WARWICK INSTITUTE *for* EMPLOYMENT RESEARCH

D2: REVIEW OF STATE OF THE ART AND MAPPING: CROWDEMPLOY

Prepared by
Sally-Anne Barnes
Maria de Hoyos, Beate Baldauf
Heike Behle
Anne Green

Institute for Employment Research
University of Warwick
Coventry CV4 7AL, U.K.

Contact
Anne.Green@warwick.ac.uk
Sally-Anne.Barnes@warwick.ac.uk
Tel. +44 (0) 2476 524 113
Fax. +44 (0) 2476 524 241

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Joint Research Centre

Forward

A key policy concern of Member States of the EU is the need to stimulate the creation of employment as part of the 'job rich recovery'. This is happening at a time when the nature and organisation of work is changing rapidly: industry demands more flexible work organisation to maintain competitiveness; globalisation changes the supply and demand for labour; and new uses of information and communication technologies (ICTs) change the practices and possibilities of work.

The Internet has been a key factor in shaping paid and unpaid work over the last 15years, facilitating changes in the way that large and small business, NGOs, and the public sector access skills and labour; the nature of entrepreneurship and self-employment; the way we make employment transitions; the skill requirements of contemporary work; exclusion from work; pathways to social inclusion and social cohesion through work; and policy on welfare, labour and enterprise.

This paper has been commissioned by the JRC-IPTS as part of a programme scoping of research to inform policy on some of these forms of work and pathways to employability that have become established over the last 10 years, focusing on four trends: online work exchanges, including crowdsourced labour; crowdfunding including microfinance, online and virtual volunteering; and reciprocal work exchange such as timebanks.

Other reports are available from the JRC IPTS Information Society Unit Webpage.

http://is.jrc.ec.europa.eu/pages/EAP/eInclusion/employability.html

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1. INTRODUCTION

The broad aim of the CrowdEmploy project is to explore internet-enabled exchanges with potential to impact on employability of individuals, i.e. their process of gaining, sustaining and progressing in employment. The study addresses the following interrelated research questions:

- How do internet-enabled models based on exchange or donation of capital and labour (paid and unpaid) operate from both the user and operator perspectives?
- What are the opportunities and challenges that these services present for employment and employability?

Although there are different definitions and labels in use, these exchanges are often labelled 'crowdsourcing' to highlight the possibility of reaching a large and widespread pool of people (the 'crowds') via the internet. As our review of the literature and a number of authors indicate, this term is diverse and difficult to define (Afuah and Tucci, 2012; Battistella and Nonino, 2013; Doan et al., 2011; Felstiner, 2011; Frei, 2009). Therefore, a working definition of crowdsourcing and related terms will be proposed as part of this study.

The first phase of the research study, and the focus of this report, consists of a literature review and mapping of the internet-mediated models being considered. The aim is not to conduct an exhaustive literature review, but to summarise the existing relevant literature and situate it within broader issues on employment and employability. This will lead to a better understanding of the state of the art and will allow researchers to identify questions and topics to explore. The results will provide a conceptual framework that will guide the design of a series of case studies. These case studies, six in total, will be the focus of second phase of the CrowdEmploy study and will provide empirical evidence of selected crowdsourcing initiatives.

1.1. Defining CrowdEmploy

CrowdEmploy stands for the relationship between the potential to access the 'crowds' via the internet to achieve a goal and employability. The term 'crowdsourcing', which is both evolving and contested, is important in this respect. The term was coined by Howe (2006) and was intended to identify:

> "the act of a company or institution taking a function once performed by employees and outsourcing it to an undefined (and generally large) network of people in the form of an open call"[1]

Similarly, Brabham (2012: 395) adopts this view and defines crowdsourcing as an online model through which "an organisation leverages the collective intelligence of an online community for a specific purpose". In this sense, the term is restricted to organisations outsourcing some function or goal to the crowds. However, as the term evolves, other definitions and interpretations have emerged that recognise the usefulness of the term but also the need to adapt it to new contexts and purposes.

[1] Quoted from http://crowdsourcing.typepad.com/cs/2006/06/crowdsourcing_a.html

The present study adopts a much broader definition of crowdsourcing which incorporates open calls to the crowd for a range of activities that can be associated to employment and employability. One such activity is crowdfunding, which involves raising funds via the internet for projects which can include business start-us, social causes and personal goals. Like Belleflamme et al. (2012) and Lambert and Schwienbacher (2010), crowdfunding is considered here as a form of crowdsourcing, thus a broader definition of the latter is adopted. The present study defines crowdsourcing as:

> An online mediated exchange that allows users (organisations or individuals) to access other users via the internet to solve specific problems or to achieve specific aims.[2]

More specifically, the present study focuses on 'crowdsourcing' in relation to:

1) using the internet to access funding for personal or social projects, including start-up businesses and other ventures with a direct or indirect connection to employability and/or employment;

2) using the internet to access paid work (which is likely to be conducted remotely); and

3) using the internet to access unpaid work and develop employability skills.

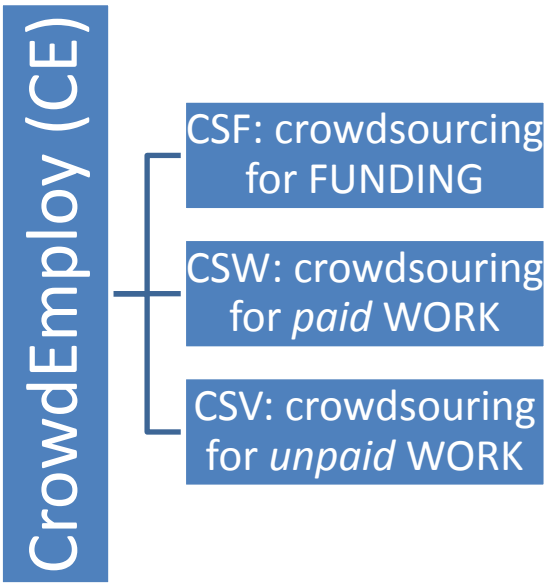
The CrowdEmploy study focuses on the relationship between these exchanges and employability. In doing so, it focuses on three areas of crowdsourcing: using the internet to access funding (CSF); using the internet to access and undertake paid work (usually undertaken remotely) (CSW); and using the internet to access unpaid work in the form of reciprocal exchanges or volunteering opportunities (which may be undertaken remotely), especially with the aim of developing skills for paid work (CSV). Figure 1 provides a diagrammatic representation of the CrowdEmploy study and its focus.

In practice, these internet exchanges operate in very different ways. The case studies will shed light into the operations of specific initiatives and are likely to bring more in-depth differences to the fore. However, there may also be similarities between crowdsourcing initiatives. One aspect that CSF, CSW and CSV have in common is that connecting individuals – those with needs to those who can offer resources such as money, time, experience or skills – is at the core of their main activities. In tradition employment terms this would be defined as matching the supply and demand, but it is recognised that the relationships formed through crowdsourcing might need to be seen in a different way.[3]

[2] The term 'users' highlights the fact that the actors that represent the supply and the demand side vary depending on the type of crowdsourcing initiative involved.

[3] For example, in CSF the funders (those providing monetary contributions) can be seen as part of the supply side while the project owners take the role of the demand. However, the terms 'supply' and 'demand' might not be adequate in a an exchange where, in the words of Perry Chen, co-founder of Kickstarter, "backers are friends, long-time fans, family members, classmates, people in the gardening club with you" (More Intelligent Life, 2010). Chen calls these the 'social fabric' that individuals bring into the platform and play an important role in it.

Figure 1. CrowdEmploy: Focus of the study



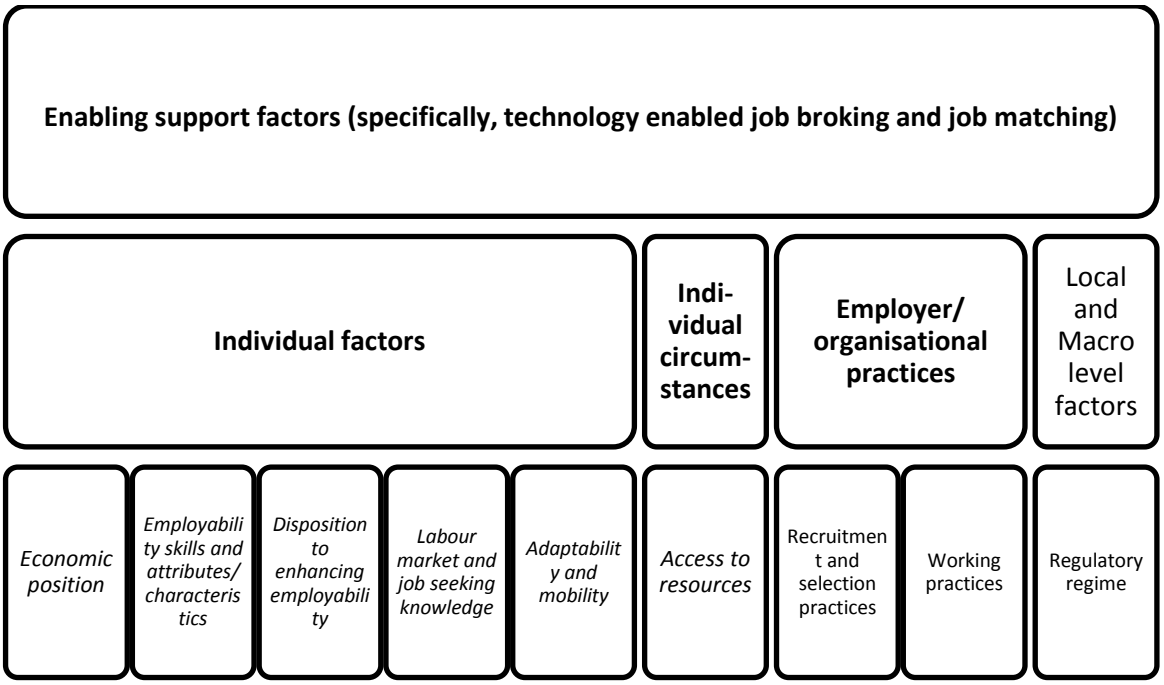
It is argued that the interaction between crowdsourcing and employability is complex given the fundamentally new elements that are being introduced, with the internet, and Web 2.0 in particular, being among the most salient. This is likely to present challenges and opportunities in terms of supporting the process of gaining, sustaining and progressing in employment. In other words, these new ways of interacting with others via the internet may provide opportunities for accessing funding, work or opportunities to develop skills and social networks. These can potentially impact a person's situation in relation to employment, but if so it is not yet clear how this takes place.

1.2. The employability framework

Green et al. (2012) developed a revised employability framework which will be used an overall background for this study. The framework leaves behind the idea that employability relies on the individual (or any single actor, for that matter) and proposes five groups of factors that have potential to impinge on a person's journey into gaining and sustaining employment. These factors are: **individual factors**, **individual circumstances**, **employer/organisational practices**, **local contextual factors**, and **macro level factors**.

Whereas a full version of the framework is provided in Green et al. (2012), Figures 2 provides an abridged version listing the main factors considered as relevant to the study of crowdsourcing and some examples of specific elements. Within **individual factors**, the person's economic position, their skills and attributes, their attitude to employment, their knowledge of the labour market, and their adaptability and mobility are factors that are expected to shape their involvement in crowdsourcing. Moreover, **individual circumstances** (e.g. access to resources, caring responsibilities) are considered important elements too. **Employer/organisational practices** are crucial for CSW and CSV as these actors are likely to play the role of the demand side; moreover, CSF is likely to have an impact on how ventures operate or projects are conducted. **Local** and **macro level factors** are both seen as relevant as they represent the context within which crowdsourcing takes place. Due to the global nature of crowdsourcing, the latter may be seen more significant, but evidence from CSV and CSW may provide evidence of the impact of these exchanges for local labour markets.

Figure 2. Simplified version of Green et al.'s (2012) employability framework



The next chapters take the elements of this framework into account as crowdsourcing is reviewed for the purposes of this study.

1.3. Methodology: Literature review and mapping of services

This phase of the research study consists of two main elements: i) a review of the academic and grey literature in relation to crowdsourcing (Chapters 2-5), and ii) a mapping of crowdsourcing platforms and initiatives in Europe and other leading markets (Chapter 7). As said above, the findings from the literature review are intended to help define research questions and topics of research and will also help adapt the framework for the case studies that will be conducted in a subsequent phase.

The mapping of available services provides a picture of the types of crowdsourcing initiatives and websites available. The mapping is intended to serve as a sampling matrix to determine possible candidates for the case studies. Therefore, by mapping the services a typology of CrowdEmploy (CSF, CSW and CSV) initiatives and websites is provided.

1.3.1. Review of the literature

The review of the academic literature entailed searching key databases, including: Applied Social Sciences Index and Abstracts (ASSIA); International Bibliography of the Social Sciences (IBBS); EconLit with Full Text; Education Research Complete; Sociological Abstracts; Business Source Premier; E-Journals; FRANCIS; Scopus; and Encore. Given the dynamic development of the relatively young crowdsourcing industry, searches focused primarily on the period from 2008 to 2013 in the title, abstract, keywords and full-text, with 'crowdfunding', 'crowdsourcing', 'crowdsource', 'online volunteering' and 'micro-volunteering' among the search strings. For online and micro-volunteering, the following search terms and strings were also applied: virtual volunteering; different forms of writing micro-volunteering (e.g. micro volunteer*, micro-volunteer*, microvolunteer*); e-mentoring AND volunteering; volunteer* AND (employ* OR job) for searches on employability. The section on

Reciprocal Exchange Systems used key words such as: Time Bank; Time Sharing; and LETS. A small number of documents have not been procured due to time and fees for obtaining such sources.

As evidenced, there is not yet a substantive body of academic research in the topics defined here under the term CrowdEmploy. Some academic literature was located on CSF and CSW; in the latter it was limited to the process and immediate impact for individuals. The literature that summarises and that is starting to offer useful conceptualisations on crowdsourcing in general is currently available mainly in the form of grey literature, e.g. in the form of reports by relevant organisations or working papers. Such reports were accessed via online searches. These reports have provided valuable insights into crowdsourcing for funding, work and, to a lesser degree, for volunteering. In addition to this, online the comments posted by users and observers of these platforms and initiatives also shed light into relevance and impact of crowdsourcing for the purposes of accessing funding, work and volunteering opportunities.

The grey literature was accessed via Internet searches using Google scholar or browsing websites of relevant organisations, where appropriate, including:

- websites of relevant sector/industry organisations (e.g. European Crowdfunding Network, Volunteer England, The European Volunteer Centre, Crowdsourcing.org, timebanking.org, tauschwiki);
- websites set up by experts in the field (e.g. Coyote Communications, Help from Home, Daily Crowdsource, Crowdsortium);
- websites featuring online volunteering awards (e.g. UN online volunteering, Discover e-volunteering);
- relevant project dissemination websites (e.g. the current and previous Virtual Volunteering Project (VVP) archive; German project dissemination website on e-mentoring).

A more comprehensive list of websites searched for online and micro-volunteering is available in Annex E.

1.3.2. Mapping of services in the European and global context

The mapping of the breadth and types of services currently available has been informed by the review of both academic and grey literature and a purposeful online search. The information available, and definitions and classifications used, varies between sources and websites. Chapter 6 provides a summary of the services mapped in Europe and across the globe on crowdsourcing for funding, crowdsourcing for paid work and crowdsourcing for volunteering. The mapping provides a snapshot of the types of crowdsourcing initiatives currently available (Annexes A-D). Selected lists of active sites covering a range of activities illustrate the coverage of paid and unpaid opportunities availability on the internet (Annex E). The mapping is also intended to serve as a sampling matrix to determine possible candidates for case studies.

1.4. Summary

This chapter provides an introduction to the CrowdEmploy study by highlighting the overall research questions to be tackled. It then focuses on the two main aims of this first report: to provide a literature review and mapping of crowdsourcing. Crowdsourcing is defined in terms of CrowdEmploy

(i.e. for the purposes of this study) as an online mediated exchange that allows users to access other users via the internet to solve specific problems or to achieve specific aims which can be associated (directly or indirectly) to gaining or sustaining employment. In this way, crowdsourcing involves crowdsourcing for funding (CSF), crowdsourcing for paid work (CSW) and crowdsourcing for unpaid work (CSV). Green et al.'s (2012) employability framework is used as a background to explore these areas of crowdsourcing and their relation to employment and employability.

The next chapters look into the different areas of CrowdEmploy. The next chapter focuses on CSF, followed by a discussion on CSW. CSV is covered in Chapters 4 and 5 as issues related to reciprocal exchange systems (Chapter 4) are discussed separately from online volunteering (Chapter 5). Chapter 6 integrates these areas of crowdsourcing into a framework to guide further research. The mapping of crowdsourcing platforms and initiatives in Europe and other leading markets is presented in Chapter 7.

2. CROWDFUNDING

The aim of this chapter is to provide a description of crowdfunding (CSF), identify associated issues and provide some examples. Although crowdfunding is not new, its internet-based version, which is the focus of this study, is relatively recent. The literature covering this topic is thus limited but useful typologies and topics of enquiry have started to emerge. After considering definitions and approaches to crowdfunding in the next section, Section 2.2 discusses these typologies and presents some examples. Motivational issues in relation to crowdfunding are then considered from the perspective of different actors (Section 2.3). This is followed by a discussion of the potential risks of crowdfunding in Section 2.4. Concluding remarks are presented in the last section.

2.1. Definition and approaches to crowdfunding

Crowdfunding initiatives can be described as projects that seek to gather monetary contributions through calls aimed at individuals who can be accessed via the internet. Such projects gather resources from the 'crowd' and in this way crowdfunding can be seen as a form of crowdsourcing. As discussed in Chapter 1, other authors also adopt this view in their definitions of crowdfunding[4] and also consider the rewards that those who provide financial resources receive in exchange of their contribution. These rewards range from return on investment or privileged access to products, services or communities, to the personal satisfaction of contributing to a cause.

In line with the general definition of crowdsourcing, crowdfunding is defined here as

> An online mediated exchange that allows users (organisations, individuals, etc.) to access *funding* from other users via the internet to solve specific problems or to achieve specific aims.

Although raising funds is a core activity for crowdfunding, it is important to highlight that crowdfunding is a means to achieve other goals, that its effects goes beyond raising money and that it can also generate indirect effects. De Buysere et al. (2012) suggest that entrepreneurs and SMEs can benefit from crowdfunding at multiple levels. According to the authors, crowdfunding "can provide the benefits of pre-sales, market research, word-of-mouth promotion, and crowd wisdom without additional cost" (p. 18). For individuals or organisations seeking funds for a personal or social project, crowdfunding can provide opportunities such as developing a reputation and a network of contacts. Thus crowdfunding can be seen as a process that involves connecting people to achieve a specific aim.

As a broad concept, crowdfunding has a long history. An often cited example of early crowdfunding is the campaign that raised funds for the pedestal for the Statue of Liberty in 1885 which gathered US$102,000 thanks to over 120,000 donations of around one dollar each (Crowdfundinguk.org, 2012). Although this initiative did not make use the internet, several of the factors that helped to make this (and other early examples) a successful bid are still relevant today. However, the widespread use of the internet has introduced crucial changes to the way people connect to each

[4] Belleflamme et al. (2012: 7) define crowdfunding as "an open call, mostly through the internet, for the provision of financial resources either in the form of donation or in exchange for the future product or some form of reward and/or voting rights". To this, Lambert and Schwienbacher (2010: 6) add "…in order to support specific purposes".

other and to the pool of individuals that can be reached and thus calls for a new view of crowdfunding.

The present study focuses on crowdfunding as an *internet*-enabled exchange through which individuals or organisations can gather funding for their projects. Employment and employability issues are of particular interest and for this reason so are projects that can be described as start-ups with potential to evolve into small and medium-sized enterprises (SMEs), so providing employment. According to the typology of crowdfunding projects and instruments provided by Hemer (2011), start-ups are typically initiated by individuals with the intention of transforming the project (if successfully terminated) into the foundation of an organisation (private or public)[5]. Moreover, Hemer's typology classifies crowdfunding projects according to their commercial objectives as: i) not-for-profit, ii) for-profit and iii) intermediate. These three objectives are considered as pertinent since there are potential employment and employability benefits (direct and indirect) from start-ups with these three kinds of objectives. In this way, a relevant question to ask is: What employment and employability opportunities can crowdfunding provide?

The literature on crowdfunding is still limited, but some studies on the subject have begun to emerge, so far mainly in the form of working papers. In addition to this, there is significant press and media coverage on crowdsourcing highlighting salient examples covering both specific initiatives and platforms that serve as intermediaries between innovators and funders (such as *Kickstarter*, *Kiva*, *Indiegogo* and *Sellaband*). As the term crowdfunding and the activities that it involves become increasingly widespread, there is also a growing interest in the current and potential impact of this funding mechanism and the way it operates. For example, Belleflamme et al. (2012) investigate the effectiveness of different forms of crowdfunding and Hemer (2011) discusses the role that crowdfunding can play in start-up financing. Moreover, de Buysere et al. (2012) propose a policy framework for the crowdfunding industry in Europe that is based on regulation, education and research.

2.2. Typology of crowdfunding and examples

Although the idea of crowdfunding is not a new one (as indicated above), what is more recent is the introduction of internet sites that, enabled by the development of Web 2.0, provide a platform for gathering funds from the crowd. These sites are known as crowdfunding platforms (CFPs) and provide a range of services facilitating the interaction and transactions between those providing funds and project developers. A report created by crowdsourcing consultancy firm Massolution (2012) offers a typology of CFPs that includes four categories: i) equity-based, ii) lending-based, iii) reward-based, and iv) donation-based crowdfunding. Table 1 provides a description of each platform and their distribution adapted from the report by Massolution and de Buysere et al. (2012).

[5] Hemer (2011) classifies crowdfunding projects according to their 'original organisational embeddedness' as: i) independent and single, ii) embedded, and iii) start-up. While the latter is described above*, independent and single projects* are those projects set up by individuals; *embedded* projects are those "originally initiated by or from within an incumbent private or public organisation… and originally intended to remain part of that organisation" (Hemer, 2011: 12).

Massoulution estimate that by the end of 2012 there were around 500 CFPs[6]. However, the report does not include Asian platforms that are inaccessible in English, which can be seen as relevant in this context. The results are based on a sample of 135 participating CFPs, around 50 per cent of which are based in Europe and 30 per cent in North America. This over-represents the European market, but the authors believe their sample size is still statistically relevant. The report indicates that in 2011 North America was the largest recipient of funds raised (82 per cent, in contrast to 10 per cent for Europe and 8 per cent for other regions) and also the largest market contributor, contributing to around 50 per cent of the market (US$837.2 million out of US$1.5 billion raised globally). In a separate report, Europe was reported as raising "around €300 million or one third of the world market" (de Buysere, 2011: 6).[7]

Table 1. Crowdfunding platforms (CFPs)

Type of CFP	**Description***	**Proportion of the sample (%; 100% = 135 CFPs)****	**Proportion of the funds raised (%; 100% = US$575 million)****
Equity-based	Funding consists of investing in a company in exchange for stakes in the business. Contributions may be motivated for monetary reasons but social or intrinsic reasons are not excluded.	15	18
Lending-based	Investors expect to receive money over time in exchange for their loan, although projects may accrue funding without offering an interest payment - for example, if they are charitably motivated	11	22
Reward-based	Investors receive non-monetary rewards for their funding. Their contribution can be a donation or a pre-purchase, or some other form of non-monetary reward.	47	11
Donation-based	Contributions are made towards a charitable cause or social enterprise. Donations are intrinsically or socially motivated rather than motivated by monetary rewards.	27	49

* Adapted from Massolution (2012) and Collins and Pierrakis (2012)

**Source: Massolution (2012)

[6] An estimate based on historical market projection suggests that there were 452 CFPs by April 2012; using the directory of sites provided by Crowdsouricng.org, the estimate offered is 536 as of December 2012. (Massolution, 2012)

[7] Massolution methods for calculating the market size have been criticised, although the firm maintains the validity and clarity of its measurement instruments. See e.g. http://allthingsd.com/20120728/crowdfunding-market-nearly-10-times-smaller-than-widely-cited-estimate/

Although the number of platforms is rapidly changing, with new platforms emerging and others becoming discontinued,[8] Table 1 provides an interesting snapshot of the distribution of crowdfunding platforms and the funding they attract. Donation-based platforms attracted a larger proportion of funding taking all four types into account, whilst the funds raised by reward-based platforms (the largest group in the sample) are growing at a faster rate. This raises interesting questions in relation to what motivates individuals to donate, a topic which is discussed below. Furthermore, the performance of donation-based CFPs suggests that the rationale and goals of the projects being set out for crowdfunding plays a role in encouraging funders to take part. Social entrepreneurship is a relatively new area of research which has potential to provide insight into the study these initiatives. Social entrepreneurship is also addressed in a later section.

Examples of each of the four types of crowdfunding platforms are discussed next. In spite of the differences, all platforms follow a similar structure that allows most if not all funding activities to be conducted online. Potential funders can browse projects and select one or more to support with a monetary contribution. By registering, they can pledge funds and follow the development of their chosen project's funding campaign. On the project owner's side, they need to register and submit a business or project plan, which will be evaluated depending on the type of platform in question. Once a proposed project goes live, there will typically be a fixed period in which it can accrue funds (or, more precisely, pledges). If a project reaches its target amount within this period, it will receive the funding accumulated. Otherwise, a common outcome in the case of many platforms is that the project will receive no funding and no money will be deducted from the funders' accounts, although some platforms operate structures where funds pledged can be paid out even if the set target is not reached. This highlights the importance of clear and effective marketing of projects to prospective funders. There are also differences in the way platforms charge their users, possibilities include: charging a percentage of the funds raised per successful project, charging up-front or on-going fees, asking for donations to cover overhead costs, and combinations of these and other methods.

In considering this typology, it is important to consider that the distinction is not clear cut and there are overlaps between different types of platforms. For example, reward-based platforms often host projects seeking funds for charitable or social causes, offering incentives with little or no monetary value and making them more akin to donation-based projects. Similarly, there are CFPs which can be classified as either equity- or lending-based, such as *Abundance Generation*, which was classified as a lending-based platform in Chapter 7.

2.2.1. Equity-based crowdfunding platforms

These CFPs allow funders to invest in start-ups and small businesses and they allow entrepreneurs to raise money by selling stock to investors. In other words, equity crowdfunding can be defined as "the offering of securities by a privately held business to the general public, usually through the medium of an online platform" (Collins and Pierrakis, 2012: 10). Issuing shares, however, is constrained by regulations which are nationally defined and shape the crowdfunding services available.[9] These platforms are sometimes described as open to more savvy investors who can demonstrate that they understand the risks of investing in high risk companies, or they can even be

[8] A fact that raises the question about reliability, trustworthiness and investment security.

[9] Unlike the regulated issuing of shares, or obtaining loans, much crowdfunding is essentially unregulated, and allows organisations and individuals new ways to investing or obtaining funds.

aimed at 'qualified' investors[10]. *FundtheGap*, for example, is open to investors resident in the UK. Investors may include "high net worth investors, business angels, young professionals, and friends and family". Other examples include: *CrowdCube* (UK), *Symbid* (Netherlands), *MyMicroInvest* (Belgium), *WiSeed* (France), *Innovestment* (Germany), *Seedrs* (UK), *BankToThe Future* (UK), *Crowd Mission* (UK) (source: Collins and Pierrakis, 2012). Those seeking funding via these CFPs need to be able to 'sell' their projects in an appealing way to potential investors and outline possible financial returns.

2.2.2. Lending-based crowdfunding platforms

Through these platforms funders can contribute loans to ventures seeking to make a profit or to non-profit projects. In return, funders may accrue interest on their investment, but this is not necessarily the case as interest free lending can apply, particularly for enterprises seeking a social benefit. *Kiva* is one of the earlier examples of a non-profit lending-based platform which offers microcredits to projects in developing countries[11]. *Kiva's* mission is defined as 'connecting people through lending' (Coates and Saloner, 2009) and their model involves 'field partners' who fund the loan request and handle the funds to borrowers.[12] A further non-profit example is *Zopa.com* which started in the UK but now also operates in the US and Italy.

In relation to lending-based platforms offering returns on investment, *Abundance Generation* and *FundingCircle* are two examples from the UK. The former offers UK funders the possibility to invest in renewable energy projects through buying debentures, which their website defines as "a certificate or contract that represents a loan". As for *Funding Circle,* the aim of this 'internet-based market place' connects investors with businesses looking for low cost loans. The website claims that by eliminating banks and 'middlemen' they are able to respond quickly to businesses, provide low cost business loans and offer better returns to investors. Their model includes a credit assessment process that screens applications using the same information as banks. As *Funding Circle* put it, "only established and creditworthy businesses can borrow". This highlights the importance for the case studies of examining issues of reliability, trustworthiness, investment in relation to using CFPs as opposed to more conventional means of raising finance (see Section 2.3).

2.2.3. Reward-based crowdfunding platforms

In exchange for their funding contribution to projects within these CFPs, investors receive non-monetary rewards; thus contributions are either donations or pre-purchases (e.g. of a product that is yet to be developed or manufactured, a service or a benefit such as the right to vote). For instance, Spain-initiated *Verkami* offers "patrons exclusive rewards like special editions, unique experiences, merchandising, access to downloads offers…" Projects within this CFP are described as 'any idea' and they can be described as creative, cultural or entertainment projects. *Lanzanos* is another similar example for the Hispanic audience. Relevant to this CFP category is *Kickstarter,* which started in the US, but now operates in the UK as well. This platform is salient for the money it has raised and also for the attention it has called in the press. In reference to *Kickstarter* it has been said that around a

[10] For a definition of qualified investor in the UK see the Qualified Investor Register: http://www.fsa.gov.uk/pages/doing/ukla/qir/index.shtml.

[11] Another example is *GlobalGiving*, powered by *Sparked*, which is covered in Chapter 5.

[12] *Kiva's* field partners include microfinance institutions (MFIs), social businesses, schools and non-profit organizations (http://www.kiva.org). Their model, however, has been criticised by questions raised about loans actually reaching he borrowers appearing on the website (Barry, 2011).

quarter of entrepreneurs do not follow through their projects, raising questions about future trust and commitment in such models (Mollick, 2012). This suggests that the concept of trust is an important issue to explore in case studies. However, from a platform development point of view, it has been argued that accountability is embedded in the model (More Intelligent Life, 2010) and it is predicted that crowdfunding will continue to thrive (Massolution, 2012; Collins and Pierrakis, 2012).[13]

2.2.4. Donation-based crowdfunding platforms

These platforms do not offer tangible rewards for donations and thus funders are mainly intrinsically or indirectly motivated; intrinsic motivation refers to being moved by the inherent satisfaction of supporting a project, whereas indirect motivation refers to side benefits such as networking or marketing. Donation-based platforms can be used to gather funds for social projects or by charities (although more established charities may collect through their own websites rather than use a CFP). *Crowdrise.com* is a US-based CFP that has developed a high profile as a result of the backing it has received from celebrities and well-known figures. *Causes.com* is also a donating CFP that started in the US, but its focus is also on connecting people with common causes (e.g. for signing petitions) as well as supporting fundraising. Two European-based examples of these sites include *Fondomat.com* in the Czech Republic and *Mynbest.com* in Spain. Although crowdfunding by donation is not new (charities have done it for a long time, often at a large scale) what is of interest to this study is that these platforms can also provide individuals the opportunity to test their ability to raise money and execute a project (an overlap with voluntary work) and in doing so, to develop employability skills and attributes.

2.2.5. Discussion

The taxonomy presented here provides a useful way of classifying CFPs, although questions are beginning to emerge that indicate that other ways of thinking about crowdfunding are likely to emerge. Further research might contribute to refining this typology or merging it with other ways of categorising CFPs. It is possible that the nature of the projects being funded will take a more prominent role in future classifications of platforms, or that a taxonomy of projects will be developed that is applicable across platforms or groups of platforms. Collins and Pierrakis (2012) include 'motivation of funder' in their crowdfunding matrix. However, the motivation of for starting a project or development a platform is has received less attention. Research into the opportunities and drivers for entrepreneurs is also relevant, as is understanding the effects of crowdfunding projects on individuals and communities, including the effects of projects that do not achieve their goals. Issues of trust, reliability and security for investors are also highlighted, not only for equity- and lending based-platforms but for the crowdfunding model in general.

In relation to the potential impact on employment and employability, crowdfunding can support business start-ups and the development of skills and attributes. Benefits of raising funds for a business start-up range from creating employment (for at least for one person) to providing first-hand experience of the process of starting a business. Donation and reward crowdfunding could also give access to funds for personal or professional development (e.g. accessing education and training)

[13] A further example is *Indiegogo,* which can be seen as *Kickstarter's* closest rival. Indiegogo is described as offering more flexibility in terms of qualifying projects and funding model. For a comparison between *Kickstarter*, *Indiegogo* and *Razoo* see: http://www.nonprofitquarterly.org/management/21146-crowdfunding-101-a-comparative-look-at-kickstarter-indiegogo-and-razoo.html

or provide the opportunity to develop skills through the process of setting up and running a project. A successful funding campaign is an ideal outcome, but if this is not the case it is still be worth considering the skills and the experience gained along the way.

2.3. Motivation

Important questions in relation to crowdfunding refer to motivation. These questions can be approached from the perspective of those providing funding for projects (crowdfunders), project owners and developers of CFPs. Few studies have looked at this so far and in general the emerging results can be seen as illuminating, albeit exploratory. Motivation is important not only because it might be related to the chances of success of a project, but also because of the opportunities that might be created for individuals and their communities.

2.3.1. Crowdfunders' motivation

A research study conducted by van Wingerden and Ryan (2011) focuses on the reasons why individuals or organisations engage in providing finance or expertise through crowdfunding and suggests a potentially useful approach to the study of what motivates crowdfunders to invest or donate. The study makes a distinction between intrinsic and extrinsic motivation by defining extrinsic motivation as external factors that mobilise performance such as rewards, praise, criticism, surveillance, and guidance. Intrinsic motivation, on the other hand, is associated to performance "motivated by an inherent satisfaction through performing the task itself" (p. 16). Whereas individuals who are extrinsically motivated expect to receive a financial return or some other incentive (e.g. privilege d access to a product, voting rights), intrinsic motivation is observed in individuals who view funding as a donation, that feel that being involved in the creation of the project is a reward in itself, or who state that they fund projects for the fun of it. The results of van Wingerden and Ryan's study suggest that there is more to funders' motivation than financial or extrinsic return: 76 per cent of the respondents indicated that they "do not fund a project just to receive financial a return" against 36 per cent stating that they only do so if there is "an incentive in return" (p. 35).

Although dualistic motivation theories that classify motivation as either intrinsic or extrinsic have been criticised for failing to account for a wider range of motives (Reiss, 2012), this approach may serve as a starting point for the incipient study of crowdfunding motivation. An apparently intrinsic motivation to crowdfund is in line with Lambert and Schwienbacher (2010) findings which support the idea that initiatives that are not profit-driven find it easier to attract funding. The results of their study indicate that, compared to individual projects and other organisational forms, "non-profit associations are significantly more likely to achieve their target level of capital" (p. 3). The authors also propose that an emphasis on outcomes rather than on monetary gains on the funders' side may explain why these organisations are more successful at attracting funds. Neither Lambert and Schwienbacher nor van Wingeden and Ryan's study negates the importance of extrinsic incentives, financial or otherwise, but do shed light on the relevance of intrinsic incentives in encouraging individuals to crowdfund. Furthermore, this motivation can be contrasted against the reasons why people take part in crowdsourcing initiatives which have been more related to monetary gains, as in Brabham's (2008) case study considering *iStockphoto*.

Another factor that has been identified as affecting the financing of projects through crowdfunding is the effect of peer funders. In their study on the geography of crowdfunding focusing on the

reward-based crowdfunding platform *Sellaband*, Agrawal et al. (2011) showed that as a project accumulates investment, crowdfunders' propensity to invest increases as well; in other words, past cumulative investment may "cause an increase in the rate at which new investment arrives" (p. 15). Besides suggesting a peer effect in encouraging funding, the study identified a distinct group of investors whom they called 'friends and family' and who, the authors conjecture, "interact with the entrepreneur through other channels" and are "disproportionately active at the beginning of the investment process" (p. 17). This suggests that the case studies need to explore the size, nature and strengths of entrepreneurs' networks, since it is possible that crowdfunding may be a solution to raising finance mainly for those who already are well networked.

The latter suggests that through social networks entrepreneurs may gain trust and commitment which may in turn generate the momentum necessary for reaching a crowdfunding goal. Furthermore, the fact that 'friends and family' tend to invest earlier in the tendering process may signal to other investors that the entrepreneur has the attributes necessary to make the project succeed.[14] These attributes could include perseverance, resilience and experience which are more easily expressed through social networks (Agrawal et al., 2011). This suggests that even though crowdfunding allows reaching out to crowds that are dispersed geographically, the role of closer social networks, including both strong and weak ties, is relevant to consider. This view is also supported by Mollick (2012) who found a positive association between number of Facebook friends and chance of success in *Kickstarter* film projects.

2.3.2. Opportunities for project owners

Besides considering what motivates crowdfunders to donate or invest in other people's projects, from an employment perspective it is also important to consider what motivates individuals to kick-start a crowdfunding appeal and what expectations they have in relation to it. From a different perspective the question is: what opportunities can crowdfunding offer for entrepreneurs and their communities? This in turn raises the question of whether these opportunities be provided in other ways. These are important questions with potential to provide insight into the relationship between crowdfunding and employment and employability. Developing a crowdfunding project can be a skills- and network-developing activity that can foster individuals' employability and self-efficacy. Other potential benefits relate to the social or community implications of successful projects.

It is also speculated that entrepreneurs' visions and expectations, and their reasons for starting a project and seeking to crowdfund it, have implications for the success of the initiative and its future development. Although becoming self-employed can be an aim for start-ups, particularly by the unemployed (e.g. Caliendo and Kritikos, 2010) this aim cannot be generalised to all crowdfunding projects. However, this can be seen a relevant avenue for research. In this light, the reasons why people consider self-employment as a career choice provide a useful framework. These reasons include financial remunerations but other reasons as well. According to Chell (2001) need theories

[14] Here, it is important to note that the group labelled as 'friends and family' by Agrawal et al. (2011) refers to a specific group identified within the data and who seem to interact with the project owner through other channels. These individuals may include close friends and family who would provide their support without being too critical about the potential of the project or the person starting it. However, these networks may also include weak ties (Grannovetter, 1974, 1983) which may be less impartial acquaintances and who may have potential to enhance see employability.

are best suited to explain these reasons, although some have achieved more empirical support than others. For example, the author points out that need for achievement has not been significantly associated with the decision to own and manage a business. On the other hand, the need for independence has emerged as an important motivator for small business owners. Overall, Chell points out that the reasons why individuals decide to found a business are complex and rarely down to one specific motive.

For Burn (2001), an accepted definition of entrepreneur is a person who seeks to attain profit though initiative and by assuming risk. Although this definition may apply to those behind some of the business initiatives seeking crowdfunding, it does leave out initiatives involving innovative approaches to identifying and tackling social problems, also known as social entrepreneurship (Desa, 2010). Earlier definitions of social entrepreneurship focused on income generation by non-profit ventures, but more recently the term has evolved to include a broader range of activities by enterprises displaying a "prominent social mission and social purpose" (Desa, 2010: 11). Moreover, in its broadest sense, the definition of social entrepreneurship moves away from a focus on the actions or behaviours of the individual and focuses on the processes "involving the innovative use and combination of resources to pursue opportunities to catalyse social change and/or address social needs" (Mair and Martí, 2006: 37). Social entrepreneurship is likely to be of particular policy interest at times of economic crisis and the European commission (2013: 29) sees this activity "also as a tool for social inclusion".

As a field of study, social entrepreneurship is relatively new, but raising growing interest (Peredo and McLean, 2006; Mair and Martí, 2006; Christie and Honig, 2006). A recent model of social entrepreneurship seeks to explain the role of emotion, and compassion in particular, in encouraging this type of ventures (Miller et al., 2012). Such a model suggests that compassion is a pro-social motivator that encourages social entrepreneurship and that is characterised by "other-orientation and an emotional connection to others in suffering" (Miller et al., 2012: 620). Social entrepreneurship is seen as challenging because it seeks to integrate both market and charity-based concerns within a single organisation seeking to create social value (Battilana and Dorado, 2010; Miller et al., 2012). Given the relevance of donation-based funding and the prevalence of crowdfunding projects seeking to address societal needs, social entrepreneurship is a useful approach to consider in crowdfunding research.

2.3.3. Motivation to develop crowdfunding services

Whereas research into crowdsourcing has explored the motivation to use crowdfunding platforms (CFPs), it has focused less on the rationale for launching and maintaining these services. Answers to this can be provided by the owners and managers of these platforms and existing and future case studies can provide insight into this question. For example, in their case study about the lending-based platform *Kiva*, Coates and Soloner (2009) discuss how this 'micro-credit marketplace' was developed as a result of the founders' conviction that it would provide an effective way to facilitate donations and help entrepreneurs in developing countries. The authors focus on the decision to establish the platform as a non-profit organisation in the US and how this presented a number of advantages.

However, this motivation to establish a CFP cannot be generalised to other platforms and it may be speculated that the motives for platforms set us a profit organisations follow a different rationale.

Perry Chen, co-founder of *Kickstarter*, explains that the idea of the business did not emerge as a social mission but from a perceived need "for creative people to raise money for their projects" (Malik, 2012). Meeting this need efficiently plays part in the success of the model but supporting social causes and 'connecting people' are seen more as effects which in turn impact on the success of the platform.

Similarly, it seems that issues related to sustaining and gaining employment are not part of the mission of crowdfunding platforms in general; therefore it is likely that these issues will need to be looked at as indirect effects. This is not to say that these effects a less important because they are indirect (although research is required to ascertain any effect). After all, the impact of these platforms and what they constitute go beyond the goals of their founders. As the following quote suggests, crowdfunding can be described without making reference to its founders' initial vision and in terms of its potential for collective cooperation:

> "Crowdfunding is a new tool to finance projects or start-up companies which is becoming increasingly popular. It describes collective cooperation, attention and trust by people who network and pool their money together, often via the Internet, in order to support efforts initiated by other people or organisations - from disaster relief to citizen journalism, to artists seeking support from fans, to political campaigns. It allows good ideas, which do not fit the pattern required by conventional financiers, to break through and attract cash through the 'wisdom of the crowd'." (European Commission, 2013: 34-35)

2.4. Potential risks of crowdfunding

Crowdfunding presents some risks and limitations which have begun to emerge and be addressed, albeit to a limited extent given that this is a relatively new model, at least in its internet-enabled version. Issues related to intellectual property are likely to arise and require more established mechanisms for dealing with such disputes. Another concern is in relation to the guarantees that crowdfunding can offer to both investors and project owners. In relation to the former, the US Jump Our Business Startups Act (known as JOBS Act), signed in April 2012, is meant to relax regulatory requirements on small businesses and enable crowdfunding pledges to become investments (Gobble, 2012). This, however, has raised concerns about the protection that investors will lose and sceptics worry about the regulatory gaps that will be created as a result of the JOBS Act (crowdsourcing.org, 2012). On the other hand, from the perspective of entrepreneurs there are questions about how regulations protect their business (in the case of equity based and lending based models). In traditional equity or venture capital models, liquidity of the business can be affected high interest rates or returns demanded by investors, or even by money being withdrawn at short notice putting the company at risk of insolvency. This is an area that needs to be explored in relation to crowdfunding.

Regulations vary from one country to another and for this reason some crowdfunding websites operate in limited geographies, especially if they involve equities. In Europe, a White Paper has been created which highlights regulation and functionality challenges such as "operational and financial transparency, security of information and payments, platform functionality, customer protection, and operational procedures" (de Buysere et al., 2012: 33). The report warns against imposing regulations that could increase confusion and preclude transparency between nation-states and also sets out a number of propositions to the European Commission. A key point for the present review is

that the legislative framework and the regulatory environment have implications for the reach of crowdfunding activities.

2.5. Conclusion

This chapter has introduced crowdfunding and presented a typology of crowdfunding platforms often discussed in this developing area of study. This typology is likely to evolve as further research is conducted and, most importantly, as the crowdfunding model continues to evolve. One area of further development for this typology relates to how project owners are described and labelled within crowdfunding. The term 'entrepreneur' has been used in this chapter but it would be inaccurate to assume that every person using a crowdfunding platform to raise money would define themselves in this way. This leads to the need for a broader consideration of who engages in crowdfunding and for what purposes. Evidence of this is available in part in the descriptions offered via each platform, but a more systematic approach is needed to go beyond anecdotal description.

The findings suggest that crowdfunding has potential to channel resources both from investors and those willing to donate in support of social causes. In between, there is also a pool of potential funders who seem to be motivated by non-monetary rewards but which are evidently of value for individuals and communities. Crowdfunding may also have potential to benefit individuals and societies from an employment and employability point of view, by for example providing opportunities to develop skills or cultivate social networks, but this is a question that has just begun to be addressed. What motivates people to fund others' projects and the benefits that entrepreneurs may obtain as a result of developing their projects and associated implications are areas that need to be studied in forthcoming research.

3. CROWDSOURCING FOR PAID WORK

The chapter provides an overview of the literature and research on crowdsourcing. It specifically focuses on crowdsourcing for paid work (CSW), which is a relatively new form of managing and organising a (potentially) geographically dispersed pool of labour using the internet. It covers both an individual and organisational perspective. The literature, especially the academic literature, covering crowdsourcing for paid employment is limited as interest in this form of finding and undertaking employment is relatively new. This chapter starts by defining crowdsourcing for paid employment and then considers this form of paid work from the perspective of the individual and the organisation in terms of motivations, barriers, benefits and disadvantages. The practice and process of crowdsourcing is then reflected upon in terms of the current evidence in order to identify issues to be explored in-depth in the case studies. Throughout the chapter, some illustrative initiatives are highlighted.

3.1. The foundation of crowdsourcing

The term 'crowdsourcing' was first coined by Howe (2006, 2008) to define the outsourcing of work to a large group through an open call made possible through advances in technology and individual access to personal computers, smart phones and the internet. Some suggested areas of coverage include:

- Outsourcing of micro and macro tasks – these can include contracting out both simple work (i.e. tagging images, scanning for duplicate webpages, copy editing, etc.) and more complex work (i.e. website development, transcription, designing graphics, etc.) to an appropriate workforce;
- Knowledge development or expert networks – groups of knowledgeable individuals (these can be customers, organisational employees or experts) are contracted to collaboratively solve a problem or issue, which can be compensated or undertaken voluntarily (this chapter focuses on the former);
- Competition or innovation crowdsourcing – competitions are set up to solve a problem or create a design element; many individuals will work on solving the problem, but only one person (the winner) will gain compensation for their work; and
- Freelance platforms – websites (both specialist and generalist) that enable individuals or organisations to advertise their services and costs or apply for jobs posted by other individuals or organisations.

One of the foundations of crowdsourcing is the open source movement where products are freely available, developed and occasionally shared by large communities of developers through the internet (see Hars and Ou, 2002; Kogut and Metiu, 2001). Software and web development involves individual's collectively solving and developing software or web-based initiatives by sharing the source code. This work can be paid or undertaken voluntarily. Some examples of these developments include the Linux operating system, Apache server software and the Firefox web browser. The open source software movement highlighted how individuals could be organised to collectively perform a task. The development of Wikipedia is also an example of voluntary

crowdsourcing, cooperation and the exploitation of individual knowledge. Howe (2008) defined this as a community of people wanting to do the job to improve a product. This form of crowdsourcing is still prevalent, but it has evolved as some organisations have seen the benefits of organising individuals in this way and providing financial compensation for their efforts. Others recognise the 'transformative capability' of crowdsourcing as an important trend in innovation, co-creation and product development (Battistella and Nonino, 2013; Euchner, 2010; Greengard, 2011). Garrigos-Simon et al. (2012) suggest that crowdsourcing is a new business model developed as a consequence of social networks. Other enablers of crowdsourcing, defined by Esposti (2013: 6), include:

- Reliable and fast technology (broadband and mobile) connecting a potential workforce of 3 billion people who will be online by 2016
- Changes in workforce structure that both enable and demand flexible working patterns driving a shift from "captive labour' to "crowd-based" labour models
- New payment systems and regulatory oversight making the transfer of small payments affordable
- Cloud-based technologies (SaaS, BPaaS, etc.) driving the standardisation and externalization of key business activities and processes
- Specialized provided organizing, harnessing and enabling on-demand access to labour and expertise.

Garg et al. (2012) also suggest that the proficiency in the English language is also a contributory factor to the rise in CSW.

An overview of some selected crowdsourcing for paid work websites are provided in Annex B. These are categorised into: websites outsourcing work; competition or innovations crowdsourcing; crowdsourcing freelance platforms; and crowdsourced knowledge development and expert networks.

3.2. Defining crowdsourcing for paid work

Felstiner (2011: 147) provide a definition of crowdsourcing for paid work as

> …cognitive piecework – discrete sets 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.

This method of employment, according to Felstiner (2011) involves: employers (those requiring tasks to be completed for compensation); vendors (those providing an online platform in which tasks are advertised); and workers (those who respond to the advertisement, undertake and submit the work, then receive financial compensation). Adopting this method, the vendor would be viewed as the intermediary matching supply (the workers) and demand (from employers). Esposti (2013) reports that crowdsourcing for paid work is generally accepted to be a growing trend with small to large multinational corporations participating. However, there is little definitive evidence on the numbers adopting this approach. Crowdsourcing comprises platforms, services and initiatives, but despite its

role in the economy and labour exchange the question of whether it can be defined as an industry is still debated (see Bratvold, 2012). A wide range of services are being crowdsourced, including: software or product development; design; writing and editorial services; web development; and so on. Tasks can be completed online or simply advertised online.

Historically, CSW has been about outsourcing of micro-tasks which are small tasks completed in a few minutes (such as checking hyperlinks, tagging images or content, proofreading online content), but macro-tasks and complex jobs are becoming more common in CSW. These complex or macro-jobs take longer to complete often requiring specialist skills and knowledge. Both micro and macro tasks can form part of a larger project or job. More recently, companies are outsourcing complete projects to specialist companies, which then divide the project and outsource the tasks. Using the CSW approach for innovation and knowledge creation is well researched (see Battistella and Nonino, 2013). According to Euchner (2010:7) crowdsourcing platforms actively create and maintain a market sourcing individuals. It requires 'planned effort' to be successful.

This chapter focuses on paid crowdsourcing as an internet-enabled exchange through which individuals can seek paid employment and organisations can reach a larger pool of workers to outsource *micro* (more common) and *macro* tasks. Frei (2009: 3) also identifies: *simple project work* (such as designing a branded website) that can command a moderate rate of pay; and *complex project work* (such as programming, developing an ecommerce website) that can command high rates of pay, but require more substantial input from the individual. Taking this into account, the following working definition of crowdsourcing (for paid work) is adopted:

> An internet-enabled exchange through which individuals (the workers, supply-side) can seek paid employment and organisations (the employers, demand-side) can reach a larger pool of workers to outsource tasks by utilising online intermediaries or vendors (those providing an online platform in which tasks are advertised).

Crowdsourcing for paid work has seen significant growth over the last decade with estimates suggesting over one million engaged in this form of employment (Frei, 2009). This form of employment is particularly interesting as it raises important questions around employment law and the rights of individual workers, including issues about working conditions and social protection. The relationship with undeclared work is also of interest, from an individual, organisational and state perspective, but is an aspect where gaining accurate information is difficult. For the individual, there are important issues for employability and whether this form of employment enables career development, skill development and enhancement, mobility and adaptability often afforded by longer-term employment.

The literature on crowdsourcing for paid work is developing and much of the academic debates and evidence have focused on: the immediate outcomes for individual; individual motivations; the benefits for organisations engaged in this practice; together with examples of crowdsourcing in practice. There is very little literature on the implications for individuals engaged in this form of employment in terms of employability.

3.3. The rise in crowdsourcing platforms

Some global online marketplaces state that global online employment is growing and the number of paid crowdsourcing websites increased substantially since 2006/07 (see Frei, 2009). Early

crowdsourcing sites were project or programmer marketplaces, whilst websites now operate in graphic design, volume tasks, problem solving, transcription and translation, content moderation, customer surveying, job referral, market research, mobile marketing, application and software testing, plus collective information (see Frei, 2009; Govindaraj et al., 2011). The US has the highest number of workers and companies in paid crowdsourcing. Recently, platforms (i.e. Task Hub in the UK https://taskhub.co.uk/ and Task Rabbit in the US https://www.taskrabbit.com/) have been developed that enable individuals to post requests for help with everyday domestic work (such as housework, dog walking, shopping etc.). Currently, these are local based initiatives to connect neighbours and local communities.

Three examples of established and successful (in terms of numbers of registered online workers) platforms follow:

- The Elance platform, a global online marketplace launched in 1998, (see https://www.elance.com/) states that more than 200,000 workers joined the platform last year. Completed tasks were mainly around online content creation, web designing and programming for platforms like iOS and Android. Companies from the US, Australia, the United Kingdom, Canada and UAE have used Elance to hire online workers, but China, South Africa and India have the highest growth rates. Elance workers are mainly located in the US, India, Pakistan, Ukraine and the United Kingdom (Elance, 2012).

- The Amazon Mechanical Turk (AMT) (see https://www.mturk.com) launched in 2001 enables developers to use human intelligence to develop their applications. AMT also reports over 200,000 workers available through their service working mainly in the US and India. This is reportedly the largest crowdsourcing platform operating. It specialises in volume tasks; Human Intelligence Tasks (HITs).

- Freelancer.com (see http://www.freelancer.com/) is an interesting crowdsourcing example as enables outsourcing of work, competition and innovation, and opportunities for freelancers to advertise their skills and expertise. It reportedly connects over 7 million employers and freelancers from 234 countries and regions. Work covers software development, writing, data entry, design, engineering, sales, accounting and legal services. Since 2004, when it was founded, around 4.3 million projects have been posts valuing over $1 billion USD.

To support the rise in crowdsourcing, developers are developing and marketing online project management platforms to support organisation manage project with a global workforce. One established example is *Smartsheet* (see http://www.smartsheet.com/). It was founded in 2006 and reports a large US audience with over 20,000 subscribing organisations in over 100 countries. *Smartsheet* is considered a leading 'Software as a Service (SaaS)' company offering an enterprise-ready cloud app for project management and collaboration. In addition, there are also a number of crowdsourcing sites that offer specialised services in terms of the crowd available, such as designers, translators, accountants etc. (some examples are listed in Annex B).

The motivations of intermediaries providing the platforms in which internet-enabled exchanges take place are not explored in the literature. However, a review of company websites highlights some possible explanations as to why intermediaries set up platforms for CSW. Some highlight their

interest or 'passion' for enabling productivity and collaboration, for others it is about transforming work and recruitment by using technology. Others mention the need to be pioneering, innovative and creative viewing CSW as a method of enabling and supporting those activities they aspire to. Two CSW sites stated motivations around social justice and social change, such as allowing all to access opportunities and develop skills (*99designs* and *Mobileworks*).

The number of crowdsourcing platforms is predicted to continue growing and are becoming increasingly popular in Europe, particularly those countries in recession (Elance, 2012). However, some recent studies report (Garg et al., 2012; Motoyama et al., 2011) large numbers of abusive or illegitimate job posts on *Freelancer.com*. *Amazon Mechanical Turk* is seen as an example of high enforcement with low crime rates. On *Freelancer.com*, 30 per cent of jobs were found to be abusive ranging from spamming to account registrations (Motoyama et al., 2011). Govindaraj et al. (2011) suggest that mobile crowdsourcing platforms are now being developed in order to target potential workers through user profiling and careful matching. However, this suggests a gap in our understanding how these services could potential 'match' supply and demand by targeting workers/individuals with employers. The evidence also highlights the need to understand how services are going to develop in the future with changing technology and what will motivate individuals to develop these services.

3.4. Individual reasons for participating in crowdsourcing

In an early article on crowdsourcing, Howe (2006) identified five rules or common characteristics of the new online workforce (the crowd). These included a crowd that is: geographical dispersed; operating with a low attention span (i.e. only able to undertake small tasks); operating with diverse specialisms and skills; producing poor quality work; and able to find the best online content. As this form of work has progressed and evolved, these negative characteristics have not been supported by more recent research, with more positive descriptions of a crowdsourced workforce being evidenced. These are discussed next.

Early assumptions on crowdsourcing suggested that those participating in this form of activity were amateurs producing poor quality work. This assumption has been researched and rejected by Brabham (2012) who undertook discourse analysis and found that crowds mainly comprised professionals and experts. Self-selection has been identified as a key characteristic of the crowd, but also can also explain why crowds comprise experts (see Afuah and Tucci, 2012; Brabham, 2012). Brabham (2012: 407) goes on to suggest that these professionals are engaging in this activity for financial reward and to 'build portfolios for future employment', but this is not founded on empirical research. Battistella and Nonino (2013) suggest that education and expertise are key to participation in crowdsourcing activities. However, it could be assumed that more experts are undertaking crowdsourcing work as opportunities have grown and tasks have become more complex and challenging requiring skilled labour. It is this type of work that offers high rates of pay.

For individuals, participation in crowdsourcing for paid work can be both advantageous and disadvantageous. This work can offer unique opportunities for flexible working on an individual's terms, but individual circumstances can dictate their participation and non-participation in this form of work and it may not be a choice. Hence, it is important for the case studies to explore whether or not CSW is undertaken from a position of strength or weakness. It needs to be recognised that some individuals might state that they are intrinsically motivated to undertaken crowdsourcing for paid

work, perhaps because of a desire to be self-employed, whereas in reality they are 'pushed' into such a position because of an inability to find any, or appropriate, work as an employee. For the most part, individuals will need to find work by responding to online calls for expertise and advertised tasks. Individuals can, therefore, choose when and where to work, how to work and also what type of work they would like to undertake (Felstiner, 2011). The temporality and size of tasks can be advantageous in terms of the time some individuals have available. For those wishing to work part-time and/or control their workload the completion of small tasks may be appropriate to their circumstances and/or expertise. However, others may have few or no alternative choices but to take what work they can, even if this involves working to tight schedules and low prices when their preferences lie elsewhere.

The literature around crowdsourcing for innovation defined as 'ideas competitions' has focused on motivations for engagement in this activity (see Hutter et al., 2011; Lampel et al., 2012; Leimeister et al., 2009; Zheng et al., 2011). In these crowdsourcing innovation competitions, individuals register their interest, which may encompass anything from developing ideas to resolving a problem, designing a solution or programming. Submissions are then judged and entrants are awarded money for their efforts. Research has evidenced that individuals engaged in two different crowdsourcing competition platforms for both intrinsic and extrinsic motivations (Leimeister et al., 2009; Zheng et al., 2011). This research highlighted the importance of intrinsic motivations for individual participation over extrinsic motivations. Individuals who participated in the ideas competition using one particular system were motivated by their interest in the area and the interactions with others in the community (thus highlighting the importance of building networks), but showed that the possibility of recognition was also important (Leimeister et al., 2009). The research on the two crowdsourcing platforms suggested that their design and features were important factors in inducing individual participation. Competition and collaboration are established ways of incentivising continued participation (Hutter et al., 2011). Interestingly, studies on this form of online activity provide evidence on the motivations and incentives individuals may have for participating, which can help with understanding participation in crowdsourcing for paid work.

Participation in CSW should be considered in terms of intrinsic and extrinsic motivations – such as interest and enjoyment, learning, motivation to solve problems, financial gain, entrepreneurial mindset, sense of efficacy, altruism, recognition and being able to demonstrate skills (Afuah and Tucci, 2012; Ashurst et al., 2012; Battistella and Nonino, 2013; Füller et al., 2012; Howe, 2008). Motivations for undertaking this type of work are varied. Intrinsic motivations are based on individual's desires to contribute as this provides some satisfaction, pleasure or interest. Individuals' extrinsic motivations are limited to financial compensation, reward or recognition for work undertaken. Much of the research on individual motivations to participate in this form of work is focused on intrinsic motivations, but for understanding the experience of CSW it is important that the case studies cover extrinsic factors also, and the relationship between intrinsic and extrinsic factors.

Motivations and incentives are also believed to be interdependent and influence contribution and behaviour (Füller et al., 2012). Individualised incentives or self-selecting incentives are proposed to engage interested individuals in crowdsourcing activity. Individual commitment, enthusiasm and self-motivation are also key incentives to crowdsourcing innovation (Battistella and Nonino, 2013). In this research, a few platforms (namely *Topcoder*, see http://www.topcoder.com and

crowdSPRING, see http://www.crowdspring.com) were identified as offering individuals a sense of social capital and creativity (ibid). Afuah and Tucci (2012) investigated crowdsourcing in terms of knowledge creation and problem solving for distant search solutions. They found that self-selection makes crowdsourcing effective, as self-selecting individuals are in the position to solve a problem and more motivated to solve it (ibid). However, financial compensation, reward and recognition as extrinsic motivations can also play an incentivising role (Battistella and Nonino, 2013; Füller et al., 2012; Howe, 2008; Leimeister et al., 2009; Zheng et al., 2011), but CSW is generally low paid with little or no benefits or job security.

Despite research focusing on the motivations of CSW for individuals and the benefits in affording flexible employment opportunities, in terms of increasing worker employability there are still questions. Current literature does not consider the negative effects for individuals engaging in this form of work, particularly in terms of their employability. There are also concerns around employment law and the rights of individual workers, as applying traditional law to online workers needs further clarification (Felstiner, 2011). There are also important issues around intellectual property when using external crowds (Felstiner, 2011; Hutter et al., 2011), which still need to be explored. These issues are discussed next.

In summary, the current evidence base shows why individuals actively engage in paid crowdsourcing, but understanding of this form of employment in terms of longer-term trajectories and careers is absent. The evidence also points to a need to better understand individuals' motivations for engaging in this form of employment and understand whether it is linked to issues around financial gain, work-life balance, knowledge exchange and/or learning and skills development.

3.5. Organisational perspectives on crowdsourcing

The debates around organisations adopting crowdsourcing practice are extensive and focus predominantly on positive aspects. These debates can be understood in terms of labour, plus innovation and competition in terms of intellectual property.

First, in terms of labour, Felstiner (2011) states the main advantage for organisations is that crowdsourcing enables:

- Easy access to a large/global pool of labour online, which can be diverse, offering a range of skills and experience;
- Labour can be accessed on-demand and disbanded easily when the task has been completed or no longer required;
- Any size of task can be undertaken relatively efficiently; and
- Transaction costs are minimal as there are few or no overheads; (albeit it should be recognised that CSW does present opportunities for undeclared work).

Hence, from an organisational perspective CSW can provide numerical and functional flexibility at low cost.

However, a fundamental problem of CSW for organisations is the uncertainty of workforce skills and the lack of control over tasks, so some authors have questioned the quality of work and accountability (Felstiner, 2011). Motoyama et al. (2011) suggest that quality of crowdsourced work is variable. Quality mechanisms are not widely reported in the literature. To address issues of quality, many platforms offer organisations the opportunity to view workers profiles and employment history to help with their selection process, whilst others give organisations the right to reject submitted work. Crowdsourced workers have little rights when their work is rejected and organisations do not have to supply reason (Felstiner, 2011). This suggests that objective measures of quality are not in place. Reviewing and assessing work is time-consuming for organisations, negating the cost saving gained from adopting the crowdsourcing model. Frei (2009) highlights a case where one organisation employs an individual to moderate and check outsourced work to ensure standards are met. It is also reported that many organisations withdraw from crowdsourcing as a consequence of low quality work, but this is not explored in any depth. More recent research suggests that crowds are predominately made up of experts (Brabham, 2012) and quality control measures are in place (Kagner et al., 2013). However, many organisations do not implement these quality measures.

Furthermore, an organisation's adoption of crowdsourcing for outsourcing work can be driven by the need for knowledge, cost reduction or to remain competitive and innovative in an increasingly competitive global market; (so raising issues pertaining to the trade-off between organisational competitiveness and the protection of the worker, and hence whether competition is 'fair' or 'unfair'). The process can be driven by product development or service delivery. Research suggests that organisations overcoming their boundaries (such as seeking help externally for internal problems or solutions) are more open to innovation (see Ashurst et al., 2012; Chanal and Caron-Fasan, 2010; Füller, Hutter and Fries, 2012; Greengard, 2011; Leimeister et al., 2009). Customers can be seen an important source of innovation (Bayus, 2013; Dubach Spiegler et al., 2011; Leimeister et al., 2009). For instance, many organisations are operating crowdsourcing communities for their customers (see for example Dell's Ideastorm) who are happy to provide ideas for innovation and development to improve a product or service. Fleck (1993) called this feedback loop in technological systems 'innofusion'. However, using external crowds raises questions about intellectual property and knowledge sharing (see Chanal and Caron-Fasan, 2010; Felstiner, 2011; Hutter et al., 2011; Kaganer et al., 2013; Simula and Vuori, 2012). Some qualitative findings from Simula and Vuori (2012) identified further barriers to crowdsourcing individuals external to the organisation around motivation and sustaining interest and participation, plus creating a community.

Other research suggests that by engaging employees in communities of innovation, organisations can benefit (see Ebner et al., 2009; Gast and Zanini, 2012), but stimulating this community can also be challenging. Greengard (2011) and Felstiner (2011) both suggest that this form of outsourcing is 'ideal' for NGOs, local government and social entrepreneurs requiring significant help. Recent research studied the value of ideas generated through crowdsourcing comparing the ideas of organisational professionals with those external to the organisation (Poetz and Schreier, 2012). In terms of process similar approaches were adopted, but outcomes were interesting. Results showed that crowdsourced ideas rated higher in terms of novelty and customer benefit, but low on feasibility. Other research by Simula and Vuori (2012) provide evidence, through qualitative interviews, for how internal and external paid crowds can support innovation and idea generation to solve problems, complete small tasks and support product development. They investigated an online

organisational crowdsourcing platform used by employees to propose and discuss ideas. Dubach Spiegler et al. (2011) found employees to be productive in their ideas if they felt their ideas were valued by senior staff, which was achieved through feedback. These findings are also supported by similar research undertaken in Switzerland to crowdsource ideas for an organisation. Overall, this recent research suggests that crowdsourcing and paying crowds maybe a viable approach to organisational innovation.

There are, however, discussions about what role organisations should play in caring for the crowdsourced workers and what their responsibilities should be. Flestiner (2011) argues that 'protecting the crowd' is complex as this form of work is unclear. He goes on to suggest that employment law may always be behind current practice, but crowdsourcing vendors could be regulated to ensure transparency. Also, to address poor wages, vendors could set mandatory wage levels and default rates (see *CrowdSpring* and *CrowdFlower* respectively). These issues need further exploration.

The review of the literature in this area has shown a gap in evidence around workforce development issues and an exploration of future possibilities for both individuals and organisations.

3.6. The process of crowdsourcing for paid work

Some research has focused on the process of crowdsourcing identifying key characteristics to ensure success (see Doan et al., 2011; Euchner, 2010; Saxton et al., 2013). This research has, however, focused on the benefits and success of CSW for organisations and there is little evidence on the success of this approach for individuals. Euchner (2010: 7) suggests that the CSW process comprises: a well-defined problem; a large community with relevant expertise; feedback to ensure ideas can evolve; mechanisms to manage intellectual property; and ideas to be processed, filtered and developed. Some longitudinal research on the development of a crowdsourcing platform evidenced how it is a learning process in terms of understanding issues around process, managing the crowd and managing intellectual property (Chanal and Caron-Fasan, 2010).

Research on IT-enabled innovation by Ashurst et al. (2012) found that four of their ten case study organisations were adopting some form of crowdsourcing approach in support of idea generation. It was noted that guidelines for the use of this approach in practice was rapidly being developed (ibid). Some recent research on Dell's *IdeaStorm* (see http://www.ideastorm.com) notes how to ensure quality ideas from the crowd are sustained over time. This includes the success of getting ideas implemented and enabling interaction with others (through commenting on the ideas of others) (Bayus, 2013; Simula and Vuori, 2012).

Recent research identified the key issues of crowdsourcing by investigating over 100 crowdsourcing websites (Saxton et al., 2013). A taxonomy of organisations defined by their activity was developed. This activity, however, highlighted three key issues that can be used to differentiate activities: the product or service being outsourced; the level of collaboration; and managerial control systems (ibid, p.11). Understanding these key issues is considered important, as there is a need for organisational members to be directly involved to manage the crowdsourcing process and encourage cooperation and co-creation from the crowdsourced workforce. By addressing these, the productive potential of the crowd can be achieved meeting organisational objectives and business goals.

Although there is some recent research on the practice of crowdsourcing, there is a gap in the evidence to substantiate what does and does not work for both organisations and individuals. There also needs to be an improved understanding around operational issues for outsourcing work using this method. In-depth case studies will be invaluable in identifying successful practice in terms of the individual and their career path, as well as their organisation.

3.7. Conclusion

In a review of the internet and emerging features, Lievrouw (2012: 633) proposes that the internet and new media in the next decade will need to provide "new literacies and pedagogies that will allow individuals to be full and effective participants in society, economy, culture and politics". Crowdsourcing enables individuals to access opportunities for employment regardless of location, and so can be argued to provide opportunities for participation in the economy. Importantly, crowdsourcing platforms can be viewed as empowering 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. For organisations and the economy, crowdsourcing can support businesses to be creative and innovative, but also enable access to experts, knowledgeable individuals and customers.

CSW is still relatively new so the advantages and disadvantages of this form of employment for the individual, the organisation and the economy are not yet clear and, indeed, are still to unfold. Some initial evidence suggests that this form of employment can be beneficial for those engaged in it simply because it provides opportunities for paid work. For the individual, much of the evidence on paid crowdsourcing focuses on the process of finding work (whether short-term micro tasks or complex projects) and the immediate impact of that work opportunity for the individual. The literature outlines some distinctive opportunities for individuals that this form of employment undoubtedly offers in terms of flexible work patterns. Disadvantages around employee rights and intellectual property rights have been explored also. However, the longer term impact of this form of employment in terms of positive and negative effects has not been explored.

Overall, the review of literature on crowdsourcing for paid work has identified significant gaps in understanding of how participating in this form of employment impacts on employability. There are also issues regarding relationships with undeclared working, and associated legal implications. Much of the research is quantitative in nature and focused on intrinsic and extrinsic motivations for engagement in paid crowdsourcing. Evidence suggests that this form of activity can be beneficial at an individual, organisational and economic level, but it need not necessarily be so. However, more research is required to understand issues around employability pathways, career development, learning, knowledge and skills development alongside broader issues of employability. There are also questions as to whether individuals are engaged in this activity to support their careers, to develop and enhance skills, network or to enhance their curriculum vitae.

4. CROWDSOURCING FOR UNPAID WORK: RECIPROCAL EXCHANGE SYSTEMS

Time sharing organisations, such as time banks or Local Exchange Trading Schemes (LETS) create a market in which members work for other members in exchange for Time Credit (Time Banks) or a community currency (LETS) both of which, at least in most cases, are centrally registered and can be used to purchase services from other members. Next to the function of communal empowerment, these kinds of organisations can have an impact on individuals' employability. This provides an interesting case of how the internet is enabling unpaid labour exchange. Even though Time Banks and LETS are similar systems in terms of the reciprocity of services for a unit of time or a certain amount of community currency, their distribution is different; it seems that in English-speaking publications Time Banks are mainly referenced, whilst publications and websites in German refer to LETS. This highlights cultural differences on time sharing activities.

The aim of this chapter is to introduce time sharing activities and how participation in such activities might increase individuals' employability. Time Banks and LETS are analysed in terms of their individual and organisational impact. The introduction of Web 2.0 services has helped the overarching diffusion and co-operation of many organisations.

4.1. Timebanks and LETS

A Time Bank is a tool used to organise people or organisations in a system of exchange, whereby they are able to trade skills, resources and expertise through time. For every hour participants deposit in a Time Bank by giving practical help and support to others, they are able to withdraw equivalent support in time when they themselves need something doing. In each case the participant decides what they can offer[15].

Time Banks were designated to turn social service recipients into 'co-producers' of services they receive (Cahn, 2000). Time Banking can be described as a special form of volunteering, and mutual volunteering aims to promote community self-help: "Time Banks are commonly targeted at socially excluded groups of people who do not usually participate in volunteering, who are normally excluded from the formal labour market, and those who are often the passive recipients of services. Since an hour of everyone's time is worth one time credit, this sends a strong message to the targeted groups that their time and everyday skills (keeping families and neighbourhoods together, caring for the vulnerable etc.) are as "valuable as anyone else is" (Seyfang, 2002: 4).

In contrast, activity conducted in most LETS is not exchanged purely by the described 'equal-hour-currency' standard, but a community currency is used to pay for services. The community currency itself usually occurs as a voucher, sometimes provided with a demurrage (negative interest), and can be used to purchase goods or services. This special way of constructing a currency pursues certain objectives: "it wants to bind the regional purchasing power, strengthen the local economy, create more cooperation, increase sponsorship for non-profit organizations, encourage the regional identity, help solidify social ties, reduce transport, enforce a sustainable and responsible consumers' behaviour and so on" (Thiel, 2012: 92). Josh Ryan-Collins, founding member and Director of the Brixton Pound, the UK's first urban local currency, describes the advantages of the community currency as to:

[15] http://www.timebanking.org/about/what-is-a-timebank/

- "To enhance local economic resilience through encouraging more local production and consumption and limiting the 'leakage' of money from the local economy.
- Support and protect local independent businesses which protect jobs and livelihoods and maintain the diversity and identity of the local area
- Create stronger connections between local people and businesses, boosting social capital and cohesion.
- Stimulate thinking and discussion about how money works and how local economies function and could be more sustainable
- Promote the area, create pride for its citizens, a sense of independence and attracting tourists
- Reduce carbon emissions through reducing the transportation of products from long distances." (Ryan-Collins, 2011: 62).

Community currencies were supposed to increase the self-help capacity of the population and loosen individual dependencies of the formal economy (Hinz and Wagner, 2010). The alternative community currency also allows systems to exchange goods in addition to services. Even though often the overarching term of LETS is used, local exchange networks are called: '*Tauschring'* or '*Tauschbörse'* in German speaking countries; '*SEL (i.e. Systèmes d'Echange Local, or Services d'Echange Local)*' in France; '*bytesringar'* in Sweden; and a '*ruilkring'* in Dutch. Latest developments for community currencies such as the Brixton £ are the possibility to 'pay by text' to facilitate payments.[16]

The implementation of a time sharing organisation follows the notion that an increase of the impact of voluntary organisations will not necessarily occur with an increase of budget, but with their ability to create and maintain local exchange networks (Paarlberg and Varda, 2009). Time sharing activities address this requirement and aim to connect members on an equal level.

4.2. Types of Time Sharing Organisations

Timebanking UK describes the following three types of time sharing organisations:

- Person-person Time Bank – Time Banks in which everyone's time is treated as equal irrespective of the traded skills. (This Time Banking approach seems to be the most common in the UK.)
- Person-agency Time Bank – Time Banks in which organisations use Time Banks to incentivise the time of individuals. An example is the Whittington Time Exchange, based within a school, with children earning time credits for playground duty, helping with school events, looking after the buddy bench and the prayer room. Rewards can be cashed in, for example, for group trips that are paid for in time credits.
- Agency-to-Agency Time Bank – an exchange system between organisations where existing skills of individuals and resources (e.g. office spaces or means of transport) are shared. This

[16] http://brixtonpound.org/b-e-currency/be-for-customers/ (accessed 03/04/2013)

type of Time Banking is particularly useful if, and when, organisations have underused resources. It is, however, problematic to classify this form of time banking as volunteering.

Some organisations are institutionally organised (e.g. by charities, local governments, etc.) whilst others are self-organised. Special forms of Time Sharing Organisation exist in terms of the kind of services in which they specialise (e.g. peer support for people with Asthma (NEF, 2002), web/IT based time banks (Knapp at al., 2010)).

4.3. Services shared

In a report for the Institute for Public Policy Research (ippr), Smith and Boyle (2005) contrasted LETS and Time Banks and found that Time Banks, based on equality, cover a wide variety of simple, undervalued skills whilst LETS often encompass more complex skills. This has also implications for the social composition of members: individuals involved with LETS are more likely to be confident enough to facilitate their own exchanges, but who may not often have conventional spending power, whilst Time Banks may attract people who would not normally get involved in volunteering – including hard to reach groups or people with low confidence (Smith and Boyle, 2005; Seyfang, 2002).

The main services offered and demanded in time sharing arrangements are consumer-orientated (as opposed to production-orientated (Häußermann and Siebel, 1995). They may relate to the household (e.g. food preparation, cleaning, washing, decorating and repairing, gardening, etc.); to individuals' needs (e.g. care of elderly or child care, education, etc.); or satisfy social needs (e.g. hobbies and culture). Some activities are community-orientated, e.g. dredging a community river of rubbish to enable wildlife to flourish or providing a community allotment to provide subsidised organic fruit and vegetables to deprived communities (*Lewisham Time Bank*). A survey of a UK LETS found that only few of the jobs undertaken would have been bought from a formal business. Most of the work undertaken are new economic activities or are substitutes for 'cash-in-hand' jobs. LETS, therefore, can be used as a means of formalising informal work rather than a substitute for formal employment (Williams et al., 2001).

4.4. Individuals

4.4.1. Motivation

The informality and voluntary nature of participation in Time Banks and LETS inevitably leads to selection of members (Schettkat, 2009). In a survey of LETS in the UK, Williams et al., (2001) found that about a quarter of all members had joined for ideological purposes; for them LETS was an act of political protest and resistance to the 'mainstream'. A small proportion (less than 5 per cent) stated that they wanted to improve their employability and saw it as an opportunity to use their skills. The remainder joined LETS: for social purposes (such as building communities, meeting people or helping others); for economic purposes due to lack of money; to exchange goods and services; and/or to receive a specific service. A similar result emerged in a German survey of all existing time share organisations (Wagner, 2009). However, a UK-based LETS consisted of many members "who need access to informal employment opportunities" (Seyfang, 2001). Engagement in LETS is, in most cases, subsidiary to conventional employment (Aldridge and Patterson, 2002). Some members have left the labour market altogether due to retirement and many feel socially excluded (Williams et al., 2001; Seyfang, 2002).

A relatively high proportion of members live in low-income households (Williams et al., 2001; Collom, 2007; Lasker et al., 2011). Two-thirds of time bank participants and two-thirds of LETS members in the United Kingdom are women (Williams et al., 2001; Seyfang and Smith, 2002). Men, people with a lower income and those who were not working full-time reported highest levels of participation in exchanging services, whilst attachment to the organisation was greatest among women, older members, people with low educational attainment, and those with highest levels of participation in activities (Lasker et al., 2011).

Boyle (2011) shows that as a consequence of altruism as a motivation factor, credits are intended as recognition of effort rather than full and fair payment.

4.4.2. Skill development

Time Banks and LETS aim to engage people in networks of mutual support and community-building by rewarding them for the time they spend. They highlight the talents and abilities of local people rather than focussing on their needs (Seyfang and Smith, 2002) and differ from more regular forms of volunteering since members exchange services, i.e. all members engage in both receiving and giving of services. This form of reciprocity has many advantages:

- it allows socially isolated or stigmatised members to build up relationships;
- it encourages members to take on new roles, which, in the current economic climate might act as a stepping stone for re-inclusion in the labour market and avoidance of social isolation;
- members learn respect for one another and appreciate what others have to contribute; and
- members experience recognition for their contribution (Letcher and Perlow, 2009).

All these experiences can be seen as having impact on participants' employability skills. However, as noted above, for most members the enhancement of employability is not the main reason for engagement in Time Banks and LETS. Nevertheless, there are several ways in which work in a Time Banks and LETS can enhance skill development. In one Time Bank in Glasgow, members were paid in hours when they participated in some form of training (Seyfang, 2002). In an evaluation of a LETS, Williams et al. (2001) examined different ways in which engagement in LETS can improve employability and also lead to direct employment. The evidence suggests that LETS have allowed members to utilise their skills that were currently unwanted or unvalued in the formal economy, so maintaining or enhancing such skills through LETS exchanges. Other individuals have acquired new skills, mostly to computing, administration and interpersonal skills. In addition, members improved their self-confidence and self-esteem, which was very important especially for unemployed members who often felt that the formal economy did not value them (Williams et al., 2001; Molnar 2011; Jacob et al., 2004; Seyfang, 2002). In very few cases the contrary effect was observed if members experience that no-one is interested in their services (which negatively impact already fragile self-confidence even further and make individuals feel worse). This experience, however, was far from the norm as only few members experienced this (Williams et al., 2001).

Whilst membership of Time Banks and LETS can improve employability and thus impact on individuals' chances of finding a new post as an employee, there is a much more direct connection with employment through self-employment. Williams et al. (2001) finds LETS to be a useful seedbed

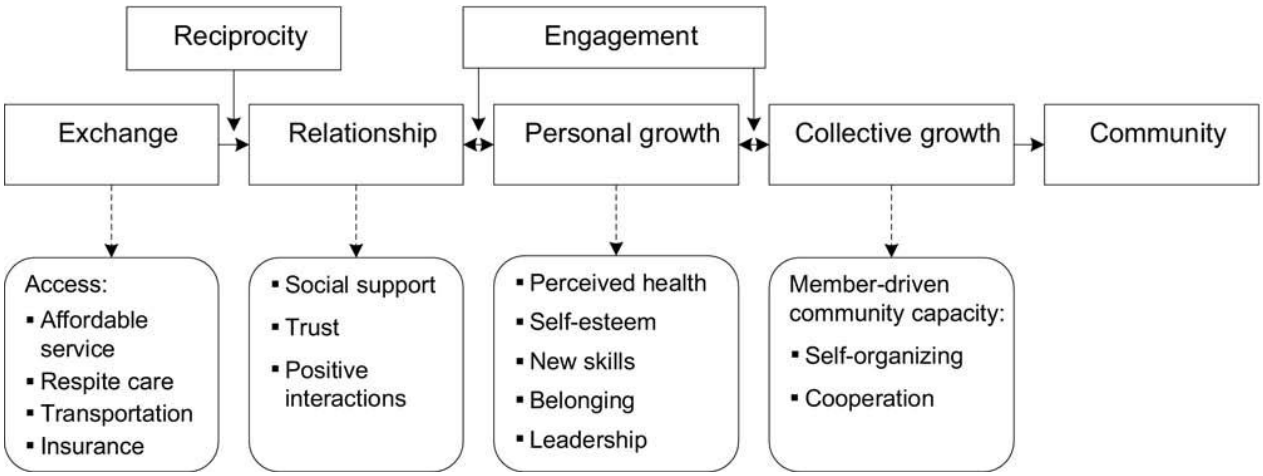
for developing self-employed business ventures and lists ways in which LETS have helped members to start their own business: LETS has enabled members to develop their client base and to build up contacts without too many risks. LETS have eased the cash flow of their business as members were able to employ others (e.g. for childcare or office tasks) without having to spend 'real' money for it, and thus acts as a source of interest-free credit (Seyfang, 2001). Finally, LETS enabled the development of self-employment business ventures by providing a test-bed for products and services (Williams et al., 2001).

4.4.3. Community building

As many members of Time Banks and LETS may feel socially excluded (Seyfang, 2002), the issue of community building is relevant as one form of re-engagement with the community and the increase of social skills. Many studies have dealt with the way in which participation in local networks has increased social networks and in which Time Banks and LETS can be a substitute for the lack of social networked capital (Williams et al., 2001). Collom (2005) noted that cities with local currencies are characterised by populations with lower household incomes, higher poverty rates, higher unemployment rates, and higher levels of self-employment. However, places with younger populations, higher educational attainment, fewer married people, and less residential stability have a higher survival rate of community currencies. In Germany, there is a different connection between the existence of LETS and local economic circumstance. Especially in regions with high unemployment, there is a domination of pragmatism and materialism amongst citizens whilst ideological ideas take a back seat. Ideological ideas and social utopias, however, are amongst the main reasons for members to participate (Hinz and Wagner, 2010).

Letcher and Perlow (2009) developed an integrated model of community building that explains the connection between participation and community-building and its impact on the promotion of individual and community well-being for a diverse group of participants (see Figure 3).

Figure 3. Community building and hypothesised benefits for improved well-being



Source: Letcher and Perlow (2009: S297)

Reciprocity allows members from different backgrounds and different abilities and skills to meet each other as equals and develop relationships. The authors suggest a dynamic process that appears to benefit both mainstream and disabled participants. "As individuals realize their potential and the potential of people around them, they can come together as a community of cooperation to meet

each other's needs and solve complex problems" (Letcher and Perlow, 2009: S296). Improvement in well-being can be attributed to different levels of the model: simple exchanges can increase personal growth through engagement, which improves personal resources such as self-esteem, confidence, and leadership, in addition to improving connections through decreased prejudice and increased trust. Collective growth (i.e. the increased capacity of the group to solve complex problems together) results in an activated community that can mobilise diverse resources.

4.4.4. Health and well-being

A sense of belonging, which is one dimension of social capital, has been identified as key to improved well-being. Time Banking and participation in local exchange programmes may be, as evidenced by Lasker et al. (2011), particularly valuable in promoting physical and mental health and belonging especially amongst older and lower-income individuals and those who live alone.

Many studies focus on increased mental health as an outcome of enhanced social networks, including: tolerance and understanding between generations and ethnicities; or increased self-esteem (Slay, 2011; Lasker et al., 2011). Physical health can also be improved by peer support for certain kinds of chronic illnesses according to NEF (2002) or for aftercare following hospital discharges (The Agency for Health Enterprise & Development, 2003).

Lasker et al. (2011) reported that those attached to the organisation and living alone managed to improve their physical health through membership. It was also found that that respondents' feeling of connectedness to the organisation on the one hand, more than the number of specific transactions, had led to the perception of an improvement in physical health. Improvement in mental health, on the other hand, reflected both feelings of attachment and actual transactions.

4.4.5. Barriers to participation

It is important to bear in mind that relatively few of these Time Banks and LETS exist (see mapping in Chapter 6), and even if they exist, potential members might not be aware of them. LETS, in contrast to Time Banks, has been criticised as attracting only a minority of socially-excluded people, limited in scope and marginal to their needs (Williams et al., 2001; Seyfang, 2002). Other reasons for people not participating were: time-constraints; worries about potential loss of benefits; or worries that their skills were not needed (especially for older, disabled and/or unemployed people). Many members support green causes and consider themselves as leading an alternative life-style, which might discourage members with other political opinions (see Williams et al., 2001).

In an evaluation of a Swedish Time Bank, Molnar (2011) found the segregation of members a challenge. Even though the Time Bank attracted members from a variety of social groups, they tend to segregate themselves according to their social origin. This suggests that the Time Bank reinforced, rather than broke down, existing patterns of social segmentation.

4.4.6. Legal Challenges

As evidenced earlier, Time Banks and LETS may be valuable particularly for unemployed members. In many countries, there are restrictions imposed on the amount of time that out-of-work benefit recipients may spend on volunteering. The current 'welfare to work' policy to enter the formal employment market at the expenses of their voluntary work has increased the pressure for unemployed time banks participants (Seyfang and Smith, 2002). Some examples from four European countries follow.

In Sweden, for instance, only one Time Bank exists which is based on the person-to-agency model as in person-person members risk losing their income-related benefits and they may have to pay taxes as "each hour of work completed would be calculated against the price that this service would cost on the ordinary labour market" (Molnar, 2011: 13).

In Germany, the Bundestag clarified in a *Kleine Anfrage* (a minor interpellation) the tax regulations with regard to exchange rings and connected work conducted under regulations of marginal employment. As long as work conducted in an exchange ring does not exceed a value of currently 450 Euros (2013), workers can be exempt from social security contributions (Deutscher Bundestag, 1997).

In the UK, Time Banks are treated as a group of friends doing each other favours[17]. The UK government agreed in 2000 to ignore time credits from Time Banks for tax and benefits (except for those who were on Incapacity Benefits and in the case of goods). Local currencies, however, are taxable in national currency (Boyle, 2011).

In the Netherlands, members can earn up to 3,000 units of local currency without it affecting either benefits or income tax (Boyle, 2011).

4.5. Organisational issues

For an organisation to operate efficiently and effectively, it is important that the demand for and supply of services is matched. Relatively few studies on Time Banks and LETS, however, deal with this issue. Studies cited in Kuik (2009) report a successful matching in between 28 per cent and 50 per cent of all cases, while Aldridge and Patterson (2002) cites the situation of a LETS organisation in which the demand for repair work and childcare was greater than the supply offered.

Some studies report organisational challenges, some of which might have been overcome with the use of modern technology since reporting. One highlighted problem suggests that not all participants reported all of their transactions to the central office. Time Brokers were aware that some members negotiated exchanges with each other on a friendship basis and did not report them to the office (Molnar, 2011). This may explain why Lasker et al. (2011) found a decline in transactions over time. In some Time Banks, it has been suggested that members are confused about the way in which hours are registered and how they should be spent (Molnar, 2011).

The operation of internet-based Time Banks and LETS is as diverse as their organisations. All have in common that a member can provide a service to one person and receive a service from someone else in the network. In some cases, (e.g. Community Exchanges[18]) new members get some form of orientation or initial training before they become full members of the Time Bank. A central database (the 'bank') records hours/currency accrued by services provided and hours/currency spent as services are received. In many organisations, there are also opportunities to exchange services with the organisation itself, such as through attending classes or helping in the office (Lasker et al., 2011). The person facilitating and recording exchanges between individuals using online software is a 'broker'. In a 2002 UK survey, it was stated that all the UK's Time Banks were externally funded and

[17] http://www.chamberlainforum.org/?page_id=1716 (accessed 01/03/13)

[18] www.lvhn.org/wellness_resources/classes_support_groups_and_events/community_programs/community_exchange

it was estimated the general costs to run a Time Bank (the broker's salary, office costs, marketing etc.) were about £27,300 a year (Seyfang and Smith 2002).

Software can be used to facilitate the organisation of time sharing initiatives. 'Time Keeper' software, specifically developed for those running Time Dollars programs, is available as freeware[19] over the internet. According to The Community Tool Box Website[20], the software can: produce personalised bank statements for each member; supply information to ensure that no volunteer goes too long without a new assignment; help to monitor performance systematically; and follow-up on assignments. It supports the planning of new initiatives that can help strengthen the community and target resources to meet special needs. Other software used to administer local exchanges are available, see for example www.tauschringonline.de. Software allows individuals' skills to be recorded in a database and matched with requests for activities to be undertaken. Members can use the interactive database to find someone who can help or someone to whom they can offer their help.

A relatively new undertaking is the syndication of *Tauschringen* for the whole German-speaking internet. A new Wikipedia portal *Tauschwiki* allows all *Tauschringe* to exchange latest ideas and developments and arrange for meetings. Many local *Tauschringe* use the same currency and are connected on Facebook or similar social media websites. *Tauschen ohne geld*, seewww.tauschen-ohne-geld.de, an umbrella organisation for LETS, was awarded a prize in the 2009 Biene Competition[21] for their website in terms of communication, joint work and productive co-operation.

4.6. Conclusion

Time Banks and LETS provide opportunities for members to engage in mutual exchange of services. The activities performed are mainly low-skilled subsidiary service ones where no long-term commitment is necessary. The internet and Web 2.0 developments facilitate communication amongst members, enable members to record their hours or amount of currency they spend, and provide information on the skills and services on offer. A broker is needed to match supply and demand of members. Evidence suggests that, in principle, participation in Time Banks and LETS may increase members' employability and open up possibilities for self-employment.

As Hinz and Wagner (2010) note, in order to survive, social movements need to build up organisational structures. In order to obtain a high rate of matches between demand and supply, Time Banks and LETS need to include a significant number of members. Rather than the current 'word of mouth' recruitment strategies many organisations use, the professional organisation and recruitment of members is an important organisational task. One of the ways in which organisations present themselves to members or potential members is through their internet appearance. The website has to be attractive to potential members, all necessary information should be readily available whilst remaining simple to use. In order to reach a target group, recruitment has to be proactive and planned, preferably undertaken by institutions already working with the target group (Kuik, 2009). There is a potential risk that digitally excluded groups with a lack of ICT skills and access to the internet may be increasingly excluded from such activities (Green et al., 2012).

[19] Can be downloaded here http://www.timekeeper.org/ (accessed 2013-02-10).
[20] http://ctb.ku.edu/en/default.aspx
[21] http://www.biene-award.de/preistraeger/

Kuik (2009) sees the optimal solution as having a high density of participants from a restricted area, which can also help community-building for isolated people. Communication platforms should enable selected services to be performed from further afield, such as teaching (via Skype). However, most of the activities members of Time Banks and LETS are currently engaged in need to be performed on a face-to-face basis in a local area (e.g. babysitting, care for the elderly, gardening). Nevertheless, social media has enabled different time sharing organisations and their members to get together and communicate, so allowing new organisations to get help and advice and for members to enhance the range of services offered and received. Currently, there is a lack of information available regarding the way in which the internet impacts on the way time sharing organisations work. The German collaboration amongst various LETS organisations (*Tauschwiki*) explores new ways in which organisations expand their geographical boundaries. Another important area of study is the motivation of participants (i.e. pragmatic or idealistic reasons) to get in engaged in reciprocal exchange systems; and their impact on employability.

5. CROWDSOURCING FOR UNPAID WORK: ONLINE AND MICRO-VOLUNTEERING

This chapter extends the discussion on CSV developed in Chapter 4 to encompass online and micro-volunteering. These two forms of volunteering have been identified as new (see Ellis, 2012) and "fast growing trends" (UN Volunteer Programme, 2011: 26). In some countries, like the US, UK and Canada online volunteering may be more established than in others, such as for example Australia[22] or Germany. Hence the extent to which such volunteering is 'new' is disputed. However, it is clear from analyses of data from the Second European Quality of Life Survey and the Third European Quality of Life Survey that there are higher levels of participation in volunteering in some EU Member States (notably Austria, the Nordic countries, the Netherlands, the UK, Germany and Luxembourg) than in others (such as Bulgaria, Romania and in eastern Europe) (Eurofound, 2011, 2012). There is a lack of systematic comparison regarding the relationship between levels of online volunteering and general volunteering, but it seems reasonable to expect a positive association between them.

This chapter presents the findings of a literature review on online and micro-volunteering. While some see micro-volunteering as a bite-sized form of online volunteering, both forms are dealt with in separate sections for the purposes of this review. The review begins with an overview of how these new forms of volunteering are defined, a brief outline of their history and developments over time, and provides an overview of some of the (key) agencies identified. This is followed by the experiences of volunteers and the experiences and practices of volunteer-involving organisations. Since employability did not feature as a topic in either the online or micro-volunteering literature, the penultimate section provides some insights into the literature exploring traditional (face-to-face) volunteering and employability.

5.1. Volunteering

Before exploring these two forms of volunteering, a brief overview of volunteering in Europe will be given. There is no generally accepted definition of volunteering (UN Volunteer Programme, 2011). Moreover, how volunteering is defined may differ across EU Member States (for a recent overview see European Volunteer Centre, 2012). In its publications to mark the European Year of Volunteering 2011, Eurofound uses the following definition:

> "Volunteering is an activity that someone performs, entirely at their own will, for other people or for a community without any expectation of monetary payment or any other direct return." (Eurofound, 2011b: 1)

In essence, it resembles the longer definition adopted by the United Nations General Assembly in 2001, which defines volunteering through the following three criteria: "free will, non-pecuniary motivation, and benefit to others" (UN Volunteer Programme, 2011: 4).

[22] For example, virtual volunteering is seen as a growing field in Australia, although currently not well established Volunteering QLD (2012). This is mirrored in the hits generated by GoVolunteer (http://www.govolunteer.com.au/), a web-based volunteer matching initiative launched by Volunteering Australia in 2001. It currently offers few searchable opportunities for either virtual volunteering (71 out of a total of 10863 opportunities – not all are online volunteering opportunities) or 'micro volunteering' (3 out of 10863) (information accessed on 22/02/2013).

Volunteering can be formal (when unpaid help is provided through organisations, groups or clubs) or informal (when unpaid help is given as an individual to non-relatives without organisational involvement). Wider definitions include both elements (UN Volunteer Programme, 2011; Eurofound, 2011b), whereas others (e.g. volunteering surveys in the US or Canada) focus only on formal volunteering.

Data from the 2010 Eurobarometer show that the extent of formal volunteering differs between Member States, with countries such as the Netherlands, Denmark and Sweden having higher levels and countries such as Greece, Portugal, Bulgaria, Cyprus and Lithuania much lower levels (Eurofound, 2011b). While there was reported to be "relatively little change" compared to the 2006 Eurobarometer, more recent Eurofound research suggests "a general upward trend in many Member States" (Eurofound, 2011a). A key area for volunteering is reported to be sport, followed by education and culture, social welfare and religious or church organisations (Eurofound, 2011a).

It has been argued that volunteering encompasses the following activities "mutual aid or self-help; philanthropy, service to others; participation or civic engagement; and advocacy or campaigning" (UN General Assembly, 2001) (for a detailed discussion see Rochester et al., 2010).

Although enhancing the employability of an individual is not the goal of volunteering, voluntarism may serve to enhance it in the process, particularly if it offers learning opportunities. The European Volunteer Centre argues:

> "Volunteering provides informal and non-formal learning opportunities and is therefore a crucial instrument in life-long learning. Through volunteering, people gain knowledge, exercise skills and extend their social networks, which can often lead to new or better employment opportunities, as well as personal and social development."
> Source: http://www.cev.be/about-2/why-volunteering-matters/

5.2. Online volunteering

5.2.1. Introduction

The United Nations Volunteer Programme defines an online volunteer "as an individual who commits her/his time and skills over the internet, freely and without financial considerations, for the benefit of society" (http://www.onlinevolunteering.org/en/vol/faq.html#faq1). The tasks the online volunteer takes on may be completed in full or in part via the internet (Ellis and Cravens, 2000).[23] Online volunteering may also be referred to as virtual volunteering[24] and e-volunteering or, when focusing on mentoring, counselling or guidance, as e-mentoring, cybermentoring, e-counselling, telementoring or teletutoring (the latter two may be less in use these days). Online volunteering can also involve crowdsourcing (e.g. a logo), provided the contribution is unpaid.

Although it is has been identified above as a new trend, online volunteering, in fact, has taken place since the mid-1970s before widespread public access to the internet. It is muted that the

[23] Note that the largest online matching platform adopts a somewhat different definition for virtual volunteering opportunities as it can also include opportunities that can be done anywhere, anytime without a computer (http://www.volunteermatch.org/search/index.jsp?v=true/).
[24] The term 'virtual volunteering' was reportedly coined by the co-founders of Impact Online (Ellis and Cravens, 2000).

digitalisation of public domain books through Project Gutenberg was probably one of the earliest examples. Usenet, launched in 1980, is also an early example of a worldwide online discussion system with a wide range of online discussion forums (called newsgroups)[25], which, according to Cravens, could be seen as a form of online volunteering in the sense that users help users (http://www.coyotecom.com/volunteer/ovmyths.html). While online volunteering was already growing it become more widespread in the mid-1990s following better public access to the internet (Cravens, 2006).

In 1995, the US based non-profit company *Impact Online* (now Volunteer Match) started promoting volunteering and eventually launched the VolunteerMatch platform, now reportedly the oldest and largest online matching platform worldwide. Having found that there was a potentially high supply of individuals wanting to volunteer online that was not matched by demand from organisations, Impact Online launched its Virtual Volunteering Project in 1996 with funding from foundations to encourage organisations to develop such opportunities (Cravens, 2000)[26]. This culminated in the first virtual volunteering guidebook (Ellis and Cravens, 2000) and better information about e-mentoring and good practice designed to prevent organisations from reinventing the wheel and to maintain the momentum (Cravens, 2001). Also, in 2000 a new online volunteering service was launched by Cisco systems and the United Nations Development Programme (UNDP) to help fight poverty. Having initially attracted thousands of people, the UN Online volunteering service[27] now has more than 10,000 online volunteers, the majority (60 per cent) being from developing countries.[28] However, this review has not uncovered any figures on how many people volunteer online or how many organisations offer online volunteering. Moreover, Cravens (2006) and Peña-López (2007) state, that despite much (online) debate and articles, there is relatively little (academic) research undertaken on online volunteering, and this largely still remains the case to date.

5.2.2. Key agencies and type of tasks

Since the mid-1990s internet portals have been set up to promote national and local volunteering opportunities by connecting non-profit organisations and potential volunteers. Examples include *VolunteerMatch* and *Idealist* (both popular sites with a strong US focus), *Do it* (UK, designed as a national database of volunteering opportunities) or *Getinvoved* (Canada). Sites such as these offer a range of offline and online volunteering opportunities and a number of them enable searches for online or virtual volunteering opportunities. Some sites will however also include opportunities in their list of hits that can be undertaken from virtually anywhere, without necessarily requiring access to the internet to undertake the tasks (e.g. *VolunteerMatch* with virtual volunteering opportunities having risen from 1 per cent in 1998 to 14 per cent in 2005[29] or *Getinvolved*[30]), whereas others have specialised in facilitating the matching of online volunteering opportunities, notably the UN online volunteering service. Online volunteering opportunities cover a wide spectrum, such as IT related

[25] http://www.usenet.net/usenet-faq/

[26] Similarly, it was reported that getinvolved.ca, a Canadian matching site launched in 2008, attracted far more people interested in virtual volunteering than organisations providing such opportunities, see http://www.cbc.ca/news/technology/story/2011/12/05/un-volunteer-report.html

[27] http://www.onlinevolunteering.org/en/org/.

[28] http://www.onlinevolunteering.org/en/org/about/statistics.html

[29] As Web access improves worldwide, online volunteering is on the rise, Herald Tribune, August 26, 2006 http://www.heraldtribune.com/article/20060826/BUSINESS/608260646 (Author: Anick Jesdanun)

[30] http://www.getinvolved.ca/

tasks (e.g. designing a website), translating documents, proof-reading, digitalising printed material[31], moderating a forum or chat room, research, mentoring or counselling following initial training, and micro-tasks, including crowdsourcing. Annex D provides an overview of some of the main matching platforms and a range of websites set up by an organisation (typically a non-profit) to champion specific causes through online volunteering.

Drawing on an analysis of 17 websites, Peña-López (2007) developed a typology of four online volunteering activities, with the second and the third found to be prevalent:

1) Online advocacy (e.g. subscribing to online campaigns);

2) Online Assessment and consultancy (e.g. responding to forum questions);

3) Onlined Offline Volunteers (taking on an active role within the charity via the internet);

4) Pure Online Volunteers or online volunteer teams for online projects (with the possibility to manage projects online) - akin to e.g. the Open Source Software community. Crowdsourced volunteering, which emerged after the development of this typology, would also be an example of this.

In terms of the online volunteering websites themselves, two types emerged:

- matching sites, with one group having simply taken traditional volunteering matching online and the other group having developed a more sophisticated online matching service (e.g. *Volunteer Match* or *UN online volunteers*), with both groups reported to typically promote activities 1 and 3 above, and

- virtual communities, with one group recruiting online volunteers to support the non-profit organisation (online volunteering tanks, e.g. *Nabuur* or *Soluciones ONG*), largely promoting activity 2 above, and the other one generating self-organised project ideas (online volunteering virtual non-profits), essentially promoting activity 4 (Peña-López, 2007).

Peña-López argued that there is still a lack of a common definition of an online volunteer and the tasks he or she performs, and that more emphasis should be paid to the concept of the 'knowledge manager', a skilled/trained individual with relevant (professional) expertise. This, the author emphasises, is associated more commonly with the fourth activity as it arguably uses online volunteering to its full potential.

Rather than using online matching platforms, organisations may advertise online volunteering opportunities on their own website or may contact volunteers directly. According to one expert,

[31] An innovative way of helping to overcome spelling problems that can occur when digitialising documents is a new crowd-sourced game based application to make the task less tedious. DigiTalkoot (Digital Volunteers) was a joint project run by the National Library of Finland and the e-programme technology provider Microtask between February and November 2012, with around 110,000 volunteers having completed over 8 million word fixing tasks – on average for a few seconds to a couple of minutes, with a few spending more than 50 hours (http://www.digitalkoot.com/index_en.html; http://blog.microtask.com/2011/06/the-secrets-of-digitalkoot-lessons-learned-crowdsourcing-data-entry-to-50000-people-for-free/). A new project annotating newspaper articles (Kuvatalkoot) is due to launch in 2013.

most online volunteering opportunities are advertised by the organisation directly rather than indirectly through online matching platforms (Cravens, internal communication).

The review has not found any comparative literature on the motives, the business models and the challenges of intermediaries matching volunteers with non-profits, but one or two examples based on social media or website information can be given. Volunteer Match was launched in 1995 (initially under the name Impact Online) as an online non-profit to promote community involvement. It was initially funded by foundations and was reported to have achieved profits for the first time at the end of December 2009. Services have evolved (e.g. the launch of a customized VolunteerMatch Corporate version in 2000), access has been extended to include a mobile phone application in 2010 and the transition to a more adaptive software (Agile development) began in 2010 (http://www.volunteermatch.org/about/history/). Sparked funding draws on a mixture of venture and angel funding (http://mashable.com/2012/05/07/sparked/, Sam Laird May 07, 2012).

5.2.3. The experience of individuals

Amichai-Hamburger (2008) provides an overview of the potential positive aspects from the perspective of the volunteer in terms of access to information and communication at the personal, the interpersonal and the group level, drawing on theoretical reflections and published accounts provided by UN online volunteers. The potential benefits outlined include that online volunteering can be more inclusive, may facilitate greater self-exploration as the online communication may be more open compared to a face to face situation or may encourage people to be more open to learning as lack of knowledge is seen less of a threat to one's identity, although this may vary somewhat by actual context.

Empirical research on online volunteers' motivations, experience and the impact or outcome of this form of volunteering is scant, exceptions being the studies by Cravens (2000) undertaken as part of the Virtual Volunteering Project, Dhebar and Stokes (2008) on potential volunteers linked to the *United Nations Online Volunteer Programme* and the exploratory studies by Mukherjee (2010, 2011) on older virtual volunteers (55 plus) in the US.

Craven's study (2000) found that flexibility and convenience was a key factor in engaging in online volunteering for an organisation for which they or their family/friends already volunteered offline or for a cause they supported. Moreover, wanting to develop skills (e.g. web design) was also a reason why many were keen to engage in online volunteering. Most were reported to have had experience with traditional volunteering and many saw online volunteering as a complementary way of giving one's time freely, while some preferred online volunteering due to a disability or health issues.

Dhebar and Stokes's research (2008) highlighted that potential online volunteers often chose tasks commensurate with their skills and experience while others wanted to learn new skills or explore a career path of interest to them. Time-limited assignments (not dissimilar to the actual assignments offered by the organisations) were often preferred.

The flexibility and convenience of online volunteering was also pivotal to older people's decision to volunteer online (Mukherjee, 2010; Mukherjee, 2011), as it extends the choices of causes they support beyond those available in the rural area they lived in and enables people to volunteer despite any health issues they may experience. Similar to traditional volunteering, social networks (e.g. encouragement by family and friends) reportedly played an important role in their decision to

volunteer online. Tasks were selected to reflect their experience (Mukherjee, 2011). Organisations like Seniornet offered social networking opportunities (e.g. forums or book clubs) as well as online support and training. Having built up an online relationship over time, some have gone to visit the charity they have helped in person. Barriers experienced by some included the text-intensive nature of online volunteering, lack of ICT skills (although others had good or excellent ICT skills through their jobs) and the layout of websites (e.g. small font). The older people taking part in the study included a number who were still working and others who were (recently) retired. They were a select group in the sense that they had a good education and/or a high socio-economic status, but this is reported to be a main characteristic of older internet users.

All three studies reported dissatisfaction with lack of communication or feedback (notably after contacting the volunteer seeking organisation and on the volunteer's impact). Lack of timely feedback from the organisation they volunteered for led to turnover, as people looked for other online opportunities (Mukherjee, 2011).

Schroer and Hertel (2009) used theoretical models from the social movement participation and work psychology in their multivariate analysis on motivations of volunteers engaged in the German Wikipedia project (n=106). Descriptive data showed that collective motives (e.g. quality improvement) ranked highest, followed by intrinsic motivation and identification with the community. In particular the authors were interested in the role of motivations as potential predictors of satisfaction with the voluntary work for Wikipedia and engagement. Key findings included that satisfaction ratings were determined by the net balance between costs and benefits, the identification with the Wikipedia community and perceived task characteristics. "Engagement was particularly determined by high tolerance for opportunity costs and by task characteristics, the latter effect being partially mediated by intrinsic motivation. "Relevant task characteristics for contributors' engagement and satisfaction were perceived autonomy, task significance, skill variety, and feedback" (Schroer and Hertel, 2009: 96). Using additional open questions also identified a drive to impart something to the next generation ("generativity") as an important motivation. It needs to be noted that the study attracted highly engaged volunteers (who spent on average 133 minutes per day on Wikipedia).

5.2.4. Experiences and practices of organisations

An early non-representative snap-shot of on virtual volunteering in Canada (Murray and Harrison, 2002) suggested that there was scope for extending the demand (with about a third of managers having offered online virtual volunteering assignments at the time, most having placed between one and five people in the previous year), and that the majority of managers having had first-hand experience saw no difference in the dependability and quality of the work undertaken by online and off-line volunteers.

An evaluation of the *United Nations Online Volunteering Programme* (Dhebar and Stokes, 2008), undertaken three years after its launch in 2003, found that most organisations were posting typically one or two assignments during the investigated nine-month period, mainly to address immediate skill needs or to bring in specific expertise, whereas a few, accounting for nearly half of the overall online assignments, posted many (on average 20 each) as they used it to help drive the organisation's growth strategy. The challenge for non-profits was not the online facilitated recruitment process as such (there were on average more applicants than assignments) but rather to

find suitably skilled volunteers who complete their tasks. Some organisations, therefore, sampled trial work prior to allocating the tasks – a process volunteers were happy to comply with as it signalled that their application was being taken seriously and some advocated allocating small manageable tasks before taking people on for longer-term assignments, based on their performance. Communication was found to be pivotal to volunteer retention (see also Mukherjee (2011) and Thompson (2009)[32]) and performance, particularly since there is no informal communication that can occur when people are physically present. Cost-effective email was mainly used as the communication channel for maintaining regular contact and to respond to the volunteer's email queries. Retention was an issue, as not all completed their assignments, typically lasting between one to five hours per week over up to twelve weeks (although some thought that figures could be improved through better support), and moreover, few completers would take on a second assignment.

Similarly, Cravens' study, based on responses from eleven organisations using the *UN Online volunteer service*, with on average at least 25 online volunteers, found that many of these organisations involved online volunteers because they provided skills the organisations did not have free of charge (with other factors playing a role as well, such as gaining a wider perspective). Likewise, retention issues (dropout before completing the assignment) and time required for supporting online volunteers were identified as disadvantages, as was lack of language skills beyond English. Good communication and volunteer management were reported to be key success factors for online volunteering. And some of the skills required to achieve these goals have often been honed as a result of the involvement of online volunteers.

Online volunteers can also be deployed to deliver an external service to the public and one such and initiative was evaluated within the first 11 months of its operation (Finn and Hughes, 2008). The Rape, Abuse, and Incest National Network (RAINN) based in the United States of America had developed a volunteer run secure and confidential chat-based National Sexual Assault Online Hotline (NSAOH) in order to expand current services and extend the reach of the network. The volunteers have been given 10 hours online training and have access to online (and offline) support from professional supervisors (also volunteers) via chat channels, when required. Overall, the evaluation was positive. In particular, it indicated that the model is viable; that it can be used for the majority of people seeking help or information; that the majority of visitors were satisfied with the knowledge and skills of the volunteers; that the majority of the volunteers found the session helpful, although some experienced technical problems or challenging situations; and that the online supervision put in place was working well. One of the open questions was whether there will be enough supply (trained volunteers) to run a 24/7 service and whether the interest of the volunteers can be sustained.

[32] Reflecting on what has worked for the author, a volunteer manager on the US based Alliance Virtual Library in Second Life project (2007-2011), she noted that a virtual social presence and hands on work was pivotal to establishing social credibility and authority beyond the real life authority, as was maintaining contact with and encouraging other volunteers in order to retain them (Thompson, 2009).

5.3. Micro-volunteering

5.3.1. Definition of micro-volunteering

There is, as yet, no generally accepted definition of micro-volunteering (Bright, 2010; Paylor, 2012 (Jochum and Paylor, 2013). *Extraordinaries*, a US based organisation which developed the pioneering micro-volunteering platform now known as *Sparked*, used four characteristics to define it: convenient; bite-sized; crowdsourced; and network managed (for more details see Box 1 below). *Help from Home (HFH)*, a key promoter of micro-volunteering in the UK, defines it as "small, quick, low commitment actions that benefit a worthy cause", with actions typically ranging from a few seconds to half an hour, but it notes that other sites offering micro-volunteering opportunities may include tasks requiring up to a couple of hours (Bright, 2010). Moreover, the HFH definition of micro-volunteering includes both online volunteering and offline volunteering activities, such as knitting items of clothing for people in need (HFH, 2013); thus micro-volunteering and online volunteering are not used synonymously (Jochum and Paylor, 2013).

Box 1. Definitions of micro-volunteering

Extraordinaires

- ***Convenient:*** It's volunteerism that fits into your schedule *when you have time* - typically (but not necessarily) via an internet connected device such as a mobile phone or personal computer. In practice, to achieve this level of convenience, there is often no training or vetting necessary.
- ***Bite-sized:*** Volunteer tasks are broken into small(-ish) pieces, so that you can complete a task in the time that you have available (whatever that time may be).
- ***Crowdsourced:*** The non-profit that needs help asks a large(-ish) group for assistance. Micro-volunteers who have the time, interest, and skills (ideally), and who *may* be previously unknown to the non-profit, do the work.
- ***Network-managed:*** The time demands of the manager (e.g. a non-profit staffer) are reduced by distributing as much of the project management and quality review as possible to the network of micro-volunteers. This work management method differs from a top-down model of project management.

Source: Rigby (2010)

Help From Home: 'Small, quick, low commitment actions that benefit a worthy cause. The actions might be a task that could be accomplished as a whole unit from start to finish by one person or it might be an action that could be broken down into its component parts where an individual is just one of many people performing the same task to achieve an end result. 10 seconds to 30 minutes is all you need to help out a worthy cause!'

Source: http://www.helpfromhome.org/faqs.htm

5.3.2. Development of micro-volunteering over time

While micro-volunteering is a new term it is very similar in nature to "episodic volunteering" or short-term volunteering which occurred long beforehand (for a detailed discussion see Rochester et al., 2010). Suggestions to involve online volunteers through "byte-sized" volunteering assignments taking a few hours or a few days date back to the 1990s when the good practice guide on virtual volunteering was developed (http://www.coyotecommunications.com/volunteer/microvolunteering.shtml).

Micro-volunteering portals or platforms first began to emerge in 2008/2009 when the Spanish *microvoluntarios* platform offering volunteering opportunities of up to two hours was launched and the US based *Extraordinaries* launched its crowdsourcing platform to promote what it had termed micro-volunteering opportunities (for details on the history see Bright, 2010).

Gradually more and more organisations have begun to promote or offer micro-volunteering opportunities as this form of volunteering may appeal in particular to time-poor individuals wanting to engage flexibly in a good cause and may encourage a wider pool of people to engage in volunteering. Apart from the pioneers in Spain and the US, micro-volunteering platforms or portals

have also been developed in the UK (*HFH, IVO*), Canada (*Koodonation*), India (*Troop*), Germany (*Sozialer Funke*), Austria (*Zivicloud*) or have been launched recently in Denmark (*Tagdel*).

In the UK, micro-volunteering opportunities are promoted through internet portals, such as *HFH*, featuring over 800 opportunities on its internet site and *Ivo*, in fact featuring many *HFH* opportunities, and through smartphone applications developed by Orange (*Do some good*), Sony (*+U*) and Bright One (*Bright works*) within the last two years. Some intermediaries have also begun to promote micro-volunteering with more than 70 UK Volunteer Centres having done so on a one-off or regular basis, according to HFH[33] (see in particular *West Berkshire Volunteer Centre*[34]). Moreover, some volunteer involving organisations have started to promote micro-volunteering opportunities on their own website, e.g. *Marie Curie Cancer Care*[35], *Youth Action Zone* at St Helen's City Council[36] or *American Red Cross*[37] (see HFH[38]), and others were reported to plan to promote micro-volunteering opportunities, some through the development of a smartphone application (e.g. *The Alzheimer's Society Wales*, *ReSync* or *Shelter* – see HFH (2013) Annex B). As with online volunteering, organisations may offer or promote micro-volunteering opportunities without using online platforms.

In its drive to promote micro-volunteering, HFH has recently developed a number of free downloadable guides - some are addressed to particular target groups (e.g. for teachers, care organisations or older people). HFH also provides consultancy to organisations wanting to develop or promote micro-volunteering. Moreover, it monitors new developments in the UK and beyond.

5.3.3. The experiences of micro-volunteers

Literature (both academic and grey) on micro-volunteering[39] is still scant (see also Jochum and Paylor, 2013). The first non-representative surveys conducted to date are those by Paylor (2012) on users of the Orange smart phone app *Do some good* (n= 3,598) and HFH on users of its own website (n=42) (HFH, 2012), with many responding users in both surveys having had little experience in prior micro / online volunteering.

Paylor's study (2012) results suggest that the convenience and ease of the process, and perhaps the newness, has motivated many to take part in micro-volunteering and that the scope to attract new volunteers may be much smaller than might be expected as most respondents had already taken part in traditional forms of volunteering. It is also of note that there were some questions as to what counts as micro-volunteering, as the majority of respondents were either unsure whether these actions could be classed as volunteering or did not see them in this way. The ease of fitting micro-volunteering into their schedules was also highlighted by a group of employees who took part in a pilot programme offered by their employer through Sparked (Allen et al., 2011).

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[33] http://helpfromhome.org/feedback/articles/microvolunteering-a-year-in-review-for-2012
[34] http://www.volunteerwestberks.org.uk/iflexiteer.htm
[35] http://www.mariecurie.org.uk/en-gb/fundraising-volunteering/volunteer/ways-to-volunteer/mirco-volunteering/
[36] http://www.mariecurie.org.uk/en-gb/fundraising-volunteering/volunteer/ways-to-volunteer/mirco-volunteering/
[37] http://www.redcross.org/fl/tampa-bay/volunteer/microvolunteering
[38] http://helpfromhome.org/feedback/articles/microvolunteering-a-year-in-review-for-2012
[39] All forms of spelling in use have been used for database searchers: micro volunteering, micro-volunteering, and microvolunteering.

The early experiences of the *Extroordinaries*, as *Sparked* was then known, indicated that more varied and meaningful opportunities than tagging images for non-profits, such as museums or libraries, needed to be offered to maintain volunteer interest and to meet the need of a broader range of non-profits for skilled people as otherwise non-profits would need to pay considerable amounts of money to consultants to get the work done.[40] As a result, the *Extraordinaries*, went through an extensive piece of qualitative research with stakeholders to help them develop the new Sparked platform with these needs in mind.

Further research on the nature and scope of micro-volunteering, demand and supply and its impact is currently being conducted in the UK by the Institute for Volunteering Research (IVR) and the National Council for Voluntary Organisations (NCVO), working with Nesta, a UK based organisation promoting innovation, drawing on an evidence review, qualitative research and on-going support of ten organisations.[41]

The literature contains little information on employability and employment. While there is some evidence to suggest that traditional volunteering can foster employability, it is not known whether this would extend to micro-volunteering, as the tasks are relatively short and may be undertaken without training and/or much social contact or networking online. However, the person can gain more experience over time through repeated engagement. Slivers of time, an online people booking system, originally developed in the UK to optimize the allocation of people to flexible odd hours of work that would suit them and the employer, has also been used to deploy volunteers flexibly during the (short bursts of) time they make themselves available. The work or volunteering record generated by the system, proponents argue, could enhance a person's employability as the record could provide evidence of experience, reliability and adaptability to different environments.[42] The type of micro-volunteering envisaged here would be a longer task (more than 30 minutes) and the activity itself may take part offline, but the booking would be facilitated online. Strictly speaking though, Slivers of Time is outside the scope of this chapter if only the booking is done online while the voluntary work itself is done offsite.

5.3.4. Organisational considerations

As with any new endeavour, development work needs to go into generating ideas for micro-volunteering, generating required funding (with some organisations having attracted grants from non-profits whereas others are developing it on a small budget) and setting up any required online facilities (be it a platform, a portal or a smartphone application). Naturally, organisations may ponder whether it is the right strategy for them and, if so, how best to move forward. HFH has provided ideas in their guides, set out the advantages and disadvantages of micro-volunteering and has also collected the diverse experiences of about a dozen organisations willing to share their journey and results (HFH, 2013). As indicated in Section 5.2.1 more and more organisations in the UK are looking into developing or promoting micro-volunteering opportunities.

There seem to be at least two technologies which are used more widely in crowdsourced micro-volunteering platforms. The *Extraordinaries* have developed the *Sparked* platform which is also used

[40] http://netsquared.org/blog/claire-sale/spark-inspiration-extraordinaries
[41] For full details see: http://www.ivr.org.uk/ivr-projects/ivr-current-projects/new-ways-of-giving-time-opportunities-and-challenges-in-micro-volunteering
[42] See http://www.nominettrust.org.uk/what-we-support/projects/time-to-help-others

to power the Canadian based *Koodonation* and UK based *GlobalGivingTime* website (http://globalgiving.sparked.com/). And dharmafly, a young company specialising in designing and engineering social web applications, have developed on open source task management tool called "*Tasket*" with *BrightWorks,* which is also being used by *Zivicloud*. The new tool was developed in order to help meet the increased demand and supply at *Brightworks* and to keep everyone up-to date. Moreover, records of tasks completed by the volunteers can be produced which can be used on their CV or on networking sites such as LinkedIn, arguably the largest professional network (http://dharmafly.com/tasket**).**

Volunteer management (including recruiting, training and supervising the volunteer and assessing his or her work) is a key issue in volunteering. While the organisation may welcome an increase in volunteers through micro-volunteering, the prospect of managing a larger number of volunteers donating smaller amounts of time may be less appealing. The *Extrordinaries* argue that crowdsourced micro-volunteering requires very little volunteer management, as the person setting up the challenge task monitors the completed tasks, fine-tunes his or her requirement for the final design and then selects the best solution and thanks the person for the contribution[43]. Moreover, HFH, a promoter of micro-volunteering, advances the argument that hypothetically volunteer managers could achieve the same amount of time volunteered with the same amount of time spent recruiting volunteers, as many more volunteers are reached through micro-volunteering but they will be donating on average less of their time[44], but volunteers, if not taking part in crowdsourced activities, will still need to be managed (Cravens, 2000).

5.4. Traditional volunteering and employability

Volunteering, it is argued, can enhance one's employability, as the person:

- may receive training required for the volunteering role; can develop new skills or gain valuable work experience (required, for example, for some jobs in teaching or the health care sector);
- can improve his or her self-confidence; can explore new career path; or
- can develop new contacts/networks that may be useful in the search for gainful employment

(see for example Rochester (2009); Nichols and Ralston (2011), focusing on sports volunteers).

Volunteering opportunities aimed at younger people may particularly emphasise expected benefits around skills development and work experience. There have been some anecdotal reports though in the UK that in the current economic climate volunteering or internships did little to improve the chances of young people wanting to enter the labour market.

Since the review revealed no evidence on the impact of online volunteering or micro-volunteering on the employability of volunteers[45] [46] [47], a separate – quick but not comprehensive – review of the

[43] http://blog.beextra.org/2011/01/a-few-questions-about-microvolunteering-answered.html
[44] http://helpfromhome.org/feedback/articles/volunteer-management-in-a-microvolunteering-environment
[45] There is evidence that the majority of volunteers who use Sparked.com - an established US based micro-volunteering network which primarily targets skilled volunteers through employer supported volunteering schemes - promote their volunteer work on their LinkedIn profile. The majority of Sparked volunteers were

literature on traditional volunteering and employability was conducted. A few larger scale studies (some theoretically guided) have been identified that shed more light on the association between traditional volunteering and employability, including a study on employer supported volunteering (ESV) (examples of online forms of ESV being *Mentorplace* and *Sparked* – (see Annex D) and one on international volunteering (examples of virtual international volunteering being *UN online volunteering* and *Nabuur*).

Drawing on statistical data from the British Household Panel and the German Socio-Economic Panel, from the years 2004 and 2005 respectively, Strauß (2009) found that volunteering increased the chances of being re-employed a year later among all four groups (constituted by country and gender), but in particular among British men (and particularly among Brits volunteering in professional organisations and trade unions). However, when controlling for a number of variables, such as education, job experience or health, were introduced, the effect was only significant for British men, and moreover, if interaction effects between age and volunteering were considered, this only applied to British men under the age of 25. It was argued that in the British liberal market economy, with its comparatively lower emphasis on certified qualifications, volunteering may signal to the employer the acquisition of cognitive and non-cognitive skills - and that this is particularly relevant in the case of younger people seeking to enter a labour market which offers comparatively less well established pathways. Moreover, it was argued, that, based on the results of a German study, women take on volunteering roles that do not require particular skills and that they do engage less in training while volunteering, hence it was expected that volunteering would have a lesser impact on women's chances of getting back into work, although in the case of Germany the empirical results did not support this.

In England, the evaluation of a new nationwide initiative, which offered those claimants who have been unemployed for six months four strands of activity on a voluntary basis, volunteering being one of them, provides detailed, descriptive data on the take up, the arrangements and the perceived and actual benefits up to a year later (Adams et al., 2010; Vegeris et al., 2010; Adams et al., 2011).

The study undertaken by Booth et al. (2009) on *ESV* in Canada, using the 2000 national survey on volunteering, found that employer support (e.g. using some work time to volunteer or change of hours to accommodate volunteering) was positively associated with employee volunteer hours and that, up to a point, more volunteer hours were associated with a greater number of skills acquired through volunteering (a maximum of 7 categories could be chosen). Moreover, skills acquisition was

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also reported to be looking for jobs (Volunteer Your Way Into a Job. http://www.fins.com/Finance/Articles/SBB00014240531119045374045765553709033516 38/Volunteer-Your-Way-Into-a-Job. Autor: Kelly Eggers. 7 Sept 2011*).*

[46] The charity vInspired, which describes itself as the UK's leading youth volunteering, developed so-called vinspired awards for 10, 50 and 100 hours of volunteering respectively for young people aged 14-25 to help them demonstrate the skills developed through volunteering and the impact it had. The charity is also working with employers to help achieve recognition of the award, but apart from some employer testimonials little appears to be known about its actual impact. Moreover, in the UK a number of certificates and qualifications relating to volunteering are offered. For an overview see www.do-it.org.uk.

[47] It is also interesting to note that youthnet - the first UK online volunteering charity which runs 'The Site' and 'do-it' - will launch a four-year employability project in spring 2013. It is not known though in what capacity volunteers will be involved in this project (http://www.youthnet.org/support-us/introduction-to-corporate-partnerships/current-partners/capital-one/).

associated positively with feeling recognised by the employer and perceptions of job success. This, one may argue, may have a positive impact on employability.

Cook and Jackson (2006), having surveyed and interviewed managers (members of the Chartered Management Institute in the UK) and volunteers having returned from a two-year international placement through the Voluntary Service Overseas (VSO) about the perceived benefits of volunteering, found that managers largely appreciated the broadening of the skills and experiences and the capability of managing diversity, with about one in two suggesting that this can increase their employability, but the majority also raised concerns about technology related skills becoming out of date. Similarly the majority of volunteers, asserted that they had developed a range of skills (e.g. communication skills, managing change, managing diversity or coaching) and that the placement had increased the confidence in their own abilities.

5.5. Conclusions

Empirical research on online volunteering and, more so, the recently emerging micro-volunteering is still scant. In contrast to CSF or CSW there are also no organisations monitoring trends within or across countries (although the UK based HFH has started to monitor new developments)[48].

Some of the research was undertaken about a decade ago at a stage when online volunteering was beginning to grow, and research is limited in terms of the countries covered (nearly all is focused on non EU countries) and the agencies covered, with more detailed research available on the internationally oriented UN online volunteering service. There is research on some groups (older volunteering), but not on others.

Research has, to varying degrees, begun to explore the motivations of volunteers and non-profit organisations for engaging in online volunteering, the scope of online volunteering (in terms of the number of postings per organisation), the tasks undertaken, the type of agencies involved in facilitating or offering online volunteering, the retention of volunteers and the feedback and support volunteers receive from the organisations. However, according to the documents uncovered, little research has focused on skills development and none on the role online volunteering may play in enhancing the individual's employability. The latter has been investigated with regards to traditional volunteering in some studies, indicating that it can support skills development and the person's self-confidence (Booth et al., 2009; Nichols and Ralston, 2011; Cook and Jackson, 2006) and that this can have an impact one's employability (Cook and Jackson, 2006; Strauß, 2009), although the research conducted by Strauß (2009) suggests that a particular group benefitted most.

In terms of the empirical research envisaged as part of the wider project it may be more opportune to focus on online volunteering as a whole, rather than on rather than on online micro-volunteering as the former may involve longer spells of volunteering and comprise elements of training (both of which may be more conducive to skills development and demonstrating impact), and because the latter is less well established (with the exception of the pioneering website in the US).

[48] Organisations, like *VolunteerMatch* provide regular updates on their own organisation, including the number of volunteer opportunities, the number of new volunteers, but these figures are not broken down by virtual volunteering opportunities.

6. SUMMARY AND RESEARCH THEMES FOR THE DEVELOPMENT OF CASE STUDIES

This chapter provides a summary of CSF, CSW and CSV (Sections 6.1-6.4) and then presents research themes raised in relation to CrowdEmploy (Section 6.5). These themes and are integrated to Green et al.'s (2012) revised employability framework and it is intended that these be used as a guide for case studies of CSF, CSW and CSV.

Previous chapters summarise the existing literature in relation to crowdsourcing. They explore different online-mediated exchanges that allow organisations or individuals to access internet users to solve specific problems or achieve specific aims. The term 'crowdsourcing' has been used in its broader sense to describe these exchanges. Moreover, the focus was on crowdsourcing and its relation to helping individuals gain, sustain or progress in employment, and their experience of employment. Three types of exchanges were considered as relevant to this aim, namely, crowdsourcing for funding (CSF), crowdsourcing for paid work (CSW), and crowdsourcing for unpaid work (CSV). These exchanges were defined as follows:

- Crowdfunding (CSF): An internet-enabled exchange through which individuals and organisations can access *funding* from other individuals and organisations via the internet to solve specific problems or to achieve specific aims.

- Crowdsourcing for paid work (CSW): An internet-enabled exchange through which individuals can seek *paid* employment and organisations can reach a larger pool of workers to outsource work ranging from micro and simple project work to macro tasks and more complex project work.

- Crowdsourcing for unpaid work (CSV): An internet-enabled exchange through which individuals can access opportunities for exchanging or donating their time and skills and organisations or individuals can reach a larger pool of individuals willing to commit their time and skills to assist in meeting specific needs. CSV includes reciprocal exchange systems and online-volunteering.

6.1. Crowdfunding

Although some of the exchanges that crowdfunding makes reference to have been in place for a long time in one form or another, their online-mediated version is more recent and the literature is just beginning to investigate its implications and potential.

Crowdfunding has been associated with employment since both equity and lending-based platforms can help finance business start-ups. More evidence needs to be gathered as to whether this is the case and to what extent, although it is also relevant to consider the possibility of crowdfunding supporting the process of business formation. In other words, crowdfunding can support prospective businesses and entrepreneurs in other ways such as helping in the creation of social networks (including potential clients) and marketing. Moreover, beyond businesses start-ups, crowdfunding entails launching a project which requires skills and the ability to marshal resources. This as a process can enhance a person's employability; a successful campaign is likely to constitute a valuable experience and could even be used as evidence of having the skills and attributes necessary to do a certain job or take on responsibility.

Crowdfunding platforms are also being used by individuals to stimulate donations for personal or charitable projects. This can help these individuals achieve personal or professional development goals such as studying for a postgraduate degree or writing a book. Generating funding for a charitable or community project can also help individuals demonstrate their ability to raise money and execute a project. In this sense, crowdfunding overlaps with crowdsourcing for volunteering and strengthens the view that facilitating exchanges between those with needs and those with available resources is at the heart of crowdsourcing in its broadest sense.

Motivation for being involved in crowdfunding can be seen from the perspective of those who provide funding (crowdfunders), project owners and platform developers. Research has focused mostly on crowdfunders' motivation and has highlighted the importance of intrinsic motivation, without negating the relevance of other benefits such as financial or in the form of privileges. Moreover, peer influence and social networks have emerged as important factors. This suggests that social networks play a role in raising money through crowdfunding and undermines the idea that this is a 'democratic' model in which anyone can run a successful campaign.

In sum, crowdfunding can be seen as a way of supporting start-ups which can evolve into SMEs and thus generate employment for at least one individual. However, the process of leading a crowdfunding campaign – be it reward, donation, lending or equity-based – can support individuals develop their employability in various ways. For this reason, the case studies will seek to investigate crowdfunding both in relation to the creation of new businesses and projects which can be classified as personal, professional or charitable.

6.2. Crowdsourcing for work

Through crowdsourcing individuals or organisations can outsource simple or complex tasks, knowledge development and innovation. Those looking for work can access and undertake work remotely; this work can range from tasks which can be completed in a few minutes (micro-tasks) to more complex tasks requiring specialist knowledge.

As a form of employment, crowdsourcing raises questions about working conditions, social protection and employment law, the rights of individual workers and undeclared work. This form of work also raises questions about possibilities for career and skills development alongside the flexibility and other benefits and disadvantages it might offer, and in comparison to longer-term employment. Crowdsourcing seems to offer a complex mixture of advantages and disadvantages which suggest the importance of considering whether crowdsourcing is conducted from a position of strength or weakness. Participation can be advantageous as it can offer opportunities for flexible work which can be adapted to individual's circumstance. However, it can also be seen as disadvantageous for those whose employment opportunities are limited to this form of work. These questions need to be explored in the case studies.

Self-selection has been identified as an important characteristic of workers which may help explain why the model works and why the crowds are not necessarily comprised of amateurs delivering poor quality results. Self-selection is relevant in all tasks, from micro-tasks to more complex projects involving innovation. Self-selection in relation to the former helps ensure availability and to some extent willingness, whereas in tasks involving innovation (e.g. in ideas competitions) specialist knowledge may be a determining factor as to whether someone takes part. Self-selection needs to

be investigated further but it is possible to argue that crowdsourcing allows organisations to access those who are most willing and able amongst the crowd.

Intrinsic and extrinsic motivations for participating in crowdsourcing also need to be considered. One key area to explore seems to be the possibilities that this type of work offers in relation to building a portfolio of work which can be used as evidence of employability skills and attributes. The possibility of building a strong reputation via online ratings of workers (and possibly of employers) is relevant in this respect as is training that is provided by either employers or intermediaries. On the other hand, crowdsourcing may have negative connotations and be considered by some participants as sub-optimal in the context of a lack of other opportunities. In addition to this, questions can be raised about the value of participating in micro-tasks and what they can add to employability given the nature of the activities involved.

From the perspective of organisations outsourcing paid work, the literature highlights advantages such as access to a pool of labour which can be accessed on demand and can be disbanded easily, flexibility in relation to the types of tasks that can be outsourced, and reduced transaction cost. In relation to the disadvantages, some authors have questioned the quality of work and accountability, and considered the organisation's lack of control over tasks and the uncertainty of the skills of the workforce. Thus, issues of project management and quality control for organisations are worthy of consideration in the case studies. These issues are relevant from the perspective of intermediaries and platform developers as assisting in dealing with them is part of the goals.

6.3. Crowdsourcing for unpaid work: Reciprocal exchange systems and volunteering

Crowdsourcing for unpaid work involves two types of exchanges, reciprocal exchange systems and volunteering. Reciprocal exchange systems include time sharing organisations, such as time banks or Local Exchange Trading Schemes (LETS) through which individuals can exchange services for a unit of time or an amount of community currency. These exchanges are not new but as for previous forms of crowdsourcing, the advent of the internet and Web 2.0 opens new possibilities in relation to how participants can establish and maintain exchanges.

Arguably, taking part in reciprocal exchange systems can provide opportunities to gain skills, access opportunities and build social networks. There is some evidence in relation to this but further research is necessary, particularly in relation to considering the impact of using the internet. It has been suggested that motivation for joining LETS has more to do with social and ideological reasons rather than improving employability. This is to some extent to be expected given the informality and voluntary nature of taking part in these exchanges. Nonetheless, indirect employability benefits are also of interest to the CrowdEmploy study since they can lead to the development of resources, attitudes and skills that by enhancing individuals' wellbeing impact on employability as well.

How internet-based reciprocal exchange systems operate varies considerably from one organisation to another and the case studies will look at least at one of these in depth. A basic feature for all of these systems, nonetheless, is that they enable exchanges of services from person to person. It is important that the case studies look into these exchanges and explore their challenges and limitations. Questions to explore include whether, from an employability perspective, participation can or should be encouraged. Moreover, these exchanges have been criticised for attracting socially-excluded individuals or members of specific social groups but it is not clear whether using the internet as a medium leads to different patterns of participation. Overall, it might be worth

comparing the similarities and differences between crowdsourcing services for paid work and those available for this type of unpaid work. Although these two systems are built based on different ideologies, from an operational point of view there might be some value in exploring how services could be improved.

6.4. Crowdsourcing for unpaid work: Online volunteering

While people have used the internet – and more recently internet-enabled devices – to volunteer their time for good causes either on a short or longer term basis for quite some time, online volunteering and micro-volunteering – a term that was coined in 2006 – now seems to be on the increase, partly because it provides a much cherished flexibility in people's busy lives and because people use the technology in their daily life. And non-profit organisations can tap into a range of (specialised) skills or expertise that is simply not available internally, through internet-mediated volunteering.

Some of the research was undertaken about a decade ago at a stage when online volunteering was beginning to grow, and research is limited in terms of the countries covered (nearly all is focused on non EU countries) and the agencies covered, with more detailed research available on the internationally oriented UN online volunteering programme. There is research on some groups (older volunteering), but not on others.

Research has, to varying degrees, begun to explore the motivations of volunteers and non-profit organisations for engaging in online volunteering, the scope of online volunteering (in terms of the number of postings per organisation), the tasks undertaken, the type of agencies involved in facilitating or offering online volunteering, the retention of volunteers and the feedback and support volunteers receive from the organisations.

However, according to the documents uncovered, little research has focused on skills development and none on the role online volunteering may play in enhancing the individual's employability. Some technologies enable the generation of accounts of volunteering tasks completed online which can then be used to enhance one's profile in the CV or in online profiles, and there is some evidence that some volunteers use it in their online profiles. Employability has been investigated with regards to traditional volunteering in some studies, indicating that it can support skills development and the person's self-confidence and that this can have an impact one's employability.

6.5. Research themes for case studies

This review of the literature examines the hypothesis that CrowdEmploy enables exchanges that can support employability. CSF, CSW and CSV may be regarded as **enabling support factors** that can assist both individuals and employers by enabling the connection of labour supply and demand and the exchange of resources such as time and money. For individuals, taking part in a crowdsourcing project may lead to enhanced employability (but it need not necessarily do so); for employers, it may facilitate aspects of employment around recruitment and work organisation (although it will also present challenges). The aim is to explore these hypotheses through an in-depth qualitative investigation.

The following sections consider the emerging questions from the review in the light of Green et al.'s employability framework.

Individual factors

Background of participants: Demographic information, household situation, economic/ employment situation, employment experience

Learning skills and development: Utilisation of current skills; development of new skills; enhancement/updating of current skills (probe on confidence levels, where relevant); is this a work experience opportunity? Has training been offered/undertaken?

Career development and planning: How does CSF, CSW, CSV fit in with the person's career planning - including exploring new career paths and gaining experience? (do people have career planning?) or is it a dead-end?

Individual circumstances

Is self-selection taking place? Is the person participating from a position of strength or weakness?

Motivation: Why participate/invest/volunteer?

What makes a project particularly attractive? What is the role and balance of intrinsic and extrinsic motivations? Are you participating by choice / feel you have no choice? Is CS seen as a route to employment? What are the advantages and disadvantages? What are the patterns of engagement and related earnings (e.g. sporadic engagement; regular engagement, equivalent to few hours per week)?

Work-life balance: Where do CSF, CSW, CSV tasks fit alongside other activities? Is CS seen as a short-term fix or part of a longer-term plan?

Social networks: What are the individual's pre-existing social networks? What networks need to be mobilised? What is the role of social networks in accessing and undertaking CS? (How) Are social networks extended/expanded as a result of CS participation?

Knowledge exchange: Is participation in CS associated with knowledge development or exchange? Is it an opportunity to be creative or innovative? (also related to themes of social networking and learning); Are there opportunities for networking and accumulating social capital (e.g. through forums, contacts extending into the real world, or (for CSF) valuable feedback on increasing the success of the project)?

Employer/organisational practices

What are the motivational elements built into the system (gamification)? Are they motivational?

What is the organisational rationale for CS? How did they learn to use it? What is important in making projects attractive/ attracting the right people/ attracting volunteers?

How are project/services promoted and managed?

Quality of experience: What is current or past experience with other sites? How do they compare? Are there issues of privacy and confidentiality? (Need to go into detail about how they work, how this has developed over time, what they have needed to learn to operate.)

Project management and quality control; quality of work and accountability; control over task and the skills of the workforce.

What works and does not work for organisations and individuals?

Should participation be encouraged? If so, why?

Can participation be encouraged? If so, how?

Local contextual factors

Employment opportunities for particular groups (e.g., young people) in the labour market and how this relates to engagement in CrowdEmploy.

What attracts people to CSF, CSW, CSV? (How) does this vary by local area? Are there variations in 'pull' and 'push' factors in CS participation?

What sorts of projects are more likely to attract worthwhile funding and attention?

Are different types of project more appropriate / successful in some areas than in others?

Macro level factors

Counterfactual: What would have happened in the absence of CSF, CSW, CSV? What other alternatives were considered, tried and/or rejected?

Economic situation and considerations.

Institutional factors: what is the institutional and legal framework for CS?

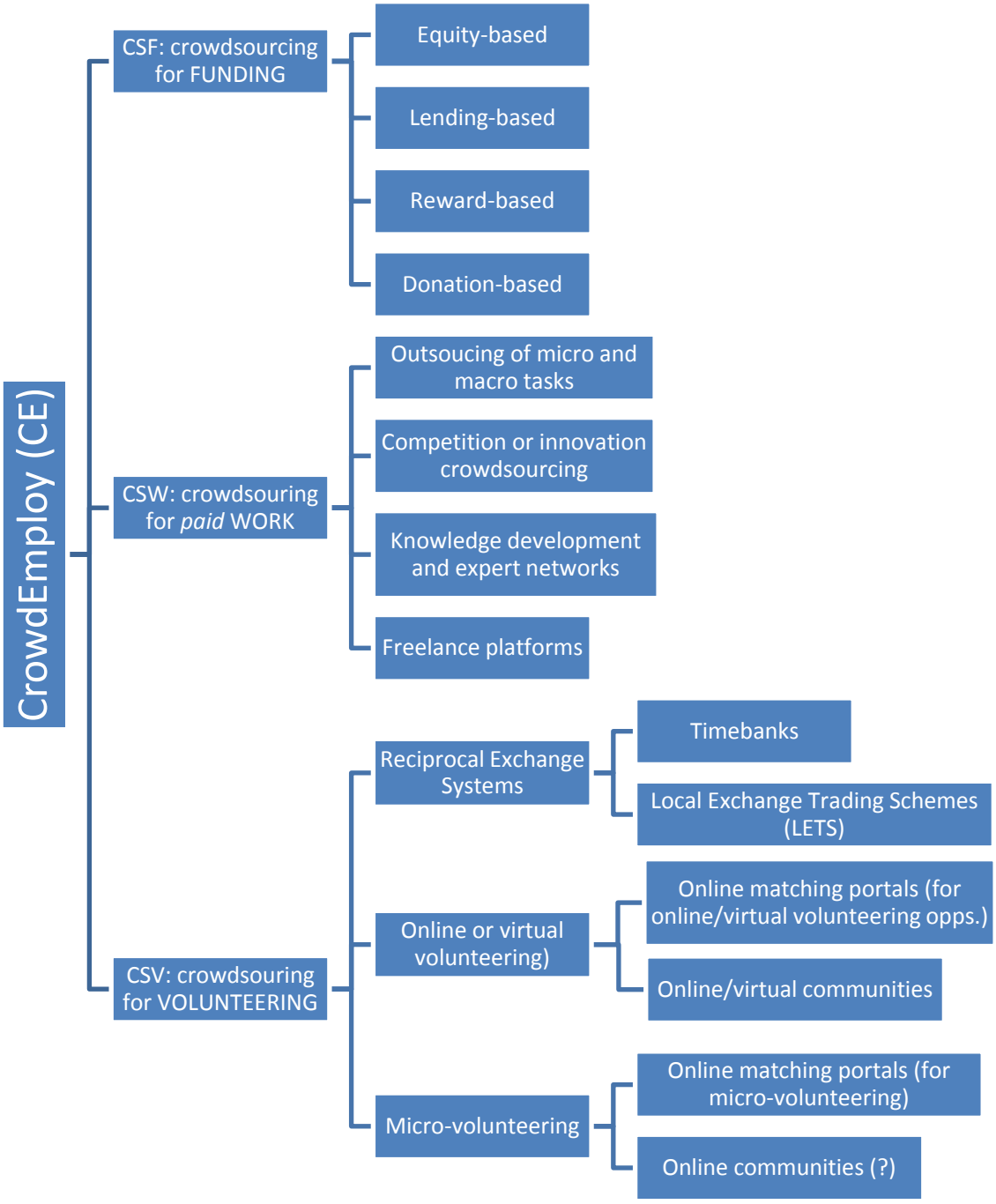
6.6. Summary

This literature review provides an account of internet-enabled exchanges that are aimed at connecting individuals and organisations for the purposes of solving problems or achieving specific aims. These exchanges are referred to as 'crowdsourcing' as they allow individuals and organisations tap into the crowd via the internet for funding, workers and volunteers. These exchanges are investigated further in a series of case studies.

7. MAPPING OF SERVICES IN THE EUROPEAN AND GLOBAL CONTEXT

This chapter provides a summary mapping of CrowdEmploy in the European and global context. Figure 4 develops the typology of CrowdEmploy further by specifying the types of crowdsourcing for funding (CSF) platforms, the types crowdsourcing for work (CSW) websites and crowdsourcing for volunteering (CSV) systems. The classification is the result of the desk research conducted it is thus informed by the available literature. Extensive lists of services available are provided in Annexes A – D, which are briefly discussed below.

Figure 4. Mapping of CrowdEmploy services



7.1. Selection of crowdsourcing for funding websites and initiatives

As noted by de Buysere et al., (2012) there is no trade body surveying the crowdfunding industry as thus it is difficult to establish the exact number of existing crowdfunding platforms worldwide. In addition to this, the crowdfunding scene is a dynamic one and as new platforms are emerging (or merging) others are becoming discontinued. De Buysere et al. also estimated that the number of crowdfunding platforms in Europe stood at around 200 by the end of 2011 and that this number would increase by 50 per cent by the end of 2012. An extensive online search of crowdfunding initiatives in Europe lead to identifying at least 170 platforms. Our search cannot be considered exhaustive and a more established survey of platforms would be needed to determine whether the number of platforms actually approaches 300, as de Buysere et al. expected. In any case, the lack of data and the changing state of the crowdfunding industry means that it is difficult to provide accurate predictions. The crowdfunding platforms identified in this research include:

- Donation-based: 33 initiatives
- Equity-based: 35 initiatives
- Lending-based: 23 initiatives
- Reward-based: 79 initiatives

US initiatives including *Kickstarter* and *Indiegogo* were also identified as salient either because they are expanding to the European market and/or because of their success. The full list of platforms, by type and country, is provided in Annex A.

7.2. Selection of crowdsourcing for paid work websites

The number of paid crowdsourcing websites has increased substantially since 2006/07, but have been in existence since the late 1990s (see Frei, 2009). There is limited literature documenting the number and types of crowdsourcing for paid work websites (see Elance, 2012; and Frei, 2009). To map services in this field of crowdsourcing these documents together with industry websites and expert groups (such as Crowdsourcing.org, Crowdsortium, Daily Crowdsource) were used to detail services. The crowdsourcing market is dynamic; crowdsourcing organisations are merging to create a stronger market presence or disappearing. A more comprehensive list of initiatives is available on Crowdsourcing.org, which uses a broad typology. For the cloud labour category, 176 websites are listed. However, crowdsourcing for paid work may well cross over with other categories listed on the site, as some websites will offer opportunities for paid and unpaid work. Therefore, a complete picture of the number of websites is difficult to provide due to categorisation and the changing nature of the market. Annex B provides lists of crowdsourcing for paid work websites.

7.3. Selection of crowdsourcing for Reciprocal Exchange Systems

The mapping of Time Banks and LETS is not straightforward. Several issues were encountered, such as classification and contradictory data. In some countries, figures vary a great deal. For example, Hinz and Wagner (2010) state that they manage to map all 436 LETS initiatives that existed in Germany, whilst *Tauschring*[49] suggests that only 227 LETS initiatives currently exist. This divergence can be explained by the transience of some of the initiatives. Also, some creative initiatives, such as

[49] www.tauschring.de

Turnyourtime[50], use Time Bank and LETS ideas creatively to create new forms of exchanges, and thus highlighting a problem with classification. Nevertheless, Annex C provides an overview of time banks and LETS across Europe.

7.4. Selection of crowdsourcing for internet mediated volunteering

The situation for crowdsourcing for internet mediated volunteering is similar as for other CrowdEmploy in the sense that there are limited sources summarising the services available. The table in Annex D lists only those active sites presumed to be of greater relevance for the project. It aims to provide a range of different websites, in terms of type of website (online matching portals and online communities), the volunteering opportunities offered (e.g. international volunteering, employer-supported volunteering, crowdsourcing methodology, specific tasks, such as mentoring,) and the countries covered (within the EU and beyond), but it does not attempt to offer a more comprehensive list, in terms of, for example, online matching platforms, e-mentoring websites or environmental monitoring websites seeking online volunteers. This selection draws on a larger number of websites searched for online and micro-volunteering which are listed in Annex E.

[50] http://turnyourtime.com/#map

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ANNEX A – LIST OF CROWDFUNDING PLATFORMS

Table 2. Donation-based crowdfunding platforms

No	Website title	URL	Type	Country
1	Respekt	http://www.respekt.net	Donation-based	AT
2	Bgining	http://bgining.com/	Donation-based	BG
3	FriendFund	http://www.friendfund.com/	Donation-based	DE
4	Deportistas Solidarios	http://www.deportistassolidarios.org/	Donation-based	ES
5	Flipover	http://flipover.org/	Donation-based	ES
6	Hazloposible microdonaciones	http://microdonaciones.hazloposible.org/	Donation-based	ES
7	Lohagopor	http://lohagopor.com/	Donation-based	ES
8	MiGranoDeArena.org	http://www.migranodearena.org/	Donation-based	ES
9	MontaTuConcierto.com	http://www.montatuconcierto.com/	Donation-based	ES
10	Mynbest	http://www.mynbest.com/	Donation-based	ES
11	SmileMundo	http://www.smilemundo.org/	Donation-based	ES
12	Sport2Help	http://sport2help.org/	Donation-based	ES
13	Teaming	https://www.teaming.net/que-es-teaming	Donation-based	ES
14	Trustparency	http://www.trustparency.es/web/home.htm	Donation-based	ES

15	Brickstarter	http://brickstarter.org	Donation-based	FI
16	BuonaCausa	www.buonacausa.org	Donation-based	IT
17	Fund For Culture	http://www.fundforculture.org	Donation-based	IT
18	Iodono	www.iodono.com	Donation-based	IT
19	OpenGenius	www.opengenius.org	Donation-based	IT
20	Pubblico Bene	www.pubblicobene.it	Donation-based	IT
21	Rete Del Dono	www.retedeldono.it	Donation-based	IT
22	ShinyNote	www.shinynote.com	Donation-based	IT
23	Youcapital	www.youcapital.it	Donation-based	IT
24	4just1	https://www.4just1.com/	Donation-based	NL
25	Siepomaga	http://siepomaga.pl/	Donation-based	PL
26	JustGiving	http://www.justgiving.com	Donation-based	UK
27	Spacehive	http://spacehive.com/	Donation-based	UK
28	Sponsume	http://www.sponsume.com/	Donation-based	UK
29	Citizeninvestor	http://citizinvestor.com/	Donation-based	US

31	Crowdrise	www.crowdrise.com/	Donation-based	US
32	FoFundMe	http://www.gofundme.com/	Donation-based	US
33	GoGetFunding Donation-based	http://gogetfunding.com/	Donation-based	US

Table 3. Equity-based crowdfunding platforms

No	Website title	URL	Type	Country
1	Conda	https://www.conda.at/aboutConda.xhtml	Equity-based	AT
2	Respekt	http://www.respekt.net/	Equity-based	AT
3	BERGFÜRST	https://de.bergfuerst.com/	Equity-based	DE
4	Companisto	https://www.companisto.de/	Equity-based	DE
5	Innovestment	http://www.innovestment.de	Equity-based	DE
6	Mashup Finance	http://mashup-finance.de/	Equity-based	DE
7	Seedmatch	https://seedmatch.de/	Equity-based	DE
8	Vidensbanken	http://www.vidensbanken.com/	Equity-based	DK
9	CrowdThinking	http://www.crowdthinking.org/es/	Equity-based	ES
10	Inverem	http://www.inverem.es/	Equity-based	ES
11	Inversore	http://www.inversore.com/	Equity-based	ES

12	Lánzame	http://www.lanzame.es/	Equity-based	ES
13	Lemonfruits	http://www.lemonfruits.com/	Equity-based	ES
14	Nuuuki	http://nuuuki.com/	Equity-based	ES
15	Partizipa	http://partizipa.com/	Equity-based	ES
16	SeedQuick	http://www.seedquick.com/	Equity-based	ES
17	Socios Inversores	http://www.sociosinversores.es/	Equity-based	ES
18	The Crowd Angel	https://www.thecrowdangel.com/	Equity-based	ES
19	Ynversion	http://ynversion.com/	Equity-based	ES
20	Venture Bonsai	https://www.venturebonsai.com	Equity-based	FI
21	Anazago	http://anaxago.com	Equity-based	FR
22	Finance Utile	http://www.financeutile.com	Equity-based	FR
23	Fondatio	http://www.fondatio.com	Equity-based	FR
24	SiamoSoci	www.siamosoci.com	Equity-based	IT
25	Gambitious	http://gambitious.com	Equity-based	NL
26	Symbid	http://www.symbid.com/	Equity-based	NL
27	Beesfund	http://beesfund.com/	Equity-based	PL
28	Crowdfunders	http://crowdfunders.pl/	Equity-based	PL

29	Multifinantare	http://multifinantare.ro/	Equity-based	RO
30	BankToTheFuture	https://www.banktothefuture.com/	Equity-based	UK
31	CrowdCube	http://www.crowdcube.com/	Equity-based	UK
32	Crowdmission	http://crowdmission.com/index.php	Equity-based	UK
33	Fund the Gap	http://fundthegap.com/	Equity-based	UK
34	ImpactCrowd	http://impactcrowd.com	Equity-based	UK
35	Seedrs	http://www.seedrs.com	Equity-based	UK

Table 4. Lending-based crowdfunding platforms

No	Website title	URL	Type	Country
1	Crofun	http://signup.crofun.be/	Lending-based	BE
2	My Microinvest	http://www.mymicroinvest.com/en	Lending-based	BE
3	Fondomat	http://www.fondomat.cz	Lending-based	CZ
4	1x1 MICROCREDIT	http://www.1x1microcredit.org/	Lending-based	ES
5	Arborius	https://www.arboribus.com	Lending-based	ES
6	BBVA Suma	https://www.bbvasuma.com/suma/	Lending-based	ES
7	Inproxect	http://www.inproxect.com/	Lending-based	ES

8	Lainaaja	https://www.lainaaja.fi/	Lending-based	FI
9	Babyloan	http://www.babyloan.org	Lending-based	FR
10	FriendsClear	http://www.friendsclear.com/	Lending-based	FR
11	Prêt d'Union	http://www.pret-dunion.fr/	Lending-based	FR
12	Spear	http://spear.fr/	Lending-based	FR
13	Wiseed	http://www.wiseed.fr/	Lending-based	FR
14	Prestiamoci	www.prestiamoci.com	Lending-based	IT
15	Smartika	www.smartika.com	Lending-based	IT
16	Tenpages.com	http://www.tenpages.com/	Lending-based	NL
17	Pozycz	www.pozycz.pl	Lending-based	PL
18	Abundance Generatio	www.abundancegeneration.com	Lending-based	UK
19	Buzzbnk	https://www.buzzbnk.org/	Lending-based	UK
20	CivilsedMoney	http://civilisedmoney.co.uk/	Lending-based	UK
21	Funding Circle	www.fundingcircle.com	Lending-based	UK
22	Zopa	http://uk.zopa.com/	Lending-based	UK, IT, US
23	Kiva	http://www.kiva.org/	Lending-based	US

Table 5. Reward-based crowdfunding platforms

No	Website title	URL	Type	Country
1	SonicAngel	www.sonicangel.com/	Reward-based	BE
2	Inkubato	http://www.inkubato.com/de/	Reward-based	DE
3	mySherpas	http://www.mysherpas.com/	Reward-based	DE
4	Nordstarter	http://www.nordstarter.org/	Reward-based	DE
5	Ordiris	http://www.ordiris.com/	Reward-based	DE
6	Pling	http://www.pling.de/	Reward-based	DE
7	Startnext	http://www.startnext.de/	Reward-based	DE
8	Visionbakery	http://www.visionbakery.com/	Reward-based	DE
9	Booomerang	http://www.booomerang.dk/	Reward-based	DK
10	Groopio	http://www.groopio.com/	Reward-based	EL
11	Bandeed	http://www.bandeed.com/	Reward-based	ES
12	Cabaret Crénom	http://www.cabaretcrenom.com/	Reward-based	ES
13	Comproyecto	http://www.comproyecto.com	Reward-based	ES
14	Crea Rock	http://www.crearock.es/	Reward-based	ES
15	Emprendelandia	http://www.emprendelandia.es/	Reward-based	ES

16	Fandinguea	http://www.fandinguea.com/	Reward-based	ES
17	Fanfunding	http://fanfunding.es/	Reward-based	ES
18	Fanstylers	http://www.fanstylers.com	Reward-based	ES
19	Filmutea	http://www.filmutea.com/	Reward-based	ES
20	Firstclap	http://firstclap.com/	Reward-based	ES
21	Goteo	http://goteo.org/	Reward-based	ES
22	Impulsa't	http://www.impulsat.org/	Reward-based	ES
23	Injoinet (beta)	http://www.injoinet.com/	Reward-based	ES
24	Joinmyproject	http://www.joinmyproject.com/	Reward-based	ES
25	Kifund	http://www.kifund.com/	Reward-based	ES
26	L'H Participa	http://www.lhparticipa.com/index.php	Reward-based	ES
27	La Tahona Cultural	http://www.latahonacultural.com/	Reward-based	ES
28	Lánzanos	http://www.lanzanos.com/	Reward-based	ES
29	Libros.com	http://libros.com/crowdfunding/	Reward-based	ES
30	My major company	http://www.mymajorcompany.es/	Reward-based	ES
31	Netstarte	http://www.nestarter.com/	Reward-based	ES
32	Patrocínalos	http://www.patrocinalos.com/	Reward-based	ES

33	Projeggt	http://www.projeggt.com/	Reward-based	ES
34	Rock & Dream	http://www.rockanddream.com/	Reward-based	ES
35	Taracea	http://www.taracea.fecyt.es/	Reward-based	ES
36	Ulule	http://es.ulule.com/	Reward-based	ES
37	Verkami	http://www.verkami.com/	Reward-based	ES
38	Yo Quiero Grabar.com	http://yoquierograbar.com/	Reward-based	ES
39	Arizuka	http://www.arizuka.com/	Reward-based	FR
40	Babeldoor	http://www.babeldoor.com/	Reward-based	FR
41	FABrique d'Artiste	http://www.fabriquedartistes.com/	Reward-based	FR
42	Fans Next Door	http://fr.fansnextdoor.com/	Reward-based	FR
43	Kiss Kiss Bank Bank	http://www.kisskissbankbank.com/fr/discover	Reward-based	FR
44	Le Mecene	http://www.lemecene.fr/	Reward-based	FR
45	Microcultures	http://www.microcultures.fr/	Reward-based	FR
46	Octopousse	https://octopousse.com/	Reward-based	FR
47	Then We Can	https://www.thenwecan.com/	Reward-based	FR
48	Ulule	http://www.ulule.com/	Reward-based	FR
49	Fund it	http://www.fundit.ie	Reward-based	IE

50	Boomstarter	www.boomstarter.com	Reward-based	IT
51	Cineama	www.cineama.it	Reward-based	IT
52	Crowdfunding Italia	www.crowdfunding-italia.com	Reward-based	IT
53	De Revolutione	www.derevolutione.com	Reward-based	IT
54	Eppela	www.eppela.com	Reward-based	IT
55	Kapipal	www.kapipal.com	Reward-based	IT
56	Musicraiser	www.musicraiser.com	Reward-based	IT
57	Produzioni dal Basso - PdB	www.produzionidalbasso.com	Reward-based	IT
58	Starteed	www.starteed.com	Reward-based	IT
59	Zummolo	http://www.zummolo.com	Reward-based	IT
60	Mecenats.lv	http://www.maecenas.me/	Reward-based	LV
61	Pozible	http://www.pozible.com	Reward-based	NL
62	Voordekunst	http://www.voordekunst.nl/	Reward-based	NL
63	WEBclusiv	http://www.webclusive.com/	Reward-based	NL
64	MegaTotal.pl	http://www.megatotal.pl/pl/	Reward-based	PL
65	Polakportrafi	polakpotrafi.pl	Reward-based	PL
66	Wspieram	http://wspieram.to/	Reward-based	PL

67	Wspieramkulture	http://wspieramkulture.pl/	Reward-based	PL
68	Massivemov	http://www.massivemov.com/	Reward-based	PT
69	PPL	http://ppl.com.pt/en	Reward-based	PT
70	Redebiz	http://redebiz.net	Reward-based	PT
71	Bloomvc	http://www.bloomvc.com/	Reward-based	UK
72	Crowdfunder	http://www.crowdfunder.co.uk	Reward-based	UK
73	PeopleFund.it	http://www.peoplefund.it/	Reward-based	UK
74	Soloco	http://soloco.co.uk/	Reward-based	UK
75	Unbound	http://unbound.co.uk/	Reward-based	UK
76	We Fund	http://wefund.com	Reward-based	UK
77	Kickstarter	http://www.kickstarter.com/	Reward-based	UK, US
78	Crowdvance	http://www.crowdvance.com/	Reward-based	US
79	Indiegogo	http://www.indiegogo.com/	Reward-based	US, UK, DE, FR, Canada

ANNEX B – CROWDSOURCING FOR PAID WORK WEBSITES

The following table provides a selected list of websites for paid crowdsourcing. Websites and initiatives have been selected as they illustrate the breadth of services, the variety of locations, and include long-standing, established websites as well as developing sites. Websites have been divided into the main type of activities they market.

Table 6. Crowdsourcing methods used to outsource work

No.	Website title	URL	Initiative start date	County	Details
W1	99designs	http://99designs.co.uk/	2006	US, AU, DE	online graphic design marketplace connecting designers from around the globe with customers seeking quality, affordable design services
W2	Amazon Mechanical Turk	https://www.mturk.com	2005	US	marketplace for work - businesses and developers can access on-demand, scalable workforce. Workers can choose between tasks or work that its convenient
W3	Castingwords	http://castingwords.com/	2005	MX, US	transcription services, primarily aimed at technologically savvy podcasters providing a variety of transcription services
W4	Clickworker	http://www.clickworker.com	2005	DE	utilize the knowledge of the crowd to engage the know-how and labor of hundred thousands of clickworkers who assist in the fast and efficient processing of projects for companies
W5	Crowdengineering	http://www.crowdengineering.com/	2008	IT	allows enterprises and public organizations to implement crowdsourcing solutions by directly engaging and leveraging a crowdsourced workforce, while ensuring full integration with legacy platforms, systems, and business processes
W6	Crowdflower	http://crowdflower.com/	2007	US	micro task crowdsourcing platform

W7	CrowdSource	http://www.crowdsource.com/	2008?	US	copywriting services, data categorization and reconciliation, search relevance, product matching and content moderation; leveraging pre-qualified groups of skilled workers (@500,000), breaking complex tasks into microtasks
W8	crowdSPRING	https://www.crowdspring.com/	2008?	US	tap into a global pool of creatives for logo design, web design, company name, product name, packaging design, and many other graphic design, industrial design and writing projects
W9	design Contest	http://www.designcontest.com/	2003	US	contest portfolio includes everything from logo design, to websites, to illustrations and even a belt buckle design
W10	design outpost	http://www.designoutpost.com	2002	US	specialists in custom logos, web design templates and print design such as business cards, letterhead design and more
W11	DesignCrowd	http://www.designcrowd.co.uk/	2008	AU	an online marketplace providing logo, website, print and graphic design services by providing access to freelance graphic designers and design studios around the world
W12	Elance	https://www.elance.com/	1998	US	online marketplace, completed tasks are mainly around online content creation, web designing and programming for platforms like iOS and Android
W13	Genius Rocket	http://www.geniusrocket.com/	2006	US	a create video agency employing crowdsourcing
W14	Jobboy	http://www.jobboy.com/	2010	TR	an employer you can create campaigns (jobs), that workers will complete and submit proofs, as a worker you can complete jobs and submit your proofs of job done, and make money
W15	Lionbridge - Enterprise Crowdsourcing	http://www.thesmartcrowd.com	?	US	maintains a growing and qualified crowd of over 140,000 professionals in 102 countries, across 4,600 cities and towns
W16	Microtask	http://www.microtask.com/	2009	FI, US	human powered document processing
W17	MicroWorkers	http://microworkers.com	2009	US	innovative, International online platform that connects Employers and Workers from around the world

W18	MobileWorks	https://www.mobileworks.com	2012?	?	crowdsourcing platform that puts the underemployed talent of the world to work
W19	odesk	https://www.odesk.com/	2003	US	allows users to access contractors in areas such as web and software development, writing & translation, administrative support, etc. The services helps customers hire on demand, manage the work and 'pay with ease'.
W20	Rated People	http://www.ratedpeople.com/	2005	UK	online trade recommendation service and its mission is to connect homeowners with the very best local tradesmen
W21	redbubble	http://www.redbubble.com	2007	US, AU	diverse creative community and marketplace
W22	Rent a coder	http://www.rent-acoder.com/	2007	?	design and programming services
W23	Samasource	http://samasource.org/	2008	US, KE	deliver high-quality data, content and research needed to accelerate growth and differentiate organisational products and services
W24	Serebra Connect	https://www.serebraconnect.com/	2007	CA	online job marketplace that lets you outsource small jobs and tasks to a global pool of skilled freelancers
W25	Short Task	http://www.shorttask.com/	2001	US	connects online job seekers with providers
W26	*Slivers of Time*	http://www.slivers.com/	?	UK	enables individuals to book peoples time instantly and precisely; recruit and manage temp, contract and flexible workers, employees, volunteers
W27	Task Rabbit	https://www.taskrabbit.com/	2009	US	an online and mobile marketplace that connects neighbors to get things done, fully vetted, entrepreneurial professionals contribute their time and skills to helping people out
W28	Taskhub	https://taskhub.co.uk/	2013	UK	outsource 'To-Do' list to Taskhub and gain more time to do the things you love

W29	Translators Town	http://www.translatorstown.com/	2007	UK	global translation job portal connecting clients with freelance translators and translation agencies

Table 7. Competition or innovation crowdsourcing websites

No.	Website title	URL	Initiative start date	County	Details
W30	12Designer (joined 99Designs in 2012)	http://www.12designer.com/	2008	DE	creative marketplace where logo, flyer and web design
W31	FIDO - Fearless Innovation Designed Online	http://www.myfidoworks.com	unknown	US	commercial ideas and innovations can be explored in a protected online 'dog park' by bringing together wide ranging individuals
W32	idea bounty	http://www.ideabounty.com/	2008	ZA	simplest way to hire 1000s of creatives and only pay for the Ideas you want. For creatives it's an amazing platform that allows you to pitch on various briefs.
W33	Logo Tournament	http://logotournament.com	2007	CA	logo contest
W34	Naming Force	http://www.namingforce.com/	2009	?	crowdsourced business name contests
W35	NineSigma	http://www.ninesigma.com/	2008	US, KR, JP, AU, BE	leading innovation partner to organizations worldwide, is pleased to offer its innovation services to European companies looking to develop or expand their open innovation initiatives

Table 8. Crowdsourcing Freelance platforms

No.	Website title	URL	Initiative start date	County	Details

W36	guru	http://www.guru.com/	1998	US	online marketplace for freelance talent
W37	people per hour	http://www.peopleperhour.com/	2007	UK, US, EL, IN	marketplace for freelancers
W38	Freelancer.com	http://www.freelancer.com/	2004	AU, US, CA, JM, ZA, UK, DE, ES, FR, IT, NL, TR, NZ, IN, ID, SG, HK, BD, PK, PH, AR, CL, MX, EC, PE, BR	freelancing, outsourcing and crowdsourcing marketplace for small business

Table 9. Crowdsourcing websites supporting knowledge development and expert networks

No.	Website title	URL	Initiative start date	County	Details
W39	Clickadvisor	http://www.clickadvisor.com	2009	UK	online consumer research agency specialising in co-creation and innovation for consumer brands
W40	Consensus Point	http://www.consensuspoint.com/	1993?	US	provider of prediction market technology, partners with the consulting, media, and research industries to tap into “the wisdom of the crowd” to predict future events and market preferences

W41	Ideaconnection	http://www.ideaconnection.com	2007	US	provides businesses with innovative, high quality and timely solutions to their business and R&D challenges by using teams of highly motivated experts located world-wide and led by experienced and successful facilitators
W42	ideaken	http://www.ideaken.com/	2009	IN, SG	enables enterprise innovation seekers to collaborate to innovate with the global pool of talent, customers, research vendors, academia or with the employees
W43	IdeaScale	http://ideascale.com	2008	US, UK, AU, NZ, DE, SG	enables ideas from customers and stakeholders by giving them a platform to share, vote and discuss feedback
W44	InnoCentive	https://www.innocentive.com/	2001	US,UK	crowdsourcing innovation problems to the world's smartest people who compete to provide ideas and solutions to important business, social, policy, scientific, and technical challenges
W45	innovationexchange	http://www.innovationexchange.com/	2008	CA, KR	online open innovation marketplace where diverse community members from all over the world respond to challenges sponsored by Global 5000 companies and not-for-profit organizations
W46	LeadVine	http://leadvine.com/	2008	?	type of knoweldge exchange, an online social community that simplifies how companies find new customers
W47	napkinslabs	http://napkinlabs.com/	2010	US	build simple tools that plug into your social networks to transform passive fans into a powerhouse of real-time insights, feedback and ideas
W48	spigit	http://www.spigit.com/	?	US	social Innovation, helping organizations unleash the creativity of employees, customers and partners to find transformative ideas that drive growth

W49	TopCoder	http://www.topcoder.com/	2001	?	platform for digital open innovation providing the platform and a community of over 445,000 global members to accelerate the development of new digital products and services for our clients
W50	uTest	http://www.utest.com/	2007	US, PL	provider of in-the-wild testing for mobile, web and desktop apps

ANNEX C – TIME BANKS AND LETS ACROSS EUROPE

Table 10. Number of Time Banks and LETS across Europe

Country	Time Bank and LETS	Year	Source
UK	over 250 Time Banks	2012	http://www.timebanking.org/about/timebanking-resources/research/
	300 LETS initiatives	2006	http://www.letslinkuk.net/index.htm
Germany	436 LETS initiatives	2010	Hinz and Wagner 2010
Italy	17 Initiatives (Time Banks and LETS)	No Information	www.obelio.com
Austria	40 initiatives (Time Banks and LETS)	2013	http://tauschkreise.at/?page_id=59
Switzerland	9 initiatives	No information	www.obelio.com
France	472 initiatives (LETS)	2012	http://www.selidaire.org/spip/spip.php?rubrique211
Ireland	3 initiatives (LETS)	2013	http://www.letslinkuk.net/index.htm

Table 11. Websites for Reciprocal Exchange Systems

Umbrella organisations and selected organisations			
No	**Website title/URL**	**Country**	**Details**
R1	http://timebanks.org/	US	Working with TimeBanks leaders across the US and internationally to strengthen and rebuild community

R2	http://www.timebanking.org/	UK	Timebanking UK is the national umbrella organisation for timebanking. We are a charity
R3	http://www.letslinkuk.net/index.htm	UK	LETSlink UK is the lead body supporting Local Exchange Trading Systems nationally. We represent LETS in the media, to the government and national organisations
R4	http://www.tauschen-ohne-geld.de	DE	Helps to organise and administrate LETS.
R5	www.tauschringe.org	DE	Archive of old documents (up until 2007)
R6	www.tauschring.de	DE	Entrance portal for LETS. Historical and theoretical background information, contact addresses of LETS in Germany, links to LETS or Time Banks in other countries, support for new LETS
R7	www.tauschkreis.at	AT	Cooperation of four LETS in Austria
R8	www.bancadeltempo.it	IT	Cooperation of time banks in Italy
R9	www.letsvlaanderen.be	BE	Entrance portal for LETS, support for new LETS
R10	www.selidaire.org	FR	Umbrella organisation with a large list of links of SEL in France
R11	www.strohalm.nl	NL	Social Trade Organisation (STRO) tests new economic methods in pilot projects in South America and Central America and more recently in countries hard hit by the crisis, such as Spain. STRO works in a wide network of people and organizations that the causes and consequences of the crisis to tackle.
R12	http://www.zart.org/	AT, DE, CH	Collaboration of German-speaking transition systems.
R13	www.talent.ch	CH	Collaboration of seven LETS in Switzerland

R14	http://obelio.com/en/index.html	DE (1)	Web-based advertisement service, accounting service and information service for LETS (Local Exchange Trading System) communities, vast list of LETS.
R15	www.tauschwiki.de	DE	joined encyclopaedia and hand book of German LETS
R16	http://www.batt-aktiv.de/	DE	Documentation and Organisation of the annual meeting of LETS rings in Germany
R17	http://ctb.ku.edu/	CA	Community Tool Box Website, a service of the Work Group for Community Health and Development at the University of Kansas
R18	http://www.acrosslets.org/en/index.html	DE	Provides a platform for advertisements across different LETS (Local Exchange Trading System) communities for cross-regional barter (i.e. accommodations in remote cities or ride sharing).
R19	http://www.ressourcen-tauschring.de/inhalt.html	DE	Over-regional transfer for LETS
R20	http://www.cyclos.org/		Cyclos is a STRO project and offers online banking system which can be used by LETS.
R21	http://www.zeitbank-meran.it/	IT (2)	Association to networks the time banks, LETS and similar associations in the region of Trentino-Südtirol/Alto Adige at national and European level.
Selected Time Banks and LETS			
R22	www.regiotauschnetz.de	DE, FR	Well documented LETS in the border region South-West Germany and the North of France (Alsace).
R23	www.tauschkreise.at	AT	Well-documented Time Bank near Salzburg, members use the virtual

			market place CYCLOS (www.cyclos.org)
R24	http://www.rgtb.org.uk/index.html	UK	Rushey Green Time Bank, Well-established UK time bank existing for more than 10 years
R25	http://www.waffeltausch.at/	AT	Well-documented larger LETS in Vienna (about 110 members), connected with other Austrian LETS. Members use Cyclos.
R26	http://www.leamlets.org.uk/page/home	UK	Warwick & Leamington LETS, smaller LETS
R27	http://letsbrussel.be/	BE	Newly established LETS (2012), well-documented and connected, members use eLAS (Electronic LETS Administration System).
R28	http://selduvaldyerres.free.fr/	FR	Smaller LETS (28 members)
R29	http://www.grain2sel.net/public/fr/index.php	FR	Well documented LETS,
R30	http://www.tauschen-ohne-geld.de/nimm-gib-memmingen	DE	Very active LETS (230 members with 297 transactions), members use offers on www.tauschen-ohne-geld.de
R31	https://www.exchange-me.de/	DE	Over regional LETS

Comment: (1) page available in German, English, Italian and French; (2) page in German and Italian

ANNEX D – ONLINE AND MICRO-VOLUNTEERING WEBSITES

Table 12. Online and micro-volunteering websites

I. Websites matching volunteers or offering online / virtual volunteering opportunities					
No	**Website title**	**URL**	**Developed by**	**Country**	**Details**
V1	Cybermentors (e-mentoring)	http://www.cybermentors.org.uk/	Beat Bullying (registered charity)	UK	For mentors aged between 11 and 25 to support other young people who are being bullied
V2	Distributed Proofreader (proofreading)	http://www.pgdp.net/c	Distributed Proofreaders Foundation (non-profit organisation)	US	Founded in 2000 and since 2002 an official Project Gutenberg site; 1,911 active users in the past 30 days (21/02/2013)
V3	Do it (OMP)	http://www.do-it.org.uk/	YouthNet UK (registered charity)	UK	UK's largest volunteering database (no search facilities for OV or VV)
V4	Galaxy Zoo (image classification)	http://www.galaxyzoo.org/	Zooniverse - Citizen Science Alliance	UK	since 2007, image classification for research purposes
V5	GlobalGivingTIME (OMP)	http://www.globalgiving.co.uk/globalgivingtime/ http://globalgiving.sparked.com	GlobalGiving (registered charity established in 2008)	UK	New online volunteering tool targeted at corporate volunteers ('100s of volunteers and growing'), powered by Sparked (suggests it may be micro-volunteering?)
V6	Idealist (OMP)	http://www.idealist.org/	Action Without Borders (non-profit organisation)	US	Launched in 1995; 287 VVOs and 1905 OVOs via key word search on 21/02/2013
V7	iT4Communities	http://www.it4communities.	AbilityNet (registered	UK	Since 2002 (since 2010 part of AbilityNet); > 5,500

	(IT support)	org.uk/it4c/home/index.jsp	charity)		registered volunteers (experienced IT professionals)
V8	LibriVox (proofreading)	http://librivox.org/volunteer-for-librivox/	independent, non-commercial, volunteer, non-profit project		LibriVox (or BookVoice) focuses on digitalising books
V9	Mentor Place (e-mentoring)	http://ibm.mentorplace.epals.org/	IBM (company)	US	Since 2000, operating worldwide, including Europe; connecting IBM employees with students and teachers
V10	MentorNet (e-mentoring)	http://www.mentornet.net/campus.aspx	MentorNet (non-profit organisation)	US	Set up in 1997 to diversify the global workforce in engineering and technology; currently over 800 matches
V11	NABUUR (online community)	http://www.nabuur.com/	Nabuur, non-profit foundation	NL	Launched in 2001, it has 40336 online volunteers (neighbours), of which 2256 are in Europe, most in NL
V12	SolucionesONG.org (OMP)	www.hazloposible.org	Hazlo Possible Foundation (Make it Happen)	ES*	Online crowd-sourced platform for competences sharing between NGOs and people responding to their questions
V13	TheSite (advice for young people)	http://www.thesite.org/	YouthNet (registered charity)	UK	Youth Net: over 200 volunteers at any one time (most are 'virtual volunteers')
V14	UN Online Volun-teering (OMP)	http://www.onlinevolunteering.org/en/vol/index.html	United Nations		Launched in 2000 as a part of NetAid; 10,910 online volunteers, 60% from developing countries (2011)
V15	Volontärbyrån	www.volontarbyran.org		SE*	An online platform for e-volunteers

	(OMP)				
V16	Volunteer Ireland (OMP)	http://www.volunteer.ie	National Volunteer Development Agency	IE	Search drop down box for virtual volunteering
V17	Volunteer Match (OMP)	http://www.volunteermatch.org/	Volunteer Match (non-profit social enterprise), previously Impact Online	US	Launched in mid 1990s; 4.187 VVOs on 21/02/2013; search for VVOs by geographic area; not all VVOs are online though as a different definition is adopted
V18	[The Human Grid (Human Net) (OMP)]	http://humangrid.gr/	TedEX	EL*	Text available in English suggests this is an online matching platform for (informal) volunteering
II.	**Internet mediated platforms and portals offering micro-volunteering opportunities**				
No	**Website title**	**URL**	**Developed by**	**Country**	**Details**
V19	+U (smartphone app.)	http://www.sony.co.uk/discussions/community/en/community/better_futures/plus_u	Sony (electronics company):	UK	Launched in 2011 following a crowdsourced competition for new ideas; currently piloted with Do-it.org
V20	Bright Works (smartphone app.)	http://brightworks.me/ (website records 'site not configured')	Bright One (communications agency for the third sector run by volunteers)	UK	Micro-volunteering app for charity tasks (Beta phase in 2011)
V21	Do some good (smartphone app.)	http://dosomegood.orange.co.uk/	Orange (telecommunications company)	UK	Launched in 2011, Strapline: Got 5 minutes?
V22	Donate Your Brain (DYB)	http://forums.techsoup.org/cs/community/f/, Twitter,	TechSoup (non-profit organisation)		microvolunteering initiative; for further information see http://forums.techsoup.org/cs/p/dyb.aspx

		TechSoup Global LinkedIn			
V23	Hacesfalta (OMP)	www.hacesfalta.org/	Hazlo Possible Foundation (founded as Fundación Chandara in 2000)	ES*	Brings together more than 3,000 associations and about 325,000 registered volunteers51, allows searching for virtual volunteering
V24	Help from Home (OMP)	http://helpfromhome.org	Help from Home (HFH)(volunteer driven, unincorporated association)	UK	Promotes over 800 micro-volunteering opportunities and micro-volunteering as such since 2008
V25	Ivo (OMP)	http://ivo.org/	Ivo (registered UK charity)	UK	Launched in 2012, following the pilot of i-volunteer; searches for micro volunteering opportunities, largely drawn from HFH
V26	Koodonation (OMP)	http://www.koodonation.com/	Koodo (telecommunications company)	Canada	the 'microvolunteering community' was launched in 2011 and is powered by Sparked, 339 charities with 14 active challenges on 20/02/2012
V27	Microvoluntarios (OMP, defunct)	http://www.microvoluntarios.org https://itunes.apple.com/sn/app/microvoluntarios-bip- https://itunes.apple.com/sn/app/microvoluntarios-bip-bip/id415304081?mt=8	Fundación Bip-Bip	ES*	Platform launched in 2008, nearly 5,500 volunteers and more than 520 registered non-profit organisations[52]

[51] Source see footnote
[52] New times, new volunteers, El País, January 20, 2011

V28	*Slivers of Time* (online people booking platform)	http://www.slivers.com/	Slivers-of-Time Limited (social enterprise)	UK	More than 2,000 volunteers and time-bankers by spring 2012l[53]
V29	Sozialer Funke (OMP)	http://www.sozialer-funke.de/requests/welcome	Sozialer Funke (non-profit initiative http://www.sozialer-funke.de/initiativen/1run by volunteers)	DE*	Launched in October 2012, actions available on 20/02/2013 range from 5 Minutes to 4 hours
V30	Sparked (also smart phone app in 2009)	http://www.sparked.com/	The Extraordinaries (for-profit social enterprise)	USA	promotes micro-volunteering opportunities, currently over 70,000 volunteers and 6500 non-profit organisations
V31	Tagdel (under construction)	http://tagdel.dk/	KPH (Copenhagen Project House, a creative hub)	DK*	To be launched in March 2013
V32	Volunteer Guide (OMP)	http://www.volunteerguide.org	Charity Guide	USA	Allows to search for 15 minute volunteering opportunities
V33	Zivicloud (under construction)	http://zivicloud.roteskreuz.at/#/	Hannes Jähnert	Austria*	Online and micro-volunteering platform; users will create their own projects and offers of engagement

* Websites are written in the national language of the country, all others are in English
OMP: Online matching platforms; OVV: Online volunteering opportunities; OV: Online volunteering; VVO: Virtual Volunteering Opportunities, VV: virtual volunteering.

[53] http://www.guardian.co.uk/society/2012/mar/06/voluntary-time-banks-carers-break

ANNEX E – WEBSITES SEARCHED FOR ONLINE AND MICRO-VOLUNTEERING

Table 13. Websites searched for online and micro-volunteering

Name of website	URL	Country	Type of information provided/type of organisation
Department for Work and Pensions	http://research.dwp.gov.uk/asd/asd5/rrs-index.asp	UK	Research reports
Deutscher Engagementpreis	http://www.deutscher-engagementpreis.de/engagementpreis/schwerpunkt-2012/schwerpunkt/onlinevolunteering.html	DE	Online volunteering awards
Discover e-volunteering	http://www.e-volunteering.eu/en/About-the-project.html	PL	Online volunteering awards
Energize (firm specializing in volunteerism)	http://www.energizeinc.com/art/subj/VVArchiveCon.html	US	Current VVP archive; articles/references
Hannes Jaehnert	http://hannes-jaehnert.de/wordpress//	DE	Background, developments and references
Help from Home	http://helpfromhome.org/	UK	Micro-volunteering developments and guides
Jayne Cravens & Coyote Communications	http://www.coyotecommunications.com/outreach/netsquared.html	US	Background and articles/references
National Council for Voluntary Organisations (NCVO)	http://www.ncvo-vol.org.uk/policy-research/participation/reading-list	UK	Sector organisation
NetSquared/Techsoup	http://www.netsquared.org/unauthenticated	US	Social-change projects
RGK Center for Philanthropy and Community Service at The University of Texas, Austin	http://www.serviceleader.org/virtual	US	Former Virtual Volunteering Project (VVP) Archive
Telementoring NRW	http://www.telementoring-nrw.de/	DE	Project info with links to other telementoring projects
The European	http://www.cev.be/	EU	Sector organisation

Volunteer Centre			
UN online volunteering	http://www.onlinevolunteering.org/en/vol/index.html	UN	Online volunteering awards
United Nations Volunteers (UNV) programme: The World Volunteer Web	http://www.worldvolunteerweb.org/resources/how-to-guides/volunteer/doc/ever-considered-online-volunteering.html	UN	Further reading
Volunteer Canada	http://volunteer.ca/	CA	Sector organisation
Volunteer Ireland	http://www.volunteer.ie/	IE	Sector organisation
Volunteering England	http://www.volunteering.org.uk/component/gpb/virtual-volunteering	UK	Sector organisation

Moreover, the search included following up on potentially relevant websites providing online or micro-volunteering opportunities or portals matching organisations with volunteers seeking online or micro-volunteering opportunities.

As the Commission's in-house science service, the Joint Research Centre's mission is to provide EU policies with independent, evidence-based scientific and technical support throughout the whole policy cycle.

Working in close cooperation with policy Directorates-General, the JRC addresses key societal challenges while stimulating innovation through developing new standards, methods and tools, and sharing and transferring its know-how to the Member States and international community.

Key policy areas include: environment and climate change; energy and transport; agriculture and food security; health and consumer protection; information society and digital agenda; safety and security including nuclear; all supported through a cross-cutting and multi-disciplinary approach.