

Workers of the Internet unite? Online freelancer organisation among remote gig economy workers in six Asian and African countries

Wood, Alexander; Lehdonvirta, Vili; Graham, Mark

DOI:

[10.1111/ntwe.12112](https://doi.org/10.1111/ntwe.12112)

License:

Other (please specify with Rights Statement)

Document Version

Peer reviewed version

Citation for published version (Harvard):

Wood, A, Lehdonvirta, V & Graham, M 2018, 'Workers of the Internet unite? Online freelancer organisation among remote gig economy workers in six Asian and African countries', *New Technology, Work and Employment*, vol. 33, no. 2, pp. 95-112. <https://doi.org/10.1111/ntwe.12112>

[Link to publication on Research at Birmingham portal](#)

Publisher Rights Statement:

This is the peer reviewed version of the following article: Wood, A. J., Lehdonvirta, V. and Graham, M. (2018), Workers of the Internet unite? Online freelancer organisation among remote gig economy workers in six Asian and African countries. *New Technology, Work and Employment*, 33: 95-112. doi:10.1111/ntwe.12112, which has been published in final form at <https://doi.org/10.1111/ntwe.12112>. This article may be used for non-commercial purposes in accordance with Wiley Terms and Conditions for Self-Archiving.

General rights

Unless a licence is specified above, all rights (including copyright and moral rights) in this document are retained by the authors and/or the copyright holders. The express permission of the copyright holder must be obtained for any use of this material other than for purposes permitted by law.

- Users may freely distribute the URL that is used to identify this publication.
- Users may download and/or print one copy of the publication from the University of Birmingham research portal for the purpose of private study or non-commercial research.
- User may use extracts from the document in line with the concept of 'fair dealing' under the Copyright, Designs and Patents Act 1988 (?)
- Users may not further distribute the material nor use it for the purposes of commercial gain.

Where a licence is displayed above, please note the terms and conditions of the licence govern your use of this document.

When citing, please reference the published version.

Take down policy

While the University of Birmingham exercises care and attention in making items available there are rare occasions when an item has been uploaded in error or has been deemed to be commercially or otherwise sensitive.

If you believe that this is the case for this document, please contact UBIRA@lists.bham.ac.uk providing details and we will remove access to the work immediately and investigate.

Workers of the Internet unite? Online freelancer organisation among remote gig economy workers in six Asian and African countries

Alex J. Wood, Vili Lehdonvirta and Mark Graham

University of Oxford

ACCEPTED – *New Technology, Work and Employment*

Abstract

This article presents findings regarding collective organisation among online freelancers in middle-income countries. Drawing on research in Southeast Asia and Sub-Saharan Africa, we find that the specific nature of the online freelancing labour process gives rise to a distinctive form of organisation, in which social media groups play a central role in structuring communication and unions are absent. Previous research is limited to either conventional freelancers or ‘microworkers’ who do relatively low-skilled tasks via online labour platforms. This study uses 107 interviews and a survey of 658 freelancers who obtain work via a variety of online platforms to highlight that Internet-based communities play a vital role in their work experiences. Internet-based communities enable workers to support each other and share information. This, in turn, increases their security and protection. However, these communities are fragmented by nationality, occupation and platform.

Introduction

In 2018, around half of the world’s population have joined the Internet. The rise of so-called ‘online labour platforms’¹ have enabled Internet users to find work that they might not otherwise have been able to obtain, and clients to access labour power potentially from anywhere in the world. According to one estimate, this has created a \$5 billion market for online work that is served by 48 million workers (Kuek et. al 2015). In Britain, Lapanjuuri et al. (2018) find that 4.4% of adults have worked in what has become known as the gig economy in the last year, and suggest that 2.4% of adults do so at least monthly. The gig

economy consists of work that is transacted via platforms and delivered either locally (thus requiring the worker to be physically present) or remotely (Huws et al., 2016).

The gig economy can be seen as part of the wider category of ‘non-standard employment’ (Kalleberg, 2000). Though platforms that facilitate remote gig work provide earning opportunities, they have also been criticised for heightening the fragmentation, commodification, casualisation and precarisation of work (Bergvall-Kåreborn and Howcroft, 2014; Standing, 2016; De Stefano, 2016). A growing number of studies investigate collective organisation of among platform workers and the potential that this has to improve labour conditions through collective action (Gray et al., 2016; Gupta et al., 2014; Irani and Silberman, 2013; Lehdonvirta, 2016; Rani, 2017; Yin et al., 2016). This scholarship is also informing activism aimed at improving online labour conditions (Graham and Woodcock, 2018; Irani and Silberman, 2013).

However, existing studies on collective organisation among platform workers tend to focus on microwork platforms, and particularly on Amazon Mechanical Turk (MTurk). As the name suggests, ‘microwork refers to work consisting of the remote completion of small information processing tasks, such as transcribing a snippet of hand-written text, classifying an image, or categorizing the sentiment expressed in a comment’ (Lehdonvirta, 2016: 54 - see also Berg, 2016: 2-3). Microwork constitutes only around a tenth of all remote gig work (Kuek et al., 2015; Kassi and Lehdonvirta, 2016), and is fairly unrepresentative of the wider work undertaken by platform workers, who are engaged in more traditional forms of ‘freelance’ and ‘contingent’ work that have not been broken down into microtasks, such as programming, website design, graphic design, translation, writing, transcription and digital marketing activities.

MTurk as a platform is also fairly unique in that the workforce is geographically concentrated: recent surveys suggest that as many as 80% of workers are located in the

United States (US) (Hitlin, 2016). In contrast, an index that tracks four leading platforms suggests that US-based workers account for just 13% of all work mediated by online labour platforms (Kässi and Lehdonvirta, 2016). Therefore, it is unclear how far findings generated from microwork research can be generalised to the more skilled freelance work which most platform workers undertake, or to workers outside of the US. This article investigates collective organisation among geographically and occupationally varied online freelancers, using data on platform-based freelancers located in Sub-Saharan African and Southeast Asian countries. A recurring theoretical theme is how both worker identities and self-organisation are shaped by the manner in which the production process is structured (Marx, 1976 [1867]; Burawoy, 2012), helping us to make sense of differences in collective organisation between (online) freelancers, microworkers, and standard employees.

The article proceeds with a review of the extant literature regarding collective organisation among platform microworkers. We then compare those findings with related research on conventional freelancer collective organisation. In the empirical part of the article, we use 107 interviews with online freelancers and a survey of a further 658 workers based in Southeast Asia and Sub-Saharan Africa to provide an elucidation of the existence and nature of collective organisation among online freelancers. The aim of this article is to investigate the degree to which this collective organisation mirrors or diverges from that of microworkers and conventional freelancers in high-income countries, and consider reasons why. A secondary aim is to consider the potential for unionism, if currently absent, to develop among online freelancers in the remote gig economy in the future. In doing so we highlight the importance of the division and nature of labour in shaping worker organisation and identity and thus the need for unions develop a form of ‘freelancer unionism’ which builds upon the ‘freelancer identity’ deployed by these workers and which is of instrumental value for workers in the global remote gig economy.

Microworker collective organisation

Microworkers face significant barriers to collective organisation, and thus action. A defining feature of microwork platforms is that they provide an efficient means for work to be highly fragmented and distributed across an international workforce. Therefore, the physical distance between co-workers is potentially much greater than that which conventional workers experience. Additionally, these workers may be engaged by a multitude of globally dispersed clients and platforms, making it difficult for workers to identify targets for collective action (Graham and Anwar, in press). As the ability to undertake collective action is one reason why workers have traditionally joined unions (Hodder et al. 2016), these barriers to collective action are likely to reduce the appeal of formal collective organisation for microworkers. While there are some examples of successful union organising among conventional contingent workers, these have tended to make use of community-level associational power within particular cities; in sectors where jobs are highly mobile, such as microwork, associational power would have to exist at the global level for similar strategies to be effective (Silver, 2003).

Nevertheless, microworkers have been found to make use of the Internet to communicate with each other (Gray et al., 2016; Gupta, 2014; Lehdonvirta, 2016; Yin et al., 2016). Indeed, Yin et al. (2016: 2) detail the ‘rich network topology’ of communication among MTurk workers, formed of overlapping forums, websites characterized by public or semi-public discussions organised into threads, used by these workers. Microworkers have been found to use these communication channels to share information about their work and the labour market. For example, workers identify fair and unfair clients (e.g. those who do not pay, or pay late), share information about lucrative tasks, and discuss best practices for dealing with clients (Gray, 2016; Lehdonvirta, 2016; Martin et al., 2014). Workers are even found to attempt to unilaterally regulate labour conditions through negatively highlighting

tasks which are seen as too low-paying and ‘admonish[ing] each other against accepting tasks that would result in hourly earnings below some given minimum wage’ (Lehdonvirta, 2016: 72). In addition to these purely worker-led activities, there are a handful of initiatives supported by scholars and activists aimed at improving MTurk workers’ labour conditions. Perhaps the most well-known being Turkopticon, a website and browser plugin that enables MTurk workers to submit information on clients and check a client’s record before accepting a task (Irani and Silberman 2013). Others include a letter writing campaign aimed at the CEO of Amazon, aiming to force the platform to increase their pay rates and institute formal collective voice mechanisms, as well as an effort to develop guidelines for academic researchers who hire MTurk workers.

A key finding regarding the collective organisation of microworkers is the importance of Internet forums in structuring worker communications (Martin et al., 2014; Yin et al., 2016). Yin et al. (2016) find that close to 90% of all communication between workers is via forums. However, these forum-based networks are found to be fragmented by platform, worker nationality, worker seniority, and type of task (Lehdonvirta, 2016; Yin et al., 2016). According to a quantitative study by Yin et al. (2016: 2), MTurk microworkers ‘are more likely to communicate with other workers who live in the same country, have worked on MTurk for a similar amount of time, and prefer the same types of MTurk tasks (e.g., classification or scientific experiments).’ In particular, U.S.-based microworkers are found to be much more likely to connect to other U.S. microworkers, and Indian microworkers even more likely to connect with other Indian microworkers. The study finds little strong, consistent evidence for homophily along other characteristics, such as worker age, gender, or education. These findings are corroborated by a qualitative study (Lehdonvirta, 2016), in which national identity stands out as the most systematic basis on which microworkers convene online; to the extent that microworkers express new collective identities, these tend,

in the case of those who use MTurk at least, to be tied to the particular online labour platform that they use. In particular, these microworkers commonly refer to themselves as ‘Turkers’ and build their communities around forums with names such as ‘Turkernation’, which focus solely on the experiences of workers on the MTurk platform (Milland, 2016).

This fragmentation, in turn, can limit the scalability of action, resulting in relatively small numbers engaging in collective action. For example, Lehdonvirta (2016) notes that after four years of operation, the plugin mentioned above was installed by just 7,000 workers out of over 500,000 registered workers on the platform; similarly, it is possible to observe that the guidelines for academic research users are signed by only 184 workers, and just 30 workers appear to have taken part in the letter writing campaign aimed at improving labour conditions (Dynamo, 2017a; 2017b). Some of these numbers may paint an overly pessimistic picture; today, after about eight years of operation, the number plugin installs has reached around 35,000, and the number of truly active MTurk workers is likely much smaller than half a million. Indeed, there is experimental evidence suggesting that the plugin may be having an impact on the market, increasing fulfillment times for low-reputation employers (Benson et al., 2015). Lehdonvirta (2016) nevertheless concludes that microworkers’ networks and Internet-based ‘gathering places and the identities they sustain remain after all too fragmented and divided to offer a basis for very effective collective action.’ This is perhaps unsurprising, given how Silver (2003: 22) highlights the difficulty of forging associational power across nationalities when ‘competitive pressures [lead workers] to draw non-class borders and boundaries [i.e. based upon ethnicity etc.] as a basis for claims for protection’.

Conventional freelancer collective organisation

The above discussion illustrates some of the strong evidence that collective organisation exists among microworkers, and that this organisation is structured around forums and

segmented by platform, worker nationality, worker seniority, and type of task. However, as outlined above, microwork is in many ways distinct from the more skilled freelance work which makes up the vast majority of the digital services outsourced via online labour platforms. As there are currently few studies of collective organisation among online freelancers, it is informative to consider the literature relating to conventional freelancers and contingent workers.

A major barrier to collective organisation among contingent workers is their fragmentation. Such workers are often separated from other workers in the workplace and have different formal employers, diverse formal employment statuses, diverse terms and conditions, and ultimately exist in competition with one another (Gumbrell-McCormick, 2011; Gumbrell-McCormick and Hyman, 2013; Smith, 1998). This fragmentation and competition may also be transposed into workers' subjectivities, proving a further barrier to collective organisation (Smith, 1998). An additional issue is that contingency makes forming a bargaining relationship difficult and workers may struggle to identify targets for collective action (Heery, 2009; Kalleberg, 2000) and thus reduce the appeal of unionisation (Hodder et al., 2016).

These barriers can be even greater for freelancers (Heery et al., 2004; King, 2014). However, freelancer unions have developed some novel ways to overcome, or at least limit, these obstacles. Research has examined collective organisation among film and television production freelancers (Antcliff et al., 2007; Heery et al., 2004; Saundry et al. 2006; 2007) musicians (Heery et al., 2004; Umeny, 2016), and freelance entertainers, journalists, tour guides, interpreters and translators (Heery et al., 2004). The key finding of these studies is that such unions have moved their efforts 'to a scale of activity beyond the enterprise' (Heery, 2009; 434).

These unions are based in established professions and recruit workers as they enter

that profession or while they search for work, by targeting students and freelancer conferences. They also make heavy use of advertisements and marketing. Additionally, they make themselves more attractive to underemployed workers through their low membership fees (Heery et al., 2004; King, 2014). Representation and services (training, support, insurance, etc.) also extend beyond the enterprise, being tailored for workers who have multiple and frequently changing employers and periods without work (Heery et al., 2004; King, 2014), and are provided by professional union officers rather than by workplace representatives (Heery et al., 2004). Participation in freelancer union structures also takes place beyond the workplace, being based upon geographic groups (Heery et al., 2004; King, 2014) or national committees (Heery et al., 2004).

As for collective identity, occupational, industry- and freelancer-based identities rather than worker identity have been highlighted as the basis for collective interests among freelancers (Saundry et al., 2007; 2012). The U.S.-based Freelancers Union seeks to build a freelancer collective identity based upon the positives of the work, namely independence and autonomy, and confirming its members' identities as 'creative, entrepreneurial, independent, outside the box and solution driven' (King, 2014: 156).

Union-supported freelancer collective action has focused on improving the external labour market position of freelancers (e.g. providing security benefits, training and increased labour market information) and targeted multiple employers via employer associations (Heery et al., 2004). This targeting of collective action towards multiple employers has potential to reduce competition through establishing shared minimum wages and employment standards (Heery et al., 2004). However, in some countries, such as the U.S., anti-trust laws can act as a barrier to collective bargaining by freelancers.

Freelancer unions have also attempted to influence pay and other terms and conditions through draft contracts and fee sheets which specify recommended pay rates for different

work tasks (Heery et al., 2004; Umeny, 2016). Finally, freelancer unions have sought to use collective action to place political pressure on the state for greater occupational regulation such as licensing (Heery, 2009; Heery et al., 2004). The Freelancers Union has proved particularly successful in New York at pressuring the authorities to adopt new regulations that reduce taxation of freelancers and protect them from non-payment by clients (Freelancers Union, 2017; King 2014). Heery et al. (2004: 29) argue that acts such as these constitute ‘instances of political and legal action that are designed to reduce competition within, and promote the regulation of, freelance labour markets.’

While much traditional industrial relations research has focused on the role of unions in collective action, freelancers have also been found to make extensive use of less formal and hierarchical groups, especially those facilitated by the Internet (Antcliff et al., 2007; Saundry et al., 2007; 2012). Freelancers use these communication networks to obtain labour market opportunities and information, reduce social isolation, maintain professional norms, provide support and advice, and create feelings of community. In some cases, these networks have been used to explicitly challenge the exploitation of freelancers through coordinating pay demands, expressing grievances and engaging in campaigning activity (Saundry et al., 2006; 2007; 2012). Freelancers can also maintain labour standards via the enforcement of informal norms around price and other terms and conditions (Umeny, 2016). Umeny argues that ‘price norms’ are weaker than formal institutional regulation. But Heery et al. (2004) suggest that such actions, when sustained by networks of freelancers, can add up to a soft form of unilateral labour market regulation. Saundry et al. (2006; 2007; 2012) detail how such networks nevertheless lack the institutional identity, knowledge, experience, expertise, sustainability and solidity to win hard industrial relations outcomes. Instead, the authors show that unions can link with these groups to provide the missing resources required to raise labour standards.

The above review of the literature turns up a number of similarities between the collective organisation of microworkers and of conventional freelancers, around fragmentation, identities, networks, and informal norms. However, there is an empirical gap in the literature when it comes to collective organisation among online freelancers. Moreover, the extant literature is explicitly focused on high income countries, principally the U.K. and to a lesser extent the U.S. and France. It is unclear to what degree these findings can be generalised to low- and-middle-income countries where much remote gig work takes place. With these extant findings in mind, the aim of this article is to investigate the degree to which collective organisation among online freelancers in Sub-Saharan Africa and Southeast Asia mirrors or diverges from that of microworkers and conventional freelancers in high-income countries. A secondary aim is to consider the potential for unionism to develop among online freelancers in the remote gig economy in the future.

Methods

Our analysis is primarily based on semi-structured face-to-face interviews with workers (N=107). This sample consists of 36 workers in Southeast Asia (SEA, comprising 12 in the Philippines, 5 in Malaysia and 19 in Vietnam) and 71 in Sub-Saharan Africa (SSA, comprising 29 in Kenya, 23 in Nigeria and 19 in South Africa). The interviews were conducted during seven months of fieldwork in Southeast Asia and Sub-Saharan Africa (Sep 2014 – Dec 2015). In total 147 workers were interviewed, however, in the present analysis we exclude 40 workers who did not use freelancer platforms. For an overview of the project, see Graham et al. (2017a) and Graham et al. (2017b). Worker participants were recruited through listings on four of the world's largest online labour platforms. Workers were shortlisted based on a range of predefined sampling criteria, including types of work performed, feedback profiles, platform membership duration, hourly rates, gender and location. The main sampling goal was to ensure varied representations of experiences in the

countries of interest. Additionally, to help us understand the differences in the organisation of online freelancers and microworkers we interviewed two microworkers who moderated two of the largest microworker forums. The workers we interviewed used a variety of platforms. This qualitative data was coded, following Vaughan's (1991) theory elaboration approach, using Nvivo. The coding process was informed by the dimensions of collective organisation identified in the previous section. Pseudonyms have been used for both the informant names and the platforms they used.

We also present results from a survey of 658 workers in SEA and SSA. The survey results are used to demonstrate that the major themes identified in the interview coding process represent common experiences among this population of remote gig workers. The survey respondents were recruited by posting an online survey (lasting approximately 30 minutes) as a job task on two of the largest online labour platforms. Workers from SEA and SSA who had been active in the last two months and had completed at least five hours of paid work or had five or more feedback ratings were invited to complete the survey in return for \$3 USD. Workers were also filtered to avoid repeat respondents and to achieve a stratified sample of nationalities, genders and skills. Probability sampling was not possible without the platforms' collaboration, because the probability of members seeing and responding to the survey task is unequal and unknown. Instead, we followed a purposive sampling strategy in which candidates matching the selection criteria were personally invited to respond to the survey task. The result is similar to a stratified or quota sample, except that the subsample sizes were not predefined but depended on how easy or difficult it was to find members of each subpopulation on the platform. While the result is not a probability sample, it is still likely to be more representative of the population than samples recruited simply by posting an open task, because it mitigates self-selection biases from task type preference and reservation wage. Response rates to our survey job invites were 30% and 7% on the two platforms

respectively. These are low response rates by conventional social survey standards, but an improvement upon self-select Internet survey research, where a response rate cannot be measured. We obtained a total of 853 responses, of which 195 were excluded due to not being located in SEA or SSA, not having completed the modules related to collective organisation and identity or failing an attention check. This left us with a sample of 658 workers.

Online freelancer organisation – nature and scope

Seventy-eight percent of our survey respondents said that they rarely or never communicated face-to-face with other people who used online work platforms. Where face-to-face connections did exist, they were structured around hierarchical sub-contracting or pre-existing family or friendship ties. In contrast to the lack of local face-to-face communication, we found that Internet forum and social media groups played a vital role in our informants' work experiences. The importance of Internet-based communication is supported by our survey, with 58% of respondents digitally communicating with other online workers at least weekly via social media, SMS, email or forums. This is in line with findings regarding the use of the Internet to facilitate collective organisation among both microworkers (Gray et al., 2016; Gupta et al., 2014; Irani and Silberman, 2013; Lehdonvirta, 2016, 2016; Yin et al., 2016) and conventional freelancers (Antcliff et al., 2007; Saundry et al., 2007; 2012).

Communication facilitated by social media, SMS message and email was more common than forum use. Fifty-three percent of respondents communicated with other workers in this way at least weekly and 25% percent responded that they did so several times a day, while 34% participated in online forums related to their work at least once a week. However, both studies of microworkers and conventional freelancers stress the role of forums in structuring online communities. While online forum use was significant, our interviews highlight the greater importance of social media groups; indeed, our survey found that

weekly social media group use was 16 percentage points (pp) greater than weekly forum use. The contrast between our findings and those regarding conventional freelancers may be explained by these studies having been undertaken in the mid-2000s when social media was still in its infancy. However, this is not the case with the studies of microwork, which were undertaken in the 2010s. This suggests, at least with regards to microworkers, that the Internet-based infrastructure which underpins the collective organisation of online freelancers differs in this regard.

Despite the emphasis on the use of social media groups rather than forums, online freelancers used these groups in a similar fashion to the ways that microworkers and conventional freelancers have been found to use forums: to gain insights into the nature of online work. This was especially important when workers were looking for ways to enter online freelancing and needed to learn how they could make a successful living from online labour platforms. As Nicole (the Philippines; writing and translation) explained:

‘It’s like an exchange of ideas... “Ok, I am currently employed in a call centre, I want to work on GigOnline. Help please.”’

Workers continued to use these forums and social media groups once they had joined a platform. Being unfamiliar with the rules of the game, they needed to ask more experienced workers for help. Some workers perform this supportive work for other workers (most of whom they have never met) without any expectation of financial remuneration. Another incentive for continued social media group use was that workers with strong platform reputations would often re-outsource the work which they won on a platform to other workers. Thus social media groups also represented a potential source of work for new workers lacking strong reputations and a supply of freelance labour which experienced workers could utilise for subcontracting. In addition to general insights and help around ways to make a living from online freelancing, these groups also enabled the sharing of

information concerning platforms and clients, which increased the workers' security and protection in the labour market. This information included warnings about scams, which were a major concern related to working in this low-trust environment based upon non-proximate relations (Wood et al., 2016). David (Kenya; link building, transcription, virtual assistant) illustrated how workers sought to increase their protection:

'I go there, and tell "this employer's invited me for work, what should I do? Does anyone know him? Is it a scam or something?"... [I will also be] taking screenshots of certain websites and posting them there [and ask] "is this a scam, is this legit."'

As well as highlighting potential scammers, workers also used these social media groups to recommend clients who could be trusted, as well as naming those who were deemed to pay an unacceptably low rate. As Nwankwo (Nigeria; programmer) explained:

'What he did was he basically alerted other freelancers in the group saying, "This client is basically posting scams," and stuff like that. And we've also other people saying, "This client pays too low." "This is a very good client."'

In some cases, the sharing of labour market information constituted a deliberate attempt to influence pay through maintaining informal price norms, similar to those described by Umeny (2016) among conventional freelancers and by Lehdonvirta (2016) among microworkers. For example, Gloria (South Africa; virtual assistant) explained she used these networks for this purpose, as well as as a source of help:

'Please look at my LinkedIn, please make suggestions. Look, I want to put this on my webpage, is this professional? What should I be charging?' I don't want to undercharge and then it undercuts the integrity of the whole industry.'

Many of the interactions through these social media groups revolved around the provision of help and support. A spirit of community support and mutual help was evident, in which some of the more knowledgeable were willing to sacrifice their time to support the less

experienced; though there were also informants who explicitly said that they only listened and did not contribute. This pattern is characteristic of distributions of contributions on most Internet communities, with most content produced by only a few people, and most users only consuming content. Lilian (Kenya; transcription) explained one group as:

‘A learning forum because every new day there is a transcriber who wants to come on board, or somebody who is writing and they want to know more about it. They just have to ask to join the group and come in, ask a question and you get like 50 comments, people telling you stuff. You see someone asking something which you know about, for example, the website I'm working on right now, I give them advice. Mostly when they're new... why should I not. You try to tell them, do this, do that and then this will happen. When this happens, do this. Yeah, just give them a way through.’

Additionally, Kelechi (Nigeria; writing) explained how:

‘You have people that are in a fix so to speak, either with their clients or with the platform, so we offer advice. I can understand because I've been in that situation before, and I know they're people that are in that situation. They're annoyed with their situation, so I mean, it doesn't cost me anything to go in, and lend a helping hand, and everybody wins.’

As illustrated by Table 1., most of the social media groups identified by our interview informants defined themselves in terms of nationality, occupation and platform use. Thus, online freelancer communities were largely closed to others working via the same platform but with a different nationality or occupation (in social network analysis terms, these networks were homophilic). This is similar to findings regarding both microworker and conventional freelancer collective organisation, which find such workers fragmented by both task type (occupation) and nationality (Antcliff et al., 2007; Lehtonvirta, 2016; Heery et al., 2004; Saundry et al., 2006; 2007; Yin 2016). The much greater prominence of one of the

major online freelancing platforms in the Philippines than in Sub-Saharan Africa is reflected in the names of the social media groups mentioned by our informants. There were 221,100 registered searchable Filipino workers on the platform in question, compared to for instance 21,700 Kenyans. Likewise reflected in the groups' names is the fact that in Kenya online freelancing is dominated by writing and translation work (Kässi and Lehdonvirta, 2016). While these groups usually have a national emphasis, they tend to combine this either with a focus on a particular platform or a particular occupation.

[Table 1. about here]

At first glance the survey results suggest slight regional variation in the level of digital communication between workers: 62% of SEA workers digitally communicated with other online workers at least weekly, compared to 55% of SSA workers. However, when we compare the four countries with $n > 70$ (Kenya, $n=101$; Nigeria, $n=73$; Indonesia, $n=84$; and the Philippines, $n=127$), we find that digital communication with other workers is actually more common among workers in the two African countries. There was also a gender difference, with digital communication being 9% more frequent among men. Of seemingly greater importance was whether the worker perceived online work as being important to them (73% responded that it was) and whether it was their main occupation (61% responded that this was the case). Sixty-three percent of those who reported online work as their main occupation digitally communicated with other workers at least weekly, compared to 51% of those who reported that they had an alternative full time occupation. Sixty-two percent of those who reported that their online work was important to them digitally communicated with other workers at least weekly, compared to just 48% of those who said it was unimportant.

Shared identity: freelancing contra unions

A key feature of the extant literature is the role played by unions in the organisation of conventional freelancers (Heery et al., 2004; Heery, 2009, King, 2014; Saundry et al., 2006;

2007; 2012; Umeny, 2016). Yet unions were absent from our interview informants' accounts of online freelancing. Our interviews did not yield a single interviewee who was in a union related to their online freelance work. Furthermore, only 6% of our survey respondents were union members. Our interviews suggest that these 6% were probably members due to other non-freelance jobs which they held. Indeed, less than 3% of those who responded that online work was their main occupation were union members. Not only did unions not feature in the lives of the online freelancers we interviewed, only a minority of workers felt unions would be beneficial. Of our survey respondents, 22% agreed that they wanted to organise a labour union or workers' association, against 44% who disagreed, with the rest neither agreeing or disagreeing. Those workers who did express an interest in unions explained that they felt unions could help monitor labour standards, increase worker bargaining power vis-à-vis platforms and potentially provide mutual-style lending. However, the apathy of most workers towards unions stemmed from a combination of pre-existing negative perceptions of unions, identification with being 'freelancers' and 'entrepreneurs', and an expectation that the benefits of unionisation would not outweigh the costs. For example:

'Union-wise in the Nigeria context, our unions are not helping us... they are not doing the right thing... All they think about is their own pocket. There is no need for me to join a union, pay dues, and at the end of the day, I am not getting the benefit. (Joseph, Nigeria; social media marketing)

Importantly, only a few of the interview informants referred to their clients as their 'employer' or 'boss', or to themselves as 'workers', or expressed that they felt they were an employee of the platform. This apathy towards unions might be rooted in the specific cultural dynamics in which these workers were embedded (Hyman, 2001), which were marked by an absence of strong institutionalised labour movements. However, interestingly they are also in line with the findings of Saundry et al. (2006; 2007; 2012) that the identity deployed by U.K.

freelancers and supported by Internet-based communication networks is not conducive to unionisation due to being narrower, less politically oppositional and lacking a class basis. For instance, only a few of the interview informants referred to their clients as their ‘employer’ or ‘boss’, or to themselves as ‘workers’, or expressed that they felt they were an employee of the platform. A far more important theme of the interviews was how workers saw themselves as working for clients and had embraced being a freelancer as a positive element of their identity. Nicole (Philippines; customer service, virtual assistant) provided an illustration of this:

‘I would say I’m an online freelancer... [people] think it’s interesting, and a lot of people would ask you questions about how do you do that.’

Samuel (Kenya; social media management) enthused about the benefits of online freelancing, despite the risks it entailed:

‘Online working is real and it’s something that many people have established as a career and are doing it fulltime... I would encourage everyone to take part in it and yes, there may be risks that you may face along the way but if you keep yourself focused on it and do your work with passion, you’re going to achieve everything that you always desire.’

As the above quote and the findings related to the use of online communities illustrate, these workers were keen to affirm their sense of collective identity as freelancers, even to the extent that they encouraged and helped other workers to join the sector rather than protecting their insider position. This was in spite of the fact that doing so would likely increase competition and potentially erode their own labour market position. In addition, workers’ positive identification with being freelancers was contrasted with experiences of conventional employment. The perceived autonomy and flexibility of freelancing made it appealing, even when workers recognised that freelancing entailed a worsening of other labour conditions

(Wood et al., in press). For example, Jayson (Philippines; lead generation) explained:

‘I don't have a boss and stuff, so it's too good to be true... It's very different from [conventional employment]... The jobs that we are being asked to do on GigOnline are most probably the same as what we're doing in the office. But when we do it on a freelancer perspective, it puts more pressure to it... failure is not an option. When you fail, it reflects on your reputation. That contract could be ended right there and then, if the client isn't happy... It's lovely being a freelancer because I can take our work where I need to, and not being confined to an office.

In contrast to informants' experiences of traditional business process outsourcing, the informants and survey respondents experienced considerable discretion in online freelancing and widely valued their perceived flexibility. Therefore, while this freelancer identity may be influenced by the framing adopted by platforms and supported by interactions with other workers via Internet-based communities, it was seemingly rooted in their lived experience of autonomy as afforded by the labour process and work organisation inherent to online freelancing. This mirrors Burawoy's (2012: 192) influential argument that worker subjectivities 'arise from work organisation and its regulation' by affording 'autonomy... that allow[s] [workers] to invest in [their] labour.'

Another important identity to emerge from our interviews was that of the 'entrepreneur' or, more commonly, the 'aspiring entrepreneur'. Remote gig work was perceived to be the first step towards reaching more substantive entrepreneurial aims, usually owning their own business. To this end, remote gig work was seen as providing a potential means of saving enough initial capital to setup a business in the future. It was also seen as enhancing the dispositional attitudes necessary to succeed as an 'entrepreneur' which were again linked to the theme of autonomy. In line with these findings, 94% of our survey respondents answered that they wanted to be their own boss while 88% considered working for themselves to be a

better option than formal employment with a company. Neff et al. (2005) argue that autonomy is a major force giving rise to what they term 'entrepreneurial labour', that is 'the explicit expression of entrepreneurial values by non-entrepreneurs' (Neff, 2012: 16). As illustrated by Chris (South Africa; writing):

'I need to generate an entrepreneurial spirit and to become economically independent in a way that is not linked into the economy of South Africa. So one of the reasons why I began to look at online writing was that it's not based on the geographical or the socio-economic situation which you find yourself in, it's a global situation. So that makes you thoroughly independent. And that really empowers you.'

While the prevalence of these entrepreneurial and freelancer identities might be assumed to entail an individualistic hostility towards collective organisation and action, in actual fact, 71% of our survey respondents expressed interest in collaboratively raising their wages against just 9% who did not, with the rest neither agreeing nor disagreeing. This is 46pp more than the number who agreed that they wanted to organise a labour union or worker association. This willingness to collaboratively raise wages thus existed despite the lack of interest in joining or organising unions. As with levels digital communication, the number interested in collaboratively improving their wages and who responded that online work was important for them was 8pp greater than for those who responded that it was not important.

Given the existence of an online freelancer identity, online communities and interest in collective action, the absence of freelancer unions might be partially explained by the perceived costs vs. the perceived benefits of such formal collective organisation (Kelly, 1998). Our informants recognised their lack of labour protections, widely perceived themselves as being insecure and felt they could easily be replaced. This fear of being replaced was also evident among a significant number of survey respondents, with 43%

saying they felt easily replaceable compared with only 30% who disagreed. This perceived weak bargaining position also fed into a perception that traditional unionisation would lack efficacy given the globally mobile nature of the work. As Ayub (Kenya; translation, transcription) explained:

‘I know what labour unionisation does, it cannot change anything [for online freelancing]. Maybe, [if it were at the] global level. For example, a unionized labour of online freelancers in Nairobi, cannot change the policies of GigOnline from here. They cannot... It’s a demand and supply thing. If they’re in a position to change anything, then that will not be great. They’ll just take the job somewhere else if the unionised labour of freelancers in Nairobi don’t want to do the work at certain dollar amount, then they’ll just take it elsewhere. They’ll take it to Nigeria, they’ll take it to Gabon, they’ll take it to Philippines. They’ll take it to all kind of countries... The unions will not have enough power, because I’ve seen what globalisation can do. Even the government of Kenya, cannot control the Internet.’

Nwankwo, a Nigerian programmer, explained how trade unions were ill suited to the global and highly market-mediated nature of the work:

‘It’s a global market. The rules are dynamic; the market is dynamic. I think unions are static... I don’t think they will fit into that [dynamic] mould’

Moreover, workers frequently worried that unionisation would entail increased taxation of their earnings.

Discussion

Self-organisation and the process of production

Our findings highlight that the structure of Internet communities for online freelancers differ from structures described in published work on microworkers and conventional freelancers. Forums play a much less significant role in structuring the topology of communication. In

contrast, Yin et al. (2016) find that close to 90% of all communication between microworkers is via forums. Both our interview and survey data suggest that for online freelancers, social media groups play this central structuring role, and forums are of secondary importance. The contrast between our findings and those regarding conventional freelancers might be explained by these studies having been undertaken in mid-2000s, when social media was still in its infancy. However, this is not the case with the studies of microwork, which were undertaken in the 2010s. This suggests, at least with regards to microworkers, that the digital infrastructure that underpins the collective organisation of online freelancers differs in this regard.

How can we explain these differences in self-organisation among online freelancers and microworkers? There are a number of potential overlapping explanations, which all relate to work organisation and labour process differences. A common practice among online freelancers is that those with strong platform reputations re-outsource work to other workers lacking strong platform-based reputations. This requires workers to connect and maintain communication with a diverse range of other workers who might have suitable skills and availability, or might be able to supply work. When using social media, users frequently appear under their real names and use the same profiles for non-work-related activities as well, providing a better basis for building trusted subcontracting relationships than forums, where pseudonyms are common and which are separated from everyday online life. In contrast, microwork is already so fragmented as to render team work and further fragmentation via re-outsourcing very difficult, thus the same collaborative need does not exist. Additionally, microwork tends to be undertaken anonymously, with workers assigned identification numbers and with no profile picture or personal information displayed to other users. As this work is often experienced as low-status and workers fear stigmatisation by their friends and family (Lehdonvirta, 2016), being able to retain their anonymity by using

pseudonyms – a common practice on forums – is appealing. In contrast, online freelancing platforms enable and encourage workers to provide a photo of themselves as well as personal information such as educational credentials and their employment history. Using a pseudonym would likely raise the suspicions of clients and other workers and thus reduce job opportunities. Additionally, as online freelancers often hope to develop off-platform relationships with clients and other workers, it is beneficial if their platform identity matches their social media identity to help them grow their personal brand and social capital. Finally, much of the discussion which takes place on microworker forums is focused on the tasks available for that day, which makes the structured and searchable nature of discussion forums more useful. This is not the case for online freelancers, who tend to work on more differentiated tasks and thus have conversations about a more dynamic and unstructured range of topics.

Therefore, it would seem that the hyper-fragmented, individualised and anonymised nature of microwork compared to the less fragmented and more personalised and collaborative nature of online freelancing explains the differences in worker organisation. This explanation is in line Marx's (1976 [1867]: 929) contention that worker combination results from ways in which labour is 'trained, united, [and] organised by the very mechanism of the process of capitalist production.' It has been claimed that 'any trade union reflects fundamentally a position in the division of labour' (Hodder and Edwards, 2015: 847). Our findings suggest that the same is true for less formal types of worker self-organisation.

Regional variation and the centrality of work

While we found a slight regional difference in levels of digital communication between SEA and SSA survey respondents, when limiting the analysis to countries with a reasonable sample size, the finding was contradicted; the results in this regard are inconclusive and possibly explained by sampling bias. Our inability to detect clear differences between the two

quite different geographic regions is an interesting outcome in itself, and lends weight to the idea that how the work is organised is the most important determinant of how labour self-organises. Indeed, when we compare the four countries with N>70 (Kenya (N=101), Nigeria (N=73), Indonesia (N=84), and the Philippines (N=127)) digital communication with other workers is actually more common among workers in the two African countries. What appears more important than geographic differences for explaining the prevalence of digital communication with other workers is the degree to which online work constitutes an individual's main occupation and the work's perceived importance to them. While this is perhaps unsurprising, it is nonetheless important, because it suggests that as such work grows in importance, so too will the organisation of platform workers as they increasingly look to connect with their fellow workers through online communities. Our survey also finds that individuals who perceive the work as important to themselves are more likely to be interested in improving wages collaboratively. This supports Marx and Engels' (1967 [1848]) contention that as an industry advances worker isolation is replaced with combination through the formation of associations.

Union apathy and freelancer identity

Twenty-two percent of the survey respondents said they wanted to organise a union or workers' association which is actually higher than the union density in many of the countries in question.² However, this is not completely unexpected, as it has been found in high-income countries that around 40% of non-union workers would join a union if one were available (Charlwood, 2002). Additionally, non-union members in non-union workplaces are more likely to want to join than non-members in unionised workplaces (Bryson, 2003). Therefore, we might have expected this figure to be significantly higher. Most telling is that more than twice as many online freelancers responded that they were not interested in organising a union or worker association, despite 71% of them saying they were interested in

collaboratively improving wages. Therefore, when combined with our interview data, these findings suggest that there are relatively high levels of apathy towards unions among online freelancers.

This apathy might in part be rooted in the specific historical and cultural circumstances in which these workers are embedded (Hyman, 2001). Most countries in SEA and SSA lack strong institutionalised labour movements. Previous findings stress that the perceived instrumentality of unions, previous union membership, left-wing beliefs and residence in an area with a tradition of unionisation are strong predictors of union support among non-members (Charlwood, 2002). However, this apathy is also in line with the findings of Saundry et al. (2006; 2007; 2012), who find that the identity deployed by U.K. freelancers and supported by Internet-based communication networks is not conducive to unionisation. For instance, our findings regarding the importance of ‘freelancer’ identity is in line with those of Saundry et al. (2012), who likewise uncover a distinct industry-based and freelancer identity among audio-visual freelancers who are part of Internet-based communities. These identities were also in part ‘mediated by common experiences and a discourse rooted in the nature of the labour process’ (Saundry, et al. 2012: 271). Moreover, the importance of autonomy to our informants’ freelancer identities has parallels with findings on other self-employed workers, such as those in the U.K. lap dance industry, who have been found to strongly identify with the potential autonomy implied by *de jure* self-employment (Cruz et al., 2016). Cruz et al. (2016) argue that identification with being self-employed at the expense of seeing oneself as a ‘worker’ or ‘employee’ is likely to act as a barrier to improving labour conditions. This is because it makes it unlikely that workers will press for legal recognition of worker or employee status and the rights that these statuses confer.

Freelancer and entrepreneurial identities may also constitute a barrier to effective collective organisation. As Gumbrell-McCormick and Hyman (2013: 34) argue, ‘rarely [has

there] been... a spontaneous urge to collectivism... [it] has been a task to accomplish.’ Trade unions have traditionally tried to achieve this aim through framing labour relations in terms of oppositional class-based notions of ‘worker’ and ‘employer’ interests, and sought to develop corresponding shared identities (Hyman, 1999; Kelly; 1998). In doing so, unions can articulate ‘expressions of the general interests of the [working] class... [and] integrate diversity into a common set of objectives’ (Gumbrell-McCormick and Hyman, 2013: 34). However, Saundry et al. (2012) argue that trade unions and particularly such oppositional politics are seen as contradicting freelancer identities and threatening the collegiality and aspirational nature of the Internet-based freelancer communities. This is especially true in the case of online freelancers who often occupy and move between both worker and employer positions, having their labour purchased by clients but also simultaneously hiring other freelancers in order to meet client demand. Heery et al. (2004) and King (2014) highlight how some conventional freelancer unions have adopted a specific form of ‘freelancer unionism’ to make themselves more attractive to such workers. However, we found no evidence of unions having reached out to online freelancers in this tailored way and this is probably a major reason for the absence of unions among these workers.

Our findings on collective organisation and interest in collective action suggest that fragmentation and competition between these contingent workers is not transposed into their subjectivities wholesale, contrary to Smith (1998). It was clear that a collective identity did exist for these workers, and that it was one that was related to the theme of autonomy and often articulated in reference to entrepreneurial values and freelancer status. A considerable challenge for unions wishing to organise this sector is to develop a form of unionism which can accommodate and build upon the freelancer identity which these workers deploy and which is of instrumental value to those working in a global remote gig economy.

Conclusions

In summary, we find that collective organisation among online freelancers resembles that of both microworkers and conventional freelancers in a number of ways. This is despite our research focusing on a wider set of countries and types of work than previous studies of microworkers and freelancers. It, therefore, provides strong evidence for the generalisability of a number of previous findings regarding the collective organisation of platform and freelance workers. As has been found with regards to U.S. and Indian microworkers and European-based conventional freelancers, Internet-based communities play a vital role in the work experience of online freelancers, despite these workers rarely or never communicating face-to-face.

However, we find the particular forms that worker self-organisation and identity take are rooted in the specific nature of the labour process which online freelancers encounter as they go about making their daily living. The work organisation in online freelancing leads to self-organisation tending to take the form of social media groups, while microworkers tend to place greater importance on forums. It is important to be aware of the implications this difference may have: a particular concern is whether Facebook's real-name policy and reputation for surveillance could have a chilling effect on more radical worker organising and action (Dencik et al., 2016; Geelan and Hodder, 2017).

Extant research regarding collective organisation among conventional freelancers tends to focus on the important role of freelance unions (Heery et al. 2004; King 2014) or the ways in which Internet-based freelancer communities link with unions in order to achieve hard industrial relations outcomes (Saundry et al., 2006; 2007; 2012). We find no evidence of unions being important to the collective organisation of online freelancers and only a minority of workers feeling unions would be beneficial. The apathy most workers feel towards unions stemmed from a combination of pre-existing perceptions of unions,

identification with being ‘freelancers’ and ‘entrepreneurs’ and an expectation that the benefits of unionisation would not outweigh the risks in terms of job loss and greater taxation.

The fragmentation of online freelancer communities along national, occupational and platform lines is likely to limit the potential scalability of collective action, as theorised by Silver (2003), and as has probably been the case with microworkers. However, it is important to remember that while online freelancing is international, workers, clients and platforms remain embedded in particular places. These bottlenecks offer potential sites in which communities of workers may be able to coalesce effectively (for instance, mediated through nationally-based groups and forums) in order to influence platforms and clients (Graham and Anwar, in press). However, the absence of unions is also likely to limit the ability for these workers to win hard industrial relations outcomes (Saundry et al. 2012) and may also limit workers’ willingness to press legal claims for recognition of their labour rights on the basis of worker or employee status (Cruz et al., 2016).

Nevertheless, the absence of unions and the prevalence of the dominant freelancer identity should not in themselves be seen as entailing the irreversible fragmentation of worker identity or a hostility to improving labour conditions through collective action. It may well be possible for unions to counter or overcome the barriers entailed by this non-worker identity, if they approached these workers with the ‘freelancer unionism’ (Heery et al. 2004; King 2014) that has been successful in other sectors. A trade union might also succeed in linking up with pre-existing online freelancer communities as suggested by Saundry et al. (2012). Our findings suggest that such unions would need to convince workers of the instrumental value of unionisation in what is a global gig economy. As online freelancing increases in importance, so too will workers’ propensity for self-organisation and willingness to collectively raise labour standards.

After-notes

1. We use the term ‘platform’ to refer to the Internet-based infrastructure (and the firms that control the infrastructure) that facilitates communication and commercial transactions between clients and workers. Online labour platforms are also commonly referred to as ‘crowdworking platforms’. Kallebrg and Dunn (2016) provide useful distinction between low wages/low worker control microwork platforms (which they term crowdwork platforms) and high wage/high worker control online freelancing platforms. However, as Pongratz (2018) points out, ‘crowd’ terminology is unhelpful, as it suggests that workers operate as an anonymous crowd, when, in fact, this is not the case for the majority of workers.
2. The ILO (2018) provides estimates of union density in 28 SEA and SSA countries with the median being 21%. However, the median for all SEA and SSA countries is probably significantly lower as non-reporting is more likely in countries where the labour movement is particularly weak.

References

- Antcliff, V., Saundry, R. and Stuart, M. (2007), ‘The weakness of weak ties — networks and social capital in U.K. television’, *Human Relations* 60, 2, 371–93.
- Benson, A., Sojourner, A., & Umyarov, A. (2015), *Can Reputation Discipline the Gig Economy? Experimental Evidence from an Online Labor Market*. IZA Discussion Paper No. 9501. Bonn: Institute of Labor Economics.
- Berg, J. (2016) *Income security in the on-demand economy: Findings and policy lessons from a survey of crowdworkers*. Conditions of Work and Employment Series No.74 Geneva: International Labour Organisation
- Bergvall-Kåreborn, B. and Howcroft, D. (2014), ‘Amazon Mechanical Turk and the commodification of labour’, *New Technology, Work and Employment* 29, 3, 213–223.
- Bryson, A. (2003), *Employee Desire for Unionisation in Britain and Its Implications for Union Organising*, PSI. Research Discussion Paper 12. London: Policy Studies Institute.
- Burawoy, M. (2012), ‘The Roots of Domination: Beyond Bourdieu and Gramsci’, *Sociology* 46, 2, 187–206.
- Charlwood, A. (2002), ‘Why Do Non-union Employees Want to Unionize? Evidence from Britain’, *British Journal of Industrial Relations*, 40, 3, 463-491.
- Cruz, K., Hardy, K., and Sanders, T. (2016), ‘Fake Self-Employment, Autonomy, and Regulating for Decent Work: Improving Working Conditions in the U.K. Stripping Industry’, *British Journal of Industrial Relations* 00: 1–21 (accessed 29 November 2016).
- Dencik, L. Hintz, A and Cable, J. (2016), ‘Towards data justice? The ambiguity of anti-

- surveillance resistance in political activism’, *Big Data and Society* 3, 2, 1–12.
- Dynamo. (2017a), Guidelines for Academic Requesters http://wiki.wearedynamo.org/index.php/Guidelines_for_Academic_Requester (accessed 12 October 2017).
- Dynamo. (2017b), Dear Jeff Bezos <http://www.wearedynamo.org/dearjeffbezos> (accessed 12 October 2017).
- Freelancers Union. (2017), Freelance Isn’t Free Act passes in NYC with 51 votes! <https://blog.freelancersunion.org/2016/10/27/freelanceisntfreepassed/> (accessed 12 October 2017).
- Geelan, T. and Hodder, A. (2017), ‘Enhancing transnational labour solidarity: the unfulfilled promise of the Internet and social media’, *Industrial Relations Journal*, 48, 4, 345-364
- Graham, M. and Anwar, M. A. (in press), ‘Digital Labour’, in Ash, J. Kitchin, R. and Leszczynski, A (eds.) *Digital Geographies*. Sage: London.
- Graham, M. Hjorth, I. and Lehdonvirta, V. (2017a), ‘Digital labour and development: impacts of global digital labour platforms and the gig economy on worker livelihoods’, *Transfer: European Review of Labour and Research* 23(2): 135-162.
- Graham, M. Lehdonvirta, V. Wood, A.J. Hjorth, I. Simon, D.P. (2017b), *The Risks and Rewards of Online Gig Work at the Global Margins*. Oxford: Oxford Internet Institute. <https://www.oii.ox.ac.uk/publications/gigwork.pdf> (accessed 05 June 2018)
- Graham, M. and Woodcock, J. (2018) ‘Towards a fairer platform economy: introducing the Fairwork Foundation.’ *Alternate Routes: A Journal of Critical Social Research* 29, 242-253.
- Gray, M.L., Suri, S., Ali S.S., Kulkarni D. (2016), ‘The Crowd is a Collaborative Network,’ in CSCW '16 Proceedings of the 19th ACM Conference on Computer-Supported Cooperative Work & Social Computing Pages: 134-147.
- Gupta, N. Martin, D. Hanrahan. B, O’Neill, J. (2014), ‘Turk-life in India’, in Proceedings of the ACM International Conference on Supporting Group Work (GROUP ’14) Sanibel Island 9 - 12 November.
- Gumbrell-McCormick, R. (2011), ‘European Trade Unions and Atypical Workers’, *Industrial Relations Journal* 42, 3, 293–310.
- Gumbrell-McCormick, R. and Hyman, R. (2013), *Trade Unions in Western Europe: Hard Times, Hard Choices*, Oxford: Oxford University Press.
- Hodder, A. and Edwards P.K (2015) ‘The essence of trade unions: understanding identity, ideology and purpose’, *Work, Employment and Society*, 29, 5, 843-854.
- Hodder, A., Williams, M., Kelly, J., McCarthy, N. (2016), ‘Does Strike Action Stimulate Trade Union Membership Growth?’ *British Journal of Industrial Relations*, 55, 1, 165-186.
- Heery, E. (2004), ‘The trade union response to agency labour in Britain,’ *Industrial Relations Journal*, 35, 5, 434–450.
- Heery, E. (2009), ‘Trade Unions and Contingent Labour,’ *Cambridge Journal of Regions, Economy and Society* 2, 3, 429–42.
- Heery, E. Conley, H. Delbridge, R. Stewart, P. (2004), ‘Beyond the enterprise: trade union representation of freelance workers in the U.K.’, *Human Resource Management Journal*, 14, 2, 20–35.
- Hitlin, P. (2016), *Research in the Crowdsourcing Age, a Case Study*, Washington D.C, Pew Internet, <http://www.pewinternet.org/2016/07/11/research-in-the-crowdsourcing-age-a-case-study/> (accessed 12 October 2017).
- Huws, U. Spencer, N.H. and Joyce, S. (2016), *Crowd Work in Europe Preliminary results from a survey in the U.K., Sweden, Germany, Austria and the Netherlands*. Foundation for European Progressive Studies.

- Hyman, R. (1999) 'Imagined Solidarities: Can Trade Unions Resist Globalization?', in Leisink P. (ed.) *Globalization and labour relations*. Cheltenham: Edward Elgar. pp. 94-115
- Hyman, R. (2001) *Understanding European Trade Unionism*. London: SAGE.
- ILO (2018) Trade Union Density Rate: Annual Data. ILOSTAT, <http://www.ilo.org/ilostat> (accessed 10 April 2018).
- Irani, L. and Silberman, M. S. (2013), 'Turkopticon: Interrupting Worker Invisibility in Amazon Mechanical Turk', in *Proceedings of the ACM Conference on Human Factors in Computing Systems (CHI) 2013*, New York: ACM.
- Kalleberg, A.L. (2000), 'Nonstandard Employment Relations: Part-Time, Temporary and Contract Work,' *Annual Review of Sociology*, 26, 431-465.
- Kalleberg, A.L. and Dunn, M. (2016), 'Good Jobs, Bad Jobs in the Gig Economy', *Perspectives on Work*. Champaign: Labor and Employment Relations Association.
- Kässi, O. and Lehdonvirta, V. (2016), 'Online Labour Index: Measuring the Online Gig Economy for Policy and Research', paper presented at Internet, Politics & Policy 2016, 22-23 September, Oxford, UK. Available at: https://mpra.ub.uni-muenchen.de/74943/1/MPRA_paper_74943.pdf.
- Kelly, J. (1998), *Rethinking Industrial Relations: Mobilisation, Collectivism and Long Waves*, London: Routledge.
- King, M. (2014), 'Protecting and Representing Workers in the New Gig Economy: The Case of the Freelancers Union', in Milkman R and Ott E (eds.) *New Labor in New York: Precarious Workers and the Future of the Labor Movement*, Cornell: Cornell University Press.
- Kuek, S.C., Paradi-Guilford, C.M., Fayomi, T., Imaizumi, S., Ipeirotis, P. (2015), *The global opportunity in online outsourcing*, Washington, D.C: World Bank Group.
- Lehdonvirta, V. (2016), Algorithms that Divide and Unite: Delocalisation, Identity and Collective Action in 'Microwork'. In Flecker, J. (ed.) *Space, Place and Global Digital Work: Dynamics of Virtual Work*. London: Palgrave Macmillan, pp. 53-80.
- Lepanjuuri, K., Wishart, R., Cornick, P. *The Characteristics of those in the Gig Economy: Final Report*. London: BEIS.
- Martin, D., Hanrahan, B.V., O'Neil, J., Gupta. N. (2014), 'Being a turker', in *The Proceedings of the 17th ACM Conference on Computer Supported Cooperative Work and Social Computing (CSCW)*.
- Marx, K. (1976 [1867]), *Capital: A Critique of Political Economy*. London: Penguin.
- Marx, K. and Engels, F. (1967[1848]), *The Communist Manifesto* (London: Penguin).
- Milland, K. (2016), 'A Mechanical Turk Worker's Perspective,' *Journal of Media Ethics*, 31, 4, 263-264.
- Pongratz, H.J. (2018), 'Of crowds and talents: discursive constructions of global online labour', *New Technology, Work and Employment*, 33, 1, 58-73.
- Neff, G. (2012), *Venture Labor: Work and the Burden of Risk in Innovative Industries*, Cambridge: MIT Press.
- Neff, G. Wissinger, E. Zukin, S. (2005), 'Entrepreneurial Labor among Cultural Producers: "Cool" Jobs in "Hot" Industries', *Social Semiotics*, 15, 5, 1470-1219.
- Rani, U. (2017). *Workshop on Development Implications of Digital Economies Workshop: Mapping and Issues*. 25th May, Yogyakarta, Indonesia.
- Saundry, R. Stuart, M. and Antcliff, V. (2006), 'It's more than who you know — networks and trade unions in the audio-visual industries', *Human Resource Management Journal* 16, 4, 376-92.
- Saundry, R. Stuart, M. and Antcliff, V. (2007), 'Broadcasting discontent: freelancers, trade unions and the Internet', *New Technology, Work and Employment*, 22, 2, 178-191.

- Saundry, R. Stuart, M. and Antcliff, V. (2012), 'Social Capital and Union Revitalization: A Study of Worker Networks in the U.K. Audio-Visual Industries', *British Journal of Industrial Relations*, 50, 2, 263–286.
- Silver, B. (2003), *Forces of Labor: Workers Movements and Globalisation since 1870*, Cambridge: Cambridge University Press.
- Smith, V. (1998), 'The fractured world of the temporary worker: power, participation, and fragmentation in the contemporary work- place'. *Social Problems* 45, 4, 411-430.
- Standing, G. (2016), *The Corruption of Capitalism: Why Rentiers Thrive and Work Does Not Pay*. London: Biteback Publishing.
- De Stefano, V. (2016), The rise of the "just-in-time workforce": On-demand work, crowdwork and labour protection in the "gig-economy". *Conditions of Work and Employment Series No. 71*, Geneva: International Labour Organization.
- Umeny, C. (2016), 'The labour market for jazz musicians in Paris and London: Formal regulation and informal norms', *Human Relations* 69, 3, 711– 729.
- Vaughan, D. (1992). 'Theory elaboration: The heuristics of case analysis', in: Ragin H and Becker S (eds) *What Is a Case? Exploring the Foundations of Social Inquiry*, Cambridge: Cambridge University Press, 173–202.
- Wood, A.J. Graham, M. Lehdonvirta, V. Hjorth, I. (2016) 'Virtual Production Networks: Fixing Commodification and Disembeddedness'. Presented at the Internet, Policy & Politics Conference: Oxford Internet Institute, University of Oxford, 22 September 2016.
- Wood, A.J, Graham, M. Lehdonvirta, V. Hjorth, I. (in press), 'Good gig, bad gig: autonomy and algorithmic control in the global gig economy', *Work, Employment and Society*.
- Yin, M. Gray, M.L. Suri, S. Vaughan, J.W. (2016), *The Communication Network Within the Crowd*. Proceedings of the 25th International World Wide Web Conference (WWW) 11 April.

Name	Membership	Type	National Focus
Pinoy Exchange	Unknown	Forum	Philippines
Gigonline Pinoy	12884	Facebook group	Philippines
Pinoy Gigonline Support Hub	303	Facebook group	Philippines
Pinoys@Gigonline	9260	Facebook group	Philippines
Awesome Transcribers Kenya	39100	Facebook group	Kenya
Reach Transcribers in Kenya	3007	Facebook group	Kenya
Dedan Kimathi Freelancers	Unknown	Facebook group	Kenya
Kenya online article writers	3219	Facebook group	Kenya
Kenyan Freelancer Writers and Online Jobs	441	Facebook group	Kenya
Naija One	624	Facebook group	Nigeria
Transcriber Online	Unknown	Facebook group	Unknown
Real Writers	Unknown	Facebook group	Unknown
Society of Oracle Certified Professionals	431	Gigonline hosted forum group	None
Gigonline community	Unknown	Gigonline hosted forum group	None
Freelancer Writers Den	1200	Forum	None

Table 1. Freelancer online communication groups identified by interview informants