CHI 2008 - Help A Hobo

Panhandling in the 21st century

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Abstract

This paper constructs a technological framework for a "means tied" fund raising platform, which facilitates direct interactive acts of charity for the benefit of homeless individuals with a minimum of administrative overhead. This platform is streamlined for fast cost effective financial transactions to provide targeted financial support for specific homeless persons in near real-time, while ensuring the givers' contributions are protected from misappropriation for illicit uses. It is intended to break down the barriers in human-to-human interaction towards giving direct, charitable, monetary donations to homeless individuals.

Keywords

Homelessness, electronic payment methods, EBT cards, means-tied fundraising

ACM Classification Keywords

4.4.e. Payment schemes, 4.4.i. Payment schemes Economic and other policies, L. 9. d. Pervasive Computing, 4.2.d Handicapped persons/special needs

Introduction

"...homeless people are by and large harassed, abandoned, and condemned to horrific suffering. How do we allow this to happen? Because, in a word, we hate them. We hate them because they refuse to work and because the seem to mock everything we hold dear: hope, self-betterment, personal relationships, procreation, bringing up children, and even simply getting up in the morning. They are dirty, smelly, incontinent, and unsociable, and as such they are a living insult to our aspirations and narcissism. In my view that is also precisely why they are so precious and so fascinating." - Patrick Declerck [4]

Homeless populations at large are exposed to similar threats around the world, ranging from violence, sexual or other exploitation to vulnerability to drug and alcohol abuse. Frequently lack of access to health care and undue exposure to environmental and sanitary threats (for representative examples see [14] [17]) compound the issues; yet, as diverse as the number of threats facing homeless people might be, as varied are the charitable organizations working to support them.

Conventional support work is often personnel and time intensive in nature. Further more charities use a considerable portion of each donation to maintain the charity itself and not to directly server their population. These overheads may not even be frivolous but necessary to design and implement effective projects, as Robert Egger argues in business publication Forbes on this subject [5]. Yet, such perceived difficulties may discourage people from giving liberally.

A more fundamental problem with the concept of charitable organizations is that a gift to an organization is impersonal. In other words, the giver typically has no direct contact with the recipients of the gift, reducing the motivating sensation of directly helping another human being. Some charities have tried to combat this problem by allowing givers to "sponsor" a specific person, often a child in a third world country [7].

An issue with these "sponsorship" programs is that it is difficult to tell how the sponsorship money is being spent, particularly if it the donation is being spent to address the individual needs of the recipients. Some programs offer the option of purchasing specific gifts [9], such as food packages or mosquito nets or even livestock. It is difficult to know the true costs of these gifts to the charities or to their suppliers. In other words, there are cases where it might be more cost effective to allow those in need to purchase supplies on their own.

The other end of the charitable spectrum represents giving directly to a person in need. Here, there is the visceral satisfaction of helping another person, and an assurance that all of the funds given reach the recipient. With at times over 840.000 people [18] homeless on the streets of the United States alone, there are plenty of opportunities for such direct giving.

Related Work and Foundations

The HelpAHobo system is based on inexpensive, widely available, enabling technologies and existing services. In America, people who live below the poverty line, including the homeless, are eligible for Food Stamps [8]. Food Stamps allow recipients only to purchase food; non-food products, such as alcoholic beverages, cannot be purchased [10]. Food Stamps were
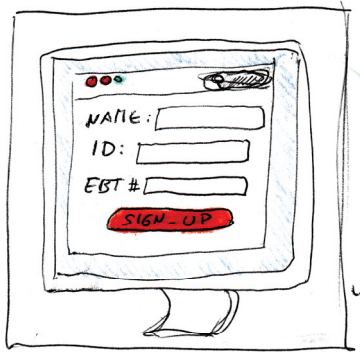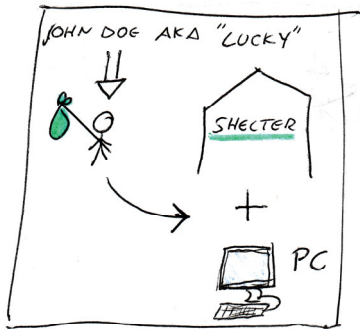
originally paper coupons, but are now delivered through a debit card using the Electronic Benefit Transfer Program (EBT) [11]. EBT cards reduce the stigma, as Clark stipulates, associated with using Food Stamps [3] and are less prone to theft.

From the perspective of the HelpAHobo system, allowing people to transfer money into EBT accounts provides an advantage over giving cash to panhandlers. Donating to an EBT account allows giving money to a single person, preserving the personal nature of giving to a panhandler, while providing the giver with an assurance that the donation will be spent on food. Furthermore, transferring money to an account will create a record of the transaction, providing a record for tax-purposes.

A central problem we faced in designing the system was how to create a mechanism that allows givers to donate to specific homeless person, perhaps an anonymous person they see on the street. We have a portfolio of solutions to this problem that can work in concert and are based on cheap, widespread technologies.

Social Networking websites are pervasive. Recent studies have shown that diverse Internet use does exist among the homeless, as demonstrated by Redpath et al. [19] and is particularly regular in the under 30 demographics according to Bure [2]. This leads us to believe that the time has come to drive the take-up of our service through a web based registration process. In addition charitable organization, shelter or library staff should be able to assist the technologically less savvy with this one-time process.

Mobile-phone text-message (SMS) technology will be used to bypass the computer for the actual act of giving. Givers will text message the homeless person's user name, their HoboID, to a special number adding a one dollar charge for this premium rate massage to the giver's phone bill and a donation, minus a small processing fee, to the recipients EBT account.

Using premium rate text messages for payment purposes has been successfully implemented from vending machines to street parking [15] [16]. As many countries seem to be moving slowly towards a cash-less society the relevance of such micro-payment options is likely to increase.

A way to bypass the difficulty of typing the user name into a text message could be provided by using computer vision technology and cameras that are on cell phones. The giver could simply photograph the homeless person's user name (perhaps drawn in large letters on a sign) and send the image as a multimedia message to HelpAHobo.org where the computational power of server sided optical character recognition could be deployed to decipher the HoboID.

Confirmation mechanism will be required. Services such as USPS are already able too read zip codes in a variety of handwriting styles in high volume [12] [13].

On the other hand, some people might be driven "to give" by the motive of publicly displaying charity and receiving gratitude. Our system may cater for this aspect by allowing givers to conspicuously use their mobile phones in front of the homeless. Although we suspect this type of giver may still be more inclined to resort to cash donations.
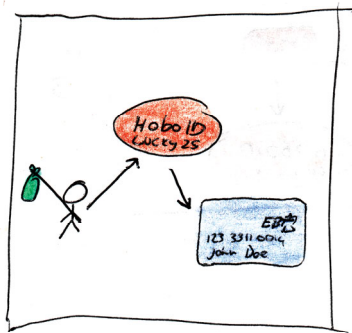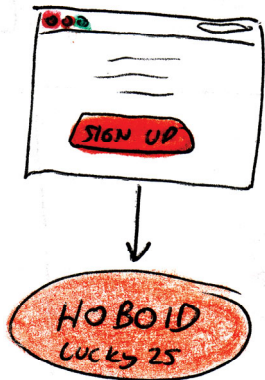
The increasing popularity of computer mediated social interactions from the aforementioned mobile text messaging, to instant messaging, social networking and avatars in virtual worlds seems to indicate that technology can serve as a tool to more easily enable social exchange among strangers. We feel that the HelpAHobo system has potential to serve a similar role in its domain.

Our Design
The HelpAHobo system provides a basis for secure and direct charitable giving by reworking the process of panhandling. The traditional process of panhandling consists of a homeless panhandler soliciting cash donations from passers by. Passers by then hand the panhandler cash directly. The HelpAHobo system aims to follow the same principals as the traditional panhandling system, but substitute the handover of cash with a deposit into the panhandler's EBT account.

Before any transaction can take place, panhandlers would need to register for an EBT account with the appropriate government entity, and create an associated, unique user name on the HelpAHobo system (Note that EBT accounts are in standard use today and the HoboID linked to them via the HelpAHobo system only represent an additional feature). This could be done through a website; studies such as [2] [19] have shown that many homeless are computer literate. Shelter personal and social workers could also help in the registration effort. Once registered, panhandlers could then advertise their user names to passers by through social networking websites, leafleting, or other means of communication.

The component of the HelpAHobo system that corresponds to panhandling's direct donation is the electronic transaction where the giver donates fund. The transaction can be mediated by a cell phone application, which would allow for donation of funds in the presence of a panhandler, or through a web site. Givers would have a record of their donations for tax purposes.

Additionally, this interface enables givers to send panhandlers messages along with their donations. This would be possible if the panhandler had a mobile phone or email. As Bure [2] found in her study of homeless persons in Scotland, mobile phone use among this demographic, as well as homeless persons in other European countries, is more pervasive than Internet use. These messages can be offers of work, religious proselytism, motivation, or encouragement. If the messages are offensive or insulting, they could be automatically detected using software such as Smokey, a system used to detect offensive or inflammatory message board transmissions [20], and would either not be delivered or the sender could be "fined," adding an additional amount to his donation. We feel these messages may, in a minor way, give the homeless a connection to those around them, and perhaps help them to feel less isolated.

The Argument
First and foremost we acknowledge that panhandling may be illegal in many jurisdictions and since our system essential supports this activity this may pose legal issues outside the remit of this paper. Nor is our system intended to remove or suppress this activity, which has persisted, despite legislation to the contrary, for may hundreds of years. We also acknowledge that

gaining access to EBT account do deposit funds, may prove politically and logistically no easy feat.

We propose a system that allows for direct donations of the public via premium rate text or multi media message, SMS subscription, PayPal, and alternative platform specific payment systems (such as "Linden dollars®") to a named particular homeless individual. The funds donated will be deposited on to an EBT account, which limits the types of transactions possible from the account to groceries and food items but to exclude the purchase of cigarettes and liquor.
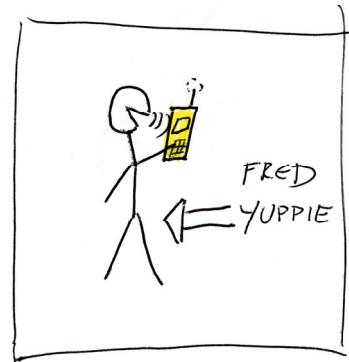
Our concept centers on the assumption that, for a particular section of the homeless population, the pursuit of begging related activities provides a major contribution to their income [1]. This leads us to believe that there are a significant number of charitably minded individuals who will respond with financial contributions to such solicitations by homeless individuals, particularly when it is known the gifts will not be spent on intoxicating substances, illicit or otherwise.

In general, we believe our system can help overcome the following factors that impede direct giving to the homeless:

- Safety concerns

- Concerns about use of funds

- Interpersonal anxiety

Safety concerns are a conceivable reason to avoid giving. The act of exposing a wallet to a person who appears to stand a good chance of being mentally ill, an ex-convict, or desperate for money could cause an otherwise generous person to give pause. In requiring users to only draw a cell phone, a device givers would normally have exposed in public places, may lessen this impediment. Moreover, the particularly nervous could just memorize the user name and enter it later.

Even if safety concerns were eliminated, potential givers have a legitimate concern over whether their donation will be used properly.

Many homeless are dependent on drugs and alcohol [6], and many givers are concerned that recipients may spend their donations on these activities. By tying the HelpAHobo system to EBT accounts, we eliminate this possibility.

Interpersonal anxiety can be a further impediment to giving. Those who are prone to it may be particularly anxious about interacting with a population who are by and large smelly, dirty, ill mannered, and whose destitute condition can invoke many negative emotions [6]. By enabling direct giving without the requisite of direct social interaction, the HelpAHobo system enables people who are anxious about interacting with others on the margins of society to give comfortably.

At this point, we acknowledge that the HelpAHobo system is not intended to replace charitable organizations or direct cash donations, as indeed some donors may derive satisfaction from the very public act of being seen to be giving and the direct interaction with the disadvantaged recipient. We much rather

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position HelpAHobo as a convenient alternative source of revenue for the homeless population to supplement their dietary needs, which may often not be fully met by the food stamp system [21].

However, some people may never consider giving to the homeless and, ultimately, not even HelpAHobo will be able to change this, it may however encourage those who are reluctant to give and enable those who enjoy giving to give more frequently and with greater confidence.

Discussion

Most HCI projects incorporate some form of user testing to refine the designed artifact to become more useful or meaningful to its target audience. The HelpAHobo system is essentially a framework to enable a better means of giving. In this paper, we explore some ways that this framework could be implemented and give an argument for it. An end system would be a composite of established, well-tested components.

Sign up mechanisms for websites seem to be well developed and mastered successfully by 10's if not 100's of million users worldwide. The actual unique user name to create the link between the homeless person on HelpAHobo and their EBT account necessarily will need to be alphanumeric to facilitate compatibility with basic text message driven donations. The choice of this character sequence should be left to individual preference to allow the homeless individual to take ownership of it.

The interactions for premium rate text message transaction and subscription sales (as we are considering the option of repeat donations or ongoing

sponsorship through this method, akin to ring-tone subscriptions) are subject to more stringent regulation these days after the success and sometimes-questionable business practices of ring tone vendors around the world.

As such HelpAHobo builds on a combination of enabling technologies, which, can be considered well established, understood, and partly regulated components of human technology interaction. Few if any aspects of the solution are open to major variations.

What is open to adaptation however is the way in which the homeless person decides to promote their HoboID, as are future sources of revenue. As the system would primarily be driven through premium rate text message based and optional multi media message based donations, to facilitate an immediate donation opportunity, panhandlers will undoubtedly develop imaginative techniques to suit their own personal situation to attract attention to this giving opportunity. We feel preemptively mandating any particular method would be restrictive as well as alienating to them.

Secondary methods for soliciting funds can be derived through supporting donations by PayPal™ and other payment schemes on the HelpAHobo.org website itself. This concept could be further expanded by tying the HoboID into alternative fund raising concepts involving massive multi player online games or virtual worlds such as SecondLife™. All these additional (secondary) revenue models are subject to future exploration and do not form part of the core of the proposal outlined in this paper.
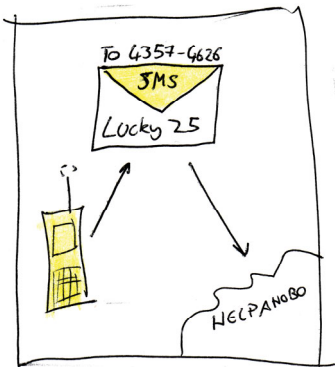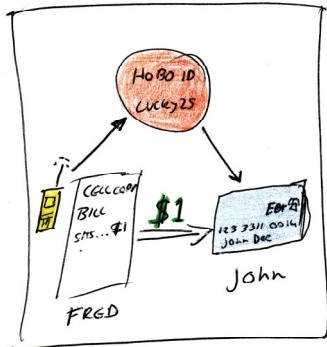
The same is true for the initial marketing effort that will be undoubtedly required to establish the system as a reputable and trustworthy method for supporting the homeless. Partnerships with cellular carries, celebrity endorsement and social networking sites seem viable.

As with any system involving financial transactions there are associated risks with regard to fraud and illicit use. Could clients trying to pay for the services of street prostitutes for example abuse this system? We feel that our initial proposal will be centered on a fixed rate per message transaction billed at 1 U$ per message for US EBT accounts. With safeguards limiting the amount of donations possible to one specific HoboID during a 24-hour time period this should thwart most attempts of abuse. Handset theft and other cellular related safety issues would remain with the network provider.

Future Applications
The current concept does not provide a direct feedback mechanism about the day's earnings to the panhandler. A likely solution may involve ATM balance inquiries or text message notifications in markets where prepaid cellular telephone use has been adopted by the homeless as observed by Bure [2].

Pending successful deployment with the homeless population we feel that the concept could be extended to other uses by establishing means tied trust accounts with specific identities that consumers could donate to through the system.

Such trust accounts could be used by political groups or other charities to raise funds or by a sorority to pay for the renovation of a communal area. The administration of such trust accounts and the preservation of the link between the means for which the account was set up and for which the funds were solicited may pose administrative challenges, which require further investigation and could move the platform away from its low-overhead automated nature.

Conclusion
HelpAHobo.org will not solve the issue of homelessness nor will it necessarily provide an exit path for those trapped in this condition. We feel other organization are fare better resourced and experienced in trying to manage these aspects of this social and economical problem.

HelpAHobo has been conceived to augment and potentially evolve the direct-giving, money-in-the-hat paradigm to suit the social preferences of an increasingly socially withdrawn and seemingly skeptical society. It seeks to technologically mediating the act of giving and alleviates concerns about the use of the donation. In doing so it provides a simple, convenient way to rationally express a little compassion towards the destitute while providing real tangible benefits to those needing to feed themselves.

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