Potential and promise of online volunteering

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Abstract

The Internet is often perceived as yet another technological innovation that causes a further widening of the gap between rich and poor. However, one of the most interesting phenomena to come out of the Internet revolution is its utilization as a channel for social development. Volunteers working in task forces who were recruited through the net, work to improve the lives of many millions of people in need throughout the world. Some of these volunteers are 'field workers', working in physical proximity to those they are trying to help, while others may be sitting at home, using their computers to help needy populations many thousands of miles away. This paper studies this trend and advocates a model to explain the potential and promise of online volunteerism from the perspective of the volunteer. It is suggested that understanding the characteristics behind Internet volunteering from the perspective of the volunteer may enhance the positive potential of the Internet.

The model focuses on the unique informative and communicative aspects of net volunteering. It does so by separating this phenomenon into three separate subdivisions: the personal, the interpersonal, and the group. The personal subdivision refers to the advantages of volunteering on an individual level. The interpersonal subdivision refers to advantages in terms of dyadic interaction, and the group subdivision refers to the advantages as a result of being part of a task group. This paper concentrates almost exclusively on the positive, rather than negative, aspects of the Internet and Internet volunteering. This is because of the need for brevity, but more importantly, because the positive aspects of the Internet have been widely ignored by scholars. This paper aims to focus on these and to turn the spotlight on a fascinating combination of the affirmative harnessing of the Internet to increase social justice, and human well-being through unpaid volunteer work.
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Keywords: Internet; Pro-social behavior; Online Volunteering

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1. Introduction

The Internet plays a major part in modern life. From its inception as an information technology, it has moved on to become a tool with the capacity to influence almost all aspects of human life. These aspects include the Internet as a tool for persuasion, prosocial behavior, intergroup conflict, leadership, group discussion, and decision-making (Amichai-Hamburger, 2005a). Today, a mastery of information technology is necessary in order to succeed in the developed world (Bolt & Crawford, 2000; Finn, Kerman, & LeCornec, 2004). However, individual access to information and communication technology is frequently determined by social background. This inequality of access is known as the digital gap or digital divide (Koss, 2001). It has been argued that the Internet is the domain of the wealthy, and poor people are unlikely to benefit from it in any way (Hoffman, Novak, & Schlosser, 2000; Katz & Aspden, 1997). However, paradoxically in the last few years, the Internet has been the instrument chosen by activists working to close socioeconomic gaps and help the more deprived groups. Their projects operate through the work of volunteers. Interestingly, this volunteerism may be seen as part of a natural sequence of Internet development, since the Internet was conceived by a group of volunteers who believed that knowledge should be speedily accessible and free of charge, and because, since its inception, the Internet has sought to find a means through which infinite informative resources may be combined and shared for the benefit of the public (Danet, Ruedenberg, Gurion, & Rosenbaum-Tamari, 1998; Rheingold, 1993).

One such Internet volunteer project has been reported by Stewart-Liberty (2006). Known as the Flower-Power Project, it comprises a group of volunteers who plant shrubs and flowers in poorly-developed urban areas of London. The group is organized through its web site (www.guerrillagardening.org). Volunteers arrive at the target site late at night; clean it up, and then plant different kinds of flowers and shrubs. The result is a beautiful environment for the local people, many of whom awake amazed at the change of scenery that has occurred overnight.

Another interesting example is a volunteering project managed by Elizabeth and Tim Rose from Canada (Rose & Rose, 2005). Run as part of the Childcare and Adoption Society Zambia, its aim is to improve the life of homeless children in Zambia. Elizabeth and Tim, a mother and son who work from home, use the Internet to identify and contact potential donors of sports equipment. For those willing to contribute, they build a mechanism for collecting the donated items and shipping them to Zambia.

There is a major difference between these two examples. In the Flower-Power project, the Internet served to organize the creation of the volunteer project and also serves as a center to run it, while the project itself takes place offline. However, in the second example, the whole operation takes place on the Internet. Different Internet volunteer projects are at different points along the continuum, depending on how much of the project is carried out on and offline. It is interesting that many such websites give their volunteers a whole range of options as to how much of a contribution they want to make through the net. On the website http://www.volunteermatch.org/, potential volunteers can choose a task by filling in a form consisting of three items: (1) zip code; (2) how far from home they would consider volunteering (the range is interesting and varies from five miles to a virtual project); and (3) area of interest. Online volunteers work in many different ways, including running online projects, translating important materials from one language to another, offering

legal support, designing websites which help populations in need, creating study materials for online use, etc.

This paper concentrates, for the most part, on those projects carried out wholly through the net, since we believe that this type of activity more fully illustrates the unique phenomenon of Internet volunteering. The paper will attempt to shed light on the technological and psychological factors behind successful Internet social-change projects, and will explore the empowerment of individuals who become significant members of an Internet volunteer project. This is not to imply that online volunteering is a substitute for offline volunteer projects, for example, the Internet project involved in sending sports equipment to Zambia does not replace staff volunteering there. The paper aims to explore a different kind of volunteering, created by the Internet.

The following section will start by discussing prosocial behavior on the Internet. This will serve as an important background for understanding the use of the Internet in promoting social change. We will then move on to offer a model to explain the advantages of online volunteer projects, and conclude with a discussion of some further implications of the phenomenon of online volunteering.

2. Prosocial behavior

Online volunteering appears to be derived from prosocial motivation. Prosocial behavior refers to "voluntary actions that are intended to help or benefit another individual or group of individuals" (Eisenberg & Mussen, 1989, p. 3). On the Internet people find many and various ways to help one another, and prosocial behavior takes on countless different forms. For example, it can take the form of a support forum run by the mother of a child born with heart disease, with the aim of helping other parents faced with similar problems, or it can be in the form of a group for battered woman or people suffering from mental health problems through which information and support is provided. It might also exist for much smaller needs, such as seeking help in locating parts for a vintage car.

Prosocial behaviors on the Internet are in many ways comparable to those found in prosocial face-to-face (FtF) interactions. In most cases, the main similarities appear to be that: (1) there is no previous connection between the volunteer and the recipient of the service; (2) there is no expectation of any kind of reciprocity; and (3) the requests for help come at random times. According to Sproull, Conley, and Moon (2005), prosocial net behavior is also similar to that found in offline volunteer organizations, in that it occurs in an organized social context in which helping behavior is supported. Sproull et al. (2005) make use of Bandura's (1977) Social Learning Theory to explain prosocial behavior on the Internet. They suggest that in an Internet collaborative work group, positive reinforcement is given for prosocial behavior, and positive social role models are much in evidence. Pro-social behavior on the net is also especially effective since the reinforcement process is available 24 h a day. In addition, help may be given over the net at very low cost, both in terms of time and effort. According to the Social Learning Theory, all these components can be used to explain prosocial behavior on the Internet.

The internet also enables helpful, prosocial behavior on the part of experts who can be located via Google or other search engines. These experts receive and answer unsolicited questions, often from anonymous surfers. For example, psychologists working through a site will receive emails from people asking for help with personal issues such as mental illness or family relationships.

Below we examine prosocial behavior on a very large scale rather than on a one-to-one basis. We will discuss the unique qualities of the Internet which enable the creation of such a wide platform for online volunteer projects to promote social change.

3. The psychological processes behind Internet social-change projects

The Internet originated as a decentralized information computer network for the US army. It then evolved into an academic worldwide information communication system. At that stage, its main focus was as an information tool. However, the Internet has now developed into both an information tool and a social interactive environment that fulfills our most important social needs (Sproull & Faraj, 1995). It is, therefore, very important to understand the interaction between the information and the social communicative aspects of the Internet (Amichai-Hamburger & McKenna, 2006; Wellman & Gulia, 1999). For example, virtual communities provide their participants with the benefits of both support groups and information services (Wellman & Gulia, 1999). Amichai-Hamburger and McKenna (2006) suggested that successful Internet contact between rival groups depends on an open information exchange between the groups and, at the same time, the creation of an arena for social interaction. It is for this reason that our model will emphasize both the information and communication aspects of Internet volunteer projects.

The model we suggest specifies the unique advantages of online volunteering (see Table 1) and illustrates these advantages on both the communicative and informative levels. As shown below, the information and communication aspects are divided into three subdivisions: individual; dyadic; and group.

Table 1
Advantages of Internet volunteer projects

	Personal	Interpersonal	Group
Information	1. Ease of accessing information	1. Ease of information exchange	1. Finding a similar interest group
	2. Freedom to search for information	2. Real learning	2. Variety of channels for information exchange
	3. Access to the largest information resources in the world		3. Collective data bank
	4. Overcoming disabilities		
Communication	1. Reframing their identity	1. High level of self-disclosure	1. Group identity
	2. Revealing the 'real me'	2. Reduction of stereotype use	2. Variety of group decision-making tools
		3. One-on-one supervision	3. Group supervision
		4. Social compensation	4. Group reinforcement
			5. E-leadership and group cohesiveness
			6. Solving the conflict between relatedness and freedom

4. The personal level

4.1. Information exchange

Many of the online volunteer projects are based on knowledge management. Many volunteers disseminate their knowledge in different ways. Illustrations include advice services, for example, lawyers giving online guidance or didactic instruction through e-learning programs. It is clear, therefore, that the distribution of information plays a significant role in online volunteering.

The advantages of the Internet as an information tool for the volunteer on the personal level can be divided into several factors: (1) ease of accessing information; (2) freedom to search for information; (3) access to the largest information resources in the world; and (4) overcoming disabilities.

4.1.1. Ease of accessing information

The Internet is the transport vehicle for knowledge stored in databases all over the world. It is not difficult to access information from the Internet since search engines are straightforward and easy to use. In this way, it is simple for potential participants to learn about existing online volunteer projects and to access information about those projects which interest them. Moreover one of the most salient factors for those choosing to work as online volunteers is their desire to make a contribution in the limited time available to them. For such people, it is of paramount importance that information on such projects is readily accessible in a format that is straightforward to comprehend. One of their first challenges is to estimate the quality of the information offered, since this is not always clear on the Internet. Another important aspect for prospective participants is information pertaining to the scope of their potential commitment, as the two examples below illustrate.

Bren (2005), an online volunteer from the USA who built and maintains a website dedicated to the battle against HIV/AIDS, malaria, and other diseases, explained his work this way: "*It has enabled me to accomplish a desire to contribute to meaningful causes while still being able to meet my own family and professional obligations by working from home*" (http://www.onlinevolunteering.org/stories/story_det.php?id=1409).

Ana Maria DaSaravia (2005), an online volunteer from Brazil who translates diverse research work on street children in Latin America from Spanish into Portuguese, describes her online volunteering effort: "*It has opened my eyes to the many apparently small contributions a common citizen like myself can make in her spare time, from the comfort of her home*" (http://www.onlinevolunteering.org/stories/story_det.php?id=1401).

4.1.2. Freedom to search for information

Surfing on the Internet is usually anonymous, which is likely to create a very secure feeling for surfers (Amichai-Hamburger, 2002; Hamburger and Ben-Artzi, 2000). The anonymity gives people the opportunity to try out ideas without feeling an obligation to commit to them. This is in contrast to a FtF situation, in which by asking for information, one might feel obligated to participate, thus leading to a reluctance to inquire about a project. It is actually this freedom to search for detailed information with no obligations which may well result in a greater self-obligation to the volunteer project selected, since the volunteer has been able to understand all obligations required of him or her before committing to the project.

4.1.3. Access to the largest information resources in the world

The Internet is the biggest library that exists on earth. Information can be obtained on any topic by using search engines. Many organizations have open information libraries where much information is available for free, although in some cases a payment might be charged. One of most amazing Internet inventions and an example of the Internet spirit is the Wikipedia, which is a web-based, encyclopedia written collaboratively by volunteers and sponsored by the non-profit Wikipedia Foundation. Wikipedia has editions in around 200 different languages and contains entries both on traditional encyclopedic topics as well as almanac, gazetteer, and current events. Its purpose is to create and distribute a free international encyclopedia in as many languages as possible (Wikipedia, 2006). The ability to learn about a relevant topic efficiently and broadly makes it easier to perform a good job from home. For example, a volunteer involved in a project dealing with malaria may want to understand more about the disease, and this is easily done using the Internet.

4.1.4. Overcoming disabilities

Many people with special needs are able to take part in volunteer projects through the Internet in a way that they would be unable to do offline, for example Tim Rose, the online volunteer mentioned above. With his mother, Elizabeth, Tim, who suffers from cerebral palsy and spastic quadriplegia, organizes the sending of sports equipment to Zambian street children. The fact that all of his active volunteering takes place through the computer has enabled him to create and play a pivotal part in this successful project.

The accessibility of the Internet as an information tool makes it a particularly significant device for people with special needs. As Williamson, Wright, Schauder, and Bow (2001) point out, the Internet gives access to information which would otherwise be unavailable to people due to their restricted mobility and the frequent lack of accessible public spaces. Oraves (2000) discusses a Harris poll showing that 53% of people with special needs reported that the Internet helped them to become better informed about the world (as compared with 39% of people without special needs). Another very significant example of this point is the use made of the Internet by people with impaired vision. This population can surf the Internet using a variety of different aids, for example, magnification programs for the computer screen, which allow people with impaired vision to view text or images which have been magnified several times and which are capable of integrating hardware and software. Other tools are synthetic speech systems which comprise a synthesizer, which does the speaking, and a screen reader, which 'tells' the synthesizer what to say (Williamson et al., 2001).

This very important factor was recognized by De Raad (2003), the current Executive Coordinator for The United Nations Volunteers, when he stated: *"We believe that volunteerism and volunteers represent the first and the last mile of connectivity. In particular, online volunteerism creates new opportunities for people who have too often been excluded from participation – such as older volunteers, people with disabilities, individuals living in remote areas, and those with pressing domestic responsibilities or very limited means"* (http://www.unv.org/infobase/speeches/2003/adr_wsis.htm).

4.2. Communication

Communicative actions on the personal level refer to the ability of the individual to communicate with him or/herself and reach deeper layers of his/her own personality. Carl

Rogers, the great humanist psychologist, argued that before individuals are capable of walking towards others, they must walk towards themselves (Anderson & Cissna, 1997). People carry out these self-explorations at different times and at various stages in their lives.

Volunteering through the Internet gives people opportunities to learn more about themselves and express different parts of their personality, parts that they might feel unable to express in FtF interactions. Below we discuss ways in which Internet volunteering can assist in the psychological development of volunteers by: (1) reframing their identity; and (2) revealing the 'real me'.

4.2.1. Reframing of identity

Erikson (1968) believed that the main challenge of the adolescent stage of development was to find the answer to the all-pervasive question "Who am I?" To be able to do this, an individual needs a sense of coherent identity during his or her adolescence. Erikson (1968) believed that a game might serve as a means through which people can work at formulating their identity. The Internet's secure environment may help young people to develop such an identity. Cyberspace creates an 'identity workshop' in which people are able to learn and test their social skills (Bruckman, 1992). It appears that surfers who do not see themselves as the type of people who would participate in a volunteer project but would nevertheless like to explore the idea, can use the privacy and security provided by the Internet to explore this part of their identity. If they were to carry out such an exploration in an offline situation, they might worry about how their concerns and feelings of inappropriateness might be received by those people running the project. On the Internet, they are free from this kind of pressure. Exploring this part of their identity in a secure environment with the constant option to leave whenever they choose, is actually likely to help them redefine their identity with an explicit prosocial element.

Another way in which the Internet and Internet volunteering can strengthen the identity of young people has been illustrated by Huffaker and Calvert's (2005) study of teenage weblogs. They found that the online environment, as exemplified by the weblog, is a place where physical constraints become more flexible and users can create and build their own identities. In addition to helping people, in general, explore their identities, this finding has important implications for those with special needs, a sector of society that is often judged and stereotyped according to physical characteristics. Such people have a new opportunity to redefine their characteristics. This works in two different ways. First, the fact that the person with special needs knows that the other side is unaware of his/her limitations leaves him/her free to redefine his or her identity in any way he/she chooses (Goffman, 1956). Secondly, individuals with special needs may well redefine their identities as a result of being significant members of an online volunteer project (Williamson et al., 2001). This shows that online volunteering for those with special needs has major implications for their positive development, and may lead such volunteers to redefine and strengthen their identity.

4.2.2. Revealing the 'real me'

McKenna, Green, Marci, and Gleason (2002) believe that the unique atmosphere created by cyberspace allows people to share self-relevant information they would be unwilling to share in the offline world. McKenna and her colleagues use the concept the 'real me' to refer to a version of the self that one believes is true, but may find difficulty expressing.

They derive their concept from the 'true self' concept used by Rogers (1961), referring to the ability of the individual to reach his or her pure true self. McKenna et al. (2002) differentiate between people who find their 'real me' on the Internet, namely, reveal their real self over the net, and those who prefer to reveal their real self in traditional, offline, face-to-face relationships. They suggest that the location of the 'real me' defines where people will locate their more significant relationships, online or offline. They also found that people who are socially anxious and lonely feel that they can express themselves on the Internet better than in offline relationships. Amichai-Hamburger, Wainapel, and Fox (2002) found that introverted and neurotic people find their 'real me' on the Internet, while extroverts and non-neurotic people find their 'real me' through traditional social interaction.

It seems clear that those individuals who see the Internet as their preferred environment for self-expression are more likely to volunteer online rather than offline. Such a volunteer may be painfully shy in an offline volunteer project, however, in an online volunteer task the same introvert might feel that he or she is expressing himself/herself as he or she would wish.

5. The interpersonal level

5.1. Information exchange

The internet creates a unique platform for a dyadic information exchange. This includes (1) ease of information exchange; and (2) real learning.

5.1.1. Easy information exchange

The Internet creates an efficient facility for online volunteer projects through the ease with which dyadic information exchange occurs. Through the Internet, a dyadic information exchange is more efficient than its FtF equivalent. Creation of a FtF meeting frequently demands a tremendous amount of logistic coordination since both parties have to be physically present at the same time and at the same place, while on the Internet, two people in entirely different continents can easily exchange information. It is also possible to create efficient dyadic interaction which is not synchronic, i.e., messages can be sent by email, and participants can read and send messages at their own convenience. This is particularly useful in terms of volunteer projects in which people are willing and able to devote only a limited amount of time to the project and need as much flexibility as possible. It appears that the fact that information can be exchanged efficiently, encourages many very busy people who would otherwise not have time to become serious online volunteers or would drop out at an early stage to become serious online volunteers.

5.1.2. Real learning

Volunteer projects often require participants to learn new facts or skills. The environment provided by the Internet is particularly suited to this task. In general, people are not always open to real learning processes. Senge (1990) suggests that this has much to do with the formal educational structures: *"School trains us to never admit that we do not know the answer, even if we are uncertain or ignorant, we learn to protect ourselves from the pain of appearing uncertain or ignorant. That very process blocks out any new understanding which might threaten us."* The consequence of this is what Argyris termed 'skilled incompetence' – teams of people who are incredibly proficient at keeping themselves from learning (The

Fifth Discipline, pp. 24–25). When people interact on the Internet, they are likely to be much more open to the learning process since they feel that their identity is not in danger. They do not have to pretend to know something they don't know, and they can open up to a real dyadic process of learning. Learning from each other while sharing the same goals may go a long way to counter the feeling of isolation known to be an obstacle to online learning (Martínez González, Milans del Bosch, Pérez Herrero, & Sampedro Nuño, 2006). It is also the case that self-exploration, which is part of online volunteering, is also likely to help people open up to real learning (Salmon, 2000). Many of the volunteer projects demand constant learning in order to maintain standards. Thus, the opportunities for real learning provided by the Internet benefit both the individual volunteers and the projects with which they are involved.

5.2. Communication

The Internet environment creates special conditions that encourage more open dyadic communication as compared with FtF interactions. These include (1) high level of self-disclosure; (2) reduction in stereotype use; (3) one-on-one supervision; and (4) social compensation.

5.2.1. High level of self-disclosure

According to McKenna and Bargh (2000) and McKenna et al. (2002), the Internet creates conditions in which dyadic interaction can be perceived as the 'strangers on the train' phenomenon, in which people disclose quite intimate information to others whom they have no reasonable expectation of encountering again. The Internet provides surfers with the experience of this phenomenon since they are relating to someone they have never met and either party can halt the interaction at any time by 'changing cars or descending from the train'. Paradoxically, this frequently creates a feeling among participants that their relationship is likely to last. If followed up, such disclosures can lay the foundation for a continuing and close relationship. In Computer Mediated Communication (CMC) as in FtF encounters, self-disclosure is also linked to positive and desired relationship qualities. Whitty and Gavin (2001) found that partners in online relationships consider properties such as trust, honesty, and commitment, important, just as in traditional FtF relationships. Participants who reported engaging in greater self-disclosure in CMC were more likely to experience the benefits of personal relationships (Yum & Hara, 2005). Since the Internet is considered to be a protected environment, it allows people to disclose intimate and personal information much faster than in FtF. As a result, friendships are likely to develop much faster (Hian, Chuan, Trevor, & Detenber, 2004).

As indicated in the testimonies of the two volunteers quoted below, successful connections are made both with their fellow volunteers and those they are helping.

Elizabeth (Rose & Rose, 2005), an online volunteer mentioned above, says: *"The Internet is a great way to develop personal relationships and have a one-on-one impact, rather than simply making a donation to a large faceless charity"* (http://www.onlinevolunteering.org/stories/story_det.php?id=1403).

Stanley Tuvako (2003), an online volunteer for KAIPPG (Kenya AIDS Intervention and Prevention Project) says: *"I have learned to be a friend and have felt like those I have*

worked with have appreciated my friendship. I have made friends with the world, while the world has made friends with me. I have learned to give and be pleased about it'' (http://www.onlinevolunteering.org/stories/story_det.php?id=1060).

5.2.2. Reduction in stereotype use

Every FtF meeting has in-built biases due to interpersonal physical features which lead to labeling, stereotyping, and other distorted perceptions (Ryan, Judd, & Parke, 1991; Kunda & Oleson, 1995; Macrae, Bodenhausen, Milne, & Ford, 1997). The fact that the Internet does not expose people to the physical traits of the other side is likely to create an opposite effect, in which people are much more likely to rely on personality characteristics when evaluating another person (Ben-Ze'ev, 2005). This is very important for volunteer projects in which group members are likely to come from different cultures and, as mentioned earlier, might have physical characteristics which could be perceived as unattractive or even repulsive in the offline world. On the Internet, physical characteristics are irrelevant and people are judged according to their contribution to the project. Moreover, in an online volunteer project, people cooperate towards a mutually important, superordinate goal. Even of it is likely to reduce the use of stereotypes, and should FtF contact occur at a later date, there is likely to be a lowering of the usual degree of stereotyping and other misconceptions.

5.2.3. One-on-one supervision

People who work at emotionally challenging jobs are likely to benefit from professional supervision, without which they might suffer from burnout and dropout (Hawkins & Shohet, 1989; Kadushin, 1992; Munson, 1993). Online volunteers faced with highly demanding challenges are no different and they too require ongoing supervision. Through the Internet, it is possible to offer highly professional supervision on a one-to-one basis or even group supervision (Oraves, 2000). Here, again, the geographical distance between the volunteer and the supervisor is irrelevant, and even though each might be in a different time zone, it might prove easier to find a mutually convenient time for supervision than in an offline situation. The availability of this type of supervision plays an important role in ensuring that the group task is maintained over the long term.

5.2.4. Social compensation

The dyadic Internet interaction empowers people in general, and people with social inhibitions, in particular. It seems that via the Internet, the poor can get richer in terms of social contacts. The protection the Internet provides might encourage them to build social ties through the net. This is particularly likely in the case of introverts, neurotics (Amichai-Hamburger, 2005b; Maldonado, Mora, Garcia, & Edipo, 2001), lonely people, those suffering from social anxiety (McKenna et al., 2002), and people with physical disabilities (Bowker & Tuffin, 2003). People who are socially isolated or suffer from social stigmas or disabilities which make it hard for them to make friends in their daily lives, can develop social relationships through the net (Bock, 1994; Brennan et al., 1992; De Leon, 1994; Kanaley, 1995). In a volunteer context, this means that people who have psychological barriers to creating significant relationships with others, might find the courage to do so through an online volunteer project.

6. The group level

6.1. Information exchange

Here we deal with the advantages of information exchange on a group level. This includes (1) finding a group with similar interests; (2) variety of channels for information exchange; and (3) collective data bank.

6.1.1. Finding a group with similar interests

The Internet is accessed every day by many millions of users each of whom has various interests. This fact, together with the ease of finding details of the different interests and services offered by the net, makes it exceptionally easy to discover a group of like-minded people. Moreover, on an FtF basis, it might be difficult for individual projects to market themselves effectively in terms of both expense and logistics, and then to deal with different individual applications, whereas on the Internet, one posting will suffice worldwide, and joining is merely a matter of clicking on. Thus, the operators of social-change projects realize that it is in their own interests to publicize their work in the most effective way possible through the Internet.

6.1.2. Variety of channels for information exchange

The Internet contains a unique arsenal of tools to maintain and enhance group efficiency and speedy information exchange, all of which help promote the group's success. Tools for group information exchange include chat, video-conferencing and forums. While the organization of an FtF group meeting might be a logistic nightmare, a virtual meeting of those volunteers that the organization wants to bring together can be organized at no expense and at short notice. In this way, group information exchange is likely to be very successful.

6.1.3. Collective data bank

Working in a team enables the group to build a data bank of experiences and relevant information (Chanin & Shapiro, 1985). Team members are encouraged to transfer their ideas and information to a data bank, and gradually, a whole library of data will be built-up. This library might later undergo major classification and subclassification. The constant growth of the data bank before, during, and after certain stages of the project are completed, leads to the creation of a very significant tool which will be a major addition to the group's resources. In addition, it will significantly assist new or potential volunteers wanting to learn more about the group's experiences. The same database can also help to facilitate a Frequently asked question (FAQ) service on the website.

6.2. Communication

Here we deal with the advantages of communication on the group level. They include (1) group identity; (2) variety of group decision-making tools; (3) group supervision; (4) group reinforcement; (5) E-leadership and group crystallization; and (5) solving the conflict between relatedness and freedom.

6.2.1. Group identity

This is important not only in terms of easing the exchange of information, but also in terms of social communication. It has been argued since the time of Aristotle that similarity causes attraction (300 BC q 1932), and this has been further proved in many empirical studies (Cann, Calhoun, & Banks, 1997; Smith, Byrne, & Fielding, 1995; Watson, Hubbard, & Wiese, 2000). Being a member of a group that shares your interests and goals is likely to enhance your self-esteem (Tajfel & Turner, 1986), and can also be a great source of support (Bennett, 2003). People in Internet groups report a reduction in feelings of loneliness, and say that the group has given them significantly more social contacts. Such people tend to develop group identification, sometimes even faster than in offline groups, and the groups prove to be as cooperative as offline groups (McKenna et al., 2002).

Sandrine Cortet (2005), an online volunteer who manages 50 French speaking online volunteers producing French online courses for people who cannot afford formal secondary education, suggests: *"Online volunteering gives the opportunity to be involved in completely different universes and to meet amazingly talented and dedicated people from all over the world working on the same project while everyone is distant. ... Life is short and it is not enough time to build a perfect world, but at least we can try to make it better."* (2005, http://www.onlinevolunteering.org/stories/story_det.php?id=1407) Flavia Trevisani (2004), an Italian online volunteer currently living in the Netherlands and who runs a group of 100 volunteers [Lawyers Without Borders (LWOB)] from all around the world supplying high-quality pro bono legal services, reports: *"I did not know that I was able to take considerable initiative and that communication with people having the same objective could produce such a positive impact in my life"* (2004, http://www.onlinevolunteering.org/stories/story_det.php?id=1306).

6.2.2. Variety of group decision-making tools

Projects run through the Internet benefit from the opportunity to receive ideas from their group members in efficient and effective ways. The idea of group brainstorming was originally formulated by Osborn (1957). He suggested that during the first stage of brainstorming, group members can put forward as many ideas as they want without fear of evaluation. In this way, a mutual process will ensure a high level of production, greater than could be achieved by formal individual contributions. The next stage in the evaluation process only begins after a great number of ideas have been generated. However, Diehl and Stroebe (1987) showed that when the work of a brainstorming group is compared to that of a group of individuals working separately, the productivity levels of the individuals are greater, both in terms of quality and quantity. One of the major reasons for this is thought to be that group members are reluctant to put forward their ideas because they fear procedural blocking, i.e., they are unable to express their ideas as they think them and so they may forget them or, at the very least, the effort of remembering and formulating their own words might cause them to fail to listen to the other participants. A second reason is that in spite of procedural norms, people have a fear of being evaluated. The third is the tendency of individuals to put less effort into a group project than they would if they were working independently (Diehl & Stroebe, 1987; see the review of Kerr & Tindale (2004).

Electronic brainstorming (EBS) has been seen as the answer to some of these criticisms (Dennis & Valacich, 1994; Nunamaker, Applegate, & Konsynski, 1987). With EBS, input is synchronously presented to the whole group, and all can contribute simultaneously, thus

eliminating problems of delay and failure to listen. In addition, participants feel sufficiently protected to express themselves freely (Cooper, Gallupe, Pollard, & Cadsby, 1998). DeRosa, Smith, and Hantula (in press) performed a Meta analysis and found that EBS groups were more productive than FtF groups. Using the EBS tool for debating important and challenging issues can be very beneficial in terms of hearing the views of a variety of people to guarantee a constructive thinking process and for letting each member have a voice and feel part of the group in general, and the group decision-making process, in particular.

6.2.3. Group supervision

Like any other group, a group of online volunteers may adopt dysfunctional behavior patterns. A group of volunteers dealing with important and sometimes stressful issues will find it necessary to receive professional supervision in order to maintain group coherence and high standards of work, and to prevent burnout (Kadushin, 1992; Munson, 1993). It is through this professional supervision that the group can reflect upon its dynamics and learn how to improve. The creation of a platform for such group guidance can be straightforwardly set up on the Internet, and the history of such sessions can become part of the organization's data bank.

6.2.4. Group reinforcement

The norming stage is a very important part of the development of any group (Tuckman & Jensen, 1977). During this stage, the group becomes more cohesive and group identification increases. This phase is completed when there is a general acceptance of the way things should be done. These norms create an informal guide to the workings of the group, including group rules regarding behavior (Hackman, 1992). In a group of volunteers, the norms established support a high level of prosocial behavior, and outstanding individuals might be chosen for awards such as 'Volunteer of the Year'. Stories of their volunteer efforts will be prominently displayed on the project's website and these volunteers can become role models for the whole group (see, for example, the front page of http://www.volunteermatch.org/). In this way, the website (open 24 h a day and available anywhere on the globe), supplies a strong positive reinforcement for all the volunteers (Lim, Ward, & Benbasat, 1997). Bandura (1977) argued that people who receive positive feedback for their contribution will produce a contribution of higher quality (see also Bandura & McDonald, 1963; Baston, 1988). Positive reinforcement is also likely to improve the volunteer's self-perception and self-esteem (Wiesenfeld, Raghuram, & Garud, 1999).

Designers of volunteer websites can create mechanisms to allow for systematic feedback, which can be a very important tool for reinforcement. Moon & Sproull, in press found that volunteer groups that implement a systematic quality feedback system, participated for longer periods and produced contributions of higher quality. This result is similar to that of Rothenberg (1988), who suggested that successful groups retain their high-performance volunteers for longer periods than less successful groups.

6.2.5. E-leadership and group cohesiveness

It is important to remember that online volunteer projects involve people and therefore, effective leadership is crucial to the long-term existence of the group and motivation of its members. Using the Internet, the group leader can be accessible and in close touch with his or her co-workers. The task of the E-leader is to transfer the group vision directly to each

group member. Avolio, Kahai, and Dodge (2000) suggest that transformational leadership characteristics such as individualized consideration (giving the followers all the support they need to succeed in their tasks), inspirational motivation (the ability to communicate the importance of the group goals through the use of symbols), and intellectual stimulation (showing followers how to recognize the challenges in their life and transform them into opportunities), can be transmitted through the Internet. In the case of an offline volunteer project, as the group grows, the structure is likely to become more hierarchical, and the ability to maintain direct contact between the group leader and members is reduced. In contrast, on the Internet, the size of the group will not prevent the leader from being in direct contact with the members. The leader of an Internet group can send a film of his/her vision, an interactive message, or even talk to the group online at the touch of a finger (Avolio & Kahai, 2003). As Sharon Capeling-Alakija (2003), once UNV Executive Coordinator, explains: *"We must always remember that volunteers give a lot. They donate their time and share their expert skills without commanding a salary. To make their volunteering experience an enriching one, we should try to give them something in return – recognition, guidance, and management. And we need to take great care when creating or reviewing assignments – to ensure they can be a fulfilling experience for the volunteer. It takes time and effort on the part of the organization that is hosting these on-site volunteers. Well, the same is true for on-line volunteers – as we say, there's nothing "virtual" about on-line volunteers! These are real people, and they take real time and management and support"* (http://www.unv.org/Infobase/unv_news/2003/96/03_12_03QandA.htm).

6.2.6. Solving the conflict between relatedness and freedom

Fromm (1941) argued that human beings strive for freedom and autonomy, but they simultaneously have a need to relate to significant others (see also Brewer, 1991). Bettencourt and Sheldon (2001) suggest that when his or her social role is consistent with an individual's core skills, he/she is likely to feel autonomy and self-expression. In other words, the seemingly-contradictory motives of autonomy and relatedness can be mutually achieved when the individual performs social roles that correspond to his or her ability and characteristics. Amichai-Hamburger (2005b) pointed out that in many cases, the compatibility between personality and social roles will not be accurate, since offline groups demand that individuals take on roles not necessarily of their choosing. Those responsible for allocating these positions will not always take into account the skills, abilities, and desires of the individual, or may allocate roles based on inaccurate or outdated perceptions.

In the Internet arena, it might be easier to find social roles that allow individuals their self-expression and even their self-actualization, since the net provides more freedom to individuals to choose the groups and the social roles that suit them (Amichai-Hamburger, 2005b). It is also the case that the number and variety of groups and the ease with which it is possible to find them online, is far greater than in the offline world. The act of compelling someone to take on a role does not exist on the Internet, since any attempt to do so may cause the individual to leave, without any social consequences. It seems that the Internet creates an environment where the conflict between the need to relate and the need for autonomy is very limited and, in fact, the Internet is able to sustain situations in which both needs are mutually fulfilled. In this case, there are positive implications to be considered that pertain to individual wellbeing.

It is suggested that being part of an online volunteer group is exactly the kind of online context that Amichai-Hamburger (2005b) was referring to as one that might help to resolve the conflict between relatedness and individuality. In an online project chosen by the individual, he or she is likely to fulfill him/herself as an individual and, at the same time, feel part of a very significant group. In this way, the seemingly contradictory motives of relatedness and freedom are in accord.

This point is demonstrated in the statement of Wallace (2004), an online volunteer from the USA who deals with information technology support for RESPECT (refugee education sponsorship), when he says: *"As an online volunteer, you get to work with some of the best people you will never meet. Together you will make a difference in the world. And your skills, no matter what they are, are just the ones someone has been looking for"* (http://www.onlinevolunteering.org/stories/story_det.php?id=1311).

7. Last word

This paper has attempted to show the information and communication factors behind the success of online volunteering. While not all the factors mentioned in the article are present in each online volunteer project, it seems clear that much of the success is due to the unique qualities of the Internet that make it particularly suitable for such projects. This conclusion is reinforced by the many testimonies of volunteers.

Abraham Maslow (1968, 1970, 1971, 1994) advocated the idea that when people have achieved their basic needs, they strive for self-actualization. We believe that the Internet allows more people than ever before to achieve self-actualization. Moreover, it appears that there are important similarities among individuals seeking self-actualization, as defined by Maslow, and those involved in Internet social-change projects.

Maslow suggests that such people are problem-centered, meaning that they treat life's difficulties as problems demanding solutions, not as personal troubles to be remonstrated with or surrendered to. They enjoy autonomy, a relative independence from physical and social needs. They have a sense of humility and respect for others, something Maslow defined as democratic values, meaning that they are open to differences in ethnicity and other individual differences, even treasuring them. They have a quality Maslow referred to as human kinship or social interest, compassion, humanity. These traits are accompanied by strong ethics that are spiritual, but seldom conventionally religious in nature. They have more peak experiences than the average person. A peak experience is one that takes you 'out of yourself' and makes you feel very tiny or very large, to some extent, at one with life, nature, or God. Peak experiences give you a feeling of being a part of the infinite and the eternal; they tend to leave their mark on a person, change him/her for the better, and many people actively seek them out. They are also called mystical experiences, and are an important part of many religious and philosophical traditions.

Interestingly, many online volunteers themselves referred to their volunteering task as an expression of their self-actualization. Mohammad Ashaq Malik (2005) from India/Eritrea, who has helped with about 20 volunteer assignments, writing and carrying out research, suggested that *"There are people in this world who want to do something good in life. …The Online Volunteering service is a great platform to serve humankind and get experience, inner satisfaction and enjoyment as well."* (http://www.onlinevolunteering.org/stories/story_det.php?id=1406).

George Okello Gopal, 2005 from Kenya, who, as an online volunteer, produced a research report analyzing the poverty-reduction strategy papers of four Sub-Saharan African countries (Malawi, Rwanda, Tanzania, and Cameroon) on the subject of gender and health issues, explains: *"When I felt that my routine work was limited, often not able to fully exploit my potential, I craved a new challenge – something that each working day would be different and challenging, something worthwhile, a source of pride. I therefore decided to get involved in Online Volunteering, something in which I am able to exploit my numerous skills, potential and interests"* (http://www.onlinevolunteering.org/stories/story_det.php?id=1307).

Much of what we have tried to say in this paper may be summed up by Haingonirina Angie Ramaroson (2005), an online volunteer from the USA who updates the Dateline Health website with news and data on the HIV/AIDS pandemic in Africa, when he stated that *"Online Volunteering is an opportunity to get involved in far away communities with problems or issues close to your heart. It's a chance to change their world and your world as well"* (http://www.onlinevolunteering.org/stories/story_det.php?id=1404).

Acknowledgement

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