Digital Communication and Performance in Nonprofit Settings: A Stakeholders' Approach

Rita S. Mano

Department of Human Services, University of Haifa, Haifa
Israel

1. Introduction

The importance of digital communication (hereafter DC) is often related to higher performance in for-profits but less often in non-profit organizations. Organizations considered as innovative engage in new ideas, attitudes, or behaviors that depart from their previous routines or strategies. Such ideas are often transmitted by, or easily traced in DC and the information-technology media, but these advantages seem to have been neglected until recently in the nonprofit sector and outcomes following DC exposure are generally ambiguous (Sidel & Cour, 2003). This is probably because performance in nonprofits is not always clearly defined as the multiple stakeholders involved in nonprofit management have conflicting ideas about criteria of performance. Some suggest that social goals cannot be properly attained through DC whereas others show promising increases in economic goals - donations and participation- via digital sites. Not surprisingly, the disagreement as to whether DC definitely improves digital performance (hereafter DP) is an open field for investigation.

The present chapter elaborates on this aspect and attempts to develop a conceptual framework for assessing the contingent effects that mediate the DC - DP link (hereafter DCP) in nonprofit settings. We present a taxonomy based on the stakeholders' approach, followed by a conceptual model addressing: (a) type of organization; (b) type of stakeholder; and (c) type of performance. Lastly, we offer a set of propositions leading to the development of hypotheses for examining DCP links that enable formulation of empirical tests (Beckey, Elliot, & Procket, 1996).

DC enables information to be created, edited, stored, discarded or organized, and is easily accessed from relevant recipients or links in and between different facets of an organization, and/or social systems composed from multiple stakeholders. In nonprofits DC enables introducing and maintaining innovative services that increase social visibility (Corder, 2001; Balser & McKlusky, 2005; Herman & Renz, 2004). DC is therefore associated naturally with enhanced performance in nonprofits because "…by making that information available centrally, data can be consolidated, trends can be identified, and campaigns and resources can be more effectively focused…" (Burt & Taylor 2003, p. 125). Critics of the DC-DP link point though, that defining performance in nonprofits is problematic because the nonprofits rely - among other criteria – on the successful recruitment of social support which can only be attained through face to face interactions (Baruch & Ramalho, 2006; Mano, 2009, 2010).

Indeed the distinction between social and economic goals and their respective terms of effectiveness vs. efficiency suggest that the higher the number of supportive agents the higher that organizational effectiveness whereas organizational efficiency is linked to increasing economic returns to organizational objectives using internal and external resources to produce maximum results with a minimal investment.

As competition increases nonprofit organizations are often "trapped" by the importance of economic criteria of performance, pursuing efficiency (Galaskiewicz & Bielefeld, 1998). Efficiency though does not attest to the nature of nonprofit goals because the quality and importance of social goals is not easily measured and organizations can be efficient in certain dimensions and less efficient in others. As a result efficient operations reflect a limited and often distorted view of performance in nonprofits (Bielefeld (1992).

As remote communication services and the number of internet users increase nonprofits have turned to DC to improve their efficiency levels –lower costs- and effectiveness to increase social visibility by addressing potential audiences and improving relationships existing supporters –volunteers and funding- and develop new alliances. Some have found new efficiencies in their operations when advocating issues, as well as increased funding from virtually unchanged DC. In 2001 Olsen and Keevers made an exploratory study of how voluntary organizations employed 'button' options to enable different forms of contributing, e.g. Donate now; Donate; Donate Online; Giving, How you can help, Join or Give, Make a donation, Show your support. Similarly, the ePhilanthropy Foundation has developed the 'ePhilanthropy Toolbox' as a way of drawing attention to the wide array of techniques and services available. The elements of the toolbox fall into six categories, namely: Communication/Education and stewardship; Online donations and membership; Event registrations and management; Prospect research; Volunteer recruitment and management; and Relationship-building and advocacy (Hart, 2002).

With this taxonomy it is logical to assume that there is need to distinguish between different criteria of performance. In the present study we first distinguish between (a) effectiveness – attainment of organizational goals, and (b) efficiency – the economically "best" outcome for organizational operations; then we distinguish between two types of stakeholders: (a) public – recipients of services and providers of services at the national level; (b) private – individuals and organizational agents of support. Finally, we distinguish between individual level and organizational level outcomes of DC, applying these dimensions to two basic types of organization, i.e. service and advocacy groups.

A proposed model suggests that DC can give rise to different forms of DP (Seshadri, & Carstenson, 2007), but this necessitates adopting the suggestion that NPO performance is influenced by the different expectations of stakeholders. Accordingly, DC can either enhance effectiveness, i.e. attainment of the organization's social goals; or efficiency, i.e. attaining economically satisfactory outcomes.

2. Theoretical background

Internet has made a vast range of activities accessible to a huge number of individuals. In contrast to other types of social exchange, the internet is quick, efficient, and direct, so that minimal efforts are required to accomplish goals. DC is thus important for conveying information and increasing contact with stakeholders. Even though computer-mediated

contact lacks the social and physical clues that are essential for good communication, individuals prefer to use DC as a medium with a social presence commensurate with the task they wish to accomplish (Hollingshead & Noshir, 2002), whether for employment, leisure, to broaden personal horizons, or for attaining social status (Cnaan, Handy & Wadsworth, 1996). These assumptions are at the core of the "functional" approach to DC that covers a wide range of aspects such as selective processing, channel complementation etc. (Dutta & Bodie, 2008). The common factor underlying this functional approach is "gratification", i.e. tailoring media features to individual needs.

Individuals who contribute to nonprofits may choose to make donations via DC, or participate in discussions and increase their levels of civil engagement. At the organizational level, it is clear that DC enables easy and quick access to information. In today's global economy, this is identified with improved organizational performance (Ducheneaut & Watts, 2005). Earlier studies in voluntary organizations in the United Kingdom (Burt & Taylor, 2003) showed increased use of DC to reconfigure key information flows in support of enhanced campaigning and more effective user services. There is also evidence that nonprofits are able to exploit opportunities for radical shifts in organizational arrangements and thereby increase their social, economic, and political spheres of influence. The authors pointed out that the use of advanced technological communication devices has improved both efficiency and potential by comparison with previous periods, as have levels of integration of information within organizations, while the level and quality of coordination have risen substantially as well. Combining individual levels of contribution through DC with organizational criteria of performance – DP - in nonprofit settings is thus possible as long as DC approaches the stakeholders' needs and expectations properly, so that nonprofit DP is possible by increasing either effectiveness or efficiency (Mano, 2009).

Stakeholders are those individuals or groups who support an organization. According to Abzug and Webb (1999), stakeholders of NPOs include the community, competitors, clients, managers and employees, government suppliers, and private founders of organizational goals. Researchers of NPOs (Freeman, 1984; Winn & Keller, 2001) stress the dependence of the organization on its stakeholders, namely any group or individuals that may influence or be influenced by an organization working to achieve its goals. Similarly, Donaldson and Preston (1995) claimed that stakeholders are the investors (of financial or human resources) who have something to lose or gain as a result of organizational activities. Others view stakeholders as those with power, having legitimate and justified claims on an organization.

The stakeholders approach involves three dimensions: first, type of performance – effectiveness vs..efficiency; second, two types of stakeholders, i.e. public – recipients and providers of services at the national level; and private – i.e. all individual and organizational agents of support that does not involve public funding; and third, individual and organizational outcomes of DC. We apply the above dimensions to two basic types of nonprofits, namely service and advocacy.

2.1 Digital performance - DP

To successfully achieve social visibility and contributions, nonprofits have been gradually and consistently entering the field of DC because it is easier and faster to: a) maintain contact with more stakeholders; (b) obtain access to immediately measurable outcomes.

Furthermore, it provides a sense of involvement to a large number of individuals and organizations (Bryson et al., 2001). A larger pool of supporters is more probable to promote secure and reliable resources despite economic fluctuations (Galaskiewicz & Bielefeld, 1998). However, among the many criteria of nonprofit performance raised over the years (Baruch & Ramalho, 2004), the focus is on two terms that define how nonprofits organize their activities i.e. *effectiveness* and *efficiency* (Herman & Renz, 2008).

2.2 Effectiveness vs. efficiency

Nonprofit organizations are social entities intended for defined tasks, and the concept of a "goal" is integral to their definition (Daft, 2004). Organizational success is measured in two main dimensions: effectiveness and efficiency, both exemplifying the degree to which an organization achieves its goals.

So what are those goals, and who defines them? Defining organizational goals in nonprofits is not simple because of the multiplicity of stakeholders. Some nonprofits seek goals related to the welfare of their clients (human service organizations), while others speak in the name of groups, communities and society in general (advocacy organizations). In both cases, effectiveness is evidence of the organization's ability to use its resources to achieve its unique goals. Human services attend to "individual" level needs, while advocacy organizations' goals are intended to generate support and emphasize importance to society (Perrow, 1961). Organizational effectiveness is therefore a "relative", even "ideology-driven" or "ethical" approach to the attainment of goals, to the extent that they are often debated and sometimes abandoned. By contrast, efficiency is a "technical" measure of performance focusing on nonprofits' dependence on resources and the importance of managing those resources. According to this concept, organizations must ultimately consider performance as based on quantitative measures – input versus output. So NPOs - like for-profit organizations - implement organizational tactics striving towards increased rationality and technical efficiency (Bozzo, 2000; Bryson, Gibbons, & Shaye, 2001; Carson, 2000). If, for each unit of output, there is a decrease in requested inputs, efficiency increases. DC, characterized by immediacy, speed and accuracy, can thus improve efficiency – level of donations, immediate enlistment of volunteers - lower investment – fewer people involved, fewer hours of work, etc. What can be confusing is not the level of performance, but how stakeholders evaluate each aspect of it. If, for example, nonprofits lose prestige but gain in volunteer enlistment by using DC, then they may become less attractive and lose social visibility, for example with groups concerned with deviant behavior. Situations in such cases are often insoluble, sometimes with conflicting views between stakeholders, in regard to evaluating whether effectiveness is more desirable than efficiency.

2.3 Private vs. public stakeholders

Mitroff (1983) emphasizes the difficulties arising from excessive numbers of stakeholders. The more stakeholders there are, the more complex are their demands, expectations and conditions (Freeman & Evan, 2001). On the basis of the analysis, activities are adjusted to suit the stakeholder groups. Lack of agreement between stakeholders becomes apparent when performance criteria must be established or negotiated (Alexander, 2000), for example,

in questions such as who defines and who is responsible / accountable for delivery of a product or service. How NPO performance should be measured can arouse different opinions concerning those measurements (Rado et al., 1997; Mitchell, Aigle & Wood, 1997; Rowley, 1997). Some stakeholders adhere to the "technical" measures attached to cost-effectiveness, while others tend to emphasize ideological aspects and ignore economic measures of success, i.e. efficiency. However, recent economic measures of efficiency have become vital for the survival of NPOs (Shmidt, 2002; Bielefeld, 1992; Crittenden, 2000; Galaskiewicz & Bielefeld, 1998). Nonetheless, some authors suggest that it is difficult to define DP using a single measure, whether objective (Carson, 2000) or subjective (Baruch & Ramalho; 2004; Forbes, 1998; Herman & Renz, 2008).

2.4 Public stakeholders

Government support is an important resource, and for many nonprofits – mainly those providing human services - their dependence on grants and contracts from the government is their principal source of survival (Gronbjerg, 1993). This is due mainly to the recent uncertainty caused by the economic crisis, as well as to increased competition. According to Young (1999), there are three economic perspectives that can assist in understanding and analyzing the connection with the government, namely: the "supplementary" role of nonprofits for services that are not provided by the government; the "complementary" relationship of "contracts" in the provision of services; and the "adversarial" pressure on the government to change policies and laws (Salamon, 1995).

2.5 Private stakeholders

Private donations (from organizations and/or individuals) and grants from different foundations are traditional sources of support for third sector organizations (Froelich, 1999). However, as Gronbjerg (1992, 1993) pointed out, there is inherent fluctuation in the scope and steadiness of private donations. This lack of certainty impacts on the activities of an organization, and can even contribute to changes in organizational objectives. For instance, grants, which are characterized by professional teams and formal procedures, have strengthened the formalization of organizations in the third sector by fixing conditions for obtaining them, demanding accountings of implementation and evaluation of projects, goal definitions, etc. (Carson, 2000). Likewise, due to the need to comply with the wishes of contributors and thus ensure their support, third sector organizations change their organizational objectives in accordance with external pressures that are not necessarily related to organizational goals or to the receivers of services, thereby endangering their legitimacy (Galaskiewizc & Bielefeld, 1998). In order to maintain capital flow and increase income, third sector organizations must also provide incentives such as: promoting donors' prestige, commitment by the organization to serve the community, and participation of donors in achieving these goals and in making decisions related to the organization (Markham, Johson & Bonjean, 1999).

2.6 Individual vs. organizational stakeholders

DC has overall positive effects in many spheres and, despite alterations over time, individuals using internet today are more likely to evaluate DC as central to increased social

involvement, civic participation, and community members' involvement. DC is often related to positive sentiments and a stronger sense of community "belonging". The contribution of DC was first examined in relation to media in local communities (Keith, Arthur, & Michael; 1997; Shah, Mcleod & Yoon, 2001), and was viewed as a means to increase social capital (Shah, Nojin & Lance, 2001). Recently, Mesch and Talmud (2010) re-assessed the impact of DC and found improvement in levels of satisfaction and commitment to the community. Using a longitudinal design of two suburban communities in Israel, they presented evidence of increased effectiveness of nonprofit settings – communities - using DC. Similar results were found by Postigo (2009), who examined volunteers demanding reasonable compensation in the USA, i.e. social factors and attitudes and a sense of community, creativity, and accomplishment were all related to participation in Internet forums, as was an increase in 'ethical consumption' among young people (Banaji & Buckingham, 2009). As a result, nonprofit marketing as well as commercial marketing through DC strives for clear recognition of differences in youth cultures to gradually enhance DP (Jennings & Zeitner, 2003). This is probably why, according to Tapia and Ortiz (2010), municipalities are attempting to create municipal-sponsored wireless broadband networks. The importance of increasing individual-level participation in local government is seen as a major goal in order to avoid wrong choices, failure, or mistrust of local governments by citizens.

To understand these effects on DCP we must also keep in mind that service organizations differ from advocacy groups because they address different types of stakeholders. Service organizations aim to achieve service in areas such as health, welfare and education, whereas the purpose of the advocacy groups is to be involved in national or international issues, presenting their ideas and participating in group discussions.

2.7 The DCP link

According to Hamburger (2008), there is high potential for nonprofit organizations using DC as a medium, to channel social development, because volunteers recruited through the net can contribute significantly to the lives of many millions of people in need throughout the world. Hamburger insists that the positive potential of the Internet derives from understanding the informative and communicative aspects of net-volunteering, in which three separate types need to be addressed, namely: the personal, i.e. to individual needs, the interpersonal, i.e. the positive effects of interaction; and the group or organizational level outcomes which address the goals.

An early study (Hart, 2002) suggest that the Internet is a reliable means for building support, providing a cost-effective opportunity to build and enhance relationships with supporters, volunteers, clients and the community they serve. Organizations have discovered that consistent and well targeted e-mail communication encourages users to access information that is central to gaining support. Referring to charities, the author recommends using it as both a communication and stewardship tool, and a fundraising tool, but warns that this is only an aid, and not a substitute for cultivating and enhancing relationships. Similar conclusions have been reached in regard to American service organizations (Olsen, Keevers, Paul & Covington, 2001).

Jennings & Zeitner's (2003) exploration of Internet use in regard to the engagement of American citizens between 1982 and 1997, demonstrated that the "digital divide" in civic

engagement remained in place, indicating that Internet access has positive effects on several indicators of civic engagement, according to how much the Internet is used for political purposes. They concluded that Internet is effective only when personal political interest intersects with personal media familiarity. As the number of websites increases, (Hargittai, 2000) the battle to attract audiences may reduce the number of visitors who could possibly support nonprofits. This is apparently why recent studies focus on the DCP link. Barraket (2005) for example, in a content analysis of 50 Australian third- sector organizations' websites, showed use of DC and how such organizations are (or are not) utilizing online technology to attract citizen engagement, are compatible with their organizational activities. This is surprising but not irrational because, as suggested by Mano (2009), targeting techniques of nonprofits are lacking in sophistication. Recent evidence shows that the scope and intentions of nonprofits using the Internet are relatively blurred. Indeed, adopting a stakeholders' approach the author shows that using the Internet cannot be effective unless the communication style and targeting "fits" the needs of the targeted stakeholders. The study's empirical findings indicates that social marketing through DC increases support from private stakeholders, but decreases that of the public stakeholders.

Nevertheless, Bezmalinovic, Dhebar & Stokes (2008), evaluating the potential for successfully recruitment through online systems, show that technology is useful for selecting, recruiting and pooling volunteers, but that online processes also necessitate significant costs. Moreover, Finn, Maher and Forster (2006), using archival data, showed that DC has been the main vehicle for adoption and adoption-readiness for nonprofits in the United States, enabling them to take advantage of existing opportunities. Similarly, a growing field of studies in social marketing shows that technology can serve these organizational goals provided there is good fit between the medium used and its target (Mano, 2009). A recent study examining these aspects revealed that voluntary organizations now use much more technology to increase performance and sustain adaptation to environmental threats, but they still fall short of using the appropriate DC strategies to increase support for their cause (Mano, 2009). Similarly Suárez (2009), examining the social role of nonprofit e-advocacy and e-democracy (civic engagement) as identified by 200 nonprofit executive directors, revealed that rights groups, environmental organizations, and policy entrepreneurs are consistently likely to mention advocacy and promote civic engage-ment on their websites. Conversely, funding and/or dependence on resources generally fail to explain nonprofit use of websites for social purposes.

An organization can be effective in some dimensions but less efficient in Others and *vice versa*. Organizational efficiency is related to the accomplishment of organizational objectives and their cost, and to an organization's ability to use available resources to achieve maximal results with minimal investment. In commercial organizations, efficiency is usually measured in financial terms such as the annual level of sales per employee. In public service organizations, however, the budget is measured against the number of employees in the organization, or the number of clients dealt with per employee per week as a measure of output. The efficiency of an organization does not attest to the nature of its products, their quality, or the level of service it provides, and therefore only reflects a limited view of organizational success (Bielefeld, 1992). Unfortunately, nowadays nonprofit organizations become "trapped" by these "market" criteria, pursuing efficiency rather than effectiveness,

which is the "wrong" way to achieve performance in nonprofit organizations (Galaskiewicz & Bielefeld, 1998). Reviewing these studies suggests that nonprofits are far more interested and adherent to effectiveness via DC, rather than efficiency. We combine the three proposed dimensions of the DCP link in Table 1.

Type of Organization	Type of Stakeholder	
	Private Stakeholders	Public Stakeholders
Service nonprofits	*Recipients*	*Government funded*
Advocacy nonprofits	*Participants*	*Social Institutions*

Table 1. A taxonomy of digital communication targets according to type of non profit organization and type of stakeholders
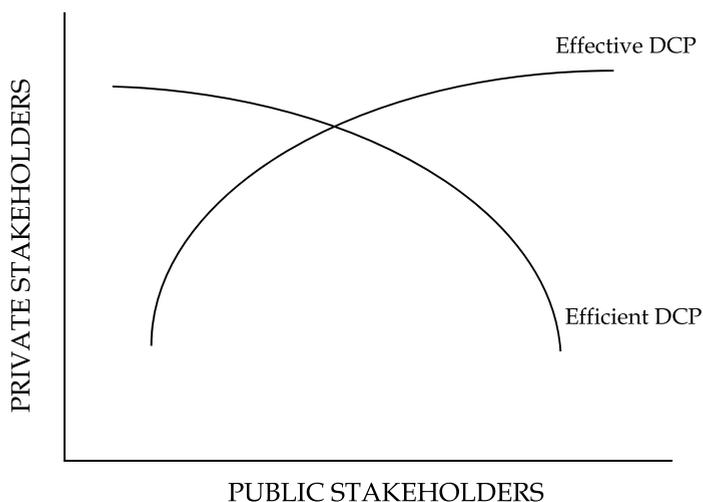
Fig. 1. Predicting Effective and Efficient DCP

Table 1 shows how nonprofits should treat stakeholders in order to obtain maximum effects of using DC. The model suggests that private stakeholders can be divided into two groups: a) recipients of services, and b) participants in the organization's online and offline activities. Public stakeholders are those who contribute and donate – money and in kind - for the benefit of the organization (Balser & McClusky. 2005). How DC improves performance in NPOs in fact represents how digitally mediated marketing affects expectations of stakeholders (Ackcin, 2001). Some recent studies show that, even though such differences are evident in the concept of "targeting", empirical evidence of how marketing in NP succeeds in targeting the "right" stakeholders (Vazquez, Ignacio, & Santos, 2002) and increases performance (Shoham, Ruvio, Vigoa-Gadot & Schwabsky, 2006) or whether levels of performance are adequately evaluated to reach conclusions, are

scarce, because DC investments in marketing do not necessarily increase stakeholder support (Brainard & Siplon 2004; Vazquez, Ignacio & Santon, 2000; Mano, 2009;. 2010). How does this affect DCP?

Figure 1 presents a model to facilitate understanding of the DCP link. As suggested above, while efficient economic measures are vital (Schmidt, 2002; Bielefeld, 1992), the institutional nature of nonprofits suggests that effectiveness measures rise successfully when DC addresses social goals. Then general support is expected, such as increasing awareness of a cause rather than concrete outcomes such as donations. However, when DC is dealing with individual-level outcomes such as satisfaction, participation, or donations, then private stakeholders' expectations and needs should be taken into account. More attractive sites could be one way of gaining direct and/or indirect support (Crittenden, 2000; Galaskiewicz & Bielefeld, 1998; Mano, 2009).

3. Discussion

DC has made a great variety of activities accessible to a very large number of individuals and organizations. In contrast to other types of social exchange, the internet medium is quick, efficient, and direct, requiring minimum effort on the part of the user to accomplish goals, as opposed to traditional methods of interacting instead of "acts of reciprocity, negotiation and cooperation that once allowed businesses to build and maintain relationships gave way to optimized matching systems that undermined and diminished the role of trust" (Cheshire, Geabasi and Cook 2010, p.177). While it is clear that surmounting competition relies today on access and speed of access to sources of information, and the dissemination of that information to possible stakeholders, we must ask questions about the DCP link between digital communication and digital performance (Peltier & Schibrowski, 1995).

For nonprofits there is ambiguity about the extent to which digital communication enhances performance. There are some basic concerns about the extent to which nonprofits can successfully adapt tactics used by for-profit organizations for promotional goals since they often lack professional staff and there is a shortage of volunteers. In addition, nonprofits are examples of social entities that seek social goals, and standard digital communication often lacks the direct contacts considered as vital to social awareness. Moreover, nonprofit stakeholders do not agree about nonprofit performance. Some insist that nonprofits should not be concerned with the economic success of organizational activities, but with how much support they receive from social groups. It is less important whether they donate to a cause or even actively participate as members than being "aware of social goals" and embracing them. Nonetheless, board members and professional managers lacking continuous monetary support are confronted with difficulties in running the organization and completing projects, especially those which are related to provision of services. Focused on efficiency, monetary gain must be a central concern in their decision-making. Unfortunately, studies examining the link between digital communication and digital performance do not account for these concerns. For this reason we have introduced three dimensions that need to be taken into consideration, namely: type of stakeholder; performance effectiveness and efficiency; and individual and organizational levels of targeting.

This taxonomy enables a clearer view of the basic links that can be established, because "targeting' in digital communication via the Internet is essential for getting benefits related to attainment of effectiveness or efficiency-oriented goals. For example, it may be easier to get donations from organizations supporting the same goals. Private organizations such as philanthropic institutes are often more aware of nonprofit practices. They may be less willing to donate via the net, but are more likely to support goals indirectly. Similarly, public agencies supporting the provision of services are probably less interested in DC since their activities are not autonomous but reflect public policies and allocation of funds.

DC oriented towards public institutions will attain higher effectiveness, i.e. moral support and recognition of organizational goals in both service and advocacy groups. In many ways, this type of DC is more capable of raising public awareness, shaping organizational prestige, and increasing exposure to immediate and long-range goals of nonprofits. In such cases, expectations of increased efficiency, i.e. more donations and willingness to participate in organizational activities will be lower. However, when DC aims at higher personal contact with either individual or institutional agents, it will be more successful in attaining donations and contributions of all kinds.

It should be noted that some degree of effectiveness and efficiency is only possible when DC is highly sophisticated and costly. Some nonprofits, usually large international social and complex enterprises, will choose DC purely for effectiveness, though the impact of extended DC will probably have positive outcomes for efficient operation as well. For example, organizations such as Amnesty, Doctors of the World, Unique, Oxfam etc. have achieved high levels of contributions from effective use of the DC link. We therefore recommend using DC in the nonprofits, bearing in mind that direct involvement in attainment of a social goal is the rationale for participation. Providing "passive" support to a cause does not motivate individuals. The Internet certainly plays an important role, but it is essentially by physical presence that nonprofits are able to cope with the immediate and efficient achievement of social goals.

4. References

Ackcin, D. 2001. Non-profit marketing: just how far has it come? *Non-profit World, 19, 1,* 33-35.

Balser, D. & J. McCLusky. 2005. Managing stakeholder relationships and nonprofit organizational effectiveness, *Nonprofit Management and Leadership*, 15(3), 295-315.

Banaji, S. & Buckingham, D. 2009. The civic sell- Young people, the internet, and ethical consumption .*Communication & Society*, 12: 8, 1197-1223.

Barraket, J. 2005. Online opportunities for civic engagement? An examination of australian third sector organisations on the Internet .*Australian Journal of Emerging Technologies and Society* Vol. 3, No. 1.pp: 17-30

Baruch, Y. & N. Ramalho 2006. Communalities and distinctions in the measurement of organisational performance and effectiveness across for-profit and non-profit sectors, *Non-profit & Voluntary Sector Quarterly. 53,* 456-501.

Bielefeld, W. 1992. Uncertainty and non-profit strategies in the 1980's, *Nonprofit Management and Leadership, 2,* 4, 381-401.

Crittenden, W. F. 2000. Spinning straw into gold: The tenuous strategy, funding, and financial performance linkage, *Non-profit and Voluntary Sector Quarterly, 29,* 164-182.

Galaskiewicz, J. & Bielefeld. W. 1998. *Non-profit organisations in an age of uncertainty: A study of organisational change* New York: Aldine De Gruyter.

Hamburger, Y.A. 2008. Potential and promise of online volunteering *Computers in Human Behavior,* 24, 544–562

Hargittai, E. 2000. standing before the portals: non-profit websites in an age of commercial gatekeepers. *Sociology Dept*, vol. 2, no. 6, pp. 543-550.

Hart, T. R. 2002. E-Philanthropy: Using the Internet to build support' *International Journal of Non-profit and Voluntary Sector Marketing,* 7, No. 4, pp. 353 – 360.

Herman, R.D. & Renz, D.O. 2008. Advancing nonprofit organizational effectiveness research and theory: nine theses. *Nonprofit Management and Leadership*, 18, 4, 399-415.

Jennings, M. K & Zeitner., V. 2003. Internet use and civic engagement: a longitudinal analysis. *The Public Opinion Quarterly*, 67, No. 3 . pp. 311-334.

Keith, R. S., Arthur, G. E. & Michael, B. H. (1997). The contribution of local media to community involvement. *Journalism and Mass Communication Quarterly*; 74, 1 .pg. 97-107.

Mano, R. 2009. Information technology, adaptation and innovation in nonprofit human service organizations, *Technology in Human Services*, 27 (3): 227-234.

Mano, R. (2010). Organizational crisis, adaptation, and innovation in Israel's nonprofit organizations: a learning approach, *Administration in Social Work*, 34(4), 344-350.

Mesch, S. G. & I. Talmud (2010). Internet connectivity, community participation, and place attachment: a longitudinal study *American Behavioral Scientist* 53: 45-65.

Olsen, M. Keevers, M. L., Paul, J. & Covington, S. 2001. E-relationship development strategy for the non-profit fundraising professional', *International Journal of Non-profit and Voluntary Sector* Marketing, Vol. 6, No. 4, pp.–73.

Postigo, H. 2009. America online volunteers: Lessons from an early co-production community *International Journal of Cultural Studies* 12: 451-469.

Schmid, H. 2002. Relationships between organisational properties and organisational effectiveness in three types of non-profit human service organisations, *Public Personnel Management, 31*, 377-395.

Shah, D. V. Nojin, K. &. Lance, H.R. 2001. "Connecting" and "Disconnecting" with civic life: patterns of internet use and the production of social capital, *Political Communication*, 18: 2, 141 ― 162

Shah, D.V. Cho, J. Eveland, W.P. & Kwak, N. 2005. Information and expression in a digital age: modeling internet effects on civic participation. *Communication Research* 32: 531-565.

Shah, D. V. Mcleod, J. & Yoon, S.H. 2001. Communication, context, and community: an exploration of print, broadcast, and internet influences *Communication Research* 28: 464-506

Suárez, D.F. 2009. Nonprofit advocacy and civic engagement on the Internet *Administration & Society.* 41: 267 -289.

Tapia, A.H. & Ortiz, J.A. 2010. Network hopes: municipalities deploying wireless internet to increase civic engagement. *Social Science Computer Review* 28: 93-117
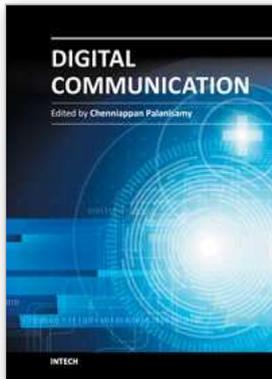
Digital Communication

Edited by Prof. C Palanisamy

ISBN 978-953-51-0215-1

Hard cover, 208 pages

Publisher InTech

Published online 07, March, 2012

Published in print edition March, 2012

All marketing is digital and everyone should have a digital strategy. Everything is going mobile. "The world has never been more social" is the recent talk in the community. Digital Communication is the key enabler of that. Digital information tends to be far more resistant to transmit and interpret errors than information symbolized in an analog medium. This accounts for the clarity of digitally-encoded telephone connections, compact audio disks, and much of the enthusiasm in the engineering community for digital communications technology. A contemporary and comprehensive coverage of the field of digital communication, this book explores modern digital communication techniques. The purpose of this book is to extend and update the knowledge of the reader in the dynamically changing field of digital communication.

How to reference

In order to correctly reference this scholarly work, feel free to copy and paste the following:

INTECH
open science | open minds