Let's start talking the walk: Capturing and reflecting on *our* limits when working with gig economy workers

Oliver Bates, Carolynne Lord

(o.bates,c.lord)@lancaster.ac.uk School of Computing and Communications Lancaster University, UK

Hayley Alter

h.alter@lancaster.ac.uk ImaginationLancaster Lancaster University, UK

Ben Kirman

ben.kirman@york.ac.uk Theatre, Film, Television and Interactive Media University of York, UK

ABSTRACT

Gig economy platforms are having profound impacts on when and how much we work. But it is not just the qualities of work that are changing, as these platforms have also eroded workers' rights in disempowering workers around the world whilst making use of discourses of empowerment (e.g. flexibility, entrepreneurial values) to promote themselves. 'Switch-Gig' aimed to explore this tension by promoting empowerment and justice through discussions of the future with couriers, focusing on the role of technology in this. By doing this it hoped to provide a more just response to the attempts by digital platforms (e.g. Deliveroo, UberEats) to marginalise and control workers. But this sort of activist work is hard, and it is made harder by the lack of discussion in the LIMITS community about how to weather through the challenges inherent in the processes of ethical and activist research. It is through discussions of the challenges that we can learn not only more about the communities in focus, but also from one another. In order to make space for this discussion within LIMITS, the authors focus primarily on reflecting on their approach to the research and the process itself, over the empirical data of the study. In doing this, they hope to begin a discussion of why LIMITS' researchers should share the pains of their processes, and more effectively mobilise the understandings of the communities we research, to move together along the path to Meadows' vision of 2030, and to start challenging the powerful structures that prevent sustainable change.

Permission to make digital or hard copies of all or part of this work for personal or classroom use is granted without fee provided that copies are not made or distributed for profit or commercial advantage and that copies bear this notice and the full citation on the first page. Copyrights for components of this work owned by others than ACM must be honored. Abstracting with credit is permitted. To copy otherwise, or republish, to post on servers or to redistribute to lists, requires prior specific permission and/or a fee. Request permissions from permissions@acm.org.

ICT4S'20, June 2020, Bristol, UK © 2020 Association for Computing Machinery. ACM ISBN 978-1-4503-XXXX-X/18/06...\$15.00 https://doi.org/10.1145/1122445.1122456

CCS CONCEPTS

Information systems → Collaborative and social computing systems and tools;
Human-centered computing → Collaborative and social computing.

KEYWORDS

gig economy, couriers, vulnerable participants, social justice, talking the walk, reflection, limits to growth, Deliveroo riders

ACM Reference Format:

Oliver Bates, Carolynne Lord, Hayley Alter, and Ben Kirman. 2020. Let's start talking the walk: Capturing and reflecting on *our* limits when working with gig economy workers . In ,. ACM, New York, NY, USA, 9 pages. https://doi.org/10.1145/1122445.1122456

1 INTRODUCTION

As an interdisciplinary community that focuses on developing more resilient technologies and communities, LIMITS draws from perspectives developed by a range of experts in computing, anthropology, design, economics, ecology, philosophy, and beyond. There is clear value in writing about, and translating findings and ideas from other areas into computing within limits. But the actual work of building a more resilient society that considers ecological and societal limits can be tough from a computing perspective, and through the tools of software, systems, data and the methods and patterns for design and user research alone.

LIMITS has sought to fill this gap, in specifically considering the ecological impacts of technology, and the harmony of humanity with ecology in a future where crises of climate, economy, and health – amongst others – may have shattering societal implications. To help consider and work through these crises, LIMITS researchers are cross-disciplinary, often utilising a variety of methods and approaches to critique, translate, understand, and design, in ways that either help to prevent such crises, or that create more resilient communities and infrastructures that can mitigate the implications of these long-term collapses. One of the numerous elephants in the room as a LIMITS researcher, however, is that: some of us do not feel like we are making much progress despite our

attempts to do so. And it is this: the going out and the doing something; the attempts to make actual real-world progress, within the structures that we work in, which forms the topic of this paper. We take this on in the context of our work with gig economy couriers.

Digital platforms, like Deliveroo, Uber, and TaskRabbit are designed to facilitate the on-demand economy where goods and services are procured as and when they are needed [6]. They continue to grow in market share as they attract evermore customers and independent workers to services like couriering, ridesharing and cleaning. These roles are increasingly essential to the communities they serve, yet the workers are routinely employed on zero hour contracts with low pay in what is commonly referred to as the gig economy. This sort of work is described as "the exchange of labour for money between individuals or companies via digital platforms" [29, p.4].

To maximise return on private investment, digital platforms tend to be as financially lean as possible (e.g. lean platforms) [38] meaning that their workers are not classified as employees due to the costs associated with employee benefits (i.e. social security/national insurance, pension contributions, sick and parental leave, and the associated costs of HR). Instead, the workers are classed as independents, chaining together a string of piecemeal contracts. In the context of courier work this leads to moments of unpaid labour (waiting on others in the supply and demand chains, e.g. restaurants/shops and customers) which are built into a model whereby only collection and delivery is paid. This piecemeal work is distributed to workers via digital platforms that use AI to makes decisions for and about workers with little transparency (and often deliberate opaqueness) about how those decisions are made.

This paper describes and evaluates the 'Switch-Gig' pilot study, a study that sought to empower gig economy workers to switch this model, making use of their procedural knowledge to work towards a new model that favours workers over the platform itself. In short, we wanted to make use of the expertise that couriers have of their work, to imagine new alternative futures that are fairer to them. Evaluating the process of this work is necessary, as reusable insights have emerged in undertaking this goal which we believe to be important to the LIMITS community. What follows then, is an evaluation of how the overall project design interacted not only with challenges that manifested in the project setting, but also with university structures themselves. In doing this, we put forward implications and opportunities for the LIMITS community and beyond, to inspire and design better sensitised future digital justice orientated responses for the problems faced by communities such as on-demand workers.

In doing this, we look to contribute to the discussion on Donella Meadow's vision of 2030 [34]. The future is latent and in becoming. So rather than just (accidentally) reinventing the wheel each time, we must consider our collective journeys and experiences in understanding and actively working with marginalised communities. A large component of moving towards more equitable, fairer and more just future forms of work requires that we learn both from one another's experiences, as well as the communities, systems and structures as they continue to change with time. The LIMITS community need to begin then, to reflect together on the work that we are doing in order to inform ourselves of the challenges that arise in activist forms of research. This will allow us, as a community, to better react to rapidly changing circumstances, and to be agile and resilient (as researchers, and as a community). Doing this, however, requires that a space be made for such conversations, and specifically the critical moments of stress and realisation in more activist forms of research. Activist research - as conceptualised by Hale - not only involves working directly with a community to understand the conditions of their inequality, but also involves the formulation of strategies with them that can help to transform these conditions, whilst achieving the power necessary to make such strategies effective [24].

We, therefore, present an account of what we learned through implementing our research project Switch-Gig, talking about how we walked through the process of the first phase of our co-design work with gig economy workers. It is our hope that in doing this, we may inspire others within LIMITS to also 'talk the walk' by articulating and reflecting on their processes of working with marginalised communities (e.g. articulate how we as a community are actually doing the things that we promote).

Changing things in the future requires detailed accounts of what it is to do activist research now, and what its challenges are, so we can better learn and evolve our practice. This kind of reflection is also crucial for promoting further solidarity in the LIMITS community, in that it helps to sensitise the community as a whole to the challenges and barriers of activist forms of research with more marginalised communities.

2 RELATED WORK AND BACKGROUND

The impact of digital platforms on forms of gig economy work is well documented by scholars outside of HCI who provide commentary on topics such as workers' rights [14], the algorithmic control of those workers [41], the emotional impacts of this type of work [31], as well as the perspectives of workers from this sector [22]. In transport and logistics research, gig economy and self-employed couriers have been studied through an exploration of the impacts of 'instant deliveries' [12, 13] as well as how flexible workforces can be leveraged in the support of more sustainable forms of transport (e.g. crowdshipping and portering) [32, 33].

In HCI and LIMITS, a breadth of issues concerning the gig economy have been taken up in the guise of: co-designing platforms such as Turkopticon to help empower Turkers [27]; examining this sort of work through the lens of piecework [1]; understanding our role as technologists whilst working at the intersection between technology, labour and design [20]; the rise of social inequality in on-demand labour [17, 36]; exploring flexibility and time in on-demand work [43]; the human impact of on-demand logistics [2]; alternative infrastructures to free services in surveillance capitalism [28]; using photography in design when exploring sustainability, respect for human labour, and design for respect [7], and; exploring the emotional toll of working for platforms such as Uber and Lyft [40]. Design fiction and fictional abstracts have also been used to communicate and dissect dystopian visions relating to the full-scale apocalypse [39] as well as the collapsing of more traditional forms of work due to automation [5].

Callum Cant, on the other hand, documents his experience as a courier working for Deliveroo in Brighton through an autoethnographic account [8]. But Cant does not just focus on the work he carried out there, but also explicates the process of organising and unionising with workers, aiming to actively challenge dominant visions of the future (e.g. originating from Deliveroo, and Silicon Valley) that may impact workers' rights for better or worse [8]. Others see the future differently, for instance, in studying the opportunities for using data to empower workers rather than oppress them [30], or in looking to how workers are already reshaping the gig economy [42] through the development of new models which take on a more democratic ownership structures like 'Platform Cooperatives', which have been suggested to potentially right some of the wrongs of workers' rights in this context [4, 8]. Others are working to develop a set of guiding principles and conventions that might promote 'fair work' in this context $[21, 42]^1$.

This is just a selection of the cross-disciplinary work that speaks to the broad range of issues that are faced by gig economy workers. In the context of the gig economy, however, and the approaches so far mentioned, there is a discussion still to be had around the processes of with researching couriers, a group known to be busy, precarious and mobile. What are the challenges of working with couriers, and what does this tell us about this sort of work in and of itself? In fact, what are the challenges of working with marginalized communities more generally?

When thinking of the LIMITS community in this context, questions are raised concerning how we go about documenting our processes, how we find and engage with our communities, where can we share those moments in which plans

fail and we – as researchers – must get back up to try again, to iterate and evolve our ideas and perceptions. In taking on this discussion, we hope to carve out a space in which to share our lessons, knowing that it is only in documenting these mistakes and challenges that they can be discussed at the community level.

Like many of our peers, colleagues and friends, we want to work towards changing the lives of those in these communities, not only now but also in the future, and this cannot be achieved through the simple collection of data and its translation into traditional academic publications alone. So as a community, where do we start?

This has led us to wonder whether there is a space for discussing this within LIMITS. Earlier work suggests that it may. Inspired by Gillian Hayes' description of how HCI researchers can begin to do action research, we find the following steps resonate with us in beginning to structure more impactful research [25]:

- Step One: Find a community partner.
- Step Two: Formulate a problem statement and some research questions.
- Step Three: Plan and execute some action.
- Step Four: Evaluate and plan again.
- Step Five: Share what you learn.
- Step Six: Don't forget to stop to enjoy things from time to time.
- Step Seven: Step back and trust in the sustainable change.

Reflecting on these steps, we are left wondering how often does LIMITS actually reach *Step Seven*? What needs to be changed to 'get' to this step? What is the relation of Step Five to Step Seven?

Similar calls have been made previously, and in LIMITS, though they make use of different terms and rationales. Silberman, for instance, points to a need for computing to shift its approach in the 'age of consequences' [37]. In advice that feels like a call for a shift in LIMITS' approaches to research, Silberman calls for researchers to:

- Be Embedded and Engaged "Do research with stakeholders with whom you share deeply felt concerns and aspirations, not research on subjects you detachedly study".
- (2) Draw on research beyond computing to develop a rich understanding of the relevant ecological and social dynamics, risks, and opportunities.
- (3) **Maintain your system(s) over time,** "Build systems for real people to use, and maintain those systems so they continue to be relevant in their contexts of use."
- (4) Build social and human capital, not just technology.
- (5) **Be prepared to change course.** "You may not know what technological contributions are called for until

¹Fairwork Foundation, https://fair.work, accessed April, 2020

you've put yourself out into "the field." And the relevant technological contributions may change over time".

(6) Focus on the social and ecological benefits, risks, and consequences of real sociotechnical-ecological practices, not on novel technologies per se.

The advice of both Hayes' [25] and Silberman's [37] feels as pertinent as ever. Whilst much of the scholarship within LIMITS considers this advice (at least in part), we observe there to be a gap in terms of what is discussed about the process of researching marginalised communities. To what extent do we share what we learn (Step Five [25]) and in what ways are we prepared to change courses (point 5 [37])? It is our view that we simply do not articulate fully, or reflect enough upon our experiences and the ways in which we changed courses: those warts 'n all stories.

Before tackling this elephant in the room, we must point to another, one which also stands in our way. One of the largest barriers to successfully delivering activist and ethical research that can contribute to a reshaping of society is going against the grain of socioeconomic structures that hold academia, our communities, as well as the ideals of LIMITS back. At this point we must acknowledge that capitalism and neoliberalism thrives on exploiting workers, society and the environment for financial capital, and holds this exploitation in place. Ekbia and Nardi analyse the far ranging impacts of digital technology on labour in the context of capitalism and visions of how this could be reconfigured [18]. Perhaps a missing step from Hayes' guidance is "Step Five-A: Bring down global capitalism" as well as for Silberman "(6a) Consider social and ecological benefits over economical ones to prepare for a future of LIMITS". These are steps that the authors themselves support, and as you will see in the coming sections, struggle to contend with in the context of academic research. Despite this, bringing down or reconfiguring capitalism is beyond the scope of this article. Whilst the experiences and frustrations shared in this paper are, no doubt, a byproduct of capitalism, the role of this paper is not to commentate on capitalism, but instead provide a foothold for those looking to tackle the structures and situations that present themselves when attempting to do ethical and activist research within the context of LIMITS. In doing so we turn our head to beginning an open discussion at LIMITS about the methods we use, the barriers we face, and how we work around them as a community in order to build traction for some sort of change.

This paper attempts to carve out a space in which LIMITS scholars can share what they have learned, not just what they find, by doing just that: reflecting on the project as a whole and sharing our experiences.

3 SWITCH-GIG: ORIGINS, AIMS AND STORY.

Switch-Gig looked to speak to the real-world limits of courier work in a political economy that pushes workers into precarious and highly competitive working arrangements, whilst prioritising unsustainable forms of transportation of food and goods [10, 23]. It aimed to challenge how workers are made vulnerable through their employment with on-demand platforms, using worker perspectives about the future of the gig economy to do this. The intention was to 'research through design' [44], to develop rich understandings by codesigning with couriers some plausible systems that could communicate and challenge particular issues faced by participants in their work; thus helping to identify potential routes for further development, and learning more about couriers' visions of the future in the process. Informed by the practice of critical [16] and adversarial design [15], we wanted the research to be grounded in the practical and immediate needs of an increasingly marginalised workforce. Methods and tools common to co-design were mobilised, including cultural probes [19] delivered through workshops intended to capture perspectives from on-demand couriers, whilst collaborating with them to imagine other possible futures through ideation and iterative co-design activities [35]. In doing this, we hoped to re-imagine with them how technologies might better support just, dignified and equitable futures for couriers. In short, the objective of 'Switch-Gig' was to empower gig economy couriers by generating design provocations and speculative concepts that shed light on the otherwise-invisible experiences of workers.

This project builds on previous work conducted by the main author of this paper [3]. This earlier work was concerned with the related topic of the last-mile in courier work, yet its focus on the 'efficiency' and optimality of that work, in pursuit of ecological sustainability, actually provided opportunities for platforms to further exploit their workers through Key Performance Indicators (KPIs) and measurements [3]. Whilst presenting, the now collaborator and coauthor, Ben Kirman, was critical that the work did not consider the voices of gig economy couriers who were already marginalised, and who would likely be further impacted if the author's design opportunities were taken up by delivery platforms. After some critical reflection [2, 4] and having gained some inspiration from Turkopticon [27], Bates & Kirman acknowledged that there were opportunities to work with gig economy couriers and other associated stakeholders (i.e. cooperative movements, industry and unions) to begin to imagine new and fairer futures through design. It was from these roots that 'Switch-Gig' was realised.

And so, a grant was developed for a pilot project funded through the Not-Equal network (a UKRI funded Network+), a network that "aims to foster new collaborations in order to

create the conditions for digital technology to support social justice" [11]². A core requirement of Not-Equal proposals is that they "facilitate collaborations between academics and non-academic communities". In centering the grant around fairness, we would make use of couriers as active collaborators in the project, build collaborative links with the courier branch of the Independent Workers of Great Britain (IWGB) union³, alongside an inclusion of others with a stake in thinking about the future of the gig economy (Miralis⁴, Future City Logistics⁵, and Cooperatives UK⁶).

With fairness in mind, it was decided that all decisions made in relation to this work would have to follow as ethical a practice as possible. Work then began to facilitate the workshops proposed; developing their structure and plan, and the cultural probes needed to facilitate the planned discussions. Recruitment was undertaken, and meetings were conducted to iterate both the structure of the workshops, the themes we were hoping to access, as well as the cultural probes needed to develop the co-design elements of the project. Making use of pre-existing work [8] from this space and the visions of the future presented in that (from Deliveroo, from Silicon Valley experts, and from the perspective of Cooperatives), these plans and ideas were further iterated - with the cultural probes drawing inspiration from this autoethnographic account. The co-design workshops were then held; with 10 participants split across two workshops, one in Manchester and one in York. The workshops were full days, allowing ample time to work with participants, to understand the nuances of their perspectives as couriers, and the varying experiences between them.

Despite the above description's appearance, the process was far from seamless. There were various barriers and challenges faced, despite the research group's coherence around the agendas and goals of the project; these being: to work with couriers, fairly, to imagine together future scenarios that might better help their working conditions. In short, we wanted to do something with their perspective that might help to change current conditions now, and in the future. Despite our group's coherence, what follows delineates how this was more a process of 'muddling through' [9], and that was despite our pre-existing knowledge of the community prior to beginning this work.

4 REFLECTIONS FOR LIMITS

We now provide four broad reflections that we believe can be re-appropriated by others within LIMITS hoping to mobilise the knowledge they have of their communities, when undertaking more activist and ethical forms of research. We hope that these reflections prove useful for the rest of the LIMITS community.

The four broad points include: engaging your grassroots communities; keeping your notion of value flexible; combining expertise at the right time, and the challenges of activist research within university structures.

Engaging with the Grassroots Community

Despite the prior work of the authors, and the knowledge that they already had about their community of interest (see [2–5]), there were challenges involved in making use of this expertise in this project. This is because knowing – on paper – that couriers are a busy, mobile and moving community is much different to experiencing it in practice. Consequently, our first reflection is that knowledge of, and experience of working with communities are two distinct issues, and that knowledge does not always neatly translate.

For Switch-Gig, this played out in several ways, predominantly in the recruitment phase of the project, when for example, our contact with the IWGB fell through⁷ and, we also had difficulties in developing a rapport with couriers (especially in Manchester). Whilst in York recruitment was a little easier, due in part to an active WhatsApp community (which allowed word to travel quickly) and an already-existing relationship with local union members, recruitment in Manchester was more challenging.

As a larger city than York, with a more dispersed central area, developing a rapport with busy, mobile and moving individuals in Manchester was more difficult. And this is not because we did not already have a sense of the qualities of courier work before starting. This, as an experience of the community, however, translated in us running up and down Manchester's Oxford Road, attempting to spot less-busylooking couriers, or those potentially already on a break, in the hope of striking up a conversation. Though, again, we already knew that they were often treated as data points (by the platforms they work for, as well as researchers interested in those platforms) it was challenging to fully explicate our interest in fairness for them, as well as the details of the project and participation in the form of a quick elevator pitch (in the classic Mancunian rain) specifically when interrupting their attempts to work.

²Not-Equal, https://not-equal.tech, accessed April 2020

³https://iwgb.org.uk, accessed April 2020

⁴https://www.miralis.co.uk, accessed April 2020

⁵https://futurecitylogistics.com, accessed April 2020. Future City Logistics is a consultancy focusing on issues of sustainability and social justice in logistics and is made up of Ian Wainwright, who worked as Head of Freight at Transport for London

⁶https://www.uk.coop/uk, accessed April 2020

 $^{^7\}mathrm{The}$ IWGB is a independent union meaning that the resources are prioritised on recruitment, supporting members, strike actions, and on case work. Originally we had planned to work with the IWGB to co-design elements of the workshop and help with recruitment.

Keeping Your Notion of Value Flexible

Our second reflection revolves around the notion of value in the project and how this changed during the process. This is because: we – as researchers – may think we know what might generate value in our contexts, but we must be agile and adaptable enough to respond to the experiences and needs of the communities of interest.

This reflection was generated through various moments from the process, however, we focus here on the plans that were made when compared to the experience of carrying them out. In making use of the cross-disciplinary expertise of the research group (Computer Science, Design and Sociology), our belief was that the 'real' value of the work proposed would be generated through the cultural probe elements of our plans. These cultural probes were, as already described, meticulously planned, developed and iterated, before being tried out by the researchers prior to the workshops. And yet, when it came to the workshops themselves, there was little engagement from the participants (and in response to this, the researchers) with the probes themselves. Though they were 'better' developed than other elements of the workshop's activities, they just did not 'fit' with the conversations being had. The couriers knew already what they wanted to discuss, and required no probes from the researchers to do so. This, much like the experience of recruiting, relates to what Holcombe identifies as a false sense of a researcher's own knowing and expertise, in short, their arrogance [26].

So whilst it is important to be prepared for running workshops (design or otherwise) as planned, by examining the existing literature as well as carefully considering all the ethical dimensions in a well-structured research process, the actual value from the workshops came from the generative conversations that were had, and the more open-ended workshop exercises, over the cultural probes themselves. It was the space provided by the workshops, for the participants to articulate their experiences, questions, and grievances in relation to their daily work experiences that the real value was generated, not the method of cultural probes alone.

Some of the less developed 'back-up' activities, for instance, a map-drawing exercise (without formal instructions) generated some of the most useful conversations. This map-drawing exercise allowed our participants to engage with the city they worked in between themselves, about both their collective and individual experiences of working in the city, whilst articulating changes and developments in the platform and its impacts on the spatiality of their work. Whilst the maps as an activity were serendipitously included after the more well-developed cultural probes, this example goes to show that – at times – research itself is about adaptability to a notion of what you believe to be valuable, over well thought out plans and research processes alone.

Combining Expertise at the Right Time - Couriers, Industry and the Union

There are many actors who have expertise in, and a stake and interest in the future of the gig economy (i.e. platforms, workers, and associated industries, like our collaborators Future City Logistics, Miralis and Cooperatives UK, though others exist e.g. policy makers, app developers and data providers too). It can, however, be tempting to make use of all forms of expertise at once, concurrently engaging with them all throughout the entire research process; particularly when they have already expressed an interest in involvement.

It is far more important, however, to ensure that the appropriate expertise is mobilised at the appropriate time. For instance, in wanting to discuss alternative and fairer futures with gig economy workers (i.e. the informal yet real experts of this sort of work), we had to resist the temptation to also invite our industry partners to these workshops - in the knowledge that formal experts of the field would have a different perspective (and agenda) on that future, and potentially more power in defining its direction. Whilst - in reality- this combination of perspectives was particularly interesting to us, at the point of writing this article we are vet to engage with our industrial partners. Though the original plan was to include them in the workshops, after consulting our academic expert working group, we made the decision not to. They articulated that many tech companies and platforms talk to each other, meaning that riders and couriers who may feel that they are being watched and controlled by technology already, might be additionally sensitive to the presence of related industry players. We were aware of stifling any ideas they might propose that could impact their work or even be co-opted by the platforms and app designers for further profit. To ensure then that we combine their expertise appropriately, our revised plans are to develop several prototypes from the workshop output (Phase 2, in prep) and then elicit commentaries and reflections from industrial partners to be presented alongside these prototypes. This sort of approach better attends to the imbalance of power already experienced by these workers.

Power dynamics were felt by the research team to be a core challenge of this sort of work. This is because creating a 'safe' space for open conversation about the platforms was key in allowing for the riders to talk openly about their experiences and how they would like to see the landscape change in the future. These participants were all savvy and driven, perhaps born out of the necessity to be on their toes both literally in the city as they tiptoe through the landscape, but also metaphorically when it comes to dealing with the platforms and protecting their income. Clearly these participants are experts in their own fields, and the value of the workshop came from providing space for that expertise to be shared.

This likely would have been hindered by including representatives and associates of the platforms, or local policy makers and other road using and city dwelling communities (e.g. taxi drivers, customers, restaurant owners/workers).

Activist Approaches within University Structures: Fairness and Other Pressure Points.

The fourth reflection was of most surprise to the research team and it relates to the challenges of taking on more activist approaches within university structures.

Having written a grant that centred around fairer futures for gig economy workers, approved by the funder (also interested in fairness) it was assumed that the ethical features (i.e. fair payment, timing the workshop during 'cold spots' in a courier's week) built into the grant would be 'allowed' by the universities employing us. Specifically, we wanted to ensure that we were paying a living wage to the couriers who would be sharing their expertise with us, recognising the labour-intensive process of a six to eight hour workshop, but also recognising that time taken to participate in our workshop would take away time in which they could work.

However, the central institutional research ethics guidance's own conceptualisations around fairness created a conflict in the project, and another barrier to overcome. For them, paying participants for their time at this rate was problematic as they argued it was potentially coercive. After much discussion to navigate the nuances of these issues, the recognition of couriers as expert professionals – by the ethics committee – allowed them to be employed as fixed-rate contractors on the project, with the rate being determined in relation to a living wage. The important distinction here, for them, was that methods of co-design centred entirely on their role as experts in this within this field.

Setting this up took time away from the research process, time which we did not really have planned within the short time frame of a pilot project (6 months, though only 12 weeks of paid labour). The time frame proposed barely had the space in which to formally hire two research associates to support the workshops, given the length of time required for new staff to be processed through university HR systems. This shortness of timing was only further impacted by the UK university strikes of early 2020, and the COVID-19 related closures of March 2020

In short, there is much effort and time involved in trying to research fairness and in attempting to do so fairly. Finding the space to do this within the existing university structures, even with a sympathetic funding body, can be an uphill battle.

5 CONCLUSION - REFLECTING ON RESEARCH PROCESSES IN THE CONTEXT OF DONELLA MEADOWS' FUTURE WORLD OF 2030.

Having presented these reflections on the process of working with couriers to imagine new and fairer futures, it is crucial to highlight that these challenges and barriers did not occur neutrally and often interacted with one another. For instance, we have referred to the dynamics of power in the context of working with couriers and other stakeholders, and we also referred to the view of paying couriers fairly for their time in research processes. However, we did not refer to the way in which the university's conception of fairness mattered more than our own when deciding about payment, due to their power in our working arrangements with the funder. Nor did we refer to the way in which, despite all our concerns around power imbalances in working with couriers, none of those who participated actually seemed to care that much about the power of the platforms that they worked for, and were quite forward - in fact - in sharing data with us throughout the workshop, without being asked directly or prompted to do so.

These challenges and barriers and their interactions, matter in important ways as they reveal qualities of the communities that we research. But there are other ways in which such challenges matter for us as a community, so we now provide a short word on why accounts of this type are – in our view – lacking specifically in the LIMITS community, before moving onto relate these ideas to Meadows' vision of 2030.

Academic research is afflicted by the continual and fast-paced research-and-publish cycle, in which promotion and hiring criteria depend on the quick publication of a large number of research outputs. This easily lends itself to highly sanitised descriptions of methods and of projects, whereby the ups and downs and processes of muddling through [9] are redacted to a simple and easily-digestible final form. These final forms hide the conflicts, moments of confusion and battles inherent in working with marginalised communities in ethical ways, specifically when situated within university and research structures.

In obscuring the actuality of these processes, we also obstruct the sharing of valuable lessons garnered through working with marginalized communities. Even with expertise about the community to hand, practice and paper differ massively, and it is difficult to know how plans will differ to their actual implementation. However, many in the LIMITS community share our concern for the ethical, even if their context differs. So, we can learn from one another, and we can share the lessons learnt through the process to avoid a reinvention of the ethics' wheel each time a new research project is undertaken.

By avoiding such a reinvention, we can also be upfront and honest about the limits of academic and research structures themselves, and the challenges of more activist forms of research, within such structures. Though sometimes these challenges are cohort or community specific (e.g. chasing cycle couriers in the rain), other times they are structural (e.g. getting a university to pay an invoice in reasonable time, university strikes), or societal (e.g. COVID-19). And there is still a lack of academic space to talk honestly about the pains, challenges, shortcomings etc. of our research, to be humble and to do better by helping others to do better.

If we are even to attempt to subvert established systems, we must be activist in our research. Whilst there are indeed approaches and processes for doing more practical forms of activist research [25, 37] we need to reflect more as a community on how these plans actually work out in practice. What are the barriers to these kinds of projects, and what does it mean to build relationships with communities and to do this kind of work *with* them?

Activist research, of course, requires power, a capacity which is challenging to harness either as an individual researcher, or in an individual project. But we can harness it together as a community. If we hope to contribute towards Meadows' vision of the future, we need to not only understand and empower the marginalised communities that we research, but also to challenge the academic community in which we sit. Being open and honest about the ways in which academic structures themselves limit research around fairness is an important first step in this direction. But another important step is to move beyond the folk tales told amongst action researchers about how to bend the systems we study, and to discuss our attempts (and their failures) more publicly, and in more formal arenas.

It is through this sort of discussion that we can – together - begin to work towards Donella Meadows vision of 2030, a vision which touches on the inclusivity of platforms and of technology, reflecting the world's diversity whilst at the same time uniting cultures with relevant, accurate, timely, unbiased, and intelligent information, presented in its historic and whole-system context. Given that the future is always in becoming, in that the here and now matters greatly for what follows, it is clear that activist approaches are essential if we are to move from understanding to steering the contexts in which people are marginalised by technologies. However, we simply do not have the time to reinvent the wheel each and every time a new project begins, and so we invite others to also talk (us through) the(ir) walk. We must share our pains, and the gains of activist research and its processes, to learn from one another and to improve the chances we have of beginning to enact change in the communities that we study.

6 ACKNOWLEDGEMENTS

Thanks to our funders (EPSRC EP/R044929/1, EP/S027726/1). We thank Not-Equal for providing us with a platform and the funding to get our pilot study off the ground. The sandpit event and networking in Newcastle was particularly valuable to Oliver and Ben. We'd like to thank Lilly Irani and Jamie Woodcock for being academic advisers on this project, for meeting with us, and helping us shape Switch-Gig. Great thanks go to Adrian Friday and Shaun Lawson for their invaluable feedback at the grant writing stage. Thank you to our partners Miralis, Future City Logistics and Cooperatives UK. Thanks to Dom at the IWGB Couriers Branch for finding time post-workshops to start a conversation, even in the midst of COVID-19. Finally, we would like to offer the biggest thanks to the Deliveroo riders, some of whom even travelled across the country, to participate in Switch-Gig. We look forward to collaborating with you again in the future.

REFERENCES

- [1] Ali Alkhatib, Michael S. Bernstein, and Margaret Levi. 2017. Examining Crowd Work and Gig Work Through The Historical Lens of Piecework. In Proceedings of the 2017 CHI Conference on Human Factors in Computing Systems (Denver, Colorado, USA) (CHI '17). ACM, New York, NY, USA, 4599–4616. https://doi.org/10.1145/3025453.3025974
- [2] Oliver Bates and Adrian Friday. 2018. Intangible commodities with free delivery: finding the limit in digitally mediated e-commerce and workforce injustice.. In Proceedings of the 2018 Workshop on Computing within Limits. 1–8.
- [3] Oliver Bates, Adrian Friday, Julian Allen, Tom Cherrett, Fraser McLeod, Tolga Bektas, ThuBa Nguyen, Maja Piecyk, Marzena Piotrowska, Sarah Wise, and Nigel Davies. 2018. Transforming Last-mile Logistics: Opportunities for More Sustainable Deliveries. In Proceedings of the 2018 CHI Conference on Human Factors in Computing Systems (Montreal QC, Canada) (CHI '18). ACM, New York, NY, USA, Article 526, 14 pages. https://doi.org/10.1145/3173574.3174100
- [4] Oliver Bates and Ben Kirman. 2019. Sustainable Platform Cooperativism: Towards social and environmental justice in the future of the gig-economy. *Limits* 2019 (2019).
- [5] Oliver Bates, Christian Remy, Callum Nash, and Ben Kirman. 2019. The future of techno-disruption in gig economy workforces: challenging the dialogue with fictional abstracts. In *Proceedings of the Halfway to* the Future Symposium 2019. 1–4.
- [6] Janine Berg. 2015. Income security in the on-demand economy: Findings and policy lessons from a survey of crowdworkers. Comp. Lab. L. & Pol'v 7. 37 (2015), 543.
- [7] Eli Blevis. 2018. Seeing What Is and What Can Be: On Sustainability, Respect for Work, and Design for Respect. In Proceedings of the 2018 CHI Conference on Human Factors in Computing Systems. 1–14.
- [8] Callum Cant. 2019. Riding for Deliveroo: resistance in the new economy. John Wiley & Sons.
- [9] Allaine Cerwonka and Liisa H Malkki. 2008. Improvising theory: Process and temporality in ethnographic fieldwork. University of Chicago Press.
- [10] Georgia Corr. 2020. The rise of on-demand food delivery services and growing need to switch these journeys from motors to muscle, a case study of London. https://inews.co.uk/news/uk/deliveroo-rider-workdelivery-switch-car-drivers-motorbikes-498484
- [11] Clara Crivellaro, Lizzie Coles-Kemp, Alan Dix, and Ann Light. 2019. Not-equal: democratizing research in digital innovation for social

- justice. interactions 26, 2 (2019), 70-73.
- [12] Laetitia Dablanc, Eleonora Morganti, Niklas Arvidsson, Johan Woxenius, Michael Browne, and Neila Saidi. 2017. The rise of on-demand 'Instant Deliveries' in European cities. In Supply Chain Forum: An International Journal, Vol. 18. Taylor & Francis, 203–217.
- [13] Laetitia Dablanc, Neila Saidi, Anne Aguilera, Alina Bekka, Nicolas Lazarevic, Josselin Rouhier, Philippe Bairras, and Paul Marcher. 2019. Enquêtes sur les micro entrepreneurs de la livraison instantanée à Paris. (2019).
- [14] Valerio De Stefano. 2015. The rise of the just-in-time workforce: Ondemand work, crowdwork, and labor protection in the gig-economy. Comp. Lab. L. & Pol'y J. 37 (2015), 471.
- [15] Carl DiSalvo. 2012. Adversarial Design. MIT Press.
- [16] Anthony Dunne and Fiona Raby. 2013. Speculative everything: design, fiction, and social dreaming. MIT press.
- [17] Hamid Ekbia and Bonnie Nardi. 2016. Social inequality and HCI: The view from political economy. In Proceedings of the 2016 CHI Conference on Human Factors in Computing Systems. 4997–5002.
- [18] Hamid R Ekbia and Bonnie A Nardi. 2017. Heteromation, and other stories of computing and capitalism. MIT Press.
- [19] Bill Gaver, Tony Dunne, and Elena Pacenti. 1999. Design: cultural probes. interactions 6, 1 (1999), 21–29.
- [20] Mareike Glöss, Moira McGregor, and Barry Brown. 2016. Designing for Labour: Uber and the On-Demand Mobile Workforce. In Proceedings of the 2016 CHI Conference on Human Factors in Computing Systems (San Jose, California, USA) (CHI '16). ACM, New York, NY, USA, 1632–1643. https://doi.org/10.1145/2858036.2858476
- [21] Mark Graham. 2017. A fair work foundation.
- [22] Mark Graham. 2017. Towards a fairer gig economy. Meatspace Press.
- [23] Katie Grant. 2020. Deliveroo riders 'forced out of work' as food delivery firm abruptly prioritises motorbikes and cars. https://tps.org.uk/news/ bursary-award-winner-announced
- [24] Charles R Hale. [n.d.]. What is activist research. ([n.d.]).
- [25] Gillian R Hayes. 2012. Taking action in your research. interactions 19, 4 (2012), 50-53.
- [26] Sarah Holcombe. 2010. The Arrogance of Ethnnography: Managing Anthropological Research Knowledge. Holcombe, S (2010), 22–32.
- [27] Lilly C. Irani and M. Six Silberman. 2013. Turkopticon: Interrupting Worker Invisibility in Amazon Mechanical Turk. In *Proceedings of the SIGCHI Conference on Human Factors in Computing Systems* (Paris, France) (CHI '13). ACM, New York, NY, USA, 611–620. https://doi. org/10.1145/2470654.2470742
- [28] Marvin Landwehr, Alan Borning, and Volker Wulf. 2019. The High Cost of Free Services: Problems with Surveillance Capitalism and Possible Alternatives for IT Infrastructure. In Proceedings of the Fifth Workshop on Computing within Limits. 1–10.
- [29] Katriina Lepanjuuri, Robert Wishart, and Peter Cornick. 2018. The characteristics of those in the gig economy. UK Department for Business, Energy and Industrial Strategy. Accessed 10 (2018).
- [30] Wenlong Li and Karen Gregory. 2019. Vulnerable Workers: Gig Economy, Platform Labour and'Smart Data' (Comments on the Smart Data Review). Platform Labour and'Smart Data' (Comments on the Smart Data Review) (August 5, 2019) (2019).
- [31] Christoph Lutz, Gemma Newlands, and Christian Fieseler. 2018. Emotional labor in the sharing economy. In Proceedings of the 51st Hawaii International Conference on System Sciences.
- [32] A McKinnon. 2016. Crowdshipping: A communal approach to reducing urban traffic levels? Kühne Logistics University (2016).
- [33] FN McLeod, TJ Cherrett, Tolga Bektas, Julian Allen, Antonio Martinez-Sykora, Carlos Lamas-Fernandez, Oliver Bates, Kostas Cheliotis, Adrian Friday, Maja Piecyk, et al. 2020. Quantifying environmental and

- financial benefits of using porters and cycle couriers for last-mile parcel delivery. *Transportation Research Part D: Transport and Environment* 82 (2020), 102311.
- [34] Donella Meadows, Jorgen Randers, and Dennis Meadows. 2004. Limits to growth: The 30-year update. Chelsea Green Publishing.
- [35] MJ Muller and A Druin. [n.d.]. Participatory design: the third space in HCI, 2003. Human-computer interaction: Development process ([n. d.]), 165-185
- [36] Bonnie Nardi. 2015. Inequality and limits. First Monday 20, 8 (2015).
- [37] M Six Silberman. 2015. Information systems for the age of consequences. First Monday 20, 8 (2015).
- [38] Nick Srnicek. 2017. Platform capitalism. John Wiley & Sons.
- [39] Joshua Tanenbaum, Marcel Pufal, and Karen Tanenbaum. 2016. The limits of our imagination: design fiction as a strategy for engaging with dystopian futures. In Proceedings of the Second Workshop on Computing within Limits. 1–9.
- [40] Austin Toombs, Colin Gray, Guoyang Zhou, and Ann Light. 2018. Appropriated or Inauthentic Care in Gig-Economy Platforms: A Psycholinguistic Analysis of Uber and Lyft. In Extended Abstracts of the 2018 CHI Conference on Human Factors in Computing Systems. 1–6.
- [41] Alex J Wood, Mark Graham, Vili Lehdonvirta, and Isis Hjorth. 2019. Good gig, bad gig: autonomy and algorithmic control in the global gig economy. Work, Employment and Society 33, 1 (2019), 56–75.
- [42] Jamie Woodcock and Mark Graham. 2019. The gig economy: a critical introduction. Polity.
- [43] Ming Yin, Siddharth Suri, and Mary L Gray. 2018. Running Out of Time: The Impact and Value of Flexibility in On-Demand Crowdwork. In Proceedings of the 2018 CHI Conference on Human Factors in Computing Systems. 1–11.
- [44] John Zimmerman, Jodi Forlizzi, and Shelley Evenson. 2007. Research through design as a method for interaction design research in HCI. In Proceedings of the SIGCHI conference on Human factors in computing systems. 493–502.