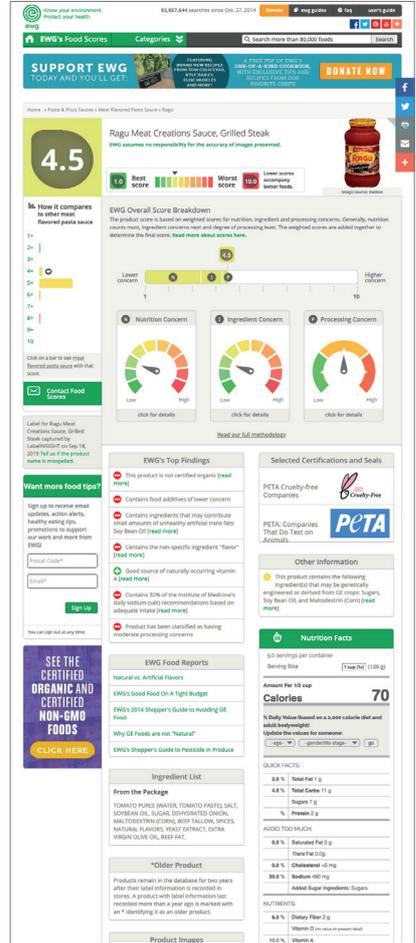


Fig. 6: EWG Foodscores individual product page

Expatistan

Expatistan (www.expatisitan.com) is aimed on travellers and those that are relocating to a new city, often abroad. The website show prices for a series of pre-determined products and services in cities around the world, separated in 6 categories. These prices are inserted by contributing users that fill the amount and the price for a given item in a form. Another interesting aspect relatable to the website artifact is the possibility to choose among different currencies to view the data and its comparisons.

Most of the Expatisitan website is heavily based on textual elements, with little prominence given to non-verbal graphics such as icons or graphs and insufficient level of visual hierarchy. Overall, while the website's resources are rich and its content is easily updatable, if such qualities are to be applied in this thesis website artifact, it should be done with a more careful approach to user interface.



Fig. 7: Expatisitan homepage

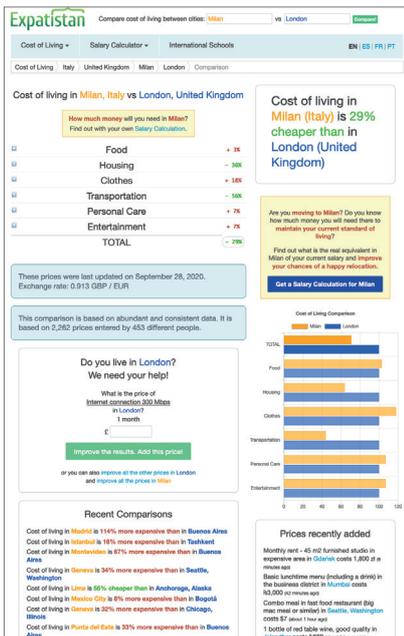


Fig. 8: Expatisitan city comparison page

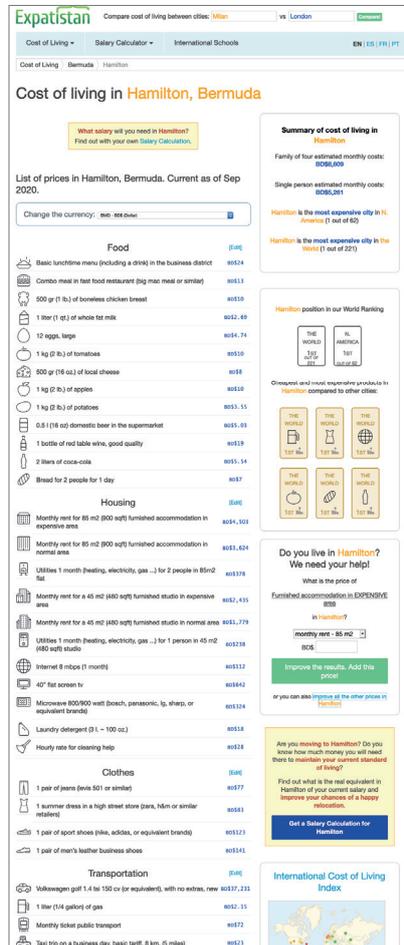


Fig. 9: Expatisitan detailed prices per city

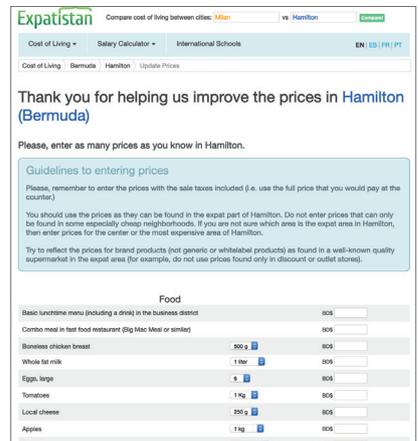


Fig. 10: Expatisitan price insertion by user

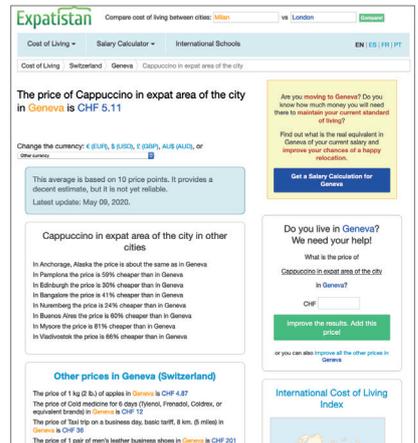


Fig. 11: Expatisitan specific item price detail

Vira Casacas da Câmara

The title of this website (www.viracasacas.com.br) translates to “Turncoats of the [Brazilian] Deputy Chamber”. It was crafted with the aim of showing which deputies changed political party in a specific period when they were allowed to do so without having their mandates revoked due to political party “infidelity”. It also shows how much money each party may receive in campaign funds as a result due to its new member.

User experience starts with a 5 step explanatory intro. It is a simple yet effective way for a necessary introduction on the theme. The site’s main part is a scrollable page with cards that flip when clicked. They show the basic info on the front (party of origin and new party, playfully represented with as soccer jerseys and value). The back shows 7 other data points, in an effective way to show the main information easily and deepen down upon request, although it does not allow for comparison. Lastly, the website has a guide on how to read each card (graphical) and how values were calculated (textual).



Fig. 12: Vira Casacas da Câmara homepage



Fig. 13: Vira Casacas explanatory intro



Fig. 14: Vira Casacas da Câmara "cards" page



Fig. 15: Vira Casacas how to read guide

Versus.com

This website (*versus.com*) compares cities, universities, countries and more, but items featured on its home were mostly consumer electronics. A colour filter is used on item photos, allowing the website's visual identity to show even in this often unpredictable elements. About page shows the site's problem solving strategies and values accompanied by illustrations and followed by a FAQ.

The item browsing page displays bar charts for topics that vary depending on the type of item, allowing for a fast on-screen comparison with no need for clicking or changing the layout. The specific item page or the comparison one is virtually the same, with some sections being divided when comparison is activated. One area graph shows items being compared in overlaid colours, with each ray representing the evaluation categories previously visible on bar charts. This page also presents a very considerate use of color, more neutral and with a less "branded" look than the homepage.



Fig. 16: Versus homepage



Fig. 17: Versus about page

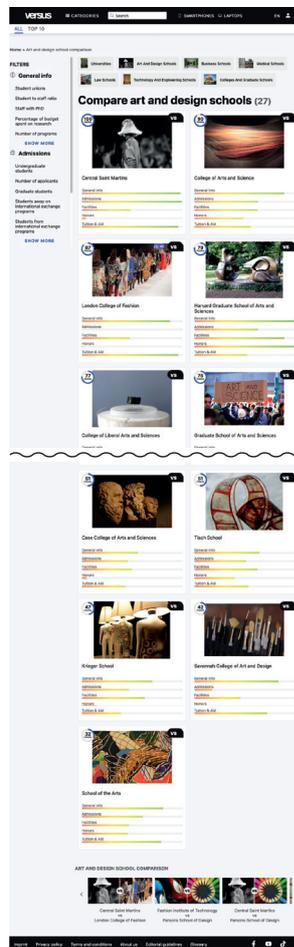


Fig. 18: Versus browse items

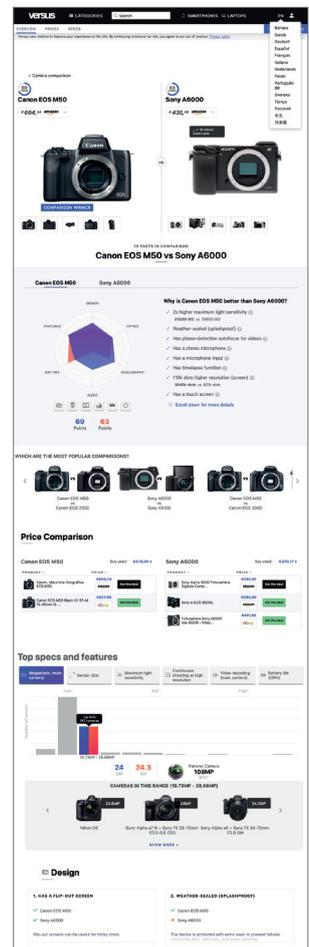


Fig. 19: Versus single item

Investigative Initiatives

Inside AirBnB

The website (*insideairbnb.com*) self describes it as a “set of tools and data that allows you to explore how Airbnb is really being used in cities around the world”. It extracts data from AirBnB and organizes it, allowing viewers to see how many listings are in in a town, what is the medium price, for how many nights a year they host on average, etc. Its deals with data that is not necessarily easy to be retrieved from platforms. And it does so with a purpose very similar to that of this thesis, that is promoting transparency and displaying potential inequalities. The website is composed of a homepage with intro and recent news, “about” section, “behind” with info on how its done, “get the data” with a list of cities with available data and the page for visualizing data for each city. With the exception of an infographic on about, this last page is the single one using maps and charts instead of only text.

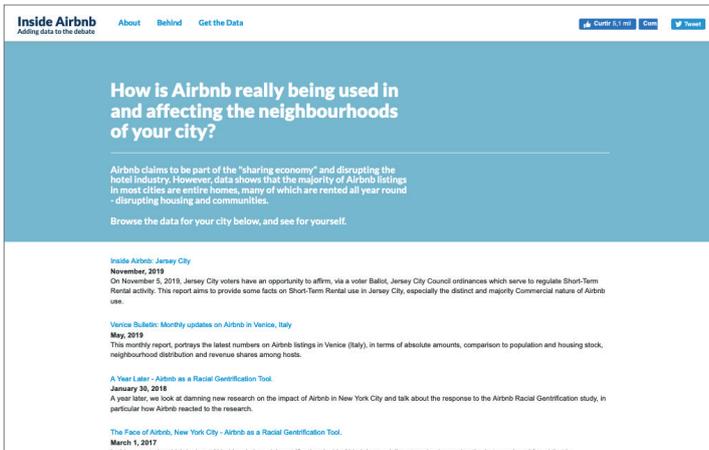


Fig. 20: Inside AirBnB Home



Fig. 21: Inside AirBnB about page

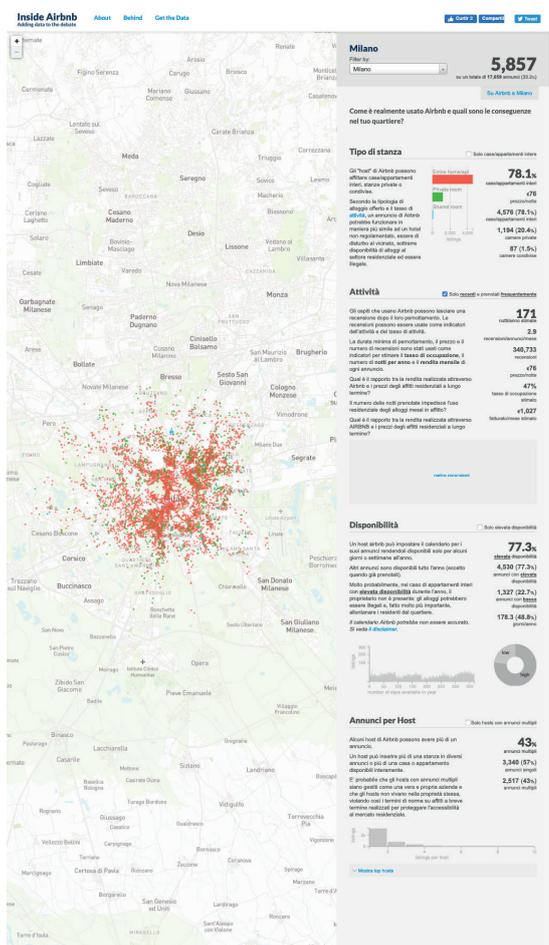


Fig. 22: Inside Airbnb data visualization with map and dashboard

Scandaglio (Pedalò)

A project with various chapters, it presents as providing “instruments and practices to probe the city”. The chapter analyzed in particular was Pedalò (offtopiclab.org/scandaglio), dedicated to exploring the the work of those delivering for “sharing economy” apps. The chapter starts with an introduction explaining the project’s urge to fathom the issue of that kind of work. The user can go to the “Explora” page that shows a courier “race”. Upon scrolling right, statistics on time, distance and money earned by a courier start to be counted while a bicycle icon travels through a timeline. A simple engaging solution that relates to the work of the courier.

Other pages include “Inoltre” (Moreover) which explains the situation of sharing economy in text; “Compendio” which is a compendium of more detailed information on the matter; and “About”, that introduces the research group behind the project and its contacts.



Fig. 23: Scandaglio opening page



Fig. 24: Scandaglio "chapter" selection



Fig. 25: Scandaglio intro to theme



Fig. 26: Scandaglio detailed about

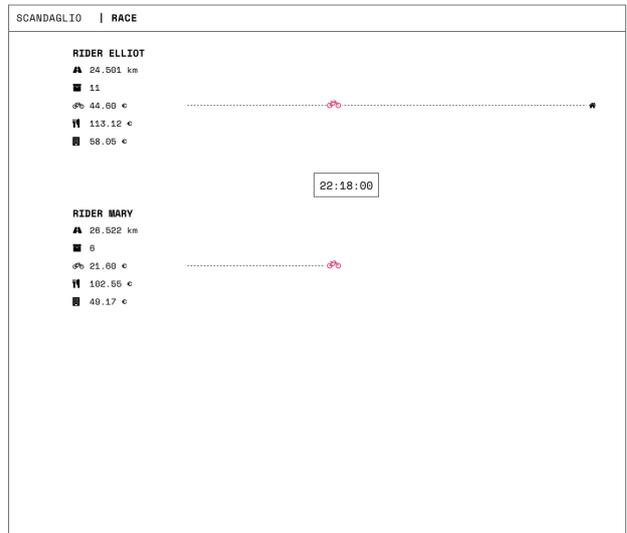


Fig. 27: Scandaglio scrolling infographic timeline

Browser Extension

UberCheats

The single browser extension (<https://chrome.google.com/webstore/detail/ubercheats/pkdblheaeakedkbbkfhoepgmfiaggjdn?hl=en>) tackling platforms found in research, this extension can signal this is an area to be further explored. UberCheats a Google Chrome extension that works when drivers access their ride receipts (called Statements by Uber). The creator of the plugin, based on reports of his own and of peers that were documented on Reddit, claims UberEats has a bug that often underpays drivers by miscalculating travelled distance. As doing these calculations one by one can be a tedious process, the extension is useful as one solely needs to open the receipt to have it verified. The extension calculates distance between origin and destination and compares it to the distance field claimed by Uber, generating a warning in the event conflicting data is found.

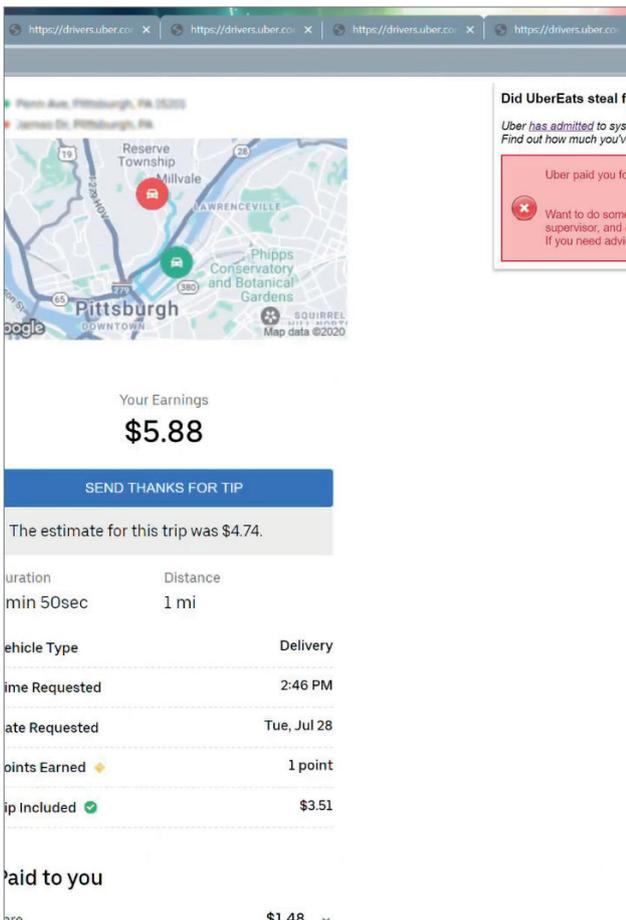


Fig. 28: Driver receipt with red UberCheats icon on browser. Video screenshot (www.youtube.com/watch?v=Ik2YYIb2IN8) captured 29/09/2020.

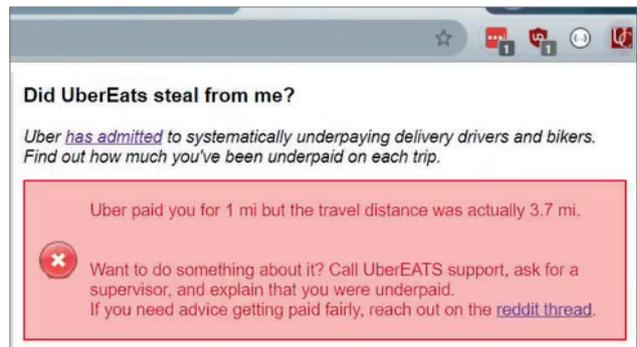


Fig. 29: Driver receipt with red UberCheats icon on browser, close-up. Video screenshot (www.youtube.com/watch?v=Ik2YYIb2IN8) captured 29/09/2020.

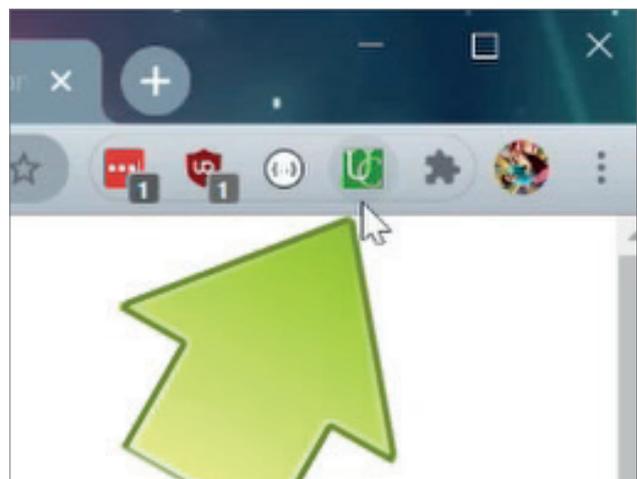


Fig. 30: Green UberCheats icon on browser (close-up). Video screenshot (www.youtube.com/watch?v=Ik2YYIb2IN8) captured 29/09/2020.

Final Analysis

After analysing all similars, it is possible to list a few of the most important positive qualities and characteristics that were observed. This characteristics will be listed as **Strong Points**, that is, points that could likely contribute to insights and solutions when designing the artifacts. Considering weak points, on the other hand, is also important and can be a good way to avoid mistakes that were already made in the past. For that reason, **Weak Points** are also listed. For both cases the similars to which this points relate to are indicated.

Strong Points

- **Playfulness** (*Vira Casacas da Câmara, Scandaglio*): the subjects being tackled by this project and by most of the similars are not necessarily engaging *per-se*. Adding a degree of playfulness to the user experience can help captivate the user allowing for larger chance of assimilation of the message.
- **Tamed complexity** (*Vira Casacas da Câmara, Versus*): both sites provide good ways of deepening down the level or amount of information to be presented or compared. In the case of Vira Casacas those desiring to have more informational can flip a card. In Versus a traditional scrollable approach is presented and aided with sufficient use of white space, hierarchy, graphs and icons.
- **Adaptiveness** (*EWG Foodscores, Versus*): these similars allow for the comparison of items of varied types. What changes in the UI when comparing an university or a mobile phone? How liquid food is presented when compared to dry food? How they tackle different units of measurement? The solutions they developed for these types of questions can be valuable to this thesis artifact.
- **Automated simplicity** (*UberCheats, Expatistan*): both present automated processes that facilitate user experience. One only requires activating the extension and opening a receipt, with all the calculation done on background. The other provides cost of living info in various currencies and, when it requests user data insertion it offers various units of measure for the items, automatically calculating results to be presented on the viewer side. Simple automation takes a good amount of strain from the user.

- **Transparent methodology** (*Vira Casacas, Inside AirBnB, Scandaglio*): inform what is the site for, explain how information is displayed and show the methodology is important for this thesis artifact, specially because by having transparency as a goal the artifact itself ought to be transparent. The three cited examples accomplish this task in a detailed and clear manner.

Weak Points

- **Lacking graphics** (*UberCheats, Expatistan*): these similars have show a reasonable or important amount of numerical and verbal data with little or no use of non-verbal graphics to support it. While the correctness of information is not affected, coupling verbal and numerical information with graphics is a proven to be an effective way to help viewers understand data.
- **Hierarchy flaws** (*EWG Foodscores, UberCheats, Expatistan*): all this projects have issues with hierarchy, meaning that sections are poorly or not marked. This generates some confusion on what's the most important information in each page.
- **Unclear Read Order** (*Scandaglio*): while this website is from a research project that has language experimentation in its core, it is important to note that incautious users may find themselves confused in a first visit to the website. The playful interaction previously explained in this chapter is shown slightly out of context for who hasn't before read the other pages. This kind of issues are to be avoided as it increases complexity in topics that are already complicated enough.
- **Excessive or misleading use of color** (*EWG Foodscores*): interfaces presenting and comparing products (or platforms) and that use colour as a data visualisation resource should take an attentive approach to colour as an element of the layout. This website, for example, uses a green colour in title boxes that are not positive or negative while using a very similar green to signify, for example, a positive score.

Overall the analysis of the similars serves as a departing point for the following chapter, "Artifact". In that chapter this part of the research, including the strong and weak points and the references from the user interface and experience acquired from the similars will be taken into account during the process of designing the artifact that derives from this thesis.

7.

Artifact

Intro

This project's artifact is a **website** that gathers the entirety of the project's content. The website acts as a kind of transparency portal for platforms. It aims to show data about platforms that is not found elsewhere, especially not within the platforms themselves. Users can browse or search for specific platforms and visualize information that wouldn't usually be visible inside a platform's regular usage scenario. The website helps to explore and interpret details about this data. It serves these purposes with the aim of exposing possible inequalities in the relation between platforms and its consumers, workers and partners.

The website will act towards bringing up transparency on two conceptual fronts, both with an investigative approach due to the closed nature of most information on platforms. The first is based on chapter 4 "*Designing (the lack of) Transparency*". It is a **qualitative analysis of interfaces** from a user interface and communication design point of view. It aims to show, with practical examples, how each platform manipulates transparency and user experience through design choices in the interface. The second front is a **quantitative analysis** subdivided in a section about how much a platform is worth; how many users, partners and employees it has, etc. The remaining section focuses on **transactions in platforms**, in order to understand who gets paid for what and how much. In this second front, the role of communication design is that of providing a clear visualization to the obtained data.

The website also explains how this evaluation method (detailed on the chapter "Platform Data Collection") works and explains users on how to use the website. Most importantly, it also empowers these users on understanding and identifying issues in platforms. This, in the end, permits that users collaborate with the website by uploading transaction data, tricks that were spotted and, to a lesser degree, full platform evaluations.

The website is meant to be a viable solution for the current identified need of communicating platform's lack of transparency and their socioeconomic effects. The platform business is large, very dynamic and diverse. To cope with that matter, the artifact and the evaluation framework here presented are tested with a limited yet varied number of sample platforms. This was done as every design and research solution was thought with scalability and enough flexibility in mind to accommodate future changes in the platform sector.

Audience

The website is thought for an audience that is concerned about corporate practices, likely also being also consumers of this companies and, more specifically, of lean platforms. This is an audience with a wide age range possibility that, for practical purposes, can be narrowed down to about 18 to 40 years old, mostly belonging to the middle class. It includes millennials and generation Zers, which are the largest users of online services such as the platforms approached in this project.

A 2018 Gallup research⁽⁷⁵⁾ on Uber demographics in the US and a 2017 analysis by Statista⁽⁷⁶⁾ on Airbnb in the USA and Europe corroborates the idea that these services are mostly popular within that age range. And in the late 2018 Accenture report entitled “From Me to We: The Rise of the Purpose-Led Brand”⁽⁷⁷⁾ it is shown that 66% of the nearly 30.000 consumers surveyed believe “is one of a brand’s most attractive qualities”. This helps to back up the idea that there is a potential audience for what the project aims to achieve.

Inside the aforementioned age range the project has in mind mostly potential consumers of these platforms due to the fact they are bigger, in number, than the partners or workers. These consumers would be able to discover how the money they spend on platforms is divided among the parts, which are the tricks, techniques and flaws to pay attention to which level a specific platform might contribute to inequality or influence the community, etc.

The fact it has consumers has a main audience, however, does not disregards partners or workers as it presents information that may be relevant to these two groups. For this type of audience, the site could be especially valuable as a place to compare which platforms have the most beneficial policies and fees for their side. It could also help them understand and identify which are the techniques being used to try deceiving them as users, perhaps reducing their susceptibility to their effects.

Tone of voice

The audience of this project is that of users and potential users of platforms and, as previously mentioned on chapter 1, the project aims to “convey through communication design the issues and inequalities of lean platforms and how they are occulted by lacking transparency, in a way that is as easy to obtain and comprehend as getting food or a car to your doorstep”. For that reason, the user

75.Reihart, R.J., Snapshot: Who Uses Ride-Sharing Services in the U.S.?, GALLUP, 25/07/2018. <https://news.gallup.com/poll/237965/snapshot-uses-ride-sharing-services.aspx> accessed september 2020.

76.Lock, S., Share of Airbnb users by age group in the United States and Europe 2017, Statista, 09/08/2019. <https://www.statista.com/statistics/796646/airbnb-users-by-age-us-europe/> visited september 2020.

77.Accenture., To affinity and beyond. From me to we, the rise of the purpose-led brand, 2018. https://www.accenture.com/_acnmedia/Thought-Leadership-Assets/PDF/Accenture-CompetitiveAgility-@CPR-POV.pdf downloaded september 2020.

interface and experience provided by the artifact **will resemble that of that from platforms** in some aspects. Simple and straightforward interfaces, icons and illustrations that inform and visually attract, easy to understand text that is free of jargon and captivating, filters that enable comparisons and other elements typically seen in well designed platforms will be present in the artifact's interfaces. While that degree of similarity is useful to create some identification with the purpose of the website, it is necessary to show that it relates to the platforms but that it is not a platform. That is why it should have a certain level of detachment from the platform aesthetic. For that, some resources will be necessary, such as a very constrained use of colour and a verbal and visual approach that is far from the usual positivism seen in that market. This strategies will be further presented and discussed on the coming sections.

The idea of creating a communication artifact that use the same techniques or have the same looks as what they are trying to scrutinize is not new. It has been previously tested by designers, artists/activists like Barbara Kruger⁽⁷⁸⁾, a collagist mostly known for her work combining strong, critical phrases with the advertising-like look of white text over red rectangles placed over black and white photography. Or the Brandalism collective⁽⁷⁹⁾, with their advertising-like posters that criticize advertising and corporate practices. This project does not intend to reach the levels of aggressiveness and irreverence of the previous examples. Nevertheless, it is based on the idea that using similar media and techniques as those of what it aims to criticize is a powerful way to reach an audience.

Naming

The name chosen for the projects, “Unveiling Platforms”, is an expression of the tone of voice. It is free of any jargon and has a simple and straightforward meaning: to unveil means to show something that was previously hidden or was never before seen, that is, a meaning closely related to that of transparency. Also, as of september 2020, there are no other similarly named websites, projects, books or articles and “UnveilingPlatforms.com” was available as a domain.

Note

The following diagram presents how previous chapters contributed and resulted in the artifact website and provides an overview of the artifact's pages or screens. The rest of this chapter explains the visual identity and elements, which are shared by all of the artifacts. It is then followed by detailed explanation on the website, where its layout and functionalities are demonstrated in user scenarios.

⁷⁸.MoMA's (Metropolitan Museum of Modern Art, New York) page on Barbara Kruger. <https://www.moma.org/artists/3266#works> accessed september 2020.

⁷⁹.Bandalism website features projects, photo galleries and press releases from the collective. <http://brandalism.ch/> accessed september 2020.

Chapters

- 2 - Lean Platforms
 - 3 - Transparency
 - 4 - Designing (the lack of) Transparency
 - 5 - Platform Data Collection
 - 6 - Similar
- Inputs for UX, UI and requirements

Website

Ideological base

Content base

Sample data

Visual Elements

- Logo
- Typography
- Colors
- Layout

Tone of voice guides visual elements

Tone of Voice

- Similar to platforms
- Simple language

Audience defines tone of voice

Audience

- 18-40 years old
- Gen-Z/Millennials
- Familiar with platforms

Artifact

Main pages/screens

Content

Predominant elements

Artifact	Content	Predominant elements
Landing	Introduction to theme	Short phrases, animation
Home	Comparison; Overview	"Card" layout, graphs
About	Explanation on the theme and website intentions	Text
How it Works	Introduction to issue on platforms, how to spot the lack of transparency and how to use the website	Text,
Platform Overview	Quali/quantitative platform and transaction data	Topics, Icons, Numbers, Graphs
Platform Compare	Side by side platform pages allowing comparison	Topics, Icons, Numbers, Graphs
Collaborate	Forms allowing user contribution on platform data	Forms

Fig. 31: Diagram: overview of how thesis part relate to the website artifact.

Visual Elements

Logo and Symbol

The logo is composed of a symbol with an outlined hand picking the corner of a flipping surface. This surface is stacked on top of another one, suggesting the idea of platforms - a visual representation that is somewhat recurrent when searching “platforms” on Noun Project, one of the most well known web repositories for icons. The colour blue highlights the surface that is immediately “under” the one being flipped, suggesting that the act of unveiling (by flipping) reveals something that is pertinent, important.

The symbol is accompanied by the logotype with the name of the project, “Unveiling Platforms”, written using one of the project’s chosen typefaces, Poppins, in its bold weight. As the single use of the logo was the website, only this horizontal version was developed.

Colours

The visual identity of Unveiling Platforms is mostly based on black, white and grey. Aside from those, in a specific section of the website, judgement of value is represented with the colors green (no threat), orange (warning, alert) and red (threat). The colour blue seen on the symbol is used to represent data or values related to the platforms, as for example on the “Cash Flow” group of data, where the amount of money going to platforms is represented in this color.

Other than its sufficient contrast to black, the chosen blue is not a meaningful colour from a data visualization point of view as is red (hot, prohibited, attention), yellow (attention, intermediate step) or green (good, allowed, approved). Blue is often used to represent cold temperature ut as the artifacts will hardly present data on that, this meaning should not raise issues. Also, blue - as a Google image search for “technology” can show - is widely used when referring to technology and, as platforms are an influential product of technology, it helps justify the colour choice.

Typography

The chosen typographic families for the artifacts are Poppins and Lora, the same ones being used in this written document. Both typographic families are available on Google Fonts for free use online, making them suitable for the type of artifacts of this project.

Typography

Poppins Regular. Platform jungle. Questions for workers, customers. How it compares? Brings 5x more. Zero fees? Type: On-Demand Delivery.

Partners. Upload your own data.

Poppins Bold. Platform jungle. Questions for workers, customers. How it compares? Brings 5x more. Zero fees? Type: On-Demand Delivery.

123456789. 100%. 4.56 Billion.

No data available. Add a source.



Unveiling Platforms

#000000

#0fa5e0

Poppins Bold

#F3F3F3

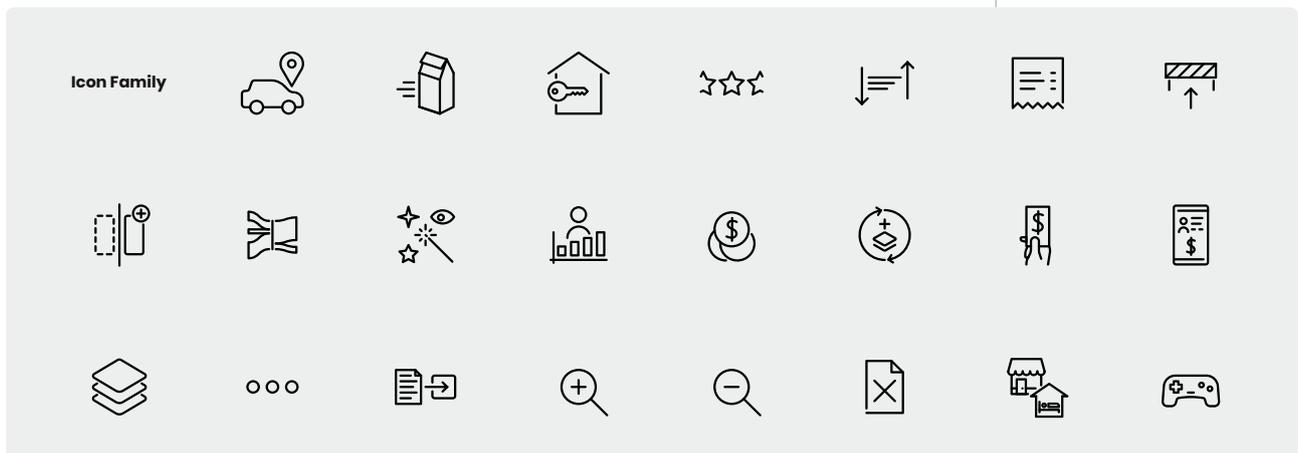


Fig. 32: Aspects of the visual identity.

Poppins (**Poppins**) was designed by the Indian Type Foundry. It is a sans-serif typeface with characteristics that are very similar to the famous modernist typeface Futura, but with a less pronounced contrast in the X-heights between its upper and lower cases. This characteristic makes the font legible in smaller on-display applications. It also has numerous available weights and wide support for latin languages. It will be used mostly for titles, short text and numbers/symbols or small applications - a similar way to how it has been used throughout this document.

Lora (**Lora**) is the font being used in this paragraph. It is a serif font designed by Cyreal, a collective focused on open-source fonts. It has an x-height proportion slightly more pronounced compared to that of Poppins and a horizontal distribution. Its use in the artifacts is mostly in pages with great amount of textual content such as the About and Guide pages in the website and any other documentation style material.

Both Poppins and Lora present vertical stems (stems are the vertical or diagonal main strokes of a letter) and horizontal bars (bars are the horizontal or slightly diagonal horizontal connectors in letters such as e, f, H, etc). This, summed to a similar x-height, that is the measure of the “x” character and a typical way to measure the overall height in typography, adds onto the visual compatibility of the two typefaces. As for the weights, all of those available can be possibly used. The general rule to be followed is that of matching in a single page or graphic element a maximum of two weights that differ enough: using extra-light and regular or combining regular with bold - in opposition to matching regular and semi-bold or bold and semi-bold, for example.

Icons

A set of custom made icons was designed for this project, ranging from branding icons to icons that communicate functions, categories and other needs inside the artifacts. To keep up with the choice of creating a recognizable yet diverse aesthetic from that of the platforms, these icons are purposefully less “amicable” than what’s usually seen in a platform.

Two types of icons were designed, the regular ones and “micro” icons. The first group is more detailed and is thought to be featured together with titles, buttons and in other higher hierarchy applications. The latter are smaller icons that serve low hierarchy buttons such as minor information boxes, overlays, buttons for maximizing or closing dialogue windows, etc.

Layout Guidelines

The website follows a modular layout that focuses on cleanliness. As its most important content - the platform data - is by nature complex, keeping nothing but the bare minimum of elements was a conscious choice. There are no illustrations but the ones present in the icons, that help illustrate and, in some cases, graphically abbreviate concepts.

This also was a thoughtful choice as expansion possibilities according to the evolution of the platform market could reveal themselves necessary in the future. This would mean the addition of new sections, new groups of data and platform categories, etc. and such flexibility would be greatly helped by that kind of modularity.

The modularity of the layout also makes for an easier adaptation for mobile and tablet uses which, if in a general internet context is already a must, becomes even more important considering most platform interaction occurs through mobile apps. For this reason, the layout website pages that are meant to be used only or mostly by platform workers - such as the two Collaborate pages asking workers to upload “Transaction Data” and “Remuneration Summary” - required special care and were designed firstly with mobile in mind.

Ideally layouts will present at least 60% of white or black pixels, with a great amount of white background and empty space. Predominance of black and white can be easily perceived with the naked eye but, in case of doubt, Martin Krzywinski’s Image Color Summarizer⁽⁸⁰⁾ can be used for that matter. Other websites like icon repository Noun Project thoroughly use a black and white interface in their pages. In their case, it helps not to deviate the attention from the main subject: icons and their shapes. This choice has two reasons.

The first is based on the desire of making a counterpoint to platform aesthetics. That is, making the interface relatable enough to that of a contemporary platform but also recognizable enough as *not being a platform* and being, in fact, a kind of counter platform.

The other reason is to provide a chromatically neutral scenario to present the information, more specifically the data visualizations pieces that require or would benefit from the use of color. As previously mentioned in “Colors” under “Visual Identity”, there are many possible applications for applying meaning with the use of color. This is why the choice was made for an overall black and white interface with space for color only when it is truly useful and meaningful.

80. Krzywinski, Martin., *Image Color Summarizer*, © 2006-2020. <http://mkweb.bcgsc.ca/color-summarizer/?analyze> accessed september 2020.

Website Pages

Landing Page

The website's landing page shows an introduction explaining the situation with lean platforms, that is that of lacking transparency and inequality. It tells users why the issue may be minacious to them and why the website exposes this information.

Home (Dashboard)

Main page has a mosaic with "cards" presenting condensed data visualisation pieces on that platform with data from crowdsourced fonts. Buttons in the cards allow the user to slide through different sets of information. A filter allows for example, to see only platforms of a certain type, region or that use certain tricks and strategies.

Platform Overview

All available platform information is presented here, including data and its sources. There are five different types of information present in this page and they will be called "**Groups of Data**". These groups can have different data visualisations models. The "Spotted Tricks" Group of Data does not use a visualisation model as it portraits qualitative information, only a color coded differentiation depending on the level of threat posed by each type of trick. The remaining Groups of Data will be further described inside the visual model they use.

Groups of Data and their visualisations

Percentual Bar Chart: to show the percentual of money that remains with each part in a transaction in "Cash Flow", bar charts are used. Each horizontal line's width always totals 100% and percentages are represented by bars of different color inside that horizontal line, each with varying widths according to their percentages. This bar chart can be sorted by ascending or descending orders for each of the parts involved, allowing for better exploration of the information.

Alluvial Diagram: Within the "Cash Flow" Group of Data, specifically for the single transactions, alluvial diagrams (also known as alluvial plots) are used for the visualisations. They portrait the flow of money starting from items disclosed in the consumer receipt and ending in their final distribution, in which recipients and amounts are often different from those in the origin. In short, for example, if in the customer receipt there was "Trip" with a value of 10 and "Fee" with

Website Architecture

Landing Intro

Introductory landing page explaininn in brief phrases what is the problem with platforms (transparency) and how Unveiling Platforms can help tackling the issue.

Home (Dashboard)

The homepage shows a dashboard view of all the platforms, allowing to filter by different categories. Clicking on each platform takes to the Platform Overview page.

About

Information on what are lean platforms, the concept of transparency applied to them and a disclaimer on the intents of the project and where it originates from.

How It Works

Comprehensive explanation on how to read the website, how each Group of Data is calculated and in which way can user collaborate with the project.

Platform Overview

Key page displaying platform data. Composed by 5 Groups of Data: Cash Flow; Spotted Tricks; Worker Remuneration; People and Stats; Money Matters.

Compare (Selection)

Page allowing users to select the platforms they wish to compare. Becomes the "Compare (Side by Side)" after the two platforms to be compared are selected.

Collaborate (Select type)

The starting point for users that want to collaborate with their own data about platforms (receipts, remuneration summaries, description of spotted tricks, etc)

Compare (Side by side)

Two platform overview pages in half width side by side, allowing the user to horizontally compare the Groups of Data.

Collaborate

Transaction Details
Receipts from either the customer, the worker, the partnert or all sides of the platform can be uploaded, originating the necessary data for the Cash Flow Group of Data

Collaborate

Remuneration
Allows for the uploading of remuneration summaries in the form of screenshots. Users are asked to confirm the data present in the screenshots, as well as adding some more data.

Collaborate

Platform Data
A formulary for those wanting to add or change information about a platform that does not relate to remuneration or transaction details.

Collaborate

Spotted Tricks
A formulary for those wanting to report a Spotted Trick.

Fig. 33: Website Architecture diagram, including main functionalities for each page.

a value of 2, the total paid is 12. Then, if the driver's remuneration receipt for the same transaction shows that the driver received 9, it likely means that the remaining part - the platform - received 3.

Beeswarm Plot: This model allows for the visualisation of how many "individuals" are present in a certain part of a range determined by the x axis. In the website it is used in "Worker Remuneration", where it shows the amount of responder fitting in a certain hourly remuneration range. As the model shows each occurrence, when various occurrences happen in a same percentage range the phenomenon becomes visible by the visual occupation of that range.

Simplified Circle Packing: Used for the "People and Stats" group of data, this is a very simplified version of a circle packing, which is a model containing various circles, often with varying sizes. It is simplified as it contains only 3 circles with area varying according to the numbers of the indicated items: employees, workers, listings or partners and consumers. It aims to show how often reduced number of employees are responsible for running a platform with an immensely larger number of consumers and workers.

Element Repetition: The "Money Matters" Group of Data takes advantage of simple element repetition to represent its data. Every blue coloured square represents a unit of measure that is, usually, equivalent to 1 Billion United States dollar.

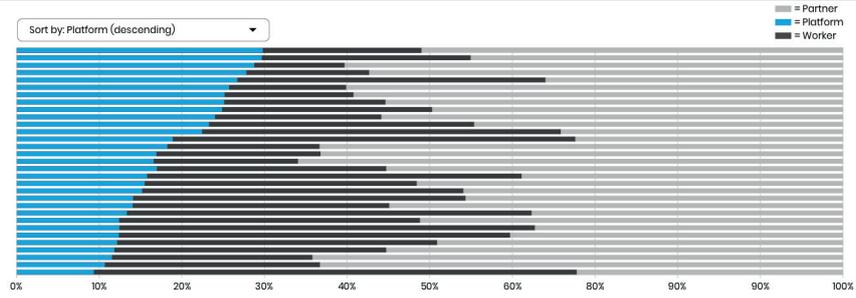
Sources

Every piece of information is backed by at least one source, which is the proof of origin for that information. This source can be an evaluation made based on the framework or, specially in the case of numeric data, more specific such as a screenshot. For example: screenshots can be used to determine the percentages of a transaction each platform allocates for the parts involved. A screenshot or photo of the consumer screen and one from that same transaction on the worker or partner app can provide if not a definite at least a very close clue to how much each part took in that transaction.

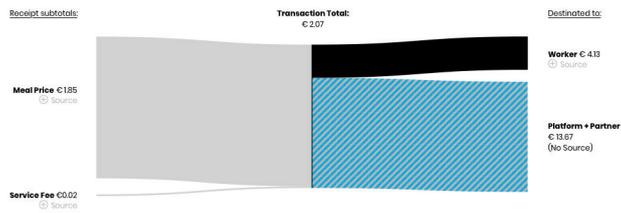
About

This page explains what is the website about and its goal. It also introduces the user to what a lean platform is and what are the effects they have been causing. The page then presents the idea that transparency can be helpful to counterbalance the negative effects of platforms. The last part of this page is a disclaimer on the project, explaining that it is part of a communication design thesis and how

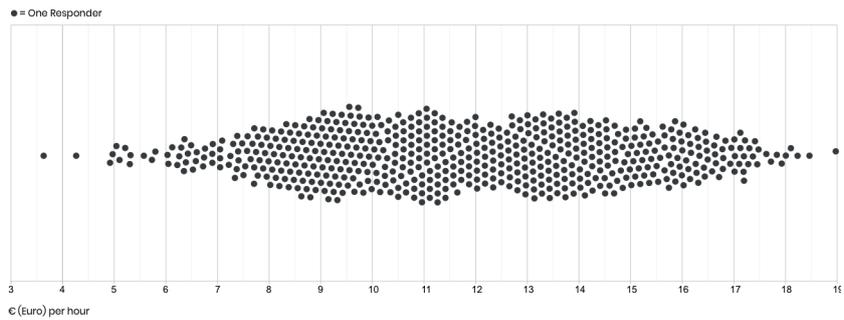
Percentual Bar Chart



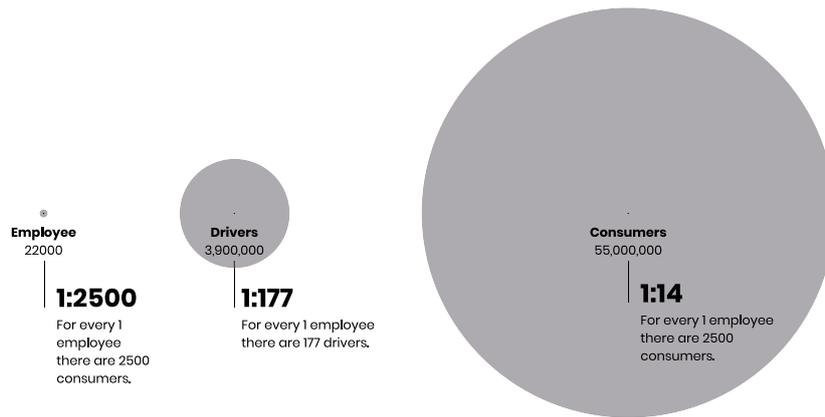
Alluvial Diagram



Beeswarm



Simplified Circle Packing



Element Repetition

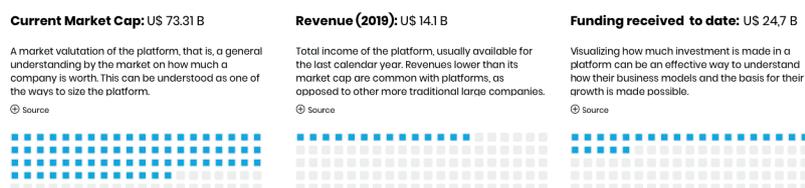


Fig. 34: Diagram - Exemplified data visualisation types

the area of communication design is related to the project and artifact that was developed.

Also, for each section of this page a box invites the user to “Find out more information”, providing links to other projects, books and website that relate to the subject being talked about.

How it works

This page explains in detail how to read the website, describing how pages are structured and their main informational elements. It also explain how each of the Groups of Data (mentioned here under the Platform Overview page) work, where their data originates from and how a user can collaborate with them.

Compare

A derivative of the previous page, the Platform Comparison Page opens the possibility to compare platforms side by side, similar to how product comparison websites work. It works by opening the content of two platform pages showing their content side by side.

Collaborate

The collaboration are allows the user to provide data about platforms from a quantitative and qualitative point of view, guiding them in an easy to follow manner. The initial Collaborate page, accessible from the main menu, invites and explain the user why collaboration is an important thing for the website. It then presents the four types of collaboration possible, divided by the audiences for which they are intended for.

The types of collaboration are essential for the website as they feed the data used by the Groups of Data both in the Cards at the Home as well as in the Platform Overview. The user has is guided through the questions that aim to be the most succinct and straightforward the possible. By the end of each questionnaire, a preview shows the user how the just inserted data is visualised, serving as a feedback for the effort. Specifics to each type of collaboration are described in the next paragraphs.

Upload Transaction Details

This type of collaboration gets users to upload transactions made in the platform. The recommendation is to upload transactions for which there is information on at least two parts. That is, transactions were one knows how much the customer paid and how much

the worker received, for example. This is achievable by a customer uploading her or his receipt and a photo of the worker's app, or by a worker who uploads his remuneration receipt and a photo or screenshot of the customer. It is a delicate situation as it requires the interaction between these two parts for it to succeed.

As transactions may present sensible information such as full names and addresses, the form includes an image anonymizer where the user can blur parts of the uploaded source image.

Upload Remuneration Summary

This is a one side collaboration originating from the worker, who should upload a remuneration summary, that is generally a screenshot showing earnings for a certain period, as well as the amount of online hours in the platform that account for that period. In practical terms, an On Demand Delivery worker for example can show how much was spent online in a week (say, 50h) and the total amount earned in that period (300€, for example). This will be calculated to generate the hourly online remuneration for workers which, in the case of the example, would be of € 6 an hour.

Submit Spotted Tricks

This collaboration method is based on a qualitative evaluation by platform users, be them consumers, workers or partners. It requires responders to explain how does the trick work, what is the category better suited for this trick and how menacing it is considered. Users also have to present a screenshot showing where in the interface is the trick happening. These images are then used in the Platform Overview page to illustrate each submitted trick.

Platform Data

Compared to the three other previously mentioned types of collaboration, this is the single one that does not necessarily benefit from various entries for a same platform. It is useful to provide basic data regarding the platform's size, both financially and well as in relation to its number of customers, workers, employees, etc.

Overlays

Source Overlay: An overlay was the resource of choice to display the sources for the Groups of Data. These sources include screenshots of apps or articles, photos of the app operating in devices, etc.

"How is this calculated?" Overlay: very similar to the Source Overlay, this one was designed to show texts and diagrams that help the website's user understand how items are calculated.

User Scenarios

In order to present the website in a way that would seem close to an actual use if the website was already developed and available online, three user scenarios were created. For each scenario different hypothetical user and contexts were created. The **Confused Consumer** is a situation in which, after a subtle breakthrough, a consumer becomes intrigued about how platforms make money. **Suspecting Driver** presents a driver not fully accustomed with the platform minutiae that wants to understand how he's getting remunerated. **Early Clues for a Legislator** is speculation on how Unveiling Platforms could be used as a starting point for investigations and legal actions. Lastly, an **Angry Passenger** that paid too much for a ride during a price surge discovers supply and demand may work a bit differently in platforms.

The list below summarizes User Scenarios and the pages presented.

User Scenario	Pages in the user journey
1 - Confused Consumer Desktop	Landing Home Platform Overview (Deliveroo) Compare (Deliveroo and other) Collaborate - Spotted Tricks
2- Early Clues for a Legislator Desktop	Landing (omitted) Home (omitted) About Platform Overview (Uber) Overlay Change State (Remuneration)
3 - Suspecting Driver Mobile	Collaborate Collaborate - Remuneration Summary
4- Angry Passenger Mobile	Landing Collaborate Collaborate (Cash Flow)

The following pages present a disclaimer on the data sources used in this demonstration of the artifact, information on how the layout is presented and the full length description of each user scenario.

Data source disclaimer

For practical purposes, part of the data visualisation elements shown in the user scenarios is comes from fictitious data that was “fabricated” using similar trends as those observed during the research of this project. The reasons for this are consequences of the website not existing as a fully developed as a working tool. Collecting data without the functional website is a time consuming tool and doing so in the idealized crowdsourced scale this project longs for would not be viable for the duration of this project.

The same is valid for visualising the data. Although all present visualisations can be considered as the final desired graphical solution, in some cases they had to be designed manually, that is, without the aid of a an automatic code base generator. While all of the visualisations are feasible from a coding point of view, again, due to scope and duration of this project the custom visualisation tools could not be developed. That is why in some screens there are visualisations such as the bar chart in Cash Flow that appear repeated.

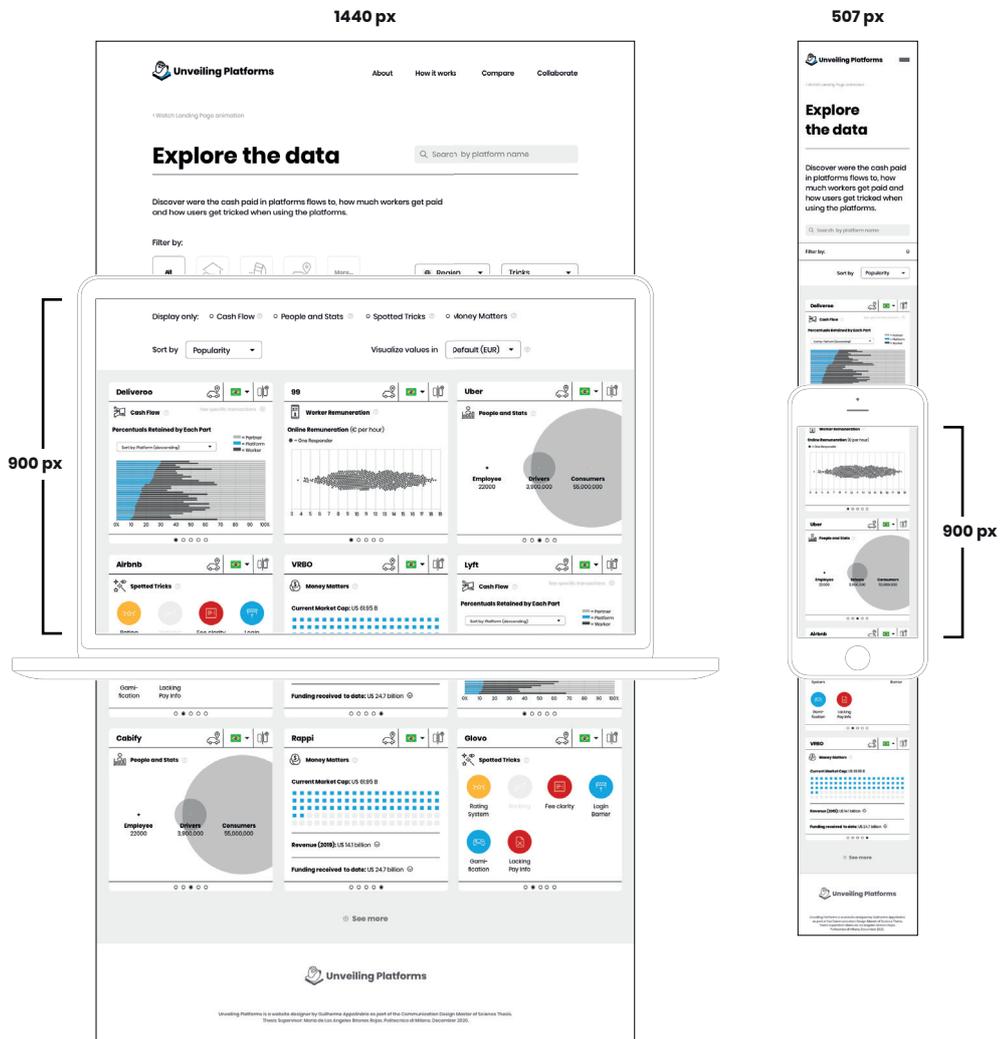
None of these situations should pose as an issue for the validity of the artifact as the “fabricated” data sources were crafted with numbers that followed the trends observed in the platform scenario, altogether with the addition of some randomness. Also, the chosen types of visualisation are versatile and scalable enough to accommodate possible divergences that could appear.

How the layout is presented

The layout for this website was developed with desktop and mobile phones in mind. The desktop as designed in a 12 column layout with 1440 pixels as a measure of reference. And the mobile layout uses a 4 columns, 507 pixels wide structure. The overall website responsiveness is guaranteed by the highly modular design choices that were previously mentioned in this chapter. Depending on the type of user in the User Scenario it was chosen to display either the desktop or the mobile version of the website. The pages are not shown in their full height but always with a “default device” of 900 pixels for both the desktop and the mobile layout, respectively respecting the common screen ratios of 16:10 and a 9:16.

The next page shows, for illustrative purposes of scale, two simplified mockups of how the website would be feature in a desktop and mobile device. It also displays and explains the function of the green symbols that are featured in the user scenario to signal points or elements of user interaction.

Layouts Mockup and Scale



Symbols Indicating Interaction (Not part of the layout. Solely an indicator of a kind of user interaction in a given part of the layout.)

- 
Click or tap resulting in a page change
- 
Click or tap resulting in a change inside a page
- 
Scroll the page downwards

Fig. 35: Diagram – Layouts Mockup and Symbols Indicating Interaction

User Scenario 1: The Confused Consumer

A consumer is used to ordering food using platforms. One day, she goes to a restaurant from which she has ordered before on a delivery platform and realizes that the prices of the dishes on are the same in there as on the platform menu. Checking the platform app, she sees delivery is free and there's no service charge. "How platforms can make money? And what about those delivering the food?", she asks herself. A web search on the topic lands her in at Unveiling Platforms.

Device type used: **Desktop Browser**

① - **Landing Page:** The landing page presents the site to the first time visitor: "Unveiling Platforms gathers and displays information hidden by platforms. We want consumers, gig workers and partners to make better informed decisions in an unequally handled data driven world.". Clicking on "Start here" leads her to the Home.

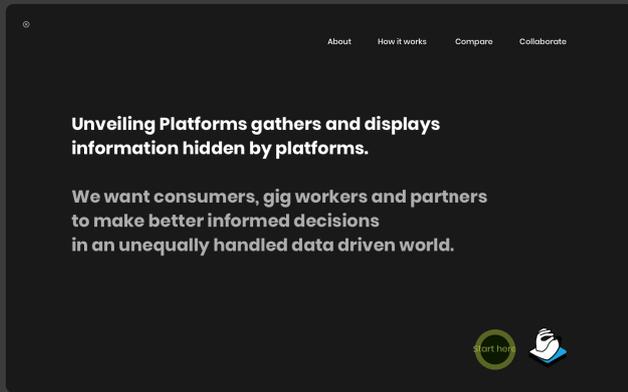
② - **Home:** Here the consumer sees an invite to explore the information, followed by filters, controls and a grid with the cards, one for each platform. She clicks on the Delivery platform she's used to use.

③ **Platform Overview:** The page with all 5 Groups of Data is shown. "Cash Flow" shows what intrigued her in the first place: on average, 12% of the money goes to the platform. On "By transaction", she better understand how platforms make money: consumers pay a whole composed of the meal price and a small fee. Seeking for further clarification, she opens the ④ **Overlay** (How is this calculated?), confirming what she understood. Next, she decides to compare the platform with another one she's used.

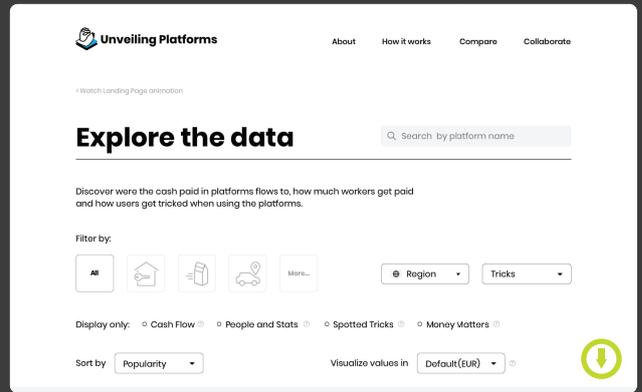
⑤ to ⑥ - **Compare:** Page splits in two with a right empty column where she types the second platform name and clicks the result. Platform data shows up on the second column. Each group of data occupies the same vertical space, allowing her to compare platforms side by side She realizes there's some missing info about "Fee Clarity", inside the "Spotted Tricks". As she's also used that platform before, she decides to collaborate in the field that's currently with no data.

⑦ - **Collaborate (Spotted Tricks):** as she came from a specific platform link, the description of the platform and category of the Spotted Trick are pre-filled. The user fills in a description of the trick, how threatening its considered to be and present an evidence source showing where in the platform's interface this trick occurs. After filling all of it, she's presented a preview of how the Spotted Trick will look on the website and submits it.

1 Landing Page



2 Home



3 Platform Overview

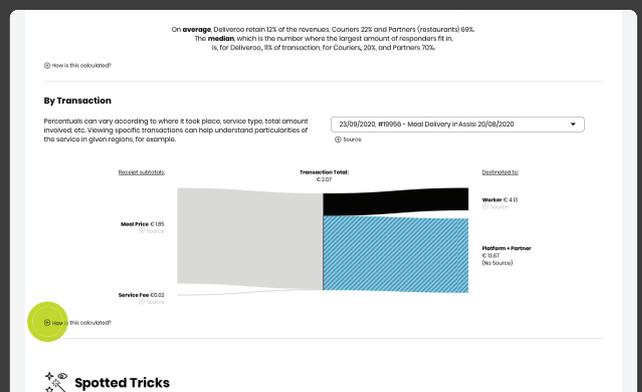
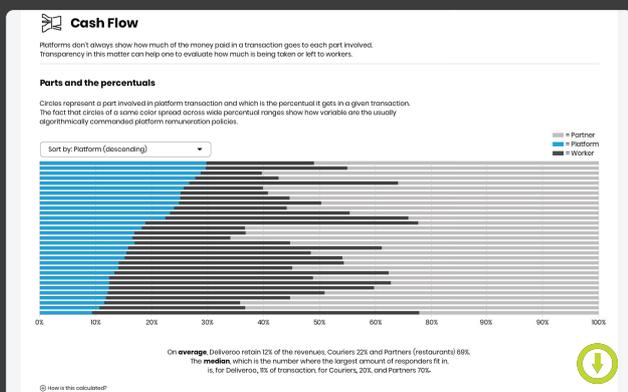
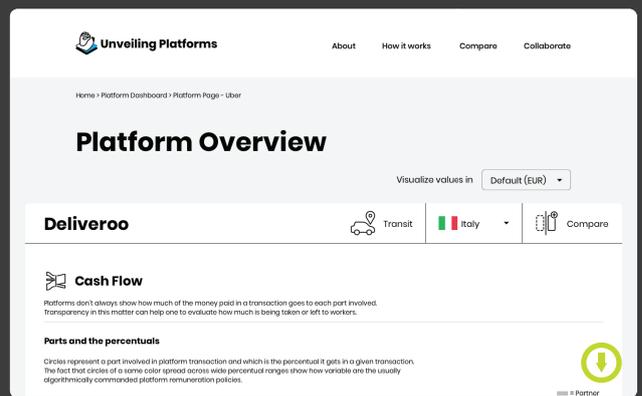
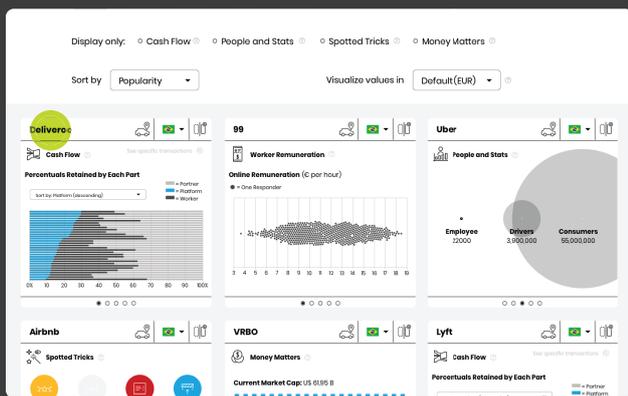


Fig. 36: Diagram - User Scenarios - Confused Consumer - 1

4 Overlay

Cash Flow - By Transaction

How is this calculated?

Consumer receipts and worker earning details. In the examples below, the passenger paid € 50 and the driver earned € 40. Unless otherwise stated in the receipts, we can calculate that out of the € 50 dollars paid, € 40 got to the worker and € 10 remained with the platform.

Consumer Receipt		Driver Earnings	
Trip:	€ 49	Base:	€ 3
Service fee:	€ 1	Distance:	€ 27
Total paid:	€ 50	Time:	€ 10
		Total earnings:	€ 40

Data for transactions are inserted by users in the "Collaborate" page.

5 Compare - Select

Unveiling Platforms

About How it works Compare Collaborate

Home > Compare "Deliveroo" versus "L..."

Compare

Deliveroo

Search platform name to compare

Cash Flow

Platforms don't always show how much of the money paid in a transaction goes to each part involved. Transparency in this matter can help one to evaluate how much is being taken or left to workers.

Average

An percentual view of where the money paid by the consumer in each transaction is going, based on transactions for this platform and region.

6 Compare - Comparison

Compare

Deliveroo

Glovo

On-Demand Delivery

Cash Flow

Platforms don't always show how much of the money paid in a transaction goes to each part involved. Transparency in this matter can help one to evaluate how much is being taken or left to workers.

Average

An percentual view of where the money paid by the consumer in each transaction is going, based on transactions for this platform and region.

Sort by: Platform (descending)

- Partner
- Platform
- Worker

Compare

Deliveroo

Glovo

Cash Flow

Platforms don't always show how much of the money paid in a transaction goes to each part involved. Transparency in this matter can help one to evaluate how much is being taken or left to workers.

Average

An percentual view of where the money paid by the consumer in each transaction is going, based on transactions for this platform and region.

Sort by: Platform (descending)

- Partner
- Platform
- Worker

Spotted Tricks

On average, Deliveroo retain 12% of the revenues, Couriers 22% and Partners (restaurant) 66%. The median, which is the number where the largest amount of responders fit it, is, for Deliveroo, 1% of transaction, for Couriers, 20%, and Partners 70%.

Rating System

Consumer can choose a whole number from 1 to 5 and there are active restaurants falling under the 3.5 mark, which suggests the system is not artificially inflating ratings. Nevertheless, there is the possibility to rate restaurants by hygiene rating, but such ratings are not stated on a per-restaurant basis nor there is an explanation of if the ratings are embedded in the overall rating and how.

Spotted Tricks

On average, Glovo retain 12% of the revenues, Couriers 22% and Partners (restaurant) 66%. The median, which is the number where the largest amount of responders fit it, is, for Glovo, 1% of transaction, for Couriers, 20%, and Partners 70%.

Rating System

There is no system for rating the businesses listed on the platform. While this poses no clear threat, it may make it harder for the consumer to make choices in the app.

Fee Clarity

Shows the full price of the order before confirming its request in most cases, but disclosure of the fee elements are not clear and may vary according to seemingly unpredictable variables. Accurate percentages or values of how much workers receive for each ride compared to the entire pay are not provided or incomplete.

Restaurants

Rosspomodoro Puteca Pugliese

Fee Clarity

No data currently available about Fee Clarity.

No data (yet).

If you have transaction data on this platform, you can collaborate by uploading it to the site.

Collaborate

Fig. 37: Diagram - User Scenarios - Confused Consumer - 2

7 Compare - Comparison

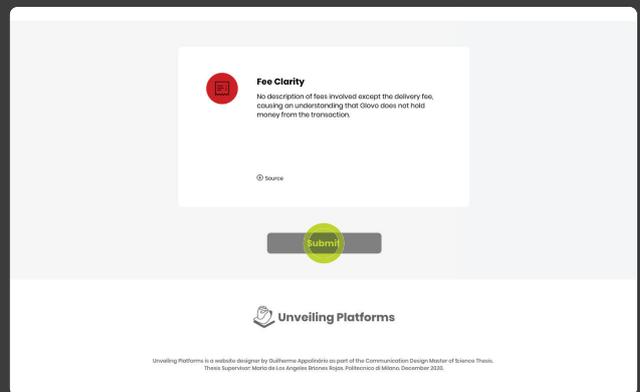
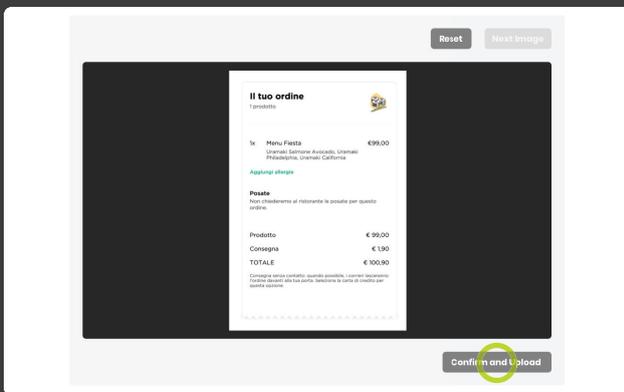
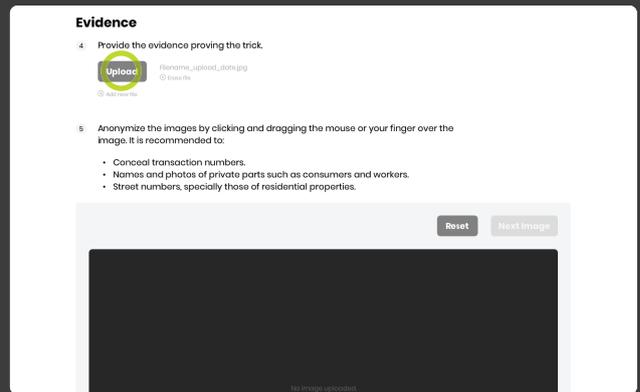
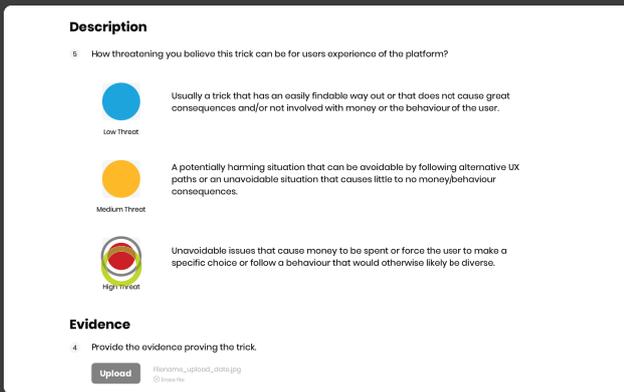
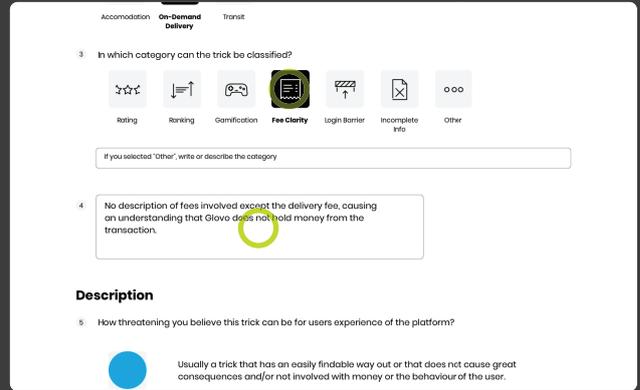
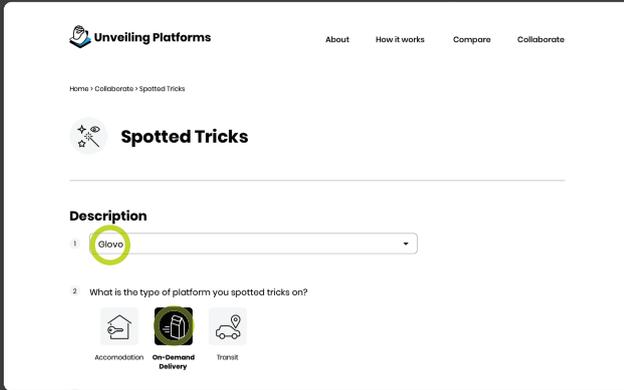


Fig. 38: Diagram - User Scenarios - Confused Consumer - 3

User Scenario 2: Early Clues For a Legislator

A policy maker believes that a popular platform is paying its workers less than the local minimum hourly wage. Platforms state to the authority that workers are making just above the minimum wage, but they refuse to show any data. He discovers at Unveiling Platforms the difference between money made while in a ride and the time workers spend online waiting for a ride. He uses the data displayed at the site as evidence to reinforce, in higher judicial instances, that platforms should allow governments to access to some pieces of data - in this case, to the exact hourly remuneration provided to platform workers.

Device type used: **Desktop Browser**

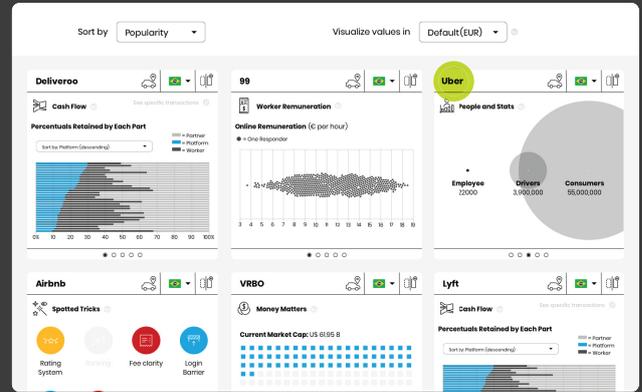
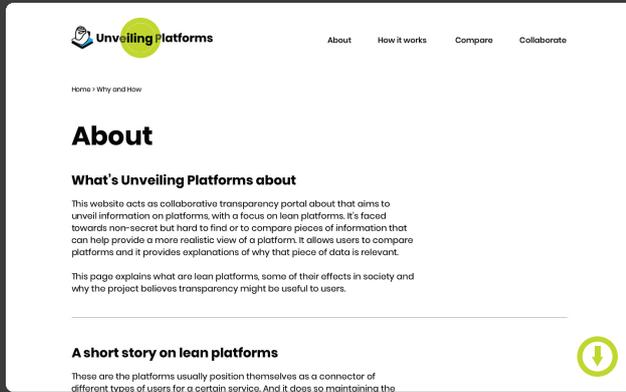
- ① - **Landing:** the landing page briefly explains what's the page about. That information is enough to make the legislator proceed, but there are still some doubts about the website.
- ② - **Home:** the user filters platforms by the "Transit" type and promptly finds the platform that is subject to the investigation.
- ③ - **About:** the legislator goes to the "About" page to better understand what is the website about and who or what is behind it, searching for what was not found at the landing page. There it is possible to understand that the website is not affiliated with platforms or governments, which may be a positive factor for the legislator, although its data may have no official effect.
- ④ - **Platform Overview:** here the policy maker carefully examines the data, detaining longer in the part about worker remuneration, which is what he is investigating.
- ⑤ - **Platform Overview (People and Stats Overlay):** in order to see the sources used in the site, the policy maker clicks the source button, which pops up the evidence for each group of information as an overlay. As information is backed up, he feels more secure.
- ⑥ - **Platform Overview (Change state to Active Remuneration):** detaining himself in that same part about remuneration, he clicks on the button that changes the visualisation to that of active remuneration. Aided by the description, he understands the likely issue with the platforms: they claim drivers receive what they do receive when actively working, without considering all the time they spend online without a paying passenger. He now has material to discuss the matters with other colleagues which may arbitrate if the argument sustained by the platforms is or not valid.

① Landing Page
(same as in “Confused Consumer”)

② Home
(same as in “Confused Consumer”)

② About

③ Home



④ Platform Overview

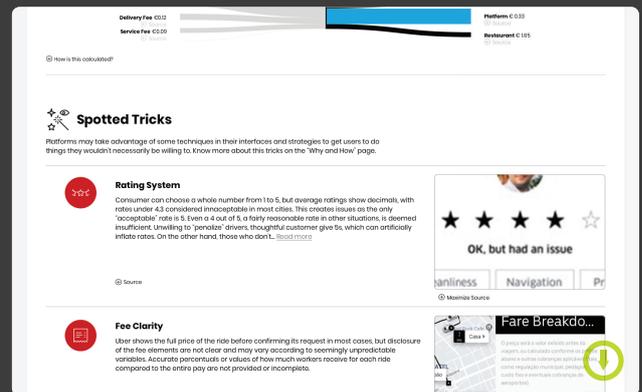
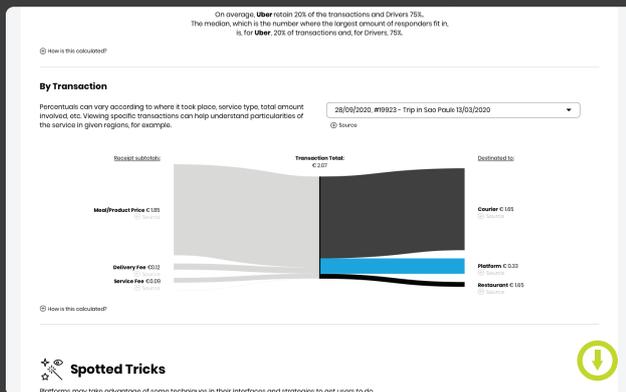
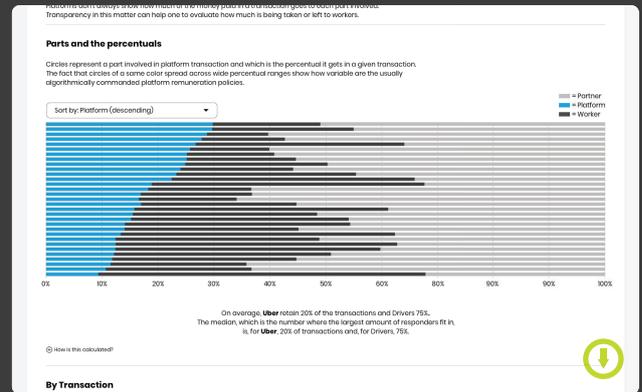
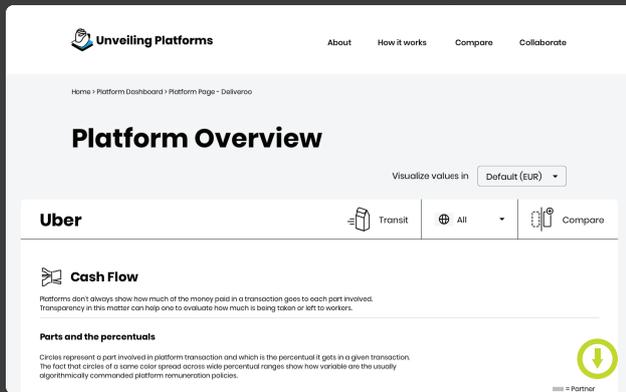


Fig. 39: Diagram – User Scenarios – Early Clues for a Legislator – 1

User Scenario 3: Suspecting Driver

A driver is working with a platform for a few months, but has not yet understood how he's getting remunerated. He finds weird when passengers comment they paid more than usual for that ride but he is getting just about the same. He often gets agitated when trying to accomplish the bonus proposed by the platform: many times it leads him to work more than the thought he would, even though he doesn't always wins the bonus. These kind of fluctuation makes it harder for him to calculate his expenses with fuel and his rented car. He asks for help in a Whatsapp group populated by other drivers and someone sends him a direct link for the Collaborate Page.

Device type used: **Mobile Phone**

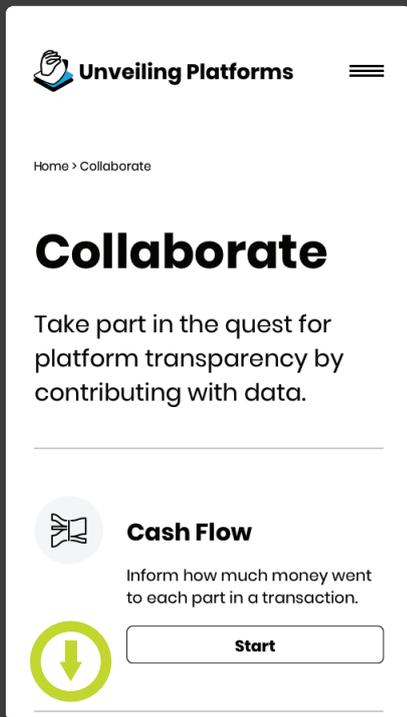
① - **Collaborate:** as indicated by a "colleague" via Whatsapp message, the driver opens up the link for the Collaborate page and clicks on "Remuneration Summary".

② - **Collaborate - Remuneration Summary 1:** the driver is asked to answer the type of platform about to be reviews and its name. In this stage he is also asked to upload the screenshot of the remuneration summary.

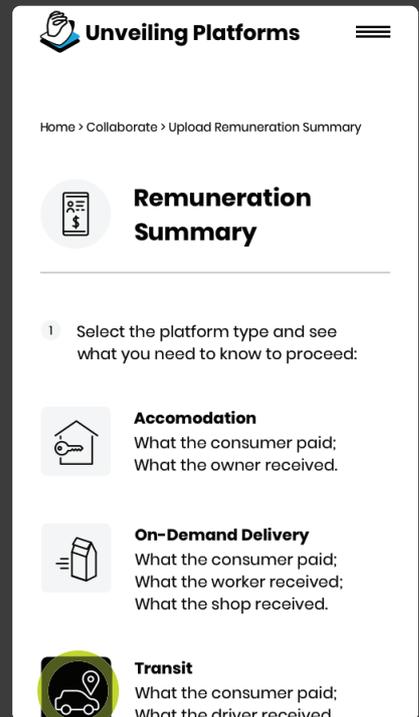
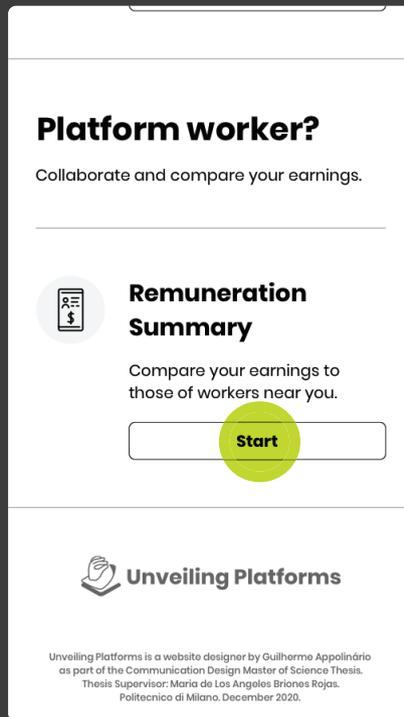
③ - **Collaborate - Remuneration Summary 2:** in this step the driver must select the period and the city or region for which the remuneration summary accounts for. The next step is the verification of the values in the screenshot of the remuneration summary. For known platforms the data fields are - ideally - recognized by the website, with pop-up tooltips where the user may verify and, if needed, correct the type of item and values themselves. By clicking upload, the screenshot is confirmed and the user can proceed to the following section.

④ - **Collaborate - Remuneration Summary 3:** here the driver's previously inserted information is compared to data uploaded by other users in that same region. The driver is presented with a beesworn data visualisation featuring all the data entry points by other responders in grey and the user's data in black. This visualisation allows him to understand how he's performing when compared to others, as each of the points is positioned within a certain range of hourly remuneration. This comparison is verbally reinforced by a phrase stating his personal remuneration and the average of the other responders. The driver is also invited to explore further information on that platform by accessing the Platform Overview page for the platform that was just evaluated.

1 Collaborate



2 Collab. Remuneration Summary 1



3 Collab. Remuneration Summary 2

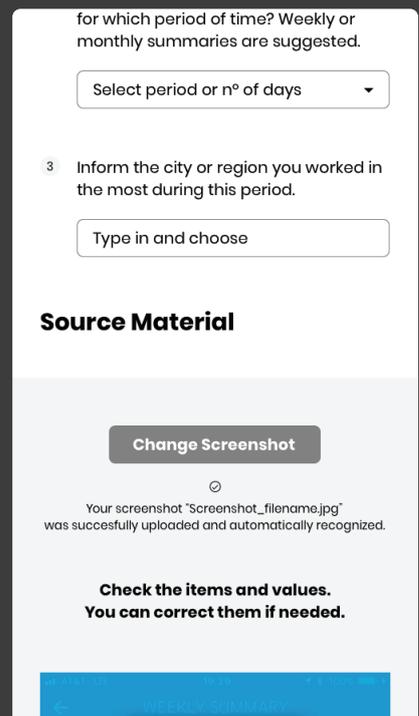
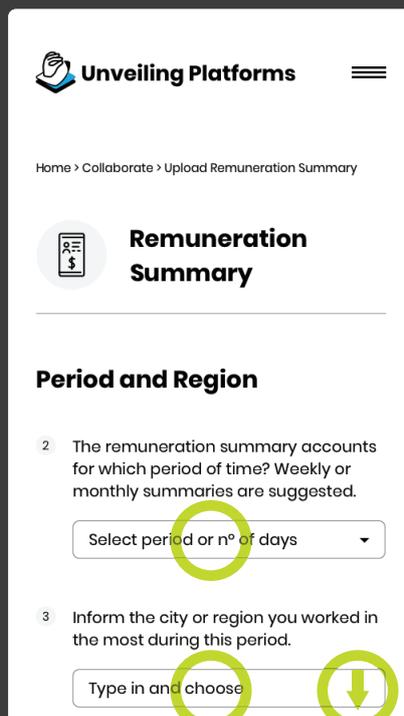
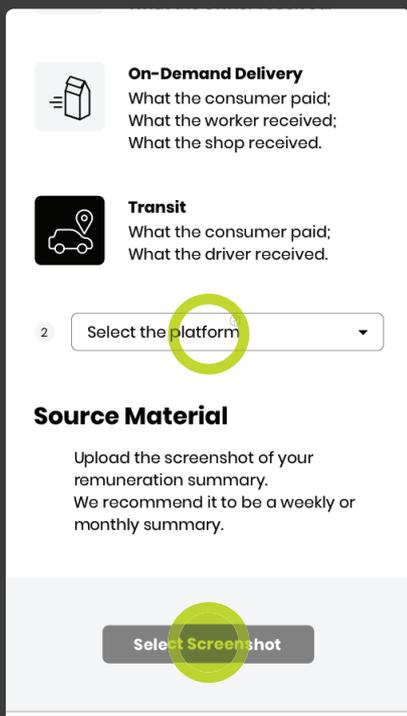


Fig. 41: Diagram - Suspecting Driver - 1

Change Screenshot

Your screenshot "Screenshot_filename.jpg" was successfully uploaded and automatically recognized.

Check the items and values. You can correct them if needed.

The screenshot shows a 'WEEKLY SUMMARY' screen with the following data points highlighted by callout boxes:

- Earnings: 1,119.11
- Toll: US 7.75
- Trip Earnings: 1,119.11
- Promotions: US 320.00
- Tips: US 5.00

Below the callouts is a table with the following data:

Earnings	\$1,451.86
Trip Earnings	\$1,119.11
Toll	\$7.75
Tips	\$5.00
Promotions	\$320.00

The screenshot shows a 'WEEKLY SUMMARY' screen with callout boxes highlighting:

- Earnings: 1,119.11
- Toll: US 7.75
- Trip Earnings: 1,119.11
- Promotions: US 320.00
- Tips: US 5.00
- Time Online: 35 hr, 24 min
- Completed Trips: 100

Below the callouts is a table with the following data:

Earnings	\$1,451.86
Trip Earnings	\$1,119.11
Toll	\$7.75
Tips	\$5.00
Promotions	\$320.00

Promotions US 320.00 Tips US 5.00

TIME ONLINE 35 hr, 24 min COMPLETED TRIPS 100

Time Online 35 h 24 m

Upload

and see how your data compares to others in the same area.

Unveiling Platforms

Unveiling Platforms is a website designer by Guilherme Appolinário as part of the Communication Design Master of Science Thesis. Thesis Supervisor: Maria de Los Angeles Briones Rojas. Politecnico di Milano, December 2020.

4 Collab. Remuneration Summary 3

Unveiling Platforms

Home > Collaborate > Upload Remuneration Summary

Remuneration Summary

Thank you, upload complete!

See how your data compares to other in the same area:

Worker Remuneration

See how your data compares to other in the same area:

Worker Remuneration

Your Region

● = You
● = Other responders

€ (Euro) per hour

Your hourly remuneration is **€3.98**, **7%** lower than the average hourly remuneration in this region (**€4.27**).

€ (Euro) per hour

Your hourly remuneration is **€3.98**, **7%** lower than the average hourly remuneration in this region (**€4.27**).

Explore more information about this platform.

Go to platform page

Unveiling Platforms

Unveiling Platforms is a website designer by Guilherme Appolinário as part of the Communication Design Master of Science Thesis. Thesis Supervisor: Maria de Los Angeles Briones Rojas. Politecnico di Milano, December 2020.

Fig. 42: Diagram - Suspecting Driver - 2

User Scenario 4: Angry Passenger

A consumer books a ride home through a platform. There's a demand surge she reluctantly accepts. After some small talk with the driver she says she paid a lot for that ride. He told her he was basically being paid the regular price. She recalls visiting Unveiling Platforms in a recent past and searches for it on her phone. She gets angry as the platform says price surge serve to motivate drivers on driving. Upon arrival at the destination she asks the driver to take a picture of the earnings for that trip showing on his phone and he agrees. With that photo and a screenshot of her receipt she heads to the site and uploads details on that transaction.

Device type used: **Mobile Phone**

① - **Landing:** with some memory of what was the website about, the landing page confirms her to be in the right place. She opens the menu (②) and goes directly to the collaborate page.

③ - **Collaborate:** in this page she is faced with different options of collaboration. The first one, "Cash Flow", is what she looked for, as confirmed by the description.

④ - **Collaborate - Cash Flow 1:** the first is choosing the type of platform and then the platform itself.

⑤ - **Collaborate - Cash Flow 2:** she selects region and currency in which the transaction took place, then taps on "yes" when responding if there is a consumer transaction receipt available.

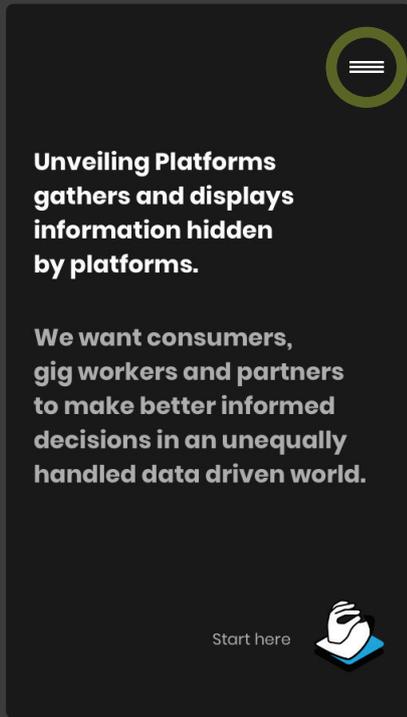
⑥ - **Collaborate - Cash Flow 3:** she adds the receipt image. There is no need to anonymize parts of the image so she directly uploads it.

⑦ - **Collaborate - Cash Flow 4:** on the verification page she checks if all values were correctly recognized and taps "continue".

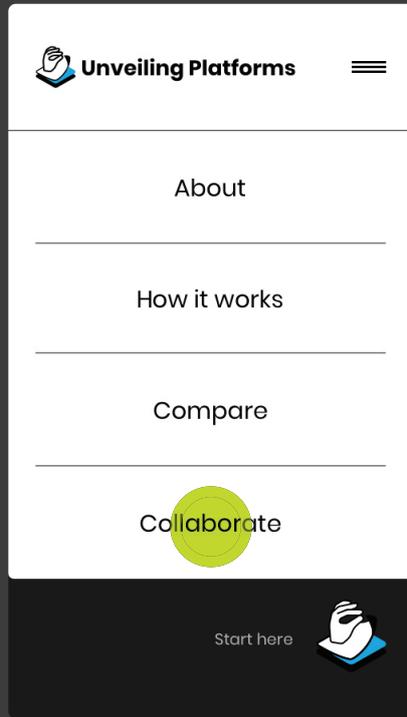
⑧ to ⑩ - **Collaborate - Cash Flow 5 to 7:** this sequence of screens guide the user on uploading the driver's earnings report. The user uploads the photo showing the earnings on the driver's phone. For this image she goes through the same process of uploading, anonymization of private data and verification of the values that were previously applied to the consumer receipt.

⑪ - **Collaborate - Cash Flow 8:** the visualisation of the cash flow data that was just inserted is previewed to the consumer. She taps "End" and is taken to the Overview page of the platform.

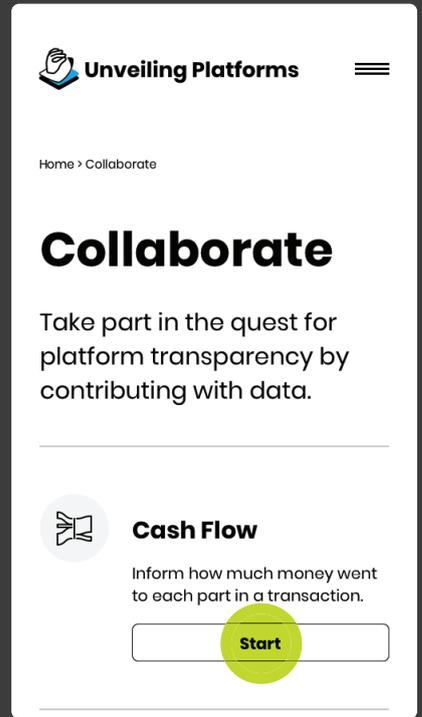
1 Collaborate



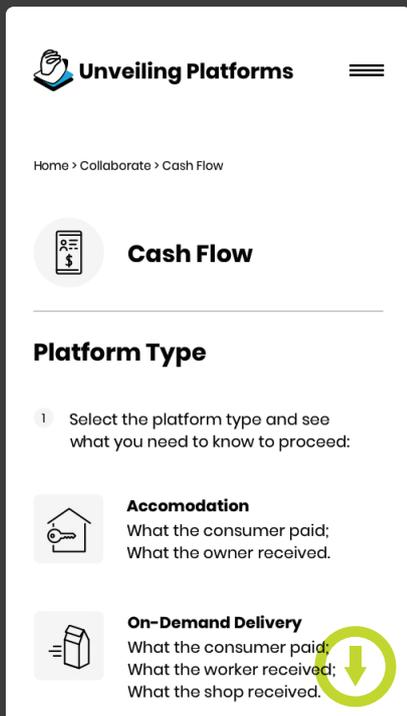
2 Menu



3 Collaborate



4 Collab. - Cash Flow 1



5 Collab. - Cash Flow 2

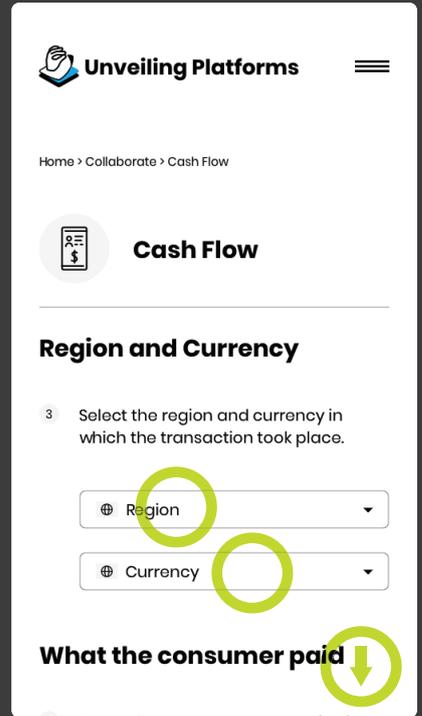
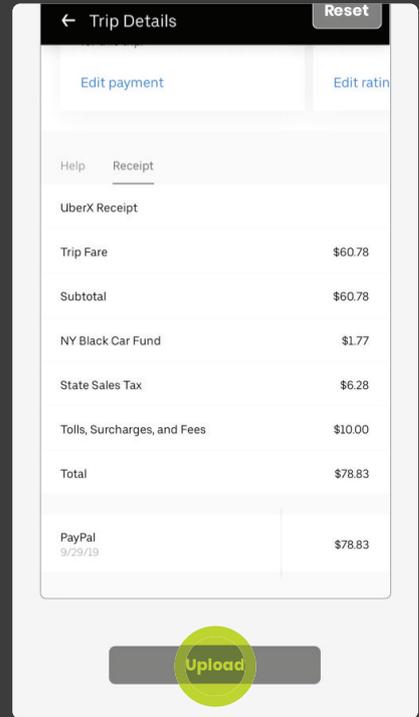
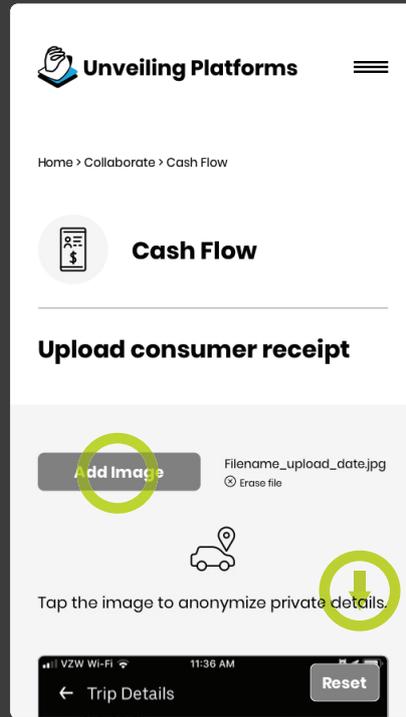
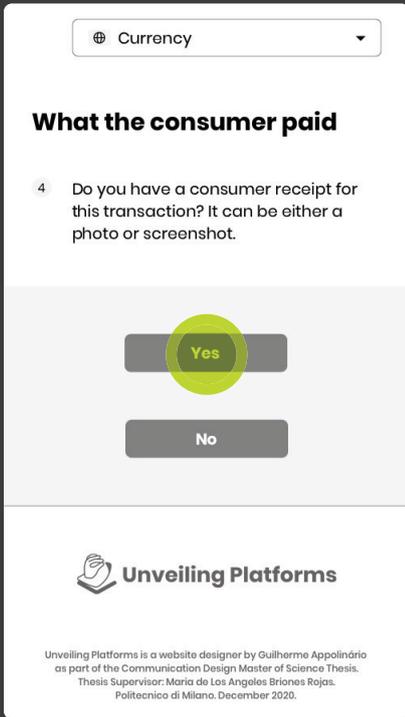


Fig. 43: Diagram - Angry Passenger - 1

⑥ Collab. - Cash Flow 3



⑦ Collab. - Cash Flow 4

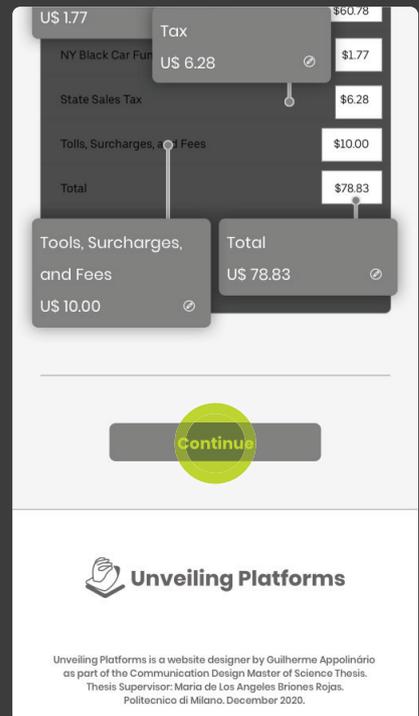
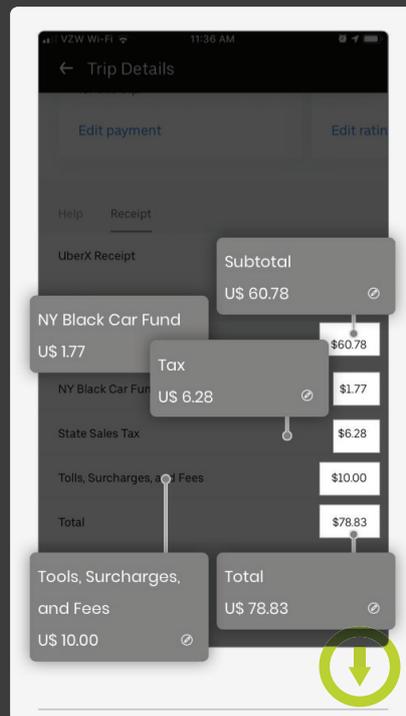
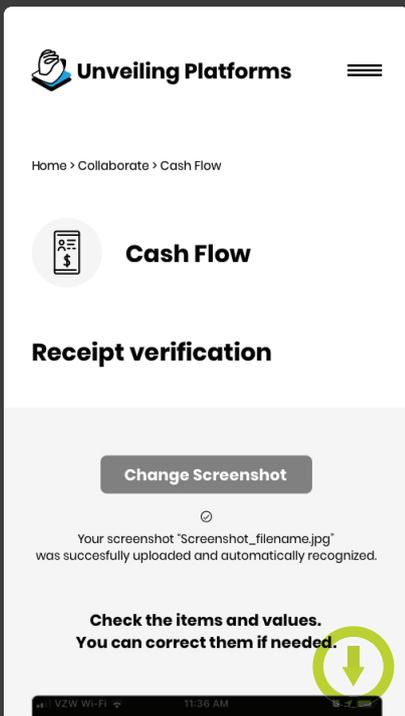
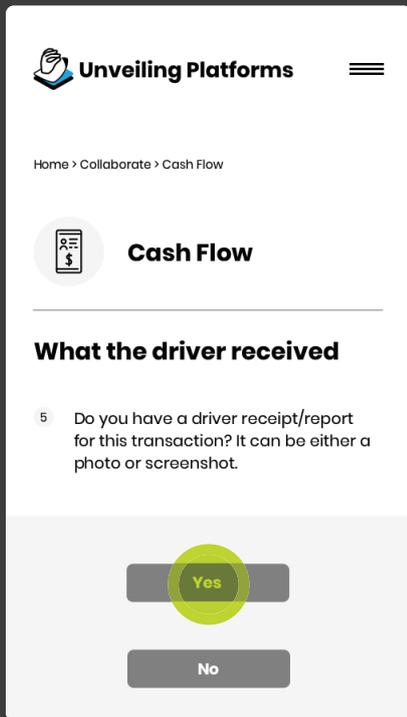
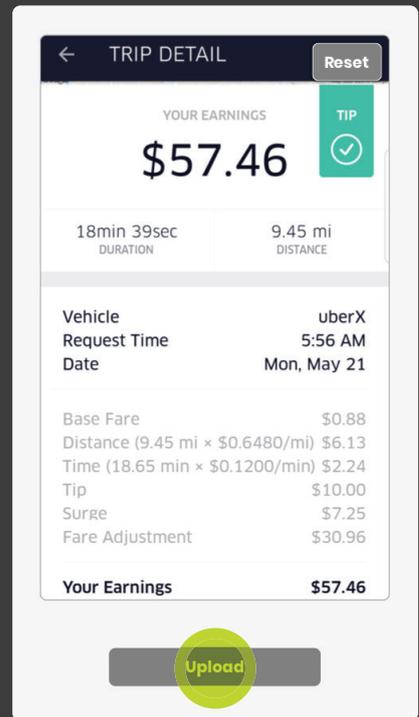
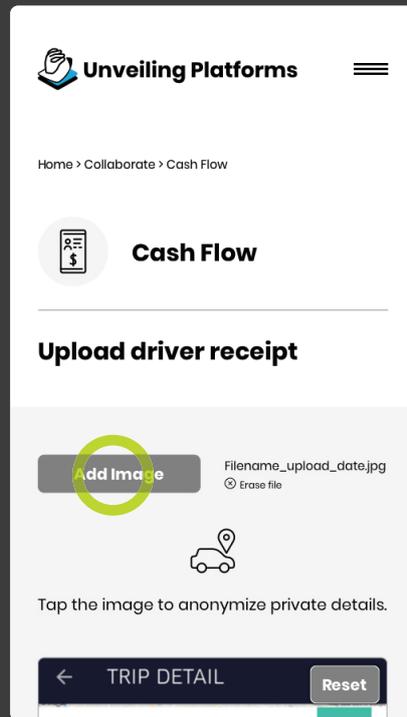


Fig. 44: Diagram - Angry Passenger - 2

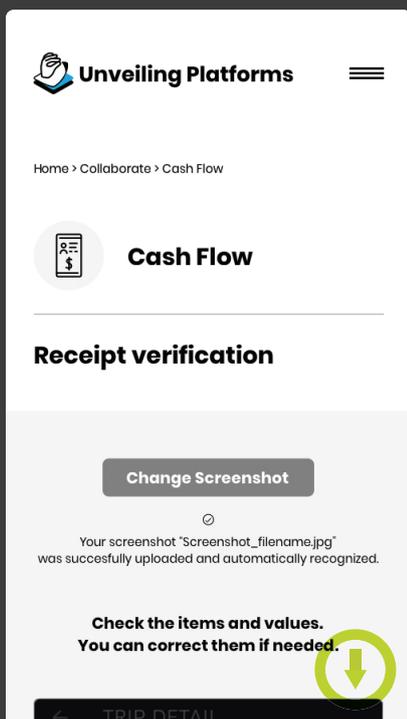
9 Collab. - Cash Flow 5



10 Collab. - Cash Flow 6



11 Collab. - Cash Flow 7 (Same as item 7)



12 Collab. - Cash Flow 8

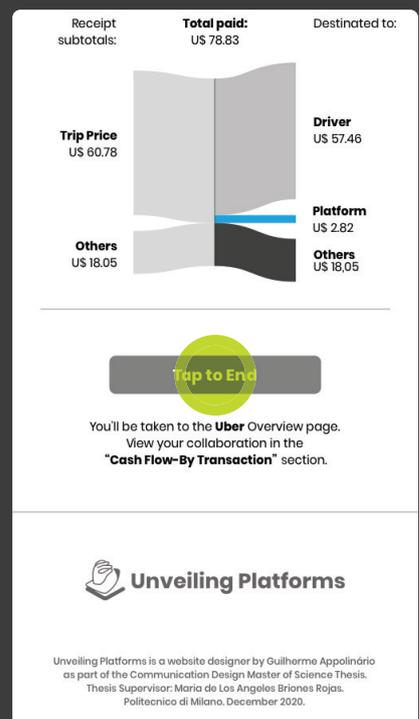
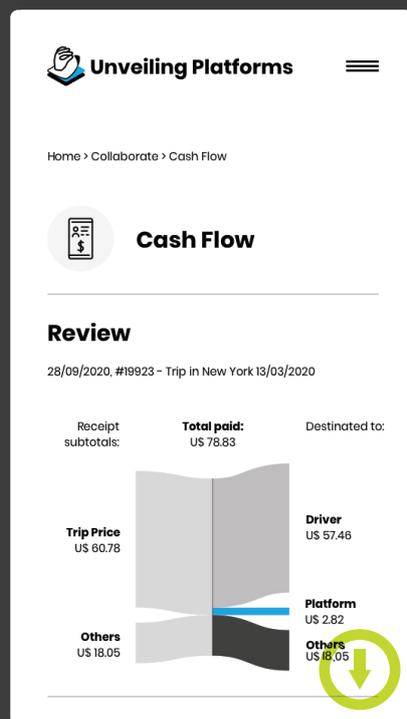


Fig. 45: Diagram - Angry Passenger - 3

8.

Forecasts and Conclusion

Forecasts and Opportunities

Launch Campaign

The artifact on this project can work as a standalone product without compromises. But, as most other products including communication artifacts, it could benefit from a communication campaign, specially for its hypothetical launch. The website has the challenge of explaining not only what it does but also that platforms can have threatening aspects and justifying itself as a useful tool to combating such threats. It cannot and it should not adhere to a simplistic message the same way platforms themselves do. Also, the website could not get even close to competing with the marketing power of most platforms so it would likely benefit from a well selected range of specific and mostly online communication channels.

Expandability

The artifact was designed with the possibility of expansion in mind. This means that, if the demand requires it, various kinds of additions and modifications could be applied. The very name and logo of the project, Unveiling Platforms, does not narrow down on the initial “lean platforms” theme precisely to allow further expansion. This is an important feature as the platform scenario is highly malleable and even more established players are constantly renovating their services on a regular, sometimes monthly basis.

In practical terms, more types of platforms could be added and new groups of data could be created, along with their respective data visualisations and data collecting strategies. Additional artifacts to the website could also be created to support the whole system.

Automatized Data Collection

The data collection way currently proposed by the artifact depends heavily on the participation of users that decide to collaborate with the website. There are no financial or direct incentives to collaborating other than a moral or ideological alignment with the purpose of the website and this may be insufficient to drive collaboration to a large scale that is compatible with the size of platforms.

One way to counterbalance this issue would be to invest in the creation of automatized data collection processes. They could be data scrapping applications that, for example, crawl through Reddit and other websites populated by platform users and their discussions.

These systems would be looking out for screenshots uploaded by platform users by using previous screenshots as a feed to possible image analysing and matching algorithms.

Bots and other systems that monitor, for example, price of the platform services throughout time could be useful to provide timelines of changes in platform's strategies and fees. Pricing changes, be them abrupt or subtle, could be translated and interpreted as responses to stimuli from the "environment" like abundant or scarce number of workers, arrival of competition or a new law coming into force.

Adapt to Culture and Language

The website is likely be more effective for audiences that already have some knowledge platforms. It was also entirely designed in english, language in which most of the research process was done, with minor research being made in portuguese, italian and spanish. Expanding the website may require adding new languages and re-evaluating how the artifact would function in new cultural context. The website must cope with the fact that cultures - and platforms - are different in each country and language.

Additional Supporting Artifacts

Two other artifacts were considered as add-ons for this project. They were discarded due to restrictions of time but could, in the event of an actual "real world" launch of the project, be developed.

The first of these would be a browser extension. As noted in the similars with the "Uber Cheats" extension, this kind of artifact would have the power to analyse what the user is browsing. It would be particularly useful if one desires to browse their Uber receipts or trip reports as, by using this hypothetical extension, it could be possible to analyse such reports in a very efficient way. In theory, it could help users to collaborate with Unveiling Platforms by simply opening this receipts and clicking on the browser extension to recognize the data and upload them. The browser extension could also work as a kind of alert system for when a user is browsing the platforms themselves. Before buying a meal in a delivery platform through the browser, for example, one could verify in the browser extension what are the Spotted Tricks to watch out for or what would be the typical Worker Remuneration for that platform.

The second supporting artifact could be a mobile app. One possible functionality would be that the app, natively running in the phone, could more easily help users analyse a platform screenshot from that same device. It would, of course, also be of great help by providing a more direct and fluid way for users to upload that

transaction to Unveiling Platforms, enriching the website's database. Another possible functionality would be providing a custom made "dashboard" based on the apps currently installed in the user's phone, although there is the possibility such resource would not be viable on all operational systems due to security restrictions.

In short, these two possible artifacts would allow for a more transparent outlook on transactions that are about to happen or an efficient way to evaluate those that have already happened.

Possible Platform Reaction

It's necessary to foresee possible platform reactions to the website. As described in the "Lean Platforms" chapter, platforms have a historic of being quite combative to measures that may cause them any form of harm. It was also seen that, depending on how substantial were the criticisms, sometimes the best option to platforms is accepting and correcting the issues that lead to the criticism. Such reactions would likely be proportional to the website's success and could be positive or negative to the overall user's experience of both the websites and the platforms.

Platforms may start to identify transactions uploaded to the website and penalize the users who took part in that transaction. Even if the transaction is anonymized a platform can, for example, criss cross values and region data to pinpoint a specific user. While a strategy like this could be backlash against themselves, it is something to be watchful as it could lead to users permanently banned from platforms, leading even to financial losses in the case of a worker.

Another possibility is that platforms may start hiding or concealing even more data from its users. This could harm the data collecting process of Unveiling Platforms and it could be done in more than one way. By disconnecting a measurement of time from a remuneration summary, for example, the process of collecting hourly worker remuneration data would require more steps and an increase complexity could lead to lower number of collaboration.

One other possible reaction is that of platforms trying to diminish the importance or to sabotage. The first could happen through a communication campaign or legal action stating that whatever is uploaded on the website can't be considered an evidence as the broad platform universe is vast and not entirely covered by the artifact. In the second case a platform could start uploading fake or manipulated material to favour the platform and/or to mask anything they could consider threatening to the company.

Conclusions

The project started from a desire of exploring platforms as an early perception suggested there was a plenty to be investigated and revealed about them. Throughout the investigation the importance of the theme was reinforced by many articles, books and studies, generally about the effects and issues raised by platforms.

Curiously, while investigations on platform were widely available from a political, economical and social point of view, there were very few explorations from a design point of view. As an industry that relies heavily on design from service to UX, most of the design related information of platform came from blogs and websites from the platforms themselves. The role of design in platforms, while definitely present, is somewhat of a novelty to be explored and this work will hopefully contribute to this matter.

Another important factor was that this thesis was developed from February to late November 2020, a period in which platforms - and people - were forced to respond to the COVID-19 pandemic. Reduced mobility and travel led to scarce demand for transport and accommodation platforms and stay at home policies heavily raised on demand delivery requests. The way platforms responded, at least initially with very little regard to its workers and the quasi-dependence on delivery platforms were, one more time, a justification and an encouragement to keep up working with this theme.

The formulation of the website, that is the design artifact to which this thesis culminates into, was slow and complex. There was a big desire to properly unveil, but arriving in a solution that allowed for data to be collected and visualised was complex. This happened due to the very fact that motivated the researched: although platforms are avid collectors of data, they are very wary of the information they allow users to see. This is why, at least with the time and resources available, the only possible solution was to make the data crowd-sourced. The system for data collection may sound intricate and requires active user participation, but it is a viable starting point that could be enhanced and fine tuned would the website ever come to real life operation.

Making the visualisations for the collected data in an easy and comparable way was another challenge. There are always 2 or more parts involved in a platform and the total number of parts can vary from transaction to transaction inside a same platform. For this reason the

data groups were chosen in a way that allows for standardization in the collection and comparison of data. And all this standardization and comparability had to take into account that data could not be flattened. Showing averages and simplified views can be tempting to simplify the visualisations and streamline the layout. But such simplification would not go along with the purpose of “unveiling”, that is to effectively show a vision closer to the reality and not an abstractive average scenario. Knowing that inside a platform a small group of workers earn a lot more than others, for example, raises more questions and is much more interesting than knowing what’s the average remuneration for every worker in that platform.

As in virtually every project also here there is still room for improvement. Reviewing this project’s timeline led to realizing that the amount of time spent in the research phase and trying to grasp which would be the best way for users to collaborate with the platform may have subtracted some time that could have been dedicated to improving the user interface, for example. The interface is important but, as it was possible to learn after seeing platform screenshots from diverse periods of time, it can be iterated and fine tuned while in movement. And, as far as understood by the author, this project could proceed to development and further launch with a few additional changes.

Lastly, the underlying hope with this thesis is that of making a clear point that communication design is a powerful tool towards transparency, specially when the subjects it tries to unveil are directly affected by choices in the design practice.

9.

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