Latent Conflict, Invisible Organisation: Everyday Struggles in Platform Labour

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1 Introduction and Context

Platform labour is now a global phenomenon. Millions of people work in urban centres on digital platforms such as Uber, Deliveroo, or Helpling. "Everybody is talking about the gig economy" write the British researchers Jamie Woodcock and Mark Graham in their critical introduction to the topic (Woodcock & Graham, 2019, p. 1). In many countries, the "gig economy" has already arrived as a term in colloquial language. In the UK, for example, where, as Woodcock and Graham point out, the number of platform workers is now equal to that in the public health sector, broad public discussions about the phenomenon and its impact on the world of work have been developing for several years. Central to this attention paid to the gig economy, here and elsewhere, is a wave of protests by platform workers (Animento et al., 2017; Joyce et al., 2020; Woodcock, 2021). It is also these numerous and intense strikes and conflicts that have been waged in Europe and globally by platform workers, which steered a great deal of political attention towards the working conditions on digital platforms. Accordingly, the gig economy has become the object of recent new legislative initiatives and attempts at regulation. The conflicts and debates about the future of digitally organised and radically flexible work are thus entering a new phase. The relevance of these political and social debates, it has to be added, extends far beyond the field of digital platforms. In addition to the (often rather small to medium but sometimes sharply increasing, see, e.g. Huws et al., 2019) share of national labour markets, the relevance of the gig economy and its labour conflicts results from the importance of platforms as field of experimentation for digitally mediated, organised and controlled labour. Platform labour serves as a kind of laboratory in which new

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techniques and technologies of organisation and exploitation of living labour are experimented with and workers react with new strategies of resistance.

In contrast to the already comprehensive investigations of control practices on platforms, their outsourcing of risk to workers and the visible and public struggles against these practices, this article considers the phenomenon of platform labour with a view to the more invisible and everyday practices of subversion and resistance (both individual and collective). We describe these practices based on our empirical research on platform labour in Berlin and Europe. The article is based on 43 qualitative interviews with workers from three platforms in Berlin (Uber, Deliveroo, Helpling), extensive ethnographic research and numerous background interviews.[1] Our attention is not primarily focused on the visible strikes and protests, but above all on the everyday tricks, conflicts and disputes between workers and capital, which take on a special meaning in the context of the labour relations of the gig economy.

Such more or less intense everyday conflicts and struggles and forms of informal resistance are as old as capitalism itself and their dynamic is a driving force of capitalist development. The rise of digital platforms is hence to be understood in the context of a new cycle of such struggles in the age of digital capitalism. In what follows, we attempt to show how these struggles are transformed by the distinctive labour model of digital platforms which we describe as the combination of algorithmic management and hyper-flexible contractual relationships. We analyse the logic of digital control and fragmentation that digital platforms develop and, using various examples from different platforms, move on to show how workers counter these logics with creative individual as well as collective strategies. The field of platform labour offers a fascinating example of how the management strategies and technologies of the platforms and the everyday and collective strategies of resistance of the workers are mutually evolving at an impressive pace. This is one reason why platform labour is currently a central laboratory and site of struggle over the future of work in digital capitalism.

2 Platform Economy and Platform Labour

The term platform economy describes a system of often global companies and groups of companies that have spread over the past decades in various areas of the global political economy and division of labour. Promoted great amounts of available venture capital after the dot-com crisis of 2000 and the financial crisis of 2008, some of these companies have become the most valuable companies in the world in just a few years (Srnicek, 2017; Staab, 2019). In addition to the rise of Google, Amazon,

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[1] Besides the project »Platform Labour in Urban Spaces« (PLUS – grant agreement No 822638), our empirical research and material is based on a second project called "Digitalisation of Labour and Migration (funded by the Deutsche Forschungsgemeinschaft, DFG - Fördernummer 398798988). An earlier variant of this article has been published in German in the anthology "Widerstand im Arbeitsprozess. Eine arbeitssoziologische Einführung" edited by Heiner Heiland and Simon Schaupp (Transcript, 2022).

Facebook and Apple, so-called lean platforms such as Uber, Airbnb or Deliveroo are emerging, which are transforming established markets as brokers of services and with lean outsourcing models.

Very different forms of employment can be found in platform companies. When we talk about platform labour here, this does not encompass all employees in platform companies, but rather a specific employment model that is often referred to as the gig economy (Crouch, 2019; Schor, 2020; Woodcock & Graham, 2019). The gig economy translates the logic of the platform into a model of *labour on demand*, which is now penetrating more and more areas of the social division of labour. Gig work platforms exist as both location-independent and location-bound business models. While location-independent platform labour, so-called cloud- or crowdwork on platforms such as Amazon Mechanical Turk, Clickworker or Appen, is distributed globally and practised in a new form of digital home-based work around the world (Altenried, 2020), location-based work—which is the focus of this article—is found on local markets and thus primarily in urban areas.

We argue for the interaction between algorithmic management (i.e. forms of digital, at least partially automated, organisation, management and control of labour) on the one hand and hyper-flexible contractual relationships on the other as the genuine characteristic of platform labour. It is precisely this combination of new forms of algorithmic management and digital control on the one hand, and the (sometimes very old) forms of contractual flexibility and contingency on the other hand, that makes platform work attractive and efficient for companies (Altenried, 2020; Altenried et al., 2020).

Labour on gig platforms is essentially characterised by a bundle of technologies largely automating organisational, coordinational and control aspects of the labour process often described by the umbrella term algorithmic management. The partial or complete automation of management directions and decisions takes place through tracking, rating as well as active and passive governance through app and website interfaces (Beverungen, 2018; Lee et al., 2015; Moore, 2017; Staab, 2019). Instead of receiving instructions from supervisors or middle management, workers receive their orders and instructions via the smartphone application, on which navigation routes, customer information or ratings are displayed. Algorithmic management guides the labour process both through incentive systems and rewards (access to better orders, satisfying graphics, etc.) and through sanctions and lockouts from the app.

A major impact of algorithmic management techniques is the high degree of opacity, which is discussed in research as "information asymmetry" (Shapiro, 2018). The lack of clarity about the system of awarding jobs or the practice of ratings puts pressure on workers, as this statement by an Uber driver in Berlin illustrates:

> "You haven't received any orders and you call your colleague and he says: 'Yes, things are going well for me.' Then you have these devilish thoughtssomething is wrong. ›Ah, maybe because I have bad ratings now, ah, maybe because I took more breaks today than yesterday." It's very stressful psychologically (Interview April 2020, our translation).

As the statement makes clear, the opacity of these systems of algorithmic management is sometimes as central to workers as the level of actual control they allow.

Even if these systems of algorithmic management never function perfectly, they aim at the automated organisation of labour in almost all its aspects (from shift planning over the labour process to payroll). In the case of platforms, digital technology allows the precise organisation, control and measurement of the labour of, for example, bicycle couriers or taxi drivers distributed throughout the city in a way that was previously only conceivable in the enclosed disciplinary architecture of the factory—and is now possible remotely and to a large extent automatically (Altenried, 2022).

However, these new forms of digitally organised and increasingly automatically controlled labour only represent one central aspect of platform labour. Only in combination with the flexibilisation and precarisation of work, the second important characteristic of the gig economy, does it develop its efficiency and profitability for the platforms. The second essential component of platform work is therefore hyper-flexible contractual relationships. Platforms such as Deliveroo or Helpling rely on formally self-employed independent contractors to reduce fixed costs (for labour and means of production) as close to zero as possible. As already described, the drivers of Deliveroo, for example, have to bear the investment for their bicycles and smartphones themselves and, in the event of a slump in demand or illness, almost the entire risk. As this model of self-employed independent contractors comes under increasing regulatory pressure, platforms have started to experiment with new employment models such as subcontracting (exemplified for example by Uber in Berlin) looking for new ways to outsource social and entrepreneurial risks.

The use of self-employed workers who work with their own bicycles or cars and are paid per order also leads to the digital renaissance of a form of wage that is actually considered largely historical: piece wages. Marginalised in the history of capitalism, if never extinct, piece wages are a central tool for today's gig economy. They are a means of monitoring performance and disciplining workers. As income depends on the effort and speed put in, a bicycle courier, for example, who is paid per order can confirm this: the faster she drives, the more orders she manages and her hourly wage increases accordingly. "The exploitation of the worker by capital is realised here by means of the exploitation of the worker by the worker", as Marx described this function of piecework (Marx, 1962, p. 577, our translation). Piece rates on digital platforms tend to be flexible and change frequently, often being adjusted in real time based on demand and available workers.

With the help of self-employment and piece wages, it is also possible for the platforms to only pay the workers when there is work to do—and thus to pass on entrepreneurial risks to them. This means that workers do not cause any costs for the company between orders or during waiting times. At the same time, the costs for shift planning and commutes are transferred to the workers. The competition and an often strongly fluctuating order situation are a global problem in the platform economy. Since the self-employed workers who work with their own computers, cars or bicycles hardly cause any fixed costs, there is little incentive for the platforms to

limit the number of registered workers. On the contrary, a high number of workers allows platforms like Uber and Deliveroo to offer fast service throughout the city, while for the workers this usually means more competition, lower wages and thus longer working hours.

It is the combination of algorithmic management and flexible contractual relationships and wages that represent the central characteristic of platform labour. In platforms like Deliveroo or Uber we see a new configuration of work: automatically organised and strictly controlled and at the same time highly flexible, scalable and contingent. Platform work illustrates in a concentrated form a "multiplication of labour" as described by Mezzadra and Neilson (2013): a spatio-temporal intensification of work processes through tight control and flexible access, a diversification of workers that includes numerous demographic groups and living conditions and a heterogenisation of contractual relationships that workers often integrate into the production process in a mixture of solo self-employment, fixed-term contracts and various part-time jobs. This is also the reason why in many cities the majority of workers on platforms such as Uber or Deliveroo are migrants: the characteristic combination of algorithmic management and flexible contracts makes these platforms suited almost perfectly towards the exploitation of migrant labour (Altenried, 2021; Altenried et al., 2021; Schaupp, 2021).

If we think about the multiplication of labour as a nexus of digital technology, flexible contracts and the mobility of labour itself, we can see how these are important developments beyond the world of the gig economy. We can think of other examples such as an Amazon distribution centre, where a highly standardised, digitally organised work process allows for the flexible inclusion of short-term and seasonal workers to scale the workforce according to fluctuating demand, for example around the Christmas period. Throughout the world of work in digital capitalism there are many examples where the new ways of organising, controlling and measuring work digitally are giving rise to new configurations and geographies of work and mobility. In this sense, it can be argued that digital platforms are the paradigmatic "digital factories" of the present in which transformation tendencies that are currently changing the world of work are observable in an exemplary manner (Altenried, 2022).

3   Everyday Resistance: Micro-conflicts on Platforms

The digital technologies and strategies described above are aimed directly at reducing the power resources and leverage of platform workers and at making the process of exploiting human labour as efficient and smooth as possible. They build on long-term tendencies of flexibilisation and precarisation, which developed in the last neoliberal decades not least as a reaction to the operational and social power of organised work, as well as on much older histories and technologies for the control and organisation of contingent work (one may think of industrial homework organised by piece wages or the history and present of migrant day labourers).

A central aspect of this decades-long counter-offensive by capital is fragmentation, which also plays an important role in platform labour. Platform labour causes fragmentation on multiple levels: At the spatial level, by eliminating physical operations and dispersing the workforce in a city or region; on an organisational level through the worker's lack of membership as employees of the platform companies (and protection through this) as well as technologically through the isolation of workers in a labour process reduced to the app, whose interface and design complicates collective processes. These fragmenting effects of platform labour have led to analyses that emphasise the incisive and fragmenting effects of management and monitoring techniques (Zuboff, 2019). With a view to fragmentation and to the thesis of "deskilling" in the labour process (Braverman, 1998), which has long been discussed in the Labour Process Debate, there is often little scope for resistant, stubborn or collectively dissident behaviour in the analysis of platform labour (Gandini, 2018; Srnicek, 2017). These diagnoses are somewhat at odds with the cycle of strikes and protests by platform workers in recent years: a global wave of protests has developed since 2016, which today poses a serious threat to the business model of so-called gig economy platforms such as Deliveroo, Helpling or Uber. These protests have a focus on food delivery platforms but go beyond them. The dynamics of these protests and mobilisations are now very visible and widely discussed (see e.g. Cant, 2019; Tassinari & Maccarrone, 2020; Woodcock, 2021).

This is why we would like to start with our analysis of the everyday platform work. With the rise of digital platforms, conflicts between capital and labour are transforming, but by no means ending. On the contrary: We understand everyday labour on gig platforms as a constant and generalised field of conflict between platforms and workers. In our analysis of these conflicts, we focus on the everyday and less visible micro-conflicts in platform labour. Our contribution takes note of the often-described control and fragmentation dynamics in the work processes of the platforms, but at the same time argues that the combination of algorithmic management and hyper-flexible contractual forms, firstly, rarely translates into the work process as planned, and, secondly, also creates new gaps, niches and conflicts.

While algorithmic, app-based management aims at the precise organisation and monitoring of work, this form of management always has gaps that are specifically sought out by workers and used creatively. The legal constellation of self-employment also repeatedly leads to gaps in the strategies of control and exploitation by platforms, which are used by the workers. Hence, it is the two central elements of platform work outlined above around which everyday conflicts and disputes are structured. The everyday conflicts in platform labour organised by algorithmic management and piecework are also to be understood as a direct, permanent and generalised form of the struggle between workers and capital over the added value produced (a struggle, which in its latency and fragmentation then also differs clearly from the forms that it takes in a factory with employment and hourly wages).

In the following, we will present some examples from the diverse arrangements of small-scale conflicts and strategies of platform workers. In doing so, we start with more individual practices and then show how these can aggregate into collective practices and come together with other collective forms of everyday resistance. At the

same time, the various practices and tricks that allow using the platform's algorithms to one's own advantage are part of the everyday exchange and mutual support among workers. They are furthermore subject to constant change, as platforms always try to close the corresponding gaps, whereupon workers react with new strategies. The level of visible and institutionalised disputes (e.g. strikes and court cases about bogus self-employment) also often builds on the more everyday resistance practices and invisible organisational processes, but we tend to leave them aside in this article because, as mentioned, this level is already widely discussed academically and politically.

3.1 Uber: How to Hack Bonus Programmes, Circumvent Regulation and Test Algorithms

The taxi platform Uber is active in Berlin with a fleet of around 7,000 drivers. By ordering with the app, customers book trips through the city, the route and price of which are fixed and given to the drivers. During their work, information is collected from drivers (speed, GPS location, number of trips and cancellations) and also fed in by customers in the form of ratings. Although the Uber drivers in Berlin are employed by sub-companies (so-called fleet partners) due to the regulation of the German taxi market, they almost always earn their wages on a commission basis. The systematic oversaturation of the market by Uber and the resulting low average earnings mean that drivers are dependent on exploiting gaps and incentive structures through various tricks.[2]

In the case of Uber in Berlin, common micro-conflicts can be observed that also exist in similar ways in other cities and countries. The first case concerns the exploitation of the company's bonus programmes. In order to get lucrative orders, drivers try to influence the length of their journeys in order to maximise their earnings and commission from Uber. Depending on the amount of the commission, long or short journeys are specifically "searched for" (bypassing the legal obligation to return to the company's headquarters[3]):

> Uber tells me to make 50 trips this week and then they will only take 10 percent commission. […] What do we do? […] We're shooting around this corner. Or at the East Side Gallery. We know exactly, the customer at the East Side Gallery gets on and drives to the Adlon Hotel. Or from Alex to Adlon, Adlon to Alex. […] Short trips. Very quickly we make 50 trips. […] Then we drive to the airport, then we hide where real fares come in. And I mean, I'm open

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[2] Like most labour platforms, Uber strives to maximise the number of workers available through the app, often well in excess of demand levels. Due to the employment relationships already described (self-employment or employment on a commission basis), the risks of low demand are borne by the workers, specifically due to longer waiting times and a lower average wage as a result.

[3] The obligation to return (Rückkehrpflicht) determines a requirement in Germany under the Passenger Transportation Act (Personenbeförderungsgesetz—PBfG), which requires rental companies' cars to return to their company headquarters before accepting a new order. This requirement represents a practical business obstacle for Uber and its subcontractors.

and honest, you can't do it any other way, otherwise you don't earn anything (Interview May 2020, our translation).

Another trick is to cancel orders while avoiding sanctions. A driver reports how he "cancelled" orders by cutting off the internet connection without being sanctioned for it. This allows him to benefit from an hourly wage bonus programme on certain days without driving assignments:

> Uber said, for example, if you drive on Wednesday, we'll give you 20 or 21 euros per hour [but] you have to accept all the rides we send you. You are not allowed to cancel. […] The customer books, suddenly Uber starts ringing. What am I doing? […] I went downstairs, turned off my internet. […]. And suddenly the system writes, we're sorry, something went wrong. That means it's their fault, not my fault (Interview May 2020, our translation).

This trick makes it possible to avoid further work without additional payment. These tricks and strategic attempts to circumvent the rules of the platform in order to achieve higher income take advantage of control gaps in algorithmic management and show the conflict that is permanently present on the platforms due to the principle of flexible piece wages about the appropriation of the (added) value produced between workers and capital.

In the case of Uber in Berlin, more ambivalent forms of rule violations by drivers can also be observed. As described above, drivers in Berlin often deliberately circumvent the statutory obligation to return to the bases of their companies (the subcontracting fleet partners), which is enforced in the Uber app through the app's interface. Many drivers describe that they can avoid the obligation to return by taking targeted breaks, switching the app on and off, changing the direction of travel and waiting for new orders. Here it can be assumed that Uber knowingly tolerates this behaviour because both the drivers and Uber draw a disadvantage from the regulation. In any case, the trick is an important way for the drivers to keep their activity profitable and for their everyday practice, it makes little difference whether they work against the rules of the platform or legal regulations.

As in other platforms, the work of the Uber drivers tends to be isolated, but different forms of exchange and organisation among one another can be observed. Although drivers have often never seen each other, there are smaller and larger messenger groups (WhatsApp, Telegram) on which exchanges take place. A driver reports:

> We are organised in a group. […]. We know where the police check is, we know where there are parking tickets, we know where they have speed controls, where they want to stop us […]. And that will be passed on very quickly (Interview May 2020, our translation).

When asked how well the workers know each other personally and whether this makes a difference for the exchange, the driver replies:

> We never met. We're all in the same boat. When you're on the Titanic, you want to save those around you too. Because you know […] if you don't save him, he'll push you into the water (Interview May 2020, our translation).

In Berlin, this exchange in larger groups is usually limited to traffic information, police checks and safety instructions. Political issues and working conditions are

also discussed in smaller groups. This often-everyday exchange makes it possible for drivers to stay in touch despite the spatial diffusion. This has also led to organisational efforts and collective actions, which have so far failed due to the small-scale and heterogeneous sub-contractor structures in Berlin which makes a direct confrontation with Uber more difficult.

4   Experiments with the Algorithm

Collective ability to act is not only expressed through digital communication or everyday conversations between workers, but also through joint action. A major concern for workers is to get to know and understand the coordination and distribution logic of the platform better in order to reduce information asymmetries. A driver in Berlin reports of a joint experiment with other drivers:

> We wanted to know how it works. We were five people. We always have two cell phones; we have a customer cell phone and an Uber cell phone. We were four cars, we lined up next to each other at exactly the same height. We booked Ubers next to each other for the same amount. […] One distance was five kilometres. The other distance was 30 kms. Because of course that's really far in a city like this. We all practically turned on and booked the Uber app at the same time. And what do you think happened? […] By chance, the [algorithm] kicked out a [journey] for everyone. The one with the lowest rating got the best ride. That's just psychological manipulation (Interview May 2020, our translation).

The "experiment" leads the drivers to the realisation that the rating is not or not significantly decisive for the distribution of journeys. A hint that is helpful to classify assumptions and expectations towards the platform. Such experiments and joint attempts to see through the logic of algorithmic management and to use it to one's own advantage are among the most important forms of everyday exchange and resistance between platform workers.

4.1   Helpling: How to "Perform" Work and Forge Coalitions with Customers

Helpling is a platform company that mediates around 10,000 cleaning workers in private households in several European countries and worldwide. The mostly self-employed workers have to give around 30 per cent of their income to the platform as a commission fee. The company has its largest market in Germany. Due to the nature of the activity (cleaning in different places, mostly private households), the labour process on Helpling cannot be algorithmically controlled as precisely as on Uber or Deliveroo, for example. To substitute for this, the platform relies on the co-management of the customers, who, with their ratings of the cleaning workers, have a significant say in their "market value" on the platform.

Helpling workers usually work alone, but often maintain close contact with their customers, with whom they usually work regularly. This relationship gives rise to both micro-conflicts with the platform and ways to overcome them. Orders on Helpling are assigned on a fixed-rate basis and by the hour. Because the cleaning activities are usually determined individually by the customer, there is scope for reducing the workload. A cleaner describes the process as follows:

> If you feel that you have been given too much time you have this motivation to clean a little bit slower or to find some details which are not important, but still to look as if you're doing something, so that you can then tell them at the end of it: "Okay, so this was the amount of hours". […] when the cleaning ends you receive a message which says: "Did you clean here?" It's always the same, it's an automated message. And then you say "Yes" and "No".. […] And if it's less work than you try to stretch the cleaning so you can just don't have to have the conversation and don't have to receive less money because you needed only one and half hours. […] Every time I'm there I'm always calculating how much I need for every task (Interview April 2020).

Because usually neither the customer nor the platform can measure how long the task takes, Helpling workers can set the pace if the task leaves room for this. The algorithmic management is patchy here and relies on the written reviews of the customers, so that "deliberate underperformance" (Taylor, 2007) is possible.

Because the relationship with customers is central, many cleaners state that the main task of the job is to work on their relationships with clients. If this is ensured, the rating will also be good.

> So that's the tricky thing how the rating system works, because it doesn't really work. […] You are not only selling the cleaning, you are selling them the phantasy that you are sympathy and you like them. That's a service that you do of cause! If you want to have a good rating you have to sell the phantasy to the people that they are really nice and you love […] being here and cleaning for you just because I'm from Latin America. I love it! (Interview, May 2020).

Although this hints at the additional requirement of emotional labour (Hochschild, 2012), it also makes leeway visible. The influence of the platform company can be reduced through a demonstrative display of activities and a good relationship with customers (who of course occupy a position of power).

The following shows how far this potential can go. Another element of overturning the labour control on Helpling and even excluding the platform completely is the building of (informal) coalitions between workers and customers. Since workers and customers meet every two weeks in many cases, it is common to continue the business relationship without the platform and to waive agency fees. This is how a worker reports on an offer from her customer:

> This particular couple that I work for today they were like: we don't trust Helpling, we want to take you out of it. And that's what they said to me repeatedly. Like I have, the other two that I have also said that to me that: we don't like Helpling, we want to hire you directly (Interview, February 2020).

The absence of personalised control and organisation by the platform, enabled by algorithmic management, visibly reduces the opportunity cost of circumventing the

platform. Coalitions between customers and workers can arise above all when the personal relationship (as described above) has generated trust. They do not always come about at the request of customers, but are actively brought into play by workers, despite the risk of termination. Another worker talks about the risk and fear associated with making his customers aware of the possibility:

> When I asked one […] if you want, we can do it outside, it's more for me and less for you. And he said, well I think about it. And I was so scared that I went to my husband scared and tell him, oh no maybe he tells Helpling. But no, he didn't do it, he give me 15 euros for tip, because he said this is what Helpling took from you (Interview, February 2020).

Although independent service providers are legally free to work with customers outside of the platform, the practice of moving customers off the platform is sanctioned harshly by Helpling. Customers or workers in Berlin have to pay up to 500 euros if such a case is noticed. The high fee and its threat are the company's response to this widespread practice, which the company has recognised as a business risk. However, this gap can hardly be closed by algorithmic control.

5   Collective "Blacklisting": Digital Exchange and Organising

The somewhat reduced possibilities of digital control (compared to other platforms) are therefore used by workers (sometimes in alliances with customers). On the other hand, Helpling, as mentioned above, compensates for the lack of digital control through the co-management of customers, whose ratings play an important role for workers in accessing future orders. In many cases, customers exploit this position of power, for example to force additional services or longer working hours. In this case, the workers have to weigh up. They oscillate between risking either getting a bad review and having a conflict with the customer whom the platform normally supports. Or they decide to tacitly accept the additional or unreasonable demands of customers in order to keep their own rating and thus visibility and market value high on the platform (Bor, 2021).

To avoid this dilemma, at least with the worst customers, Helpling workers try to warn each other about them. This everyday practice of mutual help also gives rise to more solid structures, often based on social media such as WhatsApp or Facebook groups. Among other things, blacklists of problematic customers are drawn up that circulate in the group:

> Because in Helpling when we get a booking, we don't see the name of the customer. We only see the address. So, our blacklist is addresses (Interview February 2020).

Such blacklists, maintained as collective and constantly updated online documents, allow workers to warn each other about abusive customers, for example, and not even get into the difficult situation of being alone with them in their apartments.

Such lists are a result of the constant exchange via various chats and social media in which the workers support each other in everyday conversations and with all kinds of problems (e.g. with offices, authorities or landlords). A Helpling worker reports about a Spanish-speaking chat group in which messages are exchanged:

> Yeah, we are in, well, in a WhatsApp group with a lot of people of Uruguay, Chile, and Argentina, Latino people, so we have contact with all of them. […] we have all the experience and once on the WhatsApp group you can see in the morning "I have this problem, can you help me?" and all of us try to help (Interview February 2020).

One of these chat groups is called "Helpling Union", a fact that shows that the workers actually also see their activity in these groups as an approach to organise disputes for the improvement of their working conditions. This example, as well as numerous examples from other platforms, shows the central role of digital communication networks for the emergence of "cultures of solidarity" among platform workers and thus for mutual support as well as further forms of resistance and organisation (Fantasia, 1989; Heiland & Schaupp, 2020).

On a platform like Helpling, where workers almost never meet and there is almost no union activity, migrant networks are often a starting point for such networking and organising approaches. In Berlin, for example, workers from Latin America are represented in large numbers on the platform and play an important role in everyday networking and organising. This is also shown by the efforts of groups like "Migrant Workers Berlin" and "Oficina Precaria", who are trying to organise gig workers in Berlin. An activist from Migrant Workers Berlin, who has experience working on Helpling, says that Facebook groups and other social media are used to build on the common language and origin in order to organise workers across sectors:

> Our first step for something to be built is to start with our community. […] we are starting with the people we know. We are Argentinians, south Latin American people have lots of experiences in our history doing this. I think like we have a cultural background of having to fight for our rights. So that is something that's really in our culture. If you look like at feminists right now in Argentina you can see that we are fighting. […]. It is easier for us to aim at that people and when we have organised a group of people with this, well the next step: hey, how are we going to get in touch with working of all the nationalities. But we have to make like the first group (Interview May 2020).

The transitions from everyday and individual resistance practices to more collective forms and organisational approaches are also evident in these various practices around the platform Helpling. In the case of Helpling, however, the circumstances are significantly more difficult due to the fragmentation and lack of interaction in everyday life (e.g. in comparison to food delivery riders who see and meet each other in everyday work), nevertheless the workers find ways to network and at least take first steps towards improving their working conditions.

5.1 Deliveroo: How to Use Gaps in Algorithmic Flexibility

Deliveroo is a food delivery platform founded in London in 2013. Customers can use the app to order meals from restaurants in their area for delivery to their doorsteps. Around 140,000 restaurants in almost 800 cities in 12 countries in Europe, Asia and Australia are available via the app. Deliveroo arranges delivery from the restaurant to the customer through a fleet of self-employed couriers (around 110,000 worldwide) and takes a delivery fee from the customer and a share of the payment to the restaurant. The platform was active in Germany until 2019. With the withdrawal of the platform from the German market in August 2019, our research on the platform in Berlin also ended. Deliveroo has been and still is the focus of various disputes and (wildcat) strikes in various European countries. The disputes between workers and platforms also start on an everyday level.

A window of opportunity for subversive action arises again through solo self-employment (which of course contributes to the precariousness of the job on many other levels). In order to protect itself against lawsuits for bogus self-employment, Deliveroo must, among other things, offer the courier each delivery job individually and give them the opportunity to reject orders. This in turn gives them the opportunity to make selections based on various criteria (payment, distance to the restaurant and customers, delivery area, etc.) and to reject them if necessary. A former Berlin rider of the platform describes the practice:

> I started learning how to use the app better because, at first, I was accepting everything. And then I would do really long rides, and that would leave me in a place where I couldn't get any more orders, and now I'm super picky. Now I can reject like four of these in a row if I don't like them, and I would only do the ones that are short and like… I know that you can do really short ones for €4.80. And then I can do four or even five in an hour (Interview August 2019).

Orders that are particularly poorly paid and unpopular "bounce" through the system because they are rejected by a large number of riders. This means that the platform cannot keep its delivery promise. In this way, the individual denial practices aggregate into a kind of collective mini-strike against a single order, thus forcing the platform to act (e.g. to increase the remuneration of the order to guarantee the delivery). This practice has an effect similar to that of Helpling workers warning each other about bad customers, or activist tools like the "Turkopticon", a browser plug-in that workers on the crowdwork platform Amazon Mechanical Turk use to warn each other of bad orders and clients and thus force them to adjust their conditions (Silberman & Irani, 2016). Such strategies are made more difficult in the event of an oversupply of registered digital click workers or bicycle couriers, who are then forced to accept all available orders. Platforms like Amazon Mechanical Turk and Deliveroo purposefully rely on such an oversupply of labour to prevent the practices of mass refusal of orders. And yet these mini-boycotts (which can certainly be read as early forms of the strike) point to gaps in the directive authority of the platforms, which arise through the construct of solo self-employment and which are used by workers.

Like other platforms, Deliveroo relies on a comprehensive system of algorithmic management, digital organisation and control of work with as little additional effort as possible for human management in the company's offices. While the forms of algorithmic management allow for a high degree of control over the spatially distributed riders, the system also has gaps, and the search for these gaps and opportunities to exploit them is a permanent concern of almost all riders and a constant topic in the exchanges between them, both on the street as well as in digital space.

In the case of Deliveroo in Berlin (and many other countries), these tricks by workers aim, among other things, at manipulating their own performance statistics. In order to allow attendance at pre-booked shifts and to prevent (spontaneous) no-shows, Deliveroo in Berlin (as in other European countries) used a ranking system that penalised not showing up for a shift through attendance statistics. These attendance statistics are an essential factor that structures access to future (lucrative) shifts. A rider who (for whatever reason) does not start a shift worsens his or her statistics and may only be able to book few or unpopular shifts in the next week because the others have already been booked by drivers with better statistics. A rider explains the problem:

> Sometimes I have problems with the 11:30 shift […] my Deutsch class ended at 11:40. It's in Warschauer Strasse. I can 't go to Neukölln and lose my first hour. But I always try to take care of it, because at the end, if you have a good statistic, you have the good hours, and you don't have to be searching all the time for extra hours (Interview June 2019).

Spontaneous non-attendance to work was thus a problem that made it harder to get adequate and good shifts the next week. However, almost all Berlin riders found out relatively quickly that it is enough to simply log into the app (e.g. from the sofa at home) without intending to accept orders in order to have the shift counted as present in the statistics. This in turn allowed the freedom not to work spontaneously. However, this is only for the riders who were currently in the zone where their shift should take place (which the app controls via GPS). But even if they weren't in the zone, riders developed ways to fake their presence, as one long-term rider, who also works in a collective on the side, explains:

> For example, I was doing something else for the collective, and I would be on the other side of Berlin, and it took me more time, and I cannot come back to Neukölln or to Friedrichshain on time. I would need to contact someone, either my girlfriend or a friend in the other zone that, if maybe he's there, can – if he could log me in because I cannot make it. […] We do it with this PIN verification. So, I get the PIN. I give him the PIN, yeah. So, he just logs in, logs out within first 15 min, and that's it. So I was most of the time managing to keep myself in first group (Interview, August 2019).

Here, too, gaps arise in the system of algorithmic management, which is used by the workers. The example of Deliveroo shows once again how the characteristic combination of platform labour, algorithmic management and solo self-employment, on the one hand, allows the platforms to organise cost-effectively, control the labour process and outsource risk to the workers, but, on the other hand, this always creates new gaps to be sought and used by workers.

The platforms respond to the strategies of the workers with adjustments to the algorithms and thus repeatedly prevent strategies like the one just described (in almost all European cities Deliveroo has now adjusted the shift booking system to prevent such practices). Adapting and changing the algorithms, in turn, almost always enables new tricks and strategies for the workers to increase their income and circumvent the platform's control mechanisms. The algorithms are therefore a central component of a dynamic and everyday antagonism between platforms and workers and numerous micro-conflicts. In Deliveroo and other platforms, major changes on the part of the platforms in these algorithms repeatedly lead to micro-conflicts and strategies turning into larger and more visible conflicts such as spontaneous strikes.

There have been numerous visible protests and strikes, especially on food delivery platforms such as Deliveroo (Cant, 2019; Tassinari & Maccarrone, 2020; Woodcock, 2021). Such protests are often sparked by changes in the system of distributing shifts and orders or remuneration, which are carried out regularly and without prior consultation with workers. Such a change, for example, led to intense protests in London in August 2016, with spontaneous strikes and demonstrations outside Deliveroo's London headquarters (Woodcock, 2016). Based largely on organisation through social media and networks, these spontaneous and relatively unorganised protests marked the beginning of a cycle of visible struggles in platform-based food delivery across Europe (and beyond). In Berlin, too, there were repeated protest actions against Deliveroo and, as in many other cities, these were mainly based on informal networks and grassroots unions. While larger unions (with exceptions) often find it difficult to organise self-employed platform workers, grassroots unions in various European countries have successfully experimented with organising and fighting strategies in the field of platform work. The organisation often works centrally via social media and informal networks of the riders or via networking approaches in the migrant communities, which provide a large number of platform workers. The emerging protests and organisations are often just as informal and primarily digitally organised, as well as often spontaneous and unstable, thus reflecting the technological and social composition of platform labour.

6 Conclusions

Looking at the three platforms examined here, it can be shown that work on platforms rarely turns out to be the smooth and controllable process that management and some critical analyses imagine it to be. The combination of algorithmic management and flexible contractual relationships, which we have described as a central element of platform labour, is also the structuring element of many micro-conflicts on platforms. The labour model of the gig economy, which aims both at precise control and at shifting risk to the workers, leaves gaps that are constantly sought and exploited by workers. These can be blind spots of algorithmic control as well as rights that workers must be granted in order to maintain the construct of independent contractors and many other things. Payment via flexible piece wages also leads to an ongoing and

generalised conflict over the appropriation of the value generated. On the one hand, platforms try to keep as much of the work as possible unpaid, nudge workers to accept low-paid jobs or take risks, while on the other hand, the workers try to use the rules to their advantage, trick algorithms and entice customers away from the platforms.

This constant struggle for uncertain profits and insecure income is part of everyday life in platform labour and characterises its latent conflictual nature and the strategies and actions of the workers. Despite the existing control elements, which fragment the situation of workers on several levels and limits, a constant struggle about the appropriation of the profits produced through platform labour can be observed. On a subjective level, these conflict strategies for workers go hand in hand with different, sometimes ambivalent attitudes towards management and companies. While some breaches of rules seem necessary to the workers to do the work and do not necessarily affect the relationship with the company, other strategies feed on an explicit distancing from the company, usually out of frustration with unfair pay or irresponsible management. The latter also tends to lead to the more strategic and solidarity-based forms of collective cooperation that have been shown here.

Resistant practices usually include a calculative element on the part of the workers, which weighs up the advantages and disadvantages of possible actions depending on the situation. In contrast to conventional labour arrangements, algorithmic control of work exercised at a distance closes many gaps in autonomy (shortcuts, negotiations with superiors), but also opens up new possibilities (blind spots in the algorithms, manipulation of the connection, agreements with customers and employees). The gains in autonomy that workers make possible through these actions and strategies are never to be regarded as pure gains in freedom, but also remain ambivalent. They go hand in hand with the threat of sanctions, lawsuits, fines and "lockouts" from the platform companies, so they can sometimes turn into their opposite for workers (Ferrari & Graham, 2021, p. 14). In the case of the Helpling platform, it is also evident that the workflow can be controlled far less strictly and narrowly than is generally assumed for platform work. Control takes place here primarily passively and via written customer reviews, which makes the relationship with customers essential for workers. This is also manifested in the subversive practices, specifically in complicity in circumventing the platform.

The strategies shown here can be observed both on an individual and on a collective level, whereby both levels often overlap. While individual practices usually revolve around avoiding sanctions, unwanted orders or increasing income, collective processes are characterised by mutual support and solidarity as well as efforts to reduce information asymmetry—whether through exchange or through joint reverse engineering. Visible cases and more explicit industrial action strategies almost always build on the collective practices outlined here and the transitions are often fluid. The perspective on micro-practices and informal resistance provided in this article broadens the view of the potential for conflict in platform companies.

Across the platform economy globally, we can observe this latent conflictuality of platform labour. The everyday tricks, resistant acts and individual and collective attempts of workers to better their situations (which sometimes evolve into wildcat

strikes and full-blown labour conflicts which build upon these daily experiences) can understood, with a nod to the work of Romano Alquati, as forms of invisible organisation, not only with a view to the informal but effective forms of organising among workers, but also because these conflicts take place in a playing field structured by capital's attempt to overcome its own contradictions (Alquati, 1975, see also Williams 2013). We have argued that the characteristic attempt of the gig economy to achieve control while outsourcing risk structures the everyday strategies and conflicts waged by workers. This again stems from a specific political and economic situation shaped by the multiple crises of the present. This is the backdrop against which we have hinted to the importance of the platform economy as a laboratory of capital and field of struggle over the future of work to underline the importance of these conflicts.

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