Crowdsourcing and work: individual factors and circumstances influencing employability

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The development of a fast and reliable Internet, new technologies online payment systems, and changes in work structure that enable and demand flexible working patterns have driven a move to a new form of Internet-enabled labour exchange called crowdsourcing. Evidence from an in-depth qualitative study is presented, focusing on selected users' interactions and experiences of working on two UK-based crowdsourcing platforms. The paper shows that workers engaged in this form of labour exchange need to deploy existing employability skills and networks to effectively meet the challenges, and take advantage of the opportunities, that crowdsourcing presents. Individual factors and circumstances emerge as paramount for workers' continued engagement in this form of employment. Using selected components from an employability framework, the findings suggest that crowdsourcing can offer new pathways to practising skills and enhancing employability for some workers.

Keywords: crowdsourcing, Internet-enabled work, employability, technology, case study research, skills development.

Introduction

In the context of globalisation, rapidly changing markets and labour demands, ICT implementation and adoption have enabled and presented opportunities and challenges for new ways of organising, managing and engaging in work. Challenges range from work intensification and employee strain to risking the benefits that traditional forms of work are seen to guarantee, including a wage floor and the bargaining power afforded by collective organisation (Törenli, 2010; Cavazotte *et al.*, 2014; Chesley, 2014). Inherent in these challenges is the potential of ICT to increase work flexibility and the creation of forms of work that might suit individuals with different needs, preferences and resources.

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There is evidence that new ICT-enabled ways of working are developing and growth is expected to continue (Frei, 2009; Elance, 2012; Bergvall-Kåreborn and Howcroft, 2013; Esposti, 2013), although future work practices may diverge from those predicted (Warhurst *et al.*, 2006). The development of a fast and reliable Internet, new cloud-based technologies, and new online payment systems, services and facilities, and changes in work structure that enable and demand flexible working patterns have driven the shift from traditional work patterns to, and growth in, crowdsourcing: a new form of Internet-enabled labour exchange.

Crowdsourcing is defined as the outsourcing of work to a large group through an open call made possible through advances in technology. The term was coined by Howe (2006; 2008) and focuses on 'crowds' performing jobs that were traditionally assigned to a designated agent. Firms may choose to use crowdsourcing as an alternative to subcontracting a problem to a specific supplier or solving a problem internally (Afuah and Tucci, 2012). The term crowdsourcing is evolving as new aspects of using Internet-enabled exchanges in work-related activities emerge. *Crowdsourcing for paid work* is used throughout this article to emphasise the focus on platforms and websites where people can search and access paid work, which is often, but not always, conducted remotely. While it is difficult to quantify numbers involved in crowdsourcing for paid work, 2009 estimates suggested that there were over two million workers engaged in this activity in just ten international companies surveyed (Frei, 2009). Estimating the entire scale of crowdsourcing for paid work is challenging as crowdsourcing platforms and websites rarely publish numbers of registered or active users.

A review undertaken to better understand how ICT and associated skills, applications and usages could improve people's employability (i.e. helping them to gain, sustain and progress in employment) (de Hoyos *et al.*, 2013; Green *et al.*, 2013) highlighted a gap in research on how new forms of Internet-enabled labour exchanges impact on individuals' employability and labour market interactions. The research presented here aims to help address this gap by exploring the interaction between crowdsourcing and individuals' employability. This is complex given rapid developments in technology and evolving labour markets. The paper explores whether and how new online interactions may provide opportunities for accessing work and/or opportunities to develop skills and social networks, and so suggests how these interactions can potentially impact on an individual's employability and future employment prospects.

The paper proceeds by defining crowdsourcing as a type of Internet-enabled labour exchange and providing an overview of related current literature and research. Evidence from other research is used to profile crowdsourced workers and examine the motivations and incentives for their engagement in this form of work. This serves as background to the qualitative case study evidence analysed in this paper. The methodology and process of analysis are presented next, before selected elements of the employability framework used to examine the findings are detailed. The evidence specifically focuses on dimensions of employability related to individual factors (such as skills and attributes) and individual circumstances (such as household characteristics and access to networks), while acknowledging the contextual importance of other dimensions of employability. The paper concludes by assessing the role and impact of engagement in crowdsourcing for paid work on workers' employability and employment.

Crowdsourcing: Internet-enabled labour exchange

Crowdsourcing for paid work is a relatively new form of managing and organising a (potentially) geographically dispersed pool of labour using the Internet. Its definition is contested and evolving. Felstiner's definition (2011) of crowdsourcing, in which skills levels and monetary compensation are central components, is used here: 'a discrete set of cognitive tasks, performed and compensated at piece rate within an online platform. Some tasks require low to moderate skill and can be performed in a comparatively short period of time. Others call for more qualifications and expertise' (147). An early

example, and arguably the foundation of crowdsourcing, is the open source movement where, through the Internet, large communities of geographically dispersed collaborators develop and openly share software products (Kogut and Metiu, 2001; Hars and Ou, 2002). This work can be paid or undertaken voluntarily. The movement illustrated how geographically dispersed individuals could be organised to collectively develop, improve and complete a task (Howe, 2008). This form of crowdsourcing is still prevalent, but has evolved as the benefits of organising individuals in this way and providing financial compensation for their efforts has been recognised. Other commentators see crowdsourcing as an important trend in innovation, co-creation and product development and acknowledge its transformative capability (Euchner, 2010; Greengard, 2011; Battistella and Nonino, 2013; Saxton et al., 2013).

Crowdsourcing for paid work involves the following key actors: buyers (those requiring tasks to be completed for compensation); platform owners (those providing an online platform or website in which tasks are advertised); and workers (those who respond to advertisements, undertake and submit work, then receive financial compensation). Comparing crowdsourcing to the traditional labour market, the buyers represent labour demand (employers), the workers represent labour supply and the platform represents a labour market intermediary. Platforms and platform owners have to actively create and maintain the market (Euchner, 2010). A wide range of services are being crowdsourced including software/product development; design; writing and editorial services; web development and design; plus smaller jobs such as image tagging and hyperlink checking. Larger and more complex jobs are becoming more commonly crowdsourced, taking longer to complete, often requiring specialist skills and knowledge, and commanding higher rates of compensation.

In a conventional crowdsourcing for paid work model, buyers (or employers) post jobs on the platform and the workers respond to the adverts. Buyers then select the workers that meet their requirements, with selection based on reliability, price and/or skills and experience of the worker. An alternative model is one in which the buyer searches for workers from a pool of labour with appropriate skills. Most platforms operate a quality system of reliability scores or ranking whereby workers and buyers can rank each other based on cost, timeliness, reliability and quality of delivery. Typically jobs are undertaken remotely with the buyer and worker not meeting, but the work may be done face-to-face. Engagement in crowdsourcing can result in workers creating a diverse portfolio of work through the wide range of opportunities available and undertaken.

Understanding crowdsourcing in terms of its impact on employment and employability is important. It enables individuals to access opportunities for work regardless of location. It can also have wider implications in terms of individuals' employability and prospects for economic participation. To achieve this, the Internet and new media will need to deliver 'new literacies and pedagogies that will allow individuals to be full and effective participants in society, economy, culture and politics' (Lievrouw, 2012: 633). Crowdsourcing is a tool that can empower individuals by creating and providing a space in which they can self-select work, be creative and/or interact to solve problems as part of a wider community. It can also support businesses to be creative and innovative by enabling access to experts, knowledgeable individuals and customers. Current evidence suggests that this form of activity can be beneficial at an individual, organisational and economy level, but it need not necessarily be so (Afuah and Tucci, 2012; Simula and Vuori, 2012; Saxton et al., 2013). Individuals engaged in this form of activity may find it precarious and also that their skills are less well remunerated than in conventional employment. For organisations it may be a cheaper way of operating than taking on direct employees that might not be in the long-term interests of business growth and adding value to the wider economy.

As a relatively new method by which to gain paid work, the advantages and disadvantages of engagement in crowdsourcing remain unclear for the individual, the organisation and the economy. Current evidence on individuals' engagement in crowdsourcing focuses on the process of finding paid work and the immediate impact of that work opportunity, so emphasising motivations, incentives and the flexible nature of

crowdsourcing work (Hars and Ou, 2002; Leimeister *et al.*, 2009; Haichao *et al.*, 2011; Füller *et al.*, 2012; Battistella and Nonino, 2013). Disadvantages around employee rights and intellectual property rights have been highlighted (Brabham 2012; Felstiner, 2011), but are yet to be explored fully and are beyond the scope of this paper. A review of the literature on crowdsourcing identified significant gaps in understanding how participating in this form of work impacts on individuals' employability (see Barnes *et al.*, 2013). This suggests that in order to understand learning, knowledge and skills development alongside broader issues of employability, more in-depth research is required. There are also questions regarding whether individuals engaged in this form of work have opportunities to develop and enhance skills, networks and curriculum vitae.

Participation in crowdsourcing has been studied in terms of intrinsic and extrinsic motivations, including interest and enjoyment, learning, motivation to solve problems, financial gain, entrepreneurial mind-set, sense of efficacy, altruism, recognition, and being able to demonstrate skills (Howe, 2008; Afuah and Tucci, 2012; Ashurst *et al.*, 2012; Füller *et al.*, 2012; Battistella and Nonino, 2013). Self-selection and motivations are also important, and along with individual commitment, enthusiasm and self-motivation may be particularly so where crowdsourcing is about innovation (Battistella and Nonino, 2013). Other research has suggested that crowdsourcing is effective because individuals self-select and thus are motivated (see Afuah and Tucci, 2012). These motivations can be seen as part of having or developing employability. However, financial compensation, reward and recognition as extrinsic motivations can also play an incentivising role (Howe, 2008; Leimeister *et al.*, 2009; Füller *et al.*, 2012; Battistella and Nonino, 2013), but it should be noted that this form of work can be low paid with little/no benefits or job security. Hence, motivations and incentives to engage in this form of employment are varied. While these motivations and incentives form key elements of employability, previous research has not specifically focused on employability within crowdsourcing work.

Employability framework

Green *et al.* 's (2013) employability framework is used as a theoretical framework for this paper. The framework sets out five groups of factors that have potential to impinge on a person's employability: individual factors; individual circumstances; employer/organisational practices; local contextual factors; and macro level factors (see Figure 1).

Under individual factors, an individual's economic position, skills and attributes, attitude to employment, knowledge of the labour market, and adaptability and
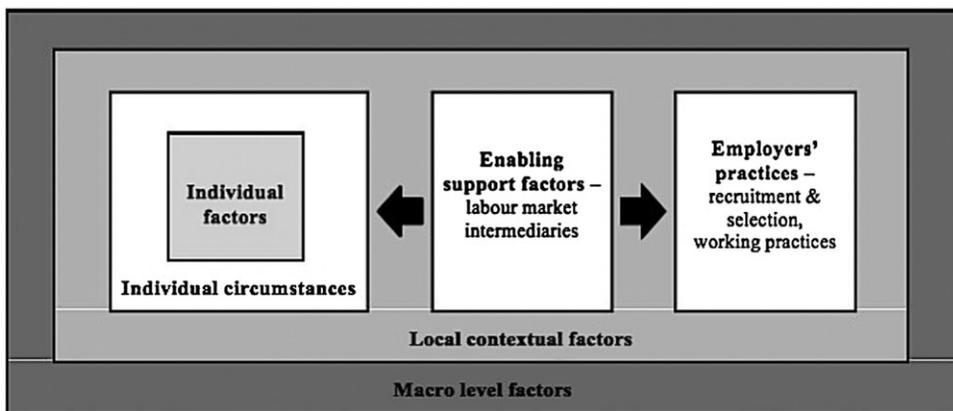

Figure 1: Employability framework
Source: *Based on Green* et al. *(2013).*

mobility are factors that are expected to shape involvement in crowdsourcing. Individual circumstances (e.g. access to resources [including social and economic networks], caring responsibilities, etc.) are important elements shaping employability. Employer/ organisational practices are of relevance since these shape access to employment and work practices. Local labour market and macro level factors are relevant also as they set the context within which crowdsourcing takes place. Some individuals might turn to crowdsourcing due to limited conventional employment opportunities locally, while at the macro level the broader economic, institutional, welfare regime and labour market regulation context have implications for crowdsourcing for paid work in practice. The employability framework also highlights the role of enabling support factors—encompassing labour market intermediaries, training providers, etc.—in employability. In the case of crowdsourcing, the platforms may be considered as intermediaries.

Study approach

Evidence from a small qualitative study of two crowdsourcing for paid work platforms is presented to yield insights into how crowdsourcing can impact on employability and the challenges and opportunities it presents for employment. The case studies selected are indicative of the range of platforms and practices in existence. Eighteen platform users and a member of each platform management team were interviewed to gain an enhanced understanding of how the platforms operate. Published materials on the platform were also used to supplement primary research.

Crowdsourcing for paid work platforms

The two platforms selected represent two UK-based platforms established within the last eight years. Platform 1 has established international offices and nearly 0.5 million users in over 200 countries. It represents the traditional model of crowdsourcing and is considered a leader in online working. Buyers post jobs on the platform and select from the workers who have responded to their adverts. Posted jobs can be fixed price or request workers to provide a price for the work. Worker selection can be based on price, skills, experience and reliability scores. Jobs are undertaken remotely, but the transaction is managed by the platform, providing protection for both parties. Workers can undertake a range of work and create a diverse portfolio of employment tasks. They can also showcase the types of work they provide and at what cost. Types of work undertaken include design, web development, writing, business support, video photo and audio, marketing and PR, translation, and software development. In contrast to Platform 2, outlined next, the jobs (or tasks) fulfilled via Platform 1 workers are completed remotely.

Platform 2 works with a diverse range of organisations, agencies and charities to offer flexible local work for individuals. There are 65,000 workers registered on the platform. It is a complex system in terms of its implementation compared to Platform 1 and other more traditional crowdsourcing platforms. A buying organisation (termed a 'buyer' for the purposes of consistency) purchases a licence for the platform then embeds and operates it from within their website. Workers are recruited, checked (that they are legally able to work) and registered on the platform by the organisation, via completion of a worker profile including contact information, qualifications, skills, travel-to-work area and tax code. Workers then maintain an online diary on the platform, inputting their availability for six-week periods. When a position needs filling a buyer is able to search for available workers meeting their needs (such as time, duration of job, remuneration and location) and book them. Workers have the choice whether to accept the work or not. Vacancies can range from an immediate start for a one-hour shift to weekly work for a set period. The work offered through the platform is varied and includes administrative, catering, social care and public service work.

A key difference between the two platforms is that work via Platform 1 can be undertaken locally, nationally or internationally, whereas work via Platform 2 has to be

performed locally and is undertaken face-to-face. The platforms reflect the diversity of work offered by crowdsourcing platforms, but also represent different ways in which people can engage with crowdsourcing.

Crowdsourced worker interviews

Platform owners made initial contact with potential interviewees asking for volunteers to participate in the research. Those who agreed gave permission for their contact details to be forwarded to the researchers. The researchers negotiated access with each interviewee to ensure informed consent. Interviewees are anonymised and pseudonyms used. Interviewees were purposely selected to reflect the diversity of users, and in the case of Platform 1 two interviewees were accessed independently. It is possible that those contacted by the platform owners may have a more positive than average outlook on crowdsourcing for paid work, but nevertheless their motivations, experience and practice of using the platforms is likely to reflect that of other users. Semi-structured interviews were conducted by telephone at a time convenient to the interviewee. Interviews were digitally recorded and lasted between 18 and 75 minutes. For analysis, detailed summaries of the interviews were made including verbatim quotes. The purpose was to discuss experiences of the platforms and crowdsourced work, their engagement with Internet-enabled exchanges and impacts on their personal and professional life. The interviews also covered other topics including motivations and incentives, employment history, skills development and/or enhancement, networks and likely future engagement with crowdsourcing. Of the 18 interviews, Platform 1 users comprised six workers (including one who was also a buyer) and five buyers (including one who had previously been a worker) and from Platform 2, five workers and two buyers. Both novice and experienced crowdsourced workers were interviewed, with the majority having engaged with crowdsourcing for between one and three years. The age profile of interviewees ranged from 20–29 years to 65 plus years, with Platform 2 users having an older profile. All of the interviewees were located in the UK. Workers' qualification levels varied from school leaver qualifications to higher degree level. Work undertaken ranged from administration, hospitality services, social care work to writing and editing, web development, design and marketing. Details of the characteristics and experience of workers are outlined in Table 1.

Interviewees had complex economic positions, being both employees (full-time or part-time) and self-employed/freelancers. Crowdsourcing was a way of supplementing other income for some workers, while for others it was their main source of income. Some who were previously unemployed or economically inactive used crowdsourcing as a route back into employment or as a method via which to develop their skills and prove their employability. For instance, William (Platform 2) had started using crowdsourcing when sick to gain some part-time employment with the intention of returning to more conventional employment. Three years on, he was still finding employment using the crowdsourcing platform. While most had well developed skills, which they deployed in crowdsourcing, many were developing and expanding them as a result of their crowdsourcing activities. The skills, knowledge and networks interviewees had developed in order to be successful are discussed below.

Data analysis

Data were analysed to understand user experiences of crowdsourcing for paid work and the work undertaken, specifically to better identify whether and how it could impact on individuals' employment and employability. Analysis also focused on how Internet-enabled exchanges alter the skills required and utilised; in part by exploring the type of work individuals' engaged in and how this was similar or different to that undertaken in the traditional labour market. A matrix approach was used to analyse the data; data were classified according to emerging topics and then each topic was sub-analysed and developed. Using the employability framework in Figure 1, interview

Table 1: *Worker profiles*

Name	Age	Education	Services sold	Previous work experience	Motivations for use	Economic position	Engagement with platform
Platform 1							
Brian	50–59	First degree	Web development, design	Same	To generate income working from home during recession	Freelancer, self-employed	No longer selling, occasional use as buyer
Edward	30–39	First degree	Marketing, social media	Same	Advertising company services	Freelancer/entrepreneur	Tops up freelance income
Kath	50–59	Masters degree	Marketing, PR, writing	Marketing	Initially interest, then generating income after redundancy	Employee and freelancer, then freelancer, self-employed	Key component of freelancer income
Keith	30–39	First degree	Web development, software development, visualisation	Same—but using older software	Re-entry to labour market after 'time out'	Freelancer, self-employed	Important but minority source of freelance income, using platform less than previously
Nicola	30–39	Unknown	Writing	Unrelated	New direction as lifestyle changed, fit with non-work responsibilities	Freelancer, self-employed	Key component of freelancer income
Robert	40–49	Professional qualification	Design, visualisation	Design	Generate income after redundancy	Freelancer, self-employed	Half of freelancer income
Tara	20–29	School leaver qualifications	Writing, social media	Unrelated	Interest, fit with non-work responsibilities	Part-time employee and self-employed	Key component of freelancer income
Platform 2							
Nora	60–65	Unknown	Service sector	Same	Employed in similar positions to previous employment	Retired	Main source of income
Kate	65+	Unknown	Office and admin	Education, Finance	Disliked temping agency, crowdsourcing fits with her seasonal work	Retired	Tops up pension
Rebecca	60–65	Unknown	Service sector	Many different roles	Wanted easy work, likes flexibility	Semi-retired	Extra money
Yvonne	50–59	Professional qualification	Social care	Same	Likes to keep busy so tops up hours with temporary work	Employed part-time	Top up hours
William	60–65	First degree	Office and admin	Managerial positions in the public and private sector	Poor health so able to work hours that suit, increasing hours when well	Semi-retired	Main source of income

data were deductively analysed. Individual factors and individual circumstances were identified as key to employability in the crowdsourcing for paid work context. The findings presented next suggest that workers use crowdsourcing platforms as tools to enhance their employability by engaging in new forms of work as well as maintaining and developing their existing skills, and in some cases, developing new skills.

Findings—individual factors and circumstances

Crowdsourcing for paid work platforms can be viewed as enablers in terms of the employability framework and in facilitating a shift to Internet-enabled activity and, more specifically, matching supply and demand. It is clear that crowdsourcing platforms are supporting tools only: individuals need to bring existing skills and networks to use them effectively. For example, in the case of Platform 1, Robert had developed visualisation skills alongside design skills and Kath was selling writing services alongside marketing, while in pursuing their interests in writing, Nicola and Tara provided services unrelated to their previous labour market experience (see Table 1). For those using Platform 2, Rebecca and Kate had developed customer service and information management skills, while Yvonne was able to maintain her skills in social care and had the opportunity to keep her knowledge up to date. For William engaging in crowdsourcing was about getting his confidence back after being off sick by learning new skills in office administration. Enhancing and developing IT skills was common among the workers. However, individuals were found to be using platforms as a method to broaden skills and expertise, or for changing career in some instances.

Employability skills, attributes and characteristics

The employability skills, attributes and characteristics identified under individual characteristics in Green *et al.*'s (2013) employability framework were found to be of direct relevance to success in crowdsourcing for paid work activities. 'Success' may be defined as those who were able to gain employment through crowdsourcing and either continued to use the platforms to find employment or used the experience/ knowledge/skills developed and honed through use of the platforms to move to other employment. (It should be noted that the methodology for this study did not set out to identify those who had tried, but failed, to gain any employment via crowdsourcing.) A 'successful' crowdsourced worker typically displays essential attributes, including reliability, willingness to work, a positive attitude to work, responsibility, and self-discipline. Workers spoke of being motivated to work:

> You have to have drive [. . .] you have to be the kind of person who can get up and say 'I'm going to work today'. You have to be not distracted (Tara, Platform 1).

> You have to go above and beyond because it's your neck on the line (Nicola, Platform 1).

Others spoke of a sense of responsibility and accountability:

> I do not want to let people down. It's not how people should behave. If I say 'yes', I turn up on time and get on with it and do a good job (Yvonne, Platform 2).

Others spoke of doing a job to the best of their ability:

> I try and do an excellent job, so I try to be very specific, as I need excellent work too (Brian, Platform 1, buyer, ex-worker).

> If I'm doing a job I've got to do it a hundred per cent (Nora, Platform 2).

Most of the interviewees had a strong work ethic; this can be viewed as a pressure resulting from the lack of job security provided by crowdsourcing. Personal characteristics included proactivity, diligence, self-motivation, good judgement, initiative, confidence, self-efficacy, and perceived employability; all attributes required to gain and sustain a stream of work. Interviewees surviving in the crowdsourcing environment were proactive and self-motivated. Additionally, they had a good self-awareness of and

belief in their own skills. Self-efficacy was found to be important for those new to crowdsourcing, as well as for those already established. Workers talked about being confident in their abilities and skills to perform tasks and undertake duties required to ensure that the work undertaken was completed to the best of their ability. However, part of worker self-efficacy was knowing how to market their skills, which suggests that those unable to do this may be less successful in terms of gaining employment. They accepted the importance of proactively maintaining an online profile (this was particularly pertinent for those using Platform 1) and continually sought work, albeit when buyers came back for repeat work this was valued highly. For some, seeking work was undertaken strategically, such as determining the best job to gain new skills or a job that would lead to further work. Critically, this would seem a necessity for not only those needing to supplement their income, but also for those using these platforms as their main source of income.

Many skills highlighted in the research were transferable. Basic skills (such as literacy, writing, numeracy and basic IT skills) were fundamental to those engaged in crowdsourcing, together with key skills (such as problem solving, work process management, personal task and time management, e-skills and interpersonal and communication skills). While users of both platforms had to have IT skills, Platform 1 users were found to be enhancing those skills and Platform 2 users were developing their IT skills and usage. Platform 1 users also had high level transferable skills, including business thinking, job-specific skills, enterprise skills, and creativity. These skills and attributes were backed up by their confidence and were pertinent to individuals finding and obtaining crowdsourced work. Those with a lack of IT skills would find this a barrier to crowdsourcing. Consequently, it seems that a particular type of individual can do well in crowdsourcing: a self-starter with a strong work ethic.

Although not always essential, work experience and qualifications emerged as generally helpful in securing work through crowdsourcing platforms. This suggests that crowdsourcing would not be feasible for those lacking in skills and confidence. Workers, particularly those interviewed from Platform 1, reported that buyers were particularly interested in formal qualifications (perhaps for screening for suitability of potential workers). For instance:

> I found in my freelance work it [the postgraduate qualification] really makes a difference. Buyers comment 'we wanted someone at a high level and you tick all the boxes'. It did not carry a lot of weight when I was in my local employed position, [but] now I am in my virtual global position it does (Kath, Platform 1).

However, some workers with high level technical skills felt under-valued as a result of lower pay rates prevalent in crowdsourcing work than they had been paid as employees or needed to charge for business viability. For instance:

> Initially I was working for peanuts. I needed some work. But I learned new technical skills, which gave me experience of a new system which then helped with getting another job. If I went back now as a worker my rates would be too expensive (Brian ex-worker, now buyer, Platform 1).

> My business cannot survive on less than £25 per hour, but others are charging £10 per hour (Keith, Platform 1).

> I am always getting less money through [crowdsourcing platform] than through face-to-face business (Robert, Platform 1).

Several other workers interviewed felt that buyers attributed importance to work experience and work history, and therefore were not always given opportunities to try out new work. For those gaining work through Platform 2, work experience was helpful, but often on-the-job training was offered for both caring and administration roles. In these cases, it was considered important to pick up the required skills fast, so that the job could be done well and with minimum difficulty for the buyer. One worker said:

> I enjoyed the training offered [. . .] it was not like anything I had done before and it is a very complex system [. . .] they couldn't teach me everything [. . .] so I often have to pick it up when I get there (Kate, Platform 2).

This suggests an additional pressure on workers to be adaptable in new work situations. However, some workers seemed to enjoy this element of the work.

> You do become adaptable and very fast at learning new skills. You take on new skills because people ask you to (Nicola, Platform 1).

Overall, there were very mixed views on whether skills and qualifications were more or less recognised and appreciated in crowdsourcing. Some buyers placed most onus on reliability scores, reputation, track record and work history on the platform, and most avoided lowest cost sellers. One buyer, Brian (Platform 1), stated that he used feedback to select workers but would engage new workers in smaller jobs and test them out. Amanda (buyer, Platform 2) felt it was important to offer training to a number of potential workers, so they trained and ready to start work. Workers had to give up time to train with no guarantee of work. The training, however, was informal and no certification was gained, so in this aspect platforms could be seen as failing as an enabling support factor.

Disposition to enhancing employability

The research suggested that those engaged in crowdsourcing have a strong disposition to enhancing their employability by developing and improving existing skill and attributes. Those who succeed in crowdsourcing stated that this development activity is essential. This was particularly the case for those who gained all or the majority of their income from crowdsourcing work. Many workers reported that they felt a need (or burden) to engage in continuous learning and development activities even though the onus was on them to source and finance any training or learning required. Training that was available for Platform 2 workers had to be undertaken without financial compensation or the guarantee of a job upon completion.

Platform 2 workers talked about the range of specialist and job specific skills they had developed and were continuing to develop (e.g. data management, social care, etc.). Some were continuing to work in the same field as their employment prior to engagement with crowdsourced work, while others demonstrated a more varied work history as a result of engaging in crowdsourcing (see Table 1). One worker who had undertaken a range of work was also selective about which jobs she would respond to:

> Before I retired I was in my last job for 15 years, so I am very keen to try all varieties of work [. . .] I've always been in administration or finance. I've been offered survey work, but it's not me [. . .] I wouldn't want to be working in a restaurant or behind a shop counter [. . .] but I've been all over the place doing different things. I like the customer service bit (Kate, Platform 2).

Although crowdsourcing opens up a range of employment opportunities, in reality the worker has to be willing to engage with new activities. Buyers believed that crowdsourcing enables people to test out and experience work and be in a better position to gain traditional work. Amanda (buyer, Platform 2) knew of a crowdsourced worker that now worked for the organisation on a more permanent basis, because they had proven skills in the crowdsourcing environment when they applied for a vacancy. This suggests that skills developed through crowdsourcing could be highly transferable and seen as enhancing individuals' employability. It was apparent that workers, who were able to gain continuous employment through crowdsourcing, were able to develop their employability, as they bid for and were given opportunities to learn new skills and develop existing skills. However, it could be argued that those who gain work intermittently through crowdsourcing would not be enhancing their skills or employability, as they would be unable to prove a range of skills.

Labour market and job-seeking knowledge

Labour market and job-seeking knowledge were also evident among those engaged in crowdsourcing. All of the crowdsourced workers interviewed had previous, and

sometimes substantial, employment experience and work skills gained in the traditional labour market, which insinuates that those with little or no work experience may experience problems in gaining employment in this way. Those with experience would be able to draw on this in their crowdsourcing activities. One worker who did work for buyers from all over the world compared crowdsourcing to a 'portal into the whole world' (Kath, Platform 1). Therefore, some understanding of how other labour markets operate seems to be valuable.

To engage and locate employment opportunities through crowdsourcing platforms, workers needed to have a general awareness of opportunities for paid and unpaid work. Interviewees tended to demonstrate knowledge and use of both formal and informal information sources. There appeared to be a necessity to have a realistic approach to job targeting in terms of what work could be obtained, how an individual's current profile aided job prospects and what remuneration was reasonable, albeit Platform 1 workers indicated that they typically started off winning work by 'bidding low' and then learning what was 'reasonable' to charge via a process of 'trial and error'. Platform 2 workers recognised that it was a necessity to participate in training opportunities offered by some organisations in order to get on the 'approved worker' list.

Others demonstrated a good awareness of what local job opportunities were available to them and what this meant for their employment prospects. For instance, Tara (Platform 1) knew that there were few jobs in her local area (characterised by relatively high unemployment) and saw benefit in keeping a part-time employee job alongside her crowdsourcing work. One worker, Kate (Platform 2), reported that she had registered with a local temping agency and had tried that approach to work. For her it had been unsuccessful, as she had been unable to fit it alongside her other part-time work. Crowdsourcing, for her and others, had opened up new possibilities of finding flexible work that fitted with work and responsibilities. So, it was evident that labour market and job-seeking knowledge were essential for crowdsourced workers, which was complemented with the ability to be flexible in their approach to finding work, but also a willingness to try out new opportunities.

Adaptability, flexibility and mobility

Adaptability, flexibility and mobility, as tenets of employability, were also identified as key characteristics of crowdsourced workers and their success in their form of employment. Crowdsourcing offers workers the opportunity to exercise choice about how, where, when and what work to undertake, for instance:

> You can work from home, you can work globally, you can work just in your specialist area, whatever hours you want and fit your life around it (Bernard, Platform 1, buyer).

In practice, this means that workers need to carefully manage their workload as not to become overloaded, but also have work lined up for when a job finishes. In order to maintain a stream of work, the importance of being and becoming adaptable and flexible was emphasised by many. For instance, the need to be adaptable was highlighted by Yvonne (Platform 2), who was well experienced in social care, but said that she was still learning and had to be adaptable as every situation was different. For one, the pressure to do work was evident:

> If there is work available, I will work. I'm not afraid of work (William, Platform 2).

These characteristics were seen as a necessity by workers in terms of being flexible in their availability to undertake work, responsive to employer demands, able to manage and acclimatise to new situations, able to learn on-the-job and rapidly become competent. This was demonstrated by the willingness and a need for many of the workers interviewed to engage in new forms of work. Adaptability was illustrated by the ability of some to learn new skills quickly and face new challenges. Linked to this, responsiveness was also found to be a key characteristic. One worker spoke of having to be available at short notice, for instance:

I feel that once you have committed yourself to working certain days that you have to commit yourself. You can't then, if a friend rings and want to go out for coffee I feel you then couldn't do that because you would be letting people down [. . .] I'm there and available if the phone rings [. . .] I can be cleaning out the cupboards one minute and then on the bus to a job the next (Nora, Platform 2).

To prove and improve their reliability and rating scores, new workers had to be especially responsive to buyers in order to become (and remain) more attractive in the future. There seemed an implicit pressure to say 'yes' to work in order to gain and sustain a good reliability rating on the platforms, which in turn would lead to other employment opportunities.

Access to resources—economic and social networks

The research also highlighted the importance of both *social and economic networks*. Economic networks define the relationships between buyers and workers, which expand through engagement with crowdsourcing and repeat business, while social networks define the relationships workers gain by engaging in crowdsourcing. There was evidence of workers not only developing their networking skills, but also developing and enhancing their networks. The expansion of networks was strongly believed to be enhanced by the crowdsourcing process. However, the types and purpose of such networks varied by platform. Workers from Platform 1 spoke of how the platform extended their economic networks and brokered contacts between buyers and other workers. The aim of these networks was to become known and trusted to enable the possibility of a steady stream of work. Those using Platform 1 believed that the virtual expansion of both their social and economic networks, associated with working this way, had enhanced their opportunities for paid work—whether through crowdsourcing or via the conventional labour market:

I get work by networking (Kath, Platform 1).

It enabled me to make very good contacts [. . .] It helped rebuild skills and develop a network (Keith, Platform 1).

It can be a good broker (Brian, ex-worker, buyer, Platform 1).

By contrast, Platform 2 workers foregrounded social networks combined with the opportunity for skills development. Workers interviewed from Platform 2, spoke of how they liked meeting new people and one gave this as a reason to continue working in this way. One said:

I enjoy the contact with people, different people (William, Platform 2).

Others spoke of the variety of opportunities available to them through this form of work, which had enabled them to meet new people. One Platform 2 buyer often organised social events around a guest speaker, or some new information and training that had be delivered, stating:

It is an appealing way of working for many people (Amanda, Platform 2, buyer).

One worker said that she really enjoyed the evenings, because it was nice to catch up with others working in the same job, to meet new people and to learn something new. The development of social networks seemed to be an important aspect of working for those interviewed.

Overall, it can be argued that economic networks were developed further as a consequence of participation in crowdsourcing, but also encouraged participation in crowdsourcing as these networks provided recommendations and repeat business. This suggests that those new to crowdsourcing without networks may find it difficult to engage successfully with crowdsourcing activities as they may have limited opportunities for work—at least at the outset. Overall, networks and networking skills play

an important role for those getting started in crowdsourcing, as the purpose was to become known and trusted in order to obtain work.

Discussion

Understanding motivations to engage in crowdsourcing for paid work

The workers interviewed were generally enthusiastic about engaging in the labour market using crowdsourcing platforms, whether on a continuing/long-term basis, or to meet short-term needs for income in the face of redundancy when no other suitable local employment opportunities are available, or as a route back into paid work after a break. Motivations to engage in this form of work had, for some, been borne out of interest, while others had faced a lack of alternative options. These motivations for most had altered over time, due to increased knowledge, the development of new skills and changes in personal circumstances (such as changing financial commitments, caring responsibilities etc.). For several workers interviewed (especially mothers in the case of Platform 1), work-life balance was one key influence in the motivation to engage in crowdsourcing. Workers spoke about finding opportunities for paid work that fitted around other obligations, which may have been difficult in the traditional labour market. The flexibility of opportunities afforded by this form of working is likely to help drive future growth. For instance, many of the workers and buyers interviewed stated that they would continue working this way in the medium- to longer term. It seems that this commitment was a mixture of enjoyment for some, gaining skills (and confidence) for others, and being a 'good option' to maintain a position in the labour market and earn (supplementary) income.

Assessment of the impact on employment and employability

Whether individuals are employees, self-employed, unemployed or economically inactive, crowdsourcing for paid work can be a route to (additional) employment. On a basic—though not insignificant—level, crowdsourcing increases access to job opportunities and an available workforce. This is achieved through the use of ICTs, which and has an important effect on the interactions and transactions that take place. As Sawyer *et al*. (2014) note new forms of *informational access* have the potential to change the way work is arranged and the way it is performed. This suggests new possibilities at least for some people, but may pose new challenges for others in terms of engaging with technology to interact with employers/buyers, to find jobs and undertake work,

It should be noted, however, that not all crowdsourcing platforms are suitable for all types of work and all workers. It is not sufficient to have only specialist expertise; IT skills are fundamental to engagement. It is evident that to be successful with crowdsourcing, individuals need an initial set of skills and attributes that they can sell or promote. For those with these skills, success in sustaining employment was dependent on continuous marketing, good client management skills and self-promotion. First, the characteristics of self-efficacy, motivation, self-reliance and adaptability are key to attaining work, as it is the workers' responsibility to maintain their online profile and reputation or an online diary of their availability to work. Second, there is a need to be proactive in seeking work, responsive to demands of buyers, and to have good organisational, time management and planning skills, self-discipline and communication skills. These skills are, again, transferable to other employment and non-employment settings. This suggests that engaging with crowdsourcing can be both demanding and work-intensive for the worker.

Crowdsourcing can enable individuals to gain and build work experience, which can result in the development of new skills and opportunities. Furthermore, individuals can take opportunities to renew existing skills through practice, to discover and utilise latent skills and to develop specialist skills. These skills are often transferable to other settings and may, in some instances, encourage individuals to engage in further

learning and training. However, the onus will be on the individual to source and finance any training. Crowdsourcing may offer the opportunity to undertake different and more challenging work than has been available to workers before. Combining these opportunities may lead to other employment opportunities, including in sectors and in roles where individuals may have had no previous direct employment experience. Therefore, engagement in crowdsourcing can be a means of enhancing employability.

Conclusions

The case studies of crowdsourcing for paid work platforms provide evidence of new kinds of work arrangements enabled by the Internet and advances in technology. The type of work offered and undertaken through these platforms goes beyond IT jobs. Internet-enabled platforms facilitate the exchange of information between employers and workers and so can open up opportunities for all involved. These opportunities, however, are not without limitations and challenges, as the empirical evidence presented here indicates.

The analysis of the experiences and insights of crowdsourced workers has enhanced understanding of crowdsourcing platforms and how they are being used as tools by workers to enhance and broaden their skills, expertise and networks, or even enable a career change. Using the employability framework it can be seen that of paramount importance to engagement in crowdsourcing are individual factors, such as attributes and skills, a disposition to enhancing employability, labour market and job-seeking know-how, adaptability and mobility. Individual circumstances, including access to resources—especially social and economic networks—were also found to be important. Employers' (i.e. buyers') practices have not been focused on in detail in this paper, but evidence from this qualitative research highlights that for Platform 1 cost considerations and access to a ready pool of labour to undertake specific tasks as and when necessary, were important motivations for use. The latter reason is the paramount motivation for buyers in the case of Platform 2. Local contextual factors may mean that opportunities for conventional employment suiting individual needs and circumstances are limited. Platform 1 opens up extra-local employment opportunities that can be undertaken *in situ*, whereas Platform 2 provides additional local opportunities for paid work. The macro context impinges on the local context, employers' practices and individual circumstances and factors, and on the operation of enabling support factors.

The aim of crowdsourcing for paid work is not necessarily to offer full-time and/or sustainable employment *per se*, but there are a few cases of individuals doing this and generating what they deemed a reasonable income (albeit usually modest). Crowdsourcing is a method enabling casual workers, sometimes with complex needs or circumstances, to engage in the labour market supported by IT. Engagement in crowdsourcing ostensibly creates opportunities for employment, improvement of employment prospects, skills development and enhancement of employability. By engaging meaningfully in this form of work, individuals may boost their employability as they have to be (or learn to be) flexible in their availability, responsive to employer demands, able to manage and acclimatise to new situations quickly, learn on-the-job, and rapidly become competent. Although complex, individuals' motivations for engaging in this form of employment can be understood in terms of financial gain, work-life balance, interest, learning and skills development. The findings extend the current evidence base by providing insights on why some actively engage in crowdsourcing for paid work and how it can enhance their employability and employment.

The challenges to working in crowdsourcing are not insignificant. First, for those without IT skills and/or confidence, finding employment through crowdsourcing would be difficult. So, although ostensibly crowdsourcing is available to all, only those with the right skills could prosper. IT skills were fundamental to those using Platform 1 who undertake the work online, but for those using Platform 2, the IT skills required to operate the system had to be learnt. Second, there is much evidence to suggest that using these platforms requires a lot of work in order to build a reputation and gain

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work. While all workers have to build a reputation with buyers, those with existing relevant skills and expertise seem to have the advantage. The work in creating and maintaining a profile and market oneself is time-consuming. Finally, in terms of financial returns, workers suggest that online rates of pay are lower than in the conventional market. Plus, workers have to, where provided, attend training without financial compensation and fund their own training if this wish to develop particular skills or require certification.

The qualitative research presented here is small scale and has focused on the experiences of selected individuals using crowdsourcing to engage in this form of work. Although it is difficult to draw substantive conclusions, the study provides valuable insights into the operation of crowdsourcing in the UK context. In-depth understanding of how individuals' experience crowdsourcing in terms of the employability has been presented, highlighting the characteristics, attributes and skills individuals need to survive in this form of work.

The evidence base for crowdsourcing needs to be deepened and widened; there is a need to examine more platforms in more depth. Local and macro contexts also need to be investigated further to understand why individuals engage in crowdsourcing either alongside or instead of traditional employment. It would also be interesting, and important from a policy perspective, to explore those that have been less successful in the crowdsourcing environment.

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