NOT-EQUAL

EPSRC Network+: Social Justice through the Digital Economy

Pilot Projects: Application Form

We are seeking funding proposals from shortlisted candidates for Not Equal's first call for pilot projects. For full guidance please see details of the call on the Not Equal website.

Pilot research projects can be between 6-8 months in length. We expect to fund up to 12 pilot research projects of up to £40k (80%FEC) for this first funding call.

Please submit this form before the deadline of **5pm, 30th April 2019** to notequal@ncl.ac.uk.

Applicants will be advised on the outcome of their proposal by the 30th May 2019.

GENERAL INFORMATION	
Lead Applicant (PI): Dr Ben Kirman	**Co-Investigators (names and organisations):**
Email address: ben.kirman@york.ac.uk	Dr Oliver Bates, Lancaster University
Job Title: Lecturer in Interactive Media	**Supporting Partner(s):**
Department: Theatre, Film and Television	Co-operatives UK (https://www.uk.coop/)
Organisation: University of York	Miralis Data (https://www.miralis.co.uk/)
	Future City Logistics (https://futurecitylogistics.com/)
	Advisory Board: Dr Lilly Irani (UCSD), Dr Jamie Woodcock (Oxford Internet Institute, Fairwork Foundation), Prof Shaun Lawson (Northumbria University), Prof Adrian Friday (Lancaster University)
	Project Title: Switch-Gig
	Project Tagline: Exploring digital opportunities to switch the gig-economy to fair and just work
	EoI Reference Number: NE84

1. SUMMARY

Please provide a summary of your proposed research project (<300 words).

2.8 million people work in the UK's "gig-economy". In this emerging industry, software platforms provide value and efficiencies to employers and customers (e.g. transparency through tracking workers, deliveries) but little transparency of the impact on workers or the commons. Gig-workers are often classified as "independent contractors", and aren't afforded the same protections and rights as those in "traditional" employment. The creep of inequality, risk and casualisation of gig-workers continues, work is assigned by closed and proprietary algorithms, workers are isolated, and wages and benefits are eroded.

In collaboration with gig-workers and technical, 3rd sector, and academic organisations, Switch-Gig will explore the opportunities for technological innovations used in the industry to support workers themselves, across employers, switching the current gig-economy to focus on equality, just work, and power for workers. This will lay key groundwork for technologies capable of transformative change in the experience of broader gig-working industries.

The objective of Switch-Gig is to generate formative data, speculative design concepts and prototypes, to demonstrate meaningful ways in which gig-working can be supported by grassroots technology projects. These may take the form of projects that help raise public awareness, connect gig-workers to combat isolation, or provide access to legal advice and support.

This will be achieved through engaging such "lifestyle couriers", initially focusing on workers involved with delivery of parcels and food, directly through a pair of structured co-design workshops. In these workshops, we will work with couriers to develop speculative and prototype concepts, to gain deeper understanding of their needs and identify challenges and opportunities they face around their work. The outcomes of this pilot project will inform larger scale projects to support the needs of, and address the issues faced by, gig-workers, both within the lifestyle courier community and beyond, both in the UK and abroad.

2. How does your proposal align with the themes and objectives of Not EQual?
Please describe how your proposal helps understand, explore or develop practical responses to social justice issues within the digital economy; and how does your proposal enhance a cross-disciplinary way of working. Please also indicate which of the Not Equal challenge areas your proposal focuses on e.g. Algorithmic Social Justice, Digital Security for All and Fairer Futures for Business and Workforce (<500 words).

Switch-Gig is a collaborative project under the theme of Fairer Futures for Business and Workforce. It directly engages "lifestyle couriers", initially with a focus on gig-workers in local food and parcel delivery, engaging with technology companies (Miralis Data), logistics consultants (Future City Logistics) and other organisations in this space (Co-operatives UK), to explore opportunities provided by technology to support gig-workers in their fight for fairer, more transparent and just work.

The project is cross-disciplinary, involving academics across design, computer science and sociology, and partners from the logistics industry and 3rd sector organisations in this space. The project aims are for research to support practical outcomes, with potential for genuine impact on the lives of gig-workers, by investigating and exploring new routes for gig-workers to self-organise and share knowledge using technology owned by workers themselves. In addition, Switch-Gig is concerned with knowledge-sharing, both through engaging research with workers directly and also through exposing the needs and issues faced by these marginalised workers to academia and industry.

Switch-Gig directly meets the aims of Not-Equal in recognising the potential negative implications of technological innovation and the impact on the lives of vulnerable workers who face challenges of uncertainty and marginalisation in this growing industry. While these industrial innovations are successful in commercial terms, Switch-Gig also considers how these kinds of innovative new tools and systems can support the increasingly marginalised workers in these new marketplaces, and help amplify their voice and public awareness of issues around gig-working. In essence, Switch-gig looks to switch the dynamic between the gig-economy and gig-workers, from a place of powerlessness and eroded rights to a trajectory of fairness, transparency and increased power through the design of new and novel digital technologies that support gig-workers.

This project will actively join academic organisations, industry, third sector and the real people impacted by issues of injustice by responsibly tending to issues faced by "lifestyle couriers" through cross-disciplinary and collaboration with an academic advisory board and the following non-academic partners:

Co-operatives UK is a network of thousands of co-operatives in the UK. Alongside their members, they work consistently and single-mindedly to grow the co-operative economy by promoting, developing and uniting co-operatives.

Miralis Data is a leading company working in data analysis and algorithm development with particular expertise in data and tools that enable more efficient and sustainable logistics and supply chains.

Ian Wainwright, of **Future City Logistics**, is an independent logistics consultant with decades of experience in the practical issues of logistics in urban areas grounded in over 11 years of experience with Fleet Management and Programmes at Transport for London.

We have also connected with the **Independent Workers' Union of Great Britain** (IWGB) as a new and dynamic union which represents sections of the workforce which have traditionally been non-unionised and under-represented.

3. CASE FOR SUPPORT

Please describe your proposed projects, including its aims and objectives. This will include the design and method of your project, context, background literature and data to be collected. Please also indicate why is this research important and for whom (<1000 words).

The "gig-economy", as "the exchange of labour for money between individuals or companies via digital platforms"[8], continues to grow, enabled by technology that automatically distributes work and payment remotely. However, there is an imbalance of power and a lack of transparency around how algorithms used in this industry manage workers, and their emotional labour[9,12], that causes frustration and growing concern [3,13]. Recent union actions [1], platform co-operative movements [2], worker perspectives [7], and reviews of working practices [11] highlight a need for technology and legislation to work in the best interest of workers. Groups such as the IWGB and the Fairwork Foundation, continue to make strides in supporting workers both in the gig economy and more widely, providing advice and support for co-organisation, increasing transparency and challenging the industry in its treatment of gig-workers (e.g. collective action against Uber, Deliveroo and Transport for London).

Complementing this important work, Switch-Gig will identify opportunities for technology to support grassroots efforts by gig-working couriers. Just as technology is used by corporations to manage workers, this project will support workers in identifying opportunities for similar technology, owned by workers, can help them understand their rights, connect with others, and raise public awareness. This is a novel research project that directly engages

with gig-workers themselves, and will give academia, industry and 3rd sector organisations further meaningful and practical insight into the variety of issues they face, connecting them with academics, technology and domain experts, to find ways technology can be used to increase fairness and give workers tools to support addressing the current imbalance of power.

At the centre of Switch-Gig is a pair of co-design workshops that bring together courier gig-workers and partners, as a practical and productive approach to engage stakeholders in exploring design opportunities. Ahead of these workshops, cultural probes [6] (including disposable cameras, postcards, stationery and pre-paid postage) will be distributed to participants, as a valuable, established technique for gaining "textural" information about experiences. Participants will be invited to use them alongside their work, documenting their typical work experience as well as incidents or situations they feel appropriate. This will support a rich and nuanced understanding of the context and experience of this kind of work. At the workshops, the contents of the probes, and developed photographs, will be used to inspire and guide discussions around the gig-working experience, share insights, and identify areas of interest or concern. This will be followed by ideation and iterative co-design activities (e.g. [10]) that creatively explore how technology can better support workers in the contexts and situations that have been identified. Importantly, at this stage the aim is not to represent full system specifications, but as "research through design" [e.g. 14] that develops rich understanding through co-designing plausible systems that communicate/challenge particular issues faced by participants in their work, and identifies potential routes for further development. This is informed by practice of critical [5] and adversarial design [4], grounded in the practical and immediate needs of an increasingly marginalised workforce. Given this precarity we have budgeted for participant incentives in line with the living wage. Post-workshops, this collection of design concepts will be developed further, expanded, documented through video, photographs and articles, ensuring they communicate the particular needs and opportunities identified. This set of concepts/prototypes will be used to engage the public and industry in the issues faced by workers in this space, and inform future academic and community-driven work. PI and Co-I have extensive experience with this workshop and prototyping methodology as a productive and practical way of generating insight in collaboration with stakeholders.

We have recruited a group of experts across the aims of the project to act as an advisory board. They provide a wealth of domain experience that will provide support across the aims and operation of the project.

- **Dr Lilly Irani** is Associate Professor at the Data Science Institute at UCSD, specialising in the cultural politics of high-tech work, co-creator of Turkopticon and author of *Chasing Innovation: Making Entrepreneurial Citizens in Modern India*.
- **Dr Jamie Woodcock** is a researcher at the Oxford Internet Institute. He is a sociologist of work, focusing on digital labour, the gig economy, and resistance, member of the Fairwork Foundation and author of *Working the Phones: Control and Resistance in Call Centres*.
- **Prof Shaun Lawson** (Northumbria University) and **Prof Adrian Friday** (Lancaster University) are senior academics with extensive experience of running RCUK projects, including on social justice, gig-working, marginalisation and lone-working.

1. Anon, *Uber couriers and drivers occupy London offices in dispute over terms and conditions*, 4 Oct 2018, (2018)
2. Conaty, P. et al., *WORKING TOGETHER: Trade union and co-operative innovations for precarious workers*, 2018.
3. De Stefano, V. *The rise of the just-in-time workforce: On-demand work, crowdwork, and labor protection in the gig-economy*. Comp. Lab. L. & Pol'y J. 37. 2015
4. DiSalvo, C. *Adversarial Design as Inquiry and Practice*. MIT Press, 2012.
5. Dunne, A. & Raby, F. *Speculative everything: design, fiction, and social dreaming*. MIT press, 2013.
6. Gaver, B., et al. *Design: cultural probes*. interactions 6.1, 21-29. 1999.

7. Graham, M and Shaw, J. (eds). [Towards a Fairer Gig Economy](#). 2017.
8. Lepanjuuri, K., et al. *The characteristics of those in the gig economy*. Department for Business, Energy & Industry Strategy. 2018.
9. Lutz, C., et al. *Emotional labor in the sharing economy.* Proc. Hawaii International Conference on System Sciences. 2018.
10. Muller, M J. and Druin, A. *Participatory design: the third space in HCI*. Human-computer interaction: Development process. 2003
11. Taylor, M., et al. *Good work: the Taylor review of modern working practices*. BEIS. 2017.
12. Toombs, A., et al. *Appropriated or Inauthentic Care in Gig-Economy Platforms: A Psycho-linguistic Analysis of Uber and Lyft*. Proc EA of SIGCHI CHI conference. ACM, 2018.
13. Waters, F. & Woodcock, J. [*Far From Seamless: a Workers' Inquiry at Deliveroo*](#). Viewpoint Magazine, 20/9/2017
14. Zimmerman, J., et al. *Research through design as a method for interaction design research in HCI*. Proceedings of the SIGCHI CHI conference. ACM. 2007.

4. NOVELTY OF PROPOSAL

Please explain the novelty of the proposed research project (<150 words).

Gig-workers are often at the mercy of opaque systems that manage their work, treated as "contractors" distanced from their employers. Therefore, the technology often acts in an oppressive way and neglects the voice of the worker.

The novelty of Switch-Gig is in recognising the power and opportunities technology provides, but opening up workers themselves to be owners and stewards of these systems, in opposition to the existing power relationships, using a ground-up approach that prioritises fair work and welfare, applying ideas from projects such as Turkopticon (https://turkopticon.ucsd.edu/), in the area of gig-working. Switch-Gig focuses on research for the benefit of workers and grassroots organisations, by providing new opportunities for workers to connect directly with experts on technical and strategic aspects, enabled by Not-Equal and project partners, to support and engage them in designing a future that better represents their needs and reflects their perspectives.

5. NON-ACADEMIC PARTNERS

Please explain how your non-academic partners will engage with the project e.g. in-kind time, use of facilities, etc. (<150 words)

Switch-Gig is designed as a collaborative project between workers, industry, 3rd sector organisations and academics, along with advisory board to support research objectives. This proposal has been built with the following non-academic partners offering in-kind time:

Co-operatives UK will contribute to workshops and design phases, to support developing practical strategies for co-operative solutions to issues emerging from the project.

Miralis Data and **Future City Logistics** will contribute technical expertise in the final phase of the project, working to consider how concepts developed in the project can be taken forward and provide key insight into opportunities for algorithms to support worker-driven projects.

We have connected with the **Independent Workers' Union of Great Britain** (IWGB) informally, and hope for their support in ensuring a sympathetic connection between the project and broader issues faced by gig-workers.

6. DELIVERABLES AND SOCIAL IMPACT

Explain the outcomes and deliverables of your project as well as the expected social impact. Please ensure this answer is suitable for a lay audience (<300 words).

This pilot project brings together gig-workers, academics, technologists, and 3rd sector organisations to develop a richer understanding of issues facing the millions of gig-workers in the UK. Through a pair of co-design workshops, a collection of prototypes will be built that explores the challenges of gig-working, and how technology can better support and empower workers.

The outcomes of this project include gaining a direct, broad understanding of the challenges and opportunities faced by gig-working couriers in the UK. This will help increase transparency around issues faced by workers in this industry, for the community of gig-workers, their employers, 3rd sector organisations, policymakers and the general public.

In addition, the collaborative workshops engage gig-workers and technologists to generate ideas and concepts that use emerging technology to support them in their work, and support organisational, publicisation and co-operative initiatives. We will build a set of prototypes for grassroots systems and organisations, as projects owned and operated by and for the community of workers in this space, that will be fully documented, recorded, and freely provided online in appropriate forms, such as blueprints for co-operative organisations, kits for building fair systems, and subversive design provocations. At this stage, Switch-Gig explicitly does not engage with gig-economy employers, since the voice of workers is prioritised and we are conscious of power dynamics, however, following the pilot project we hope to engage employers directly in addressing these issues.

Switch-Gig aims to expose the real issues faced by workers in the emerging gig industry, who are often masked and disempowered by technology. As a pilot project, the initial focus is on gig-workers in the UK courier sector, however Switch-Gig will lay the groundwork for further developments to ensure just and fair work in the emerging technology mediated industries more broadly, both in the UK and internationally.

7. WORK PLAN

Please outline the work-plan for your proposed research/activity (<200 words).

There are three phases to the project:

Phase 1 – September 2019 – October 2019: Initial project setup, working with advisory board to develop workshop strategy and guide research methodology, and working with RA (Lancaster), partners and stakeholders (Co-operatives UK, IWGB) to recruit gig-workers and representatives. Assembling and distributing cultural probes.

Phase 2 – October 2019 – December 2019: Workshops in York and Lancaster. Including documentation and continuous feedback, in collaboration with all partners. Each (catered) workshop will involve six representatives from the local community of couriers, incentivised according to living wage expectations for each city, and engage in co-design activities exploring and developing concepts that address issues informed by experience.

Phase 3 – December 2019 - February 2020. In collaboration with Miralis Data and Future City Logistics, and RA (York), in refining, developing and documenting rich concept prototypes based on workshop activities, generating videos, and engaging in outreach. At this stage we will also be investigating, with partners and the advisory board,

future options for the project, including further seeking further funding, and reaching out to collaborate with industry partners.

8. How will you communicate the findings of your research to the public?

Please outline your dissemination plans e.g. events, networking with local support groups, creating vlogs, writing blogs, etc. (<200 words).

Switch-gig is a collaborative project where findings are used by partners in various ways. For the industrial and 3rd sector partners this will involve feeding into larger projects they have around gig-working, and informing future work and reports. Academically this includes publishing papers about the process, impact and insights at appropriate venues such as DIS, DRS conferences.

A central output from the project will be a collection of accessible and provocative prototype concepts designed with, and for, gig-workers that speak to issues faced in their work. The final phase of the project will refine, documented and publish these on a public-facing website, along with appropriate credit and narratives explaining both the project process and insights. This will be pushed directly to national and popular science press, with institutional support of marketing teams at the Universities of York and Lancaster, and submitted to appropriate venues such as the Festival of Ideas, and York Mediale 2020. We will also share details of the work directly through venues such as the Conversation, and feed insights into other ongoing projects. Finally, as a pilot project, outputs will be shared within the Not-Equal network and sister projects, to identify new routes and opportunities for collaboration.

9. Existing funding

Will any existing funding be used on this project (e.g. PhD funding)? If so, please provide information on these and how they will be used on the project.

The project has the full support of the host organisations, including support from the Digital Creativity Labs at York, who will provide mentorship, guidance and support on managing and developing impact from the project. Although there is no direct existing funding applied here, the impact-driven research environments at York and Lancaster, plus the contributions of the advisory board, provide key support throughout the project.

10. Track record of applicants

Please indicate any previous relevant experience, qualifications and publications of the lead applicant and team (<200 words).

Dr Kirman is an ECR working in the area of critical and radical design/prototyping in Human-Computer Interaction. He is co-chair of the alt.CHI track at CHI, co-organiser of the 2018 CHI workshop on Post-Capitalist HCI, co-investigator on the £5.8m WEAVR demonstrator project on the Audience of the Future (ISCF), and member of the Digital Creativity Labs at York, an £18m (EPSRC, AHRC, InnovateUK) centre for impact-focussed research in Interactive Media. He has worked widely prototyping with industry including the BBC, Philips, NHS, Telecom Italia, and Honda.

Dr Bates is an ECR with a track record in HCI and network systems, delivering novel systems and user research that promotes sustainability and responsible innovation. Dr Bates brings both a track record in sustainable logistics ("FTC2050") and opportunities for collaborative with the forthcoming project "Flip-Gig" and EPSRC DE Telling Tales of Engagement award "'I want it, and I want it now' – demonstrating the transport and environmental impacts of last-mile parcel delivery."

11. BUDGET BREAKDOWN

Please provide a detailed budget breakdown and justification for your budget - for example: salary grade, point, duration and %FTE: specified journeys or conferences; identified items and quantities of consumables (<300 words)

The project involves **PI at 5% FTE and Co-I at 3%** for the full 6 months of the project. The general role of PI and Co-I is in management of the project, liaising with partners and arranging workshops at venues with appropriate participants. In addition, PI and Co-I lead the research effort in the project, developing the methodology in collaboration with the advisory board.

Phase 1 of the project involves preparation for two workshops in Lancaster and York. This phase brings on an RA (grade 6, 25% for 6 months) at Lancaster to support design, assembly and distribution of cultural probes and preparation for workshops. Cultural probes include disposable cameras, stationery, pre-paid postage packets for return of items, and costs for developing returned film.

Phase 2 workshop venues in York and Lancaster are provided by the Universities, plus costs for stationery and catering. 6 participants will be recruited locally to each venue for full day events, with local travel will be reimbursed (£10 ea). We will incentivise gig-worker participants through engagement at living wage rates of £9 p/h for 8 hours. The budget includes economy travel and accommodation for PI, Co-I and RA to attend non-local workshops.

Phase 3 brings on a design-focussed RA at grade 6 (100% FTE for 1.5 months) at the University of York, to support analysis of research outcomes and to generate and document concept prototypes.

11. TOTAL PROJECT COST

Please list in GBP under the headings - Overall cost, Staff, Travel and Other

	Directly incurred costs (80%)	Directly incurred costs (100%)
Staff (RAx2)	York: 4,502.91 Lancaster: 3,878.14 **Total: 8,381.06**	York: 5,628.64 Lancaster: 4,847.68 **Total: 10,476.32**
PI/Co-I Directly Allocated Costs	York: 1,303.08 Lancaster: 633.50 **Total: 1,936.58**	York: 1,628.85 Lancaster: 791.88 **Total: 2,420.73**
Non-Staff Costs: Consumables	1,305.44	1,631.80
Non-Staff Costs: Facilities/Equipment	0	0

Non-Staff Costs: Travel	480	600
Non-Staff Costs: Estates (RA's only)	1,214.79	1,518.49
Non-Staff Costs: Indirect (RA's only)	10,765.78	13,457.22
Overall Cost*	Total Not Equal Funding Requested: 24,083.65	Total for information only: 30,104.56

Directly Incurred Posts

Role	Post	Start Date	Period on Project (months)	% of Full Time	Scale	Increment Date	Basic Starting Salary	Super-Annuation and NI (£)	Total cost on grant- 80% FEC (£)	Total cost on grant- 100% FEC (£)
Researcher	RA - Lancaster	1 Sept	6	25%	6	1 August 2020	31,302	7,479.44	3,878.14	4,847.68
Researcher	RA - York	1 Jan	1.5	100%	6	22 Dec 2020	33,199	10,860	4,502.91	5,628.64

*Please note you are able to claim for RA time and RA relevant FTE related costs, PI/Co-I time and other non-staff costs. You are not able to claim for FTE related costs attributed to PI/Co-I time.

Further Information

If you have any further questions regarding this call for proposals, please contact notequal@ncl.ac.uk or Kate Kelly (Not Equal Project Manager) on 0191 2088268.