

THE POTENTIAL FOR EMPOWERING HOMELESS PEOPLE THROUGH DIGITAL TECHNOLOGY

A preliminary literature review

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Lemos&Crane has since 1994 worked with public service organisations on high profile social issues including homelessness, social housing management, people with learning disabilities, prisoners and ex-offenders, literacy, hate crimes and financial inclusion.

Abstract

Digital technology is increasingly ubiquitous in the lives of people in the UK. Yet the power of digital technology has not yet been fully harnessed by those working with homeless and vulnerable people. Theories that predict that homeless people will be increasingly excluded as technology becomes more important underestimate the ability of many homeless people to access and use digital technology. 70% of homeless people now own a mobile phone. Many use computers, smart phones and laptops to blog, chat, network and play. Homeless people can be engaged and empowered to use digital technology. This technology can enable vulnerable people to voice their opinions, enhance their capabilities and facilitate communication. In turn it can be used to personalise and improve service provision.

Where digital exclusion does exist, it is not due to itinerant and chaotic lifestyles but to problems of access, confidence and digital literacy. This review covers the multiple uses of digital technology and issues of access, provision, training and education. The review covers many examples of good practice which utilise technology for the benefit of homeless people. It also shows how sites such as Twitter facilitate peer to peer discussions as well as welcoming homeless people into the wider sphere of public discussion. Homeless people are increasingly able to make their voices heard through digital technologies; service providers need to start listening.

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Introduction

The digital age has radically transformed how we communicate, work and conduct our friendships and relationships. Mobile and digital technology has become ubiquitous in society and is often held as a contemporary embodiment of – or even prerequisite for – social inclusion and connection. Smart phones, mobile internet and social networking sites provide a means of instantly reaching out to loved ones, accessing services and information and sharing experiences, thoughts and feelings with the world.

The impact of digital technology upon the social, emotional and practical lives of homeless people and those experiencing exclusion and disadvantage, however, is unknown. Although recent research suggests that many homeless people carry a mobile phone and place great value in having access to the internet, little was known about how these resources are typically used. Until now, the potential to harness new and emerging digital technology to improve and enrich the lives of excluded people has not been comprehensively explored.

Supported by the Lankelly Chase Foundation, Lemos&Crane are working with homelessness charity Thames Reach to develop insight and guidance on how digital technologies can engage and empower homeless people. The research will explore how digital technology can be used to improve the lives of vulnerable people by giving them a voice, enhancing and expressing their capabilities, facilitating peer-to-peer support and making the services they receive more personalised and enabling. This paper reviews the benefits, problems, and opportunities that digital technology entails for homeless and vulnerable people.

Digital media is becoming an increasingly important part of everyone's lives. It is used for socialising, to find information, to apply for jobs, and to voice and share opinions. The increasing dependence on digital media is believed to be leaving homeless and vulnerable people behind. In some cases, this is true: many homeless people struggle with digital literacy and opportunities to find work, transport and housing are limited when resources are increasingly available only online.

But this (vast oversimplification of the) problem is not unalterable. Many homeless people do own or have access to digital technologies and many of those who do not would consider learning more skills. Charities, councils, community centres, religious organisations and homeless people themselves are working to provide other homeless people with access and the means to use computers, mobile phones and the internet.

It is vital to understand how these digital technologies are used in order to offer appropriate service, support and resources to homeless people. It has been argued that the social connections that would enable a homeless person to get off the street are gradually replaced with the social connections necessary to survive on the street¹. Smart phones increasingly merge methods of communication (such as email, calls, texts, and social media) with other activities (such as internet searches, online newspapers, games, radio and music). If there ever was a distinction, is it still possible to distinguish between the different roles of digital technologies in this transformation? How does ownership and usage differ with gender, age and time on the street? How is usage perceived by the public? How can digital technology be used to avoid harassment by the police and the public?

When homeless and vulnerable people have access to digital technologies and develop the skills to use it, many are enthusiastic to learn more, to engage with design projects, to join online debate, and to use these skills to empower themselves and others. Homeless people are increasingly developing and producing their own technologies and engaging with each other on micro-blogging sites such as Twitter. Improved digital literacy lessons and better advertising of available resources will allow those who want to learn to do so.

Where homeless digital exclusion does exist it is rarely the result of choice or of itinerant or chaotic lifestyles, but is a problem of access. Only through sustained efforts to ascertain and respond to homeless people's needs can current services become used and useful. Until then, the effects of digital exclusion – problems with communication, employment and shelter – will define many homeless people's experiences.



Homeless people's use and ownership of digital technologies

Homeless people are not all digitally isolated. Contrary to popular belief, many homeless people use digital technology for finding work, playing games, and communicating with friends and family. The problems they face include charging batteries and the risk of theft. But arguably the biggest issue for homeless people who use digital technology is the stigma attached to it. The public needs to be more comfortable with the notion that digital technology is increasingly a part of homeless people's lives. The sooner this happens, the sooner homeless people will no longer be made to feel like "fakes" for taking steps to become digitally and socially included.

Different technologies perform different functions for homeless men and women. Technologies increasingly converge, but for many, a phone still serves a different function to a laptop which in turn serves a different function to a radio. By paying attention to what types of technology are used by different people, service providers can tap into the potential of this connectivity to reach the most inaccessible people in the best ways.

Homeless people are often assumed to be on the wrong side of the "digital divide"² and that with the increasing reliance on digital technologies in wider society they will be somehow left behind. Crisis, the national UK charity for single homeless people, is concerned that "homeless people, along with other vulnerable members of society, may be left to drift further and further behind the majority, both digitally and socially." They believe that "as the use of more advanced digital technologies becomes increasingly widespread, so the severity of homeless people's digital exclusion could deepen. This must not be allowed to happen."³

This idea that homeless people are outside of and removed from the fast-paced technological world is false. In fact, due to the speed of technology upgrades, slightly out-dated (but fully functional) second-hand phones, laptops and other devices can be circulated with increasing ease.

Homeless people are "surprisingly resourceful"⁴ in acquiring and maintaining access to digital technologies such as phones and laptops and various accessories. In 2011, Woelfer et al found that 11 of 19 homeless people in the USA currently owned a mobile phone, and 5 additional people had owned a mobile phone in the past⁵.

As well as calling and texting, homeless people use technology in a broad variety of ways. It is utilised for practical purposes: finding transport to a soup kitchen or working site; identifying odd jobs; and checking classified advertisements websites such as Craigslist and Backpage for job listings, sexual encounters and places to stay.

3. Digital Technology Literature Review

Technology is also used for leisure activities: listening to music and the news on the radio or online; mixing music on programmes such as Camtasia on a laptop; and monitoring bands on their facebook pages and on music website Bandcamp.⁶

Games are, for many, a primary use of technology, just as they are for people with a permanent home. Games such as Oblivion, Skyrim and Call of Duty are played on laptops; and apps such as Happy Street, Robot Unicorn Attack 2, and The Simpsons: Tapped Out are all accessed via mobile phones.⁷

Past research has suggested that internet use was higher among Caucasian individuals with higher incomes and higher levels of education⁸. The “digital divide” does not directly correlate to socio-economic status as previously believed. One 2012 study⁹ has shown that homeless youths and undergraduate students of the same age use social networking sites in similar ways: 90% of psychology undergraduate students used social networking sites for at least one hour a day compared with 75% of homeless youths.

However, this research (and the resultant headlines¹⁰) which suggests the digital divide may not be between the housed and the homeless or the educated and the uneducated, understates many other aspects which distinguish use.

The primary online activity for homeless young people was keeping in touch with friends, family, and employers, especially on social networks¹¹. Relative to undergraduate participants, homeless people were less likely to use social networking sites to search for other users or play games. Homeless young adults reported sending private messages more often and posting more notes and/or blog entries than students.

These sites’ uses are therefore fundamentally different. Where undergraduates use social networking sites for recreation, homeless young adults use social networking to communicate¹². However, the study highlights that, in general, homeless young people are not digitally isolated when it comes to social networking.

Women

Women from the undergraduate sample reported using social networking sites to communicate with friends more than women from the homeless sample (99% vs. 88.6%)¹³, showing that irrespective of ethnic background, young homeless females may be less likely to reach out to their supports online.¹⁴

Women also differed from men in their mobile phone usage. 100% of the young women interviewed in one study currently owned a mobile phone compared with only 43% of the young men¹⁵. The reasons for this might relate to issues of safety; phones can be used to call the emergency services, friends or family for immediate help. However, while the presence of a mobile phone can increase safety and security for an individual, it also created new dangers, such as that of theft, or the need to trespass private property in order to find power sockets to recharge batteries.

Women are unlikely to reach out to supports online, and yet proportionally more than double the amount of homeless women than men have mobile phones. How can this distinction be accounted for? Mobile phones have traditionally provided a fundamentally different instrument from the internet; when homeless people are simply looking for food or a cigarette, the internet is of much less use than calling a friend who may be within the local vicinity.¹⁶ Women may be using digital technology to satisfy more immediate needs than communication and socialisation.

Internet/phone distinction

For homeless people in New York, “the social connections a homeless person has that would enable them to get off the street are gradually replaced with the social connections necessary to survive on the street.”¹⁷ Considering this in conjunction with the previous research on digital inclusion might shed light on the uses of different technologies. The tools that the internet offers are wide-ranging but do not always provide physically immediate fulfilment, where, in contrast, the people on the other end of a mobile phone may be only a few minutes away; they may have food or have found a good spot to shelter from the weather. The internet – with its access to work opportunities and charities and family - might be considered a resource which could enable someone to get off the street whereas a phone might enable them to survive on it. However, with the increasing ubiquity of smart phones, distinctions between the two technologies will become less valid.

Other people’s perceptions

Contrary to popular belief, most homeless people own, have owned or have access to digital technologies such as mobile phones, computers and even their own laptops. Yet the public’s response to seeing this may be judgmental or mistrusting; “If a homeless person can afford luxuries, then why can they not afford to pay rent?” These prejudices are based on multiple other misconceptions: many believe that homeless people are only ever on the street because they do not have and/or cannot afford a home; that homeless people waste their money; that many homeless people are actually “fakes”; that they would have little need for a phone; or that these phones have any credit or battery. Some homeless people who beg on the streets note that carrying expensive equipment around negatively affects donations¹⁸. For this reason, and because of the issues of safety mentioned previously, digital technologies will often be hidden.

Conversely, the use of digital technologies by homeless people can illicit conflicting responses in the public; homeless people who are seen using digital technologies such as a mobile phone experience less harassment by the public and the police¹⁹.

Charging mobile phones and other devices

Without a source of power, any of the electrical devices mentioned above are useless. One fundamental problem that homeless and vulnerable people currently face is the issue of recharging their devices. Many homeless people put themselves in danger in order to access power for their devices, trespassing private property and using outdoor power sockets. Examples in the UK are difficult to find, but in the US, many homeless people resort to trespassing.^{20 21 22} This puts them at risk of altercations, violence, or even arrest.

2/

Provision of access to digital technology for homeless and vulnerable people by the state and charities

Homeless people have an appetite for technology, but problems of access mean that this appetite is often left unfed. Even when provisions are supplied (such as computers in libraries, or Wi-Fi in train stations) other practical issues and related stigma result in unused resources and vulnerable people who feel additionally alienated.

USA and free technology

In the US, mobile phones and access to emergency contacts such as law enforcement or medical assistance and personal contacts such as employers or loved ones²³ are increasingly seen to be a right rather than a luxury. The Lifeline programme provides very cheap (or free) phones and credit for those unable to afford to buy their own²⁴. There is no equivalent scheme in the UK. Despite this, 70% of UK homeless people do have at least a simple mobile phone²⁵ and many have mobile devices which provide access to the internet.

Online Centres

The UK government has made great efforts to provide universal access to information and communications technologies in order to bridge the digital divide. In line with government plans, everyone in the UK ought to have had eGovernment services connectivity by 2005.²⁶ A network of 7,000 online centres in libraries, museums and colleges²⁷ were supposed to provide access points as well as to facilitate formal and informal community based learning.

The affective access created by these centres is only slight in comparison to household and family access; resources of people with permanent homes are still far superior to that of the vulnerable and homeless.²⁸ But this does not mean that internet access points are not valuable. Internet access enables homeless people to find and apply for jobs, and to organise and access transport, shelter and food. Equally, access allows homeless people to communicate with family, friends, and support workers. Further, the use of computers and the internet by the homeless is the quickest and easiest way to tackle the problem of digital illiteracy (see chapter 3).

Library atmosphere

These online centres are free of charge and open to the public; many of them are created with vulnerable people in mind. Yet many homeless people feel unwanted, watched or uncomfortable in libraries²⁹ and can be made to feel excluded or rejected due to the way they look or act³⁰. This poor treatment can stem from prejudices, such as a fear that homeless people may try to sleep there³¹. In the USA, these worries have resulted in library staff actively making life difficult for homeless people. One public library in Alexandria, Virginia installed an electronically controlled door and camera outside the men's toilet to discourage bathing or the washing of clothes³². Also in the USA, the disjuncture between homeless people's needs and libraries' provisions has resulted in homeless people being banned from public libraries and facing commutes as long as an hour to get to the next library³³. Homeless people and service providers note that the atmosphere in libraries can often be an issue for homeless people in the UK as well³⁴. In cases such as these, the computers and other facilities in public libraries ironically become least available to those people who need them most.

Restrictions and limitations on computer use

Computer access for homeless and vulnerable people is hindered by vast and varying restrictions and limitations³⁵. Each library, internet cafe, or other access point has its own rules. These will often include the prohibition of valuable activities such as games and social media and saving work to the desktop. The Social Science Research Council has noted the importance of low pressure activities such as game playing, instant messaging and emailing for building computer literacy skills. These skills are especially important to homeless people who are not practiced at using digital technology. (Problems of digital literacy will be covered in chapter three.) Games such as Farmville (while seen by staff to be an impractical waste of expensive resources) were described by one homeless man as a good way of learning skills such as budgeting³⁶. It is therefore frustrating for many library visitors that restrictions often prohibit these activities.

Similarly, long waiting times paired with short time restrictions (typically 30–60 minutes) do not allow for time-consuming tasks such as job applications to be completed³⁷.

Better advertising

Places with free internet access should be advertised clearly so that homeless people know they exist³⁸. In order to make environments welcoming and easy to navigate this advertising should also clearly communicate time restrictions, prohibitions, opening hours and other rules of conduct. In this way, individuals who are new to an access point will at least be aware of the boundaries in which they must work and libraries can avoid causing homeless people to feel uneasy.

Access centres purposefully aimed at homeless people unsurprisingly prove to be much more successful at attracting homeless people than those which are not. One internet access point created particularly for homeless people in Edinburgh seems to have achieved what many libraries have not. It is a warm and cosy place. One volunteer worker says that homeless people can just "crash"³⁹ and use the printer and scanner. This stands in stark comparison with the atmosphere experienced by homeless people in many public libraries. Buré points out that it is the difference between stigmatisation and social acceptance which affects whether a space comes to be used by homeless people. The stigma many homeless people feel in libraries is as fundamental a barrier as the more official restrictions, prohibitions and time-limits that the libraries create.

Many homeless people's needs just do not correlate with the services provided at present by public internet facilities. For instance, homeless people require patient staff members who are able to teach and explain. Either due to time demands or insufficient training, stretched librarians are often unable to offer this service⁴⁰. Homeless people would also benefit from access to a phone at the computers – something many libraries'

quiet settings could not facilitate. Because they do not have one permanent base, most homeless people would like a facility which allows work to be saved to the desktop, especially when time-limits force users to log-out before a task is complete. Without these facilities, current access provisions for homeless and vulnerable people fail to provide useful services.

Wi-Fi

Another important factor in the provision of digital technologies for homeless and vulnerable people is the existence of free Wi-Fi. Access to free Wi-Fi is increasing in the UK. It is provided in over 100 London underground stations, 50 London overground stations and by Network Rail. The mobile company O2 hosts thousands of Wi-Fi hotspots around the UK and users do not need to be an O2 customer to access them.⁴¹ Many high street shops and restaurants such as McDonalds, Asda, Greggs, Phones4u and Wetherspoons now also provide free Wi-Fi⁴². All this illustrates an increasing availability of free internet.

While Wi-Fi is often advertised as being “free” this is generally not the case. Many of these sources remain unavailable due to the price of the train ticket, coffee or meal that is required for the “free” access. Further, these Wi-Fi hotspots are not always well advertised, meaning many people remain unaware of the resource. Wi-Fi – like electricity – is an aspect of digital inclusion which, though not physical, plays a fundamental role in whether homeless people can survive independently.

There are projects which seek to rectify this problem. To promote and enhance the London 2012 Olympics, Westminster City Council announced that it was to roll out free Wi-Fi over Oxford Street, Regent Street, Trafalgar Square, Leicester Square, Piccadilly Circus, Parliament Square, and that it would eventually be expanded to cover more areas of Westminster. A presentation at TeaCamp, also in 2012, noted that the free Wi-Fi could be used to engage homeless people with digital technology. A Homeless Hack Day was held, and six projects were designed (see chapter 4).

3/

Teaching digital literacy skills to homeless people

Digital literacy is fast becoming as important as traditional notions of literacy, and yet, as with books before the 19th century, digital resources are still not widely and cheaply available to all. "Information is not only a source of knowledge, but also a special source of advancement of economic, social, political, and cultural freedoms"⁴³. For many homeless people, poor education and literacy restrict access to information, limited finances restrict access to computers and internet resources, and inadequate access to guidance hinders the use of digital technology when it is made available.⁴⁴

However, the relationship between economic poverty and information poverty is by no means straightforward. Many homeless people are competent and confident using online resources and networks as ways to find food, shelter, people to sleep with⁴⁵, work and other ways of making money⁴⁶. It is also true that many homeless people find themselves disadvantaged in a world that is increasingly dependent upon internet access. Below are organisations who have worked to address issues of digital literacy among homeless people. Important factors that emerge are: the manner of teaching (i.e. approachable staff and fun activities); the provision of high specification technology; and the use of simple instructions. These factors must be variously employed depending on whether the teaching takes place in person, the learners' age and their ability. Although homeless people exhibit varying levels of enthusiasm, most are open to engaging with new technologies if they believe it may be advantageous for them to do so⁴⁷.

Homeless and vulnerable people require a range of skills to make the most of digital technologies. Attempts to teach any group in a homogeneous way are bound for failure. Projects which are accessible, creative and fun are likely to engage those people who have little experience. Before this, very basic teaching is required to ensure that all people who want access to the digital technologies have the basic skills necessary to do so.

Most homeless people are hungry to learn digital literacy skills, but teaching must be provided in ways that suit a variety of skill sets and abilities. Creative projects and those which give a degree of control to the learner may encourage people who are reticent to re-enter school-like teaching environments.

Crisis' aims for digital inclusion

Crisis agrees with the government report "Delivering Digital Inclusion: An Action Plan for Consultation"⁴⁸ that the main reasons for digital exclusion are: "lack of motivation; an over-estimation of complexity coupled with an under-estimation of ability; concern about the perceived high-cost of digital technologies; a lack of

familiarity with devices; a lack of the broad range of skills required; frustration with digital technology and a lack of the right kind of support.” Crisis argues that teaching skills to homeless people is important in ensuring that they are not left behind. They argue that this can be done best through the provision of flexible, open and understanding staff, a non-competitive environment, and state of the art technology intended to foster in homeless people a sense of self worth.⁴⁹

The Connection at St Martin-in-the-Fields

The Connection at St Martin-in-the-Fields, whose aim is to help homeless people move towards independence, noted that young people were able to use digital technology for browsing and socialising but were not always confident in other, more broad, digital skills. Training projects were seen by many young homeless people to be “too much like school”⁵⁰, and so The Connection created a project which focused on creative digital tasks such as website creation. The content of the website would warn other young people of the risks of becoming homeless in London. The project aimed to develop users’ confidence while teaching new digital skills. Programmes used included Photoshop, Dreamweaver web design, and stop animation technologies.

The main reason for the project’s existence is the increasing need for CVs which have been word-processed, yet the project itself did not tackle this issue. It was hoped that the engagement enabled by the website project would have encouraged the young people to go on to sign up for the more school-like classes which did teach these skills. No data was provided to show if this was the case.

We Are Visible

Digital literacy skills are also increasingly taught online. Wearevisible.com⁵¹ is designed to teach homeless people how to use popular sites such as Gmail, Facebook and Twitter, and to provide guidelines on how to blog. This project is aimed at people whose digital skills are less developed than the young people at The Connection. The site does make more accessible many means of online communication and connectedness. However, We Are Visible is unable to reach all those who need it - many people who cannot use Gmail or facebook lack the skills and resources necessary to access this resource.

Internet safety

The internet is used by a minority to access and take advantage of vulnerable people. This can result in verbal, sexual, financial or physical abuse. While rare, a recent trial in America shows that vulnerable people who use sites such as Craigslist are particularly at risk of violence and, in one instance, murder⁵². Classes, instructions and guidance on internet safety and security have never been more important. Online shoppers must be taught how to determine sites’ legitimacy by reading customer reviews and checking for the padlock security symbol. Those homeless people who use the internet to find work, food or companionship need to be made aware of how to minimise the associated risks. At this stage, not all service providers working to get homeless people online are fulfilling their responsibility to ensure that users are aware of the associated risks.

4/

Technology developed with homeless people in mind

Some organisations have begun to tap in to the potential that digital media holds for improving and enhancing the lives of homeless people. A Homeless Hack Day was organised by Westminster City Council and took advantage of the free Wi-Fi provided for Olympics visitors in 2012. Sandwell Council have also taken advantage of new digital media in designing a new internet based application system for young homeless people. Bottom-up approaches have worked with homeless people to create applications and technologies which respond to their actual (rather than perceived) needs. These projects have resulted not only in better products but also in homeless people who feel empowered simply through their involvement in the design process.

Various groups and partnerships have sought to establish technologies which alleviate some of the issues faced by homeless people. There are two key issues: having somewhere to save work and having a way to communicate with other people that does not require credit. Good ideas are plentiful, but many projects face a simple lack of funding. Those projects which progress to a later stage (Homeless SMS) or completion (Sandwell Council's SHIP and Virtual Backpack) have done so because they have the funds and the infrastructure to support their endeavours. The development and dissemination of new digital technologies is not free and successful projects in the future will have to continue to address this issue.

Because most homeless people do not have their own computer and libraries often prohibit files from being saved on the desktop, many homeless people struggle to save documents. Work completed at the library is often lost at the end of the session. In response to this issue, some organisations are creating online programmes which allow people who do not own a computer to save all their documents in one place⁵³. Below are projects which address this issue.

Virtual Backpack

St Basil's have helped to create the Virtual Backpack which keeps personal information such as passport details, National Insurance number, medical details, photographs and CV information secure online. While saved in the Virtual Backpack, these documents cannot be lost or broken, but can be accessed easily by logging in online from any device. This information is required to claim benefits, find work or get treatment with the NHS⁵⁴. The creator, Steve Rainbow, worked in collaboration with homeless people to design a digital space for their particular needs. It contains an easy to use "store and hide" function which ensures information is only on screen for minimal time. It also logs prior addresses and jobs previously applied for, which can be used to prove that an individual is actively job hunting.

Homeless Hack Day

In response to the announcement that Westminster would roll out free Wi-Fi for the Olympics, an initiative devised to address issues of digital inclusion was held by the UK Government Digital Service, Westminster Council, Go ON UK and other organisations and charities. A Hack Day is an event in which computer programmers and software developers intensively collaborate on a particular project or issue. Contributors designed several projects which sought to utilize Wi-Fi to engage and empower homeless people. While the Hack Day focused on the design process, some of the eventual projects could be implemented given more time and funding. Ideas that came from the Homeless Hack Day included SMS Service Map, which allows homeless services to communicate with clients via text messaging second hand phones; and Text Donation, through which text messages are donated to homeless people as phone credit.

The winning project was a Homeless Link Application Programming Interface – an interface which combines Ordnance Survey data and Communities and Local Government data with Homeless Link’s own data to identify services closest to the user. Homeless Link has a website which lists information on 9,000 services such as hostels, day centres, and advice and support services. Homeless Link Application Programming Interface takes this existing service and makes it more effective and user friendly. Other ideas for projects of particular interest which resulted from the Hack Day are covered in more detail below.

Social Capital

“Social Capital” is an idea for a personal organiser website similar to Rainbow’s Virtual Backpack.

The various aspects to the site mean that it tackles several different needs of homeless people: the ability to store information, to share stories, to communicate with others and to receive donations. It incorporates a remote LogBook which can be used for storing and retrieving information which can then be sent by SMS, email or web. The site can be used as a social networking site because it allows certain information to be shared. It also incorporates a “help broker” system which allows the public to donate.

There are various ways payments can be made either directly or indirectly through the help-broker aspect of the project. Examples of indirect donations are those made by topping up an Oyster Card or mobile phone, or paying for prescriptions, legal advice or storage space. This use of new digital technologies (which allow passes to be topped up online) bypasses an age-old problem for those who do not feel comfortable donating cash to homeless people. Instead of buying the person a sandwich or cup of tea, they can donate particular types of credit online.

Social Capital can also be used to send text reminders about appointments, rent or prescriptions. Tasks can be listed, edited, and marked as done. The LogBook facilities are unnecessary for non-homeless users, but Social Capital is intended for both homeless people and people with permanent homes.

Life Map

A similar project that resulted from the Hack Day was Life Map - an easy to use, universal, visual interface for clients and outreach workers to use to identify and track status and progress. It seeks to address three main problems currently inherent in support work: new engagements tends to feel like an interrogation when discussing personal details and history; 56% of clients have low literacy levels⁵⁵; and outreach workers need tools to reduce administration time and costs. As with Social Capital and Virtual Backpack, the project uses the internet as a resource to save homeless people’s information, this time with service-providers in mind as much as the homeless people themselves. If the project is welcomed by support workers, it could make their work more efficient and the whole process less daunting for service users.

Homeless SMS

Although 70% of homeless people in London own a mobile phone⁵⁶, problems of credit and battery mean that they cannot be utilised as often as they could. Homeless SMS is a social enterprise which is developing a Social Messaging Support service for isolated people. The project makes use of basic services such as SMS and Twitter in order to enable homeless people to connect with each other, charity workers and volunteers. This service can then be used to ask and answer questions and for more general support. The model uses Twitter as a platform to send and receive texts and therefore requires no dedicated or costly technology.

The design process of Homeless SMS engaged and worked with homeless and vulnerable people in participatory design approaches that incorporated the interests and wishes of its intended users.⁵⁷ The participants in this design process were difficult to pin down and preliminary attempts at cooperation ended in failure. Once Kwon and Boeijen formulated a way to tailor the project to the homeless people with whom they wanted to work, "the participants were excited in ideating possible solutions beyond informing problems."⁵⁸ The designers recommended that homeless participants should be allowed to share ownership of the project. The final project is thus improved and participants are empowered through the experience.

By using homeless people to help in all stages of the process, the resultant technology was able to facilitate communication between homeless people which in turn both engaged and empowered them. One user was able to tell another about the availability of a free eye test, which resulted in him obtaining free glasses. Another user tweeted his frustration at having to pay £15 for a Big Issue seller jacket, but after being informed by another user that this money was only a deposit, returned to the Big Issue and is now a seller.

Sandwell Council

Unlike the above examples, the next case of digital media innovation does not use a bottom-up approach, a hack day or user-lead design approach. Yet Sandwell Council have innovated a simple and effective way to place homeless people in housing. Supported Housing Independent Pathway (SHIP)⁵⁹ makes the best use of housing stock at any one time. The internet based application system for supported housing better understands users' needs, captures information, and allows valuable resources to be targeted at the right times. It is aimed particularly at young homeless people. It provides the opportunity to seek information about housing easily, whilst also allowing providers to manage applications online.

Everyone In

The idea for "Everyone In" came as the result of the 2013 cross-government report "Making Every Contact Count"⁶⁰ in which the then housing minister suggested that members of the public ought to have a platform to call in rough sleepers⁶¹. This notion was discussed at the Homeless Hack Day and "Everyone In" was devised. The name was chosen after "Report a Homeless Person" and "Alert the Authorities" were deemed to be too de-humanising⁶².

The project might have served to help local authorities and give members of the public the feeling that they are able to make a difference, but the long-term benefit to homeless people was less clear. The causes of homelessness are not addressed and awareness is not raised. In this case, the use of technology might serve not to empower, but to alienate. This project (as with the other results of Homeless Hack Day) has not yet come to fruition and may not do so, but this particular idea might be seen as a lesson that care should be taken over new ventures to ensure that digital technology is used to connect vulnerable people and not to separate them further.

5/

Marginalised Voices and Blogging

As technology becomes increasingly ubiquitous and prices decrease, opportunities for homeless people to develop their own technologies may increase. Until then, homeless people's interests, passions and talents can be channelled through other media, such as social networking sites and blogs. Various individuals and groups have become vocal and proactive speakers on digital platforms such as Twitter, asserting both their own independence and their willingness to engage with wider circles.

Since its launch in 2006⁶³, Twitter has transformed online communication. The micro-blogging site is used socially, for soliciting and sharing information and views, and for debate. The 140 character word limit encourages frequent sharing which facilitates fast-paced updates and discussions. Bloggers form communities online - brought together by shared interests, friends or work. The appeal that sites such as WordPress (a platform for longer blogs) and Twitter have to homeless and other vulnerable people is that they provide a free opportunity to be heard by a large number of followers.

Homeless people

UkSchizophrenic describes himself on his Twitter page (@ukschizophrenic) as "Schizophrenic: Recovered Addict, Former Sex Worker & Street Sleeper. A Gutter philosopher who LOVES toast! 28, Gay. Tweets in English & Welsh". He blogs⁶⁴ and tweets about staying in a South London homeless hostel, having to share his (occasional) bed with mice, being evicted, mental health and his views on broad political issues such as anti-fracking. Pointing out problems with the system, he asks "Apparently if you get sectioned, they aren't allowed to let you leave unless you have somewhere to go? If I get sectioned do they house me?" and is answered by a follower "If it's Section 3 (or above!), yes they should." He is asking for information but he is also highlighting real issues within the system in which he finds himself. Commenting on the contentious Mental Health Patient Halloween costume released by Asda in autumn 2013, he uses the #RemoveitAsda handle, pointing out that when he was sectioned, he did not look like the stereotypical mental patient⁶⁵. People who feel they have very little power in their day to day lives can be influential online.

Housing groups

The One Housing Group (@onehousinggrp) twitter account is run by and for tenants – the account follows and shares information on housing benefit cuts and comments on issues of inequality – such as One Housing workers' five day strike over pay cuts. It is also used as a forum to voice complaints about One Housing. One follower tweeted the group to complain of her boiler breakdown and poor repair service provisions. Social housing tenants are given a voice to vent their frustrations where before they may not have had a platform to do so. The nature of discussion is therefore widened to include more service users.

Journalists

Jules Birch (@jules_birch), on the other hand, is not homeless himself, nor does he live in social housing. He is a freelance writer. He tweets and blogs about politics and social policy, especially social housing. He blogs on a range of issues such as the IT systems behind universal credit, the new “nationalisation of the bank of Mum and Dad” #Helptobuy schemes and the “bedroom tax”. On Twitter, Birch’s voice is heard on the same platform as the people about whom he writes – something that would have been much less common before digital technologies such as Twitter.

Summary

What digital technology such as Twitter (as well as WordPress, Facebook and other social networking and blogging sites) has changed is not only the fact that UKSchizophrenic now has a voice where before he may not have done, but the fact that this voice can exist in an active discourse with other homeless people, with housing groups, and with the writer whom he would previously have only been able to read. The debates sparked on the internet allow for news stories to be shared, views to be spoken and communities to be formed. It allows for vulnerable people to have their say, to give their opinion, and to potentially make real changes to their own and other people’s lives.

Conclusion

The pervasiveness of digital technologies does not necessitate the exclusion and disadvantage of homeless people. In fact, new technologies can allow vulnerable people the means for communication, education and increased independence. Itinerant lifestyles do not automatically result in digital exclusion. On the contrary, digital technology can be used to solve some of the problems a chaotic lifestyle can entail. Many homeless people are digitally hungry and are empowered when given the opportunity to engage with new technologies.

It is charities', councils' and other service providers' responsibilities to ensure that as many homeless people as possible have access to digital technologies. Further to this is training which ensures users are competent, confident and safe in the use of these technologies.

In this way, homeless people will have increased chance of finding housing, employment, food and relationships that are likely to provide stability, comfort and confidence. Give a man a fish, and you feed him for a day; teach him how to fish, and you feed him for a lifetime. By providing homeless people with the means to access the wealth of opportunities inherent in digital media, service providers can enable homeless people to enhance their own lives and potentially dramatically change their situations for the better.

End notes

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