

## **Technology's Role in the Nonprofit Sector: Increasing Organizational Effectiveness and Efficiency through Technology Innovations**

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*Increasing technology uptake in the nonprofit sector will allow nonprofit organizations and social workers to provide more effective services through improved work processes. The following paper will discuss how these processes (service delivery, fundraising, and outreach) are carried out in the nonprofit sector given the current technology landscape in nonprofits. I will provide background information about innovations such as cloud computing systems, social media, and mobile technologies that should be incorporated into the nonprofit sector in order to improve the quality of services and work processes. An overview of the barriers that nonprofits face, such as lack of knowledge, lack of resources, and demands by funders, will explain the challenges accompanying increased technology uptake. The final section provides a method to overcome obstacles, allowing the optimal integration of technology into the nonprofit sector.*

Social workers prioritize the needs of others before their own, devoting time and resources to offer services that improve the lives of individuals, organizations, and communities. Technology integration in the nonprofit sector provides an enhanced method for social workers to improve the quality of their services and make their jobs more effective. For example, customized mobile applications for nonprofits could offer social workers the opportunity to conduct fieldwork and to access agency information confidentially and safely off-site. Database software also provides a method for social workers to collect and analyze data while reporting outcome requirements to funders. Although nonprofit organizations incorporate technology functions into their day-to-day work, there still remains untapped potential. Nonprofits have the ability to implement technology innovations progressively, in order to improve service delivery, fundraising methods, and outreach tactics. The following article will discuss the technology

gap in nonprofit organizations, innovations that will allow nonprofits to optimize technology uptake, and an explanation of the barriers preventing the incorporation of technology into organizational operations. The final section demonstrates why collaboration and education initiatives are necessary to overcome challenges so that nonprofits and social workers can benefit from technology's offerings.

## **Background**

Nonprofits have the opportunity to benefit from emerging technologies such as cloud computing systems, social media, and mobile technology in order to increase the quantity of clients served and improve service quality. Cloud computing, also known as “the cloud,” refers to applications, services, or software offered over the Internet instead of requiring direct connection to a server (NTEN & Idealware, 2012). Nonprofits can use cloud technologies to improve internal communications among staff members (with e-mail and collaboration software) and to store information (with office software and data backup). Cloud technologies reduce the cost of services and the time it takes to communicate information.

Social media is a unique cloud solution in that it improves external communications, such as stakeholder engagement, in nonprofit organizations. Social media is an online platform communication tool that includes channels such as Facebook, Twitter, LinkedIn, Instagram, and Pinterest. The purpose of social media is to allow people to connect and interact with each other using the Internet. Because nonprofits connect people to services and provide resources to strengthen communities, social media is a method for nonprofits to convey their purpose and recruit stakeholders. Stakeholders are individuals who have an interest or stake in the organization, and may include volunteers, donors, and service users. The Pew Research Center Internet & American Life Project found that in 2012 alone, 69% of adults across gender, race/ethnicity, and income groups in the U.S. used social networking sites (Smith, 2012). As a result of steady growth, social media networks are increasingly important tools for nonprofits to

raise awareness and conduct outreach.

Mobile technology refers to an array of cellular communication technology, such as smart phones (cellular phones with Internet access), mobile applications or apps (software units available for download on smart phones with specific functions), and tablets (mobile computers that are typically operated by touch screen) (Techopedia, 2012; Techterms, 2011). Nonprofit organizations can use the versatile functions of mobile technology to fundraise and generate interest in their missions and social causes. Given that nearly half of cell phone users own smart phones, one in three American adults downloads apps to cell phones or tablets, and one in ten adults makes charitable contributions using text messaging, there is a large market of potential stakeholders available to nonprofits (Smith, 2012). The offerings of mobile technology have the potential for nonprofits to provide services to clients, fundraise, and—in addition to social media—raise awareness and conduct outreach. In an increasingly digital age, nonprofits and social workers use technology on a daily basis, yet they do not optimally benefit from the technology innovations available.

## **Technology Potential in the Nonprofit Sector**

Technology innovations in the realm of mobile, data, and cloud-based solutions provide nonprofits with the opportunity to reduce the time and cost it takes to effectively deliver services, fundraise, and engage stakeholders.

### **Service Delivery**

Nearly all nonprofits use information technologies to provide services to clients (Johns Hopkins, 2010). Current information technologies that most nonprofits use for program and service delivery include websites, e-mail systems, and databases (MAP & Idealware, 2012). Yet mobile technologies and software systems, which would allow social workers to improve communications with clients and access agency information off-site, are used by few nonprofits. Only 35% of nonprofits use mobile tech-

nologies such as smart phones, personal device assistants (PDAs), and mobile applications to track clients, and only 40% of those users collect data while in the field with clients (MAP & Idealware, 2012). Even fewer nonprofits, less than 20%, use tracking software systems that would allow them to record outcome data for client and volunteer management (NPower & SBC, 2009). Although nonprofits integrate basic technologies into program areas to serve clients, the degree to which updated technologies are incorporated should be re-evaluated for improvement.

A combination of data and mobile solutions would allow social workers to provide services more quickly and reach more users. To overcome the challenges that social workers face when traveling in the field, *NPower Technology Guide for Nonprofit Leaders* (2011) suggests syncing portable devices to office databases. Data could be accessed off-site through server software, which would save social workers time from having to go back to their sites and reduce translating paperwork and notes into agency-based computers. To meet funders' requirements, which depend on results-driven service delivery to inform decision making, a secure database with outcome tracking software would allow nonprofits to measure inputs (the expected goal, pre-intervention) and outputs (the actual goal, post-intervention) (NPower, 2011). As a result, nonprofits would have an easier time reporting client outcomes to funders. Using data and information to inform programmatic and service delivery practices is essential to providing scalable services to clients. From a national sample of nonprofits, half of the nonprofits that did not define a plan for measuring the success of a program also failed to track data about outcomes of clients and stakeholders (NTEN & Idealware, 2012). This demonstrates how the absence of a plan to measure program successes is a potential reason for nonprofits' failure to adopt technologies.

## **Fundraising**

To drive fundraising efforts, most nonprofits rely on foundation proposals, special events, major gifts, direct responses via mail, board support, and online giving (AFP, Blackbaud, Camp-

bell Rinker, Convio, The Center on Philanthropy, Giving USA, & NCCS, 2012). The only type of fundraising to grow consistently is online giving, which increased between 51% and 88% each year between 2002 and 2011 (AFP, et al., 2012). Additionally, more nonprofits should target individual contributions, given that 75% of the funds nonprofits received in 2011 were from individual donors (Rebecca Gordon Group, 2011). Despite a growing market, limited numbers of nonprofits use Facebook advertising for fundraising and individual giving purposes (NTEN, Common Knowledge, & Blackbaud, 2012). Data show that only 3% of nonprofits are fundraising, and receiving less than \$10,000 in annual donations, on Facebook (NTEN & M+R Strategic Service, 2012). Although growing numbers of nonprofits tap into social media sites, they are not maximizing Facebook's fundraising functions.

Mobile technologies, specifically applications and text messaging functions, are a missed fundraising opportunity for nonprofit organizations. Text-to-give campaigns have become increasingly popular channels for donors to contribute to causes. Text-to-give campaigns require donors to text a keyword to a code in order to quickly make a \$5 to \$10 donation (Idealware, 2012). Because not all cell phone users prefer to use the text messaging feature of their cell phones, smart phone applications are another way for cell phone users to donate to causes. Examples include the "iKettle" app from Salvation Army, which allows users to set up their own fundraising campaigns (Idealware, 2012). When using apps to solicit donations, organizations are provided with immediate receipt of the donation, and users can donate any amount, instead of a limited donation of \$5 to \$10 dollars through text messaging (Idealware, 2012). Mobile capacities offer nonprofits an effective way to generate donations while engaging with stakeholders.

## **Outreach and Engaging Stakeholders**

Most nonprofits use social media to generate awareness about their cause-driven work and its impact in the community. Nonprofits appear to understand the usefulness of Facebook to

increase engagement and outreach to more constituents: 80% of nonprofits believed Facebook provided stakeholders with more information and generated more awareness (Idealware, 2011). Although nonprofits actively use Facebook to engage donors, fewer nonprofits use mobile phones for outreach and awareness (Branded4 Good, 2012; MAP & Idealware Survey, 2012).

Mobile functions that allow nonprofits to reach more consumers include the development of mobile websites and smart phone applications. Prior to implementation, however, nonprofits should first assess whether mobile technology fits into their organizational objectives (Idealware, 2012). If organizations find that their stakeholders regularly use cell phones and can be effectively engaged through that method, then nonprofits may benefit from integrating mobile technology into practice. A potential strategy for a nonprofit could be to develop a website that can be accessed on mobile devices and incorporate techniques such as highlighting key messages, keeping content organized and interactive, and using videos, larger pictures, and text with less content (Branded4 Good, 2012). In addition to providing better services to clients and increasing fundraising efforts, integrating mobile technology into operations will allow nonprofits to build a stronger community base and foster better interactions with donors.

### **Barriers to Technology Uptake**

Although a large market of technology users exists, nonprofits do not experience the same high levels of technology uptake and integration. An abundant need for technology is present in the nonprofit sector as a way to develop efficient and effective operational functioning. To integrate technological innovations and improve service delivery, it is critical that organizations overcome their lack of funding and resources, as well as the barriers posed by funders.

#### **Knowledge and Expertise**

A survey of 10,500 nonprofits, charities, and NGOs found

that 60% claimed lack of knowledge is the single greatest barrier to new technological advancement adoption (TechSoup Global, 2012). Another study found that education was needed to teach nonprofits how to bridge social impact missions with technology innovation, identify the causes and effects of tech investments that lead to intended social impact, and train staff in mobile strategies (Gahran & Perlstein, 2012). Although nonprofits attempted to train employees, several impediments occurred, including resistance to change at all levels of staff, the absence of a training plan, and challenges to develop a training to meet an array of staff needs (NTEN & The Nonprofit Times, 2011).

## **Resources**

Resource shortages also explain nonprofits' inability to integrate advanced technologies into operations. To improve technology uptake, nonprofits must, in addition to seeking education, collaborate across sectors to better manage and acquire new resources. Three causes of reduced resources include more competition from other nonprofits to provide services, increased requirements from funders to provide outcome and other data reporting, and increased regulatory mandates (NPower, 2011). Additionally, the top three resource shortages nonprofits faced were lack of funds, time, and IT staff (Johns Hopkins, 2010). Half of nonprofits reported a shortage of IT staff (NPower & SBC, 2009) and two-thirds of respondents in a different survey reported no in-house IT staff (Johns Hopkins, 2010). Technology spending is also reportedly a small proportion of nonprofits' annual budgets, averaging less than 4.2% (Johns Hopkins, 2010). TechSoup Global and Techsoup.org's (2012) survey supported this claim: respondents reported cost as the second greatest barrier to cloud computing technology adoption. In particular, key challenges for nonprofits to develop and sustain innovations are the lack of much-needed resources such as growing capital and the tendency of foundations to encourage innovations but not sustain support for them.

## Funders

Funders are challenged in similar ways as nonprofits, because they must remain informed of the fast-paced technology landscape and become educated on the potential impacts of technology in nonprofits (Gahran & Perlstein, 2012). As a result, many funders have limited expertise and knowledge of the role of technology in serving clients and improving operations. After interviewing 41 funders and 13 nonprofit technology service providers, Gahran and Perlstein (2012) found that funders do not know about the benefits of technology trends, and therefore do not develop technology-funding plans. Additionally, funders are faced with competing funding priorities and lack of clarity about how organizations will use technology for social impact outcomes (Gahran & Perlstein, 2012). Although funders struggle to understand the technology landscape of nonprofits, agencies must also comply with complicated funder requirements that quantify the impact of services (NTEN & Idealware, 2012). Nonprofits faced roadblocks when they attempted to demonstrate assets to funders, including proving positive impacts on communities served by a program and tracking funding sources and program allocations for various funders and regulators (NPower & SBC, 2009). Nonprofits struggle with data collection, analysis, and strategy in order to achieve funders' measurement standards, because the process is time-consuming, expensive, skill-based, and difficult (NTEN & Idealware, 2012). Overall, nonprofits face significant challenges, such as lack of education and resources coupled with limited funder awareness, in the face of technology innovation implementation. In response to a complex technology landscape that prevents organizations from optimizing technology's offerings, collaboration across sectors provides a solution.

### Bridging the Gap

To improve the quality and quantity of service delivery to disadvantaged populations, nonprofit organizations should integrate technological advancements into current practice. To address the barriers previously mentioned, and to strengthen the role



of technology in the nonprofit sector, FEGS Health and Human Services System, one of the largest nonprofits in the U.S. serving over 100,000 New Yorkers annually, proposed a new initiative. Center4, a method to increase technology uptake, will provide a collaborative space for nonprofits, technologists, social entrepreneurs, and funders to address technology needs in the nonprofit sector. Center4 will engage nonprofits to raise concerns about the barriers faced in the field, so that technologists, social entrepreneurs, and funders will collaborate with nonprofits to develop innovative and efficient solutions. The generation of new ideas will help nonprofits incorporate innovative technologies into the social service sector (A. Keefe, personal communication, December 6, 2012).

Center4 will accomplish its objectives with two education tracks, programs, and events. The first education track will target nonprofit executives to identify technology issues in the nonprofit sector and assist them to select and apply technology solutions to solve problems. The second track will be for IT professionals to address technology issues faced by nonprofits, learn about new and emerging technologies, and share problem-solving experiences in the nonprofit sector. Center4 will host programs to accomplish these goals, with informational sessions, problem solving sessions, and nonprofit specialization sessions for each track. The expected outcome of providing education is to increase nonprofits' technology uptake and increase expertise and understanding of IT solutions for challenges. Center4 will also host community events, such as hackathons or competitions, for technologists to target needs voiced by nonprofits. During hackathons, technologists will form teams and match their interests and qualifications to nonprofits' needs. Teams will have a time frame to produce a corresponding technological solution, including a mobile application or software. Center4's role will be to convene these various sectors so that nonprofits can understand the breadth of technology's capabilities and implement solutions into operations. Center4's function as a bridge, connecting nonprofits and technology, will enable nonprofits to provide better services that target the social issues they seek to ameliorate (A. Keefe, personal communication, December 6, 2012).

For example, to address the social problem of homelessness, Center4 could develop a mobile application for social workers and service providers to become aware of empty spaces in shelters, transitional housing, and permanent housing locations. Social workers would be able to respond to openings and to ensure that homeless individuals are directed to open spaces. This same concept of match availability of services to clients in need could be tailored to domestic violence shelters, to match open beds to women and children in need. The goal of applying technology developments to social issues such as homelessness and domestic violence is to increase the number of individuals connected to services. In this way, technology functions to strengthen the capacities of nonprofits.

## Conclusion

Nonprofit organizations must leverage technology to improve how clients receive services and how social workers deliver them. Technology integration provides a method for nonprofits to achieve better service delivery, fundraising, outreach, and communication outcomes. Social workers benefit from technology uptake in the nonprofit sector with reductions in the time it takes to complete services and the cost of conducting them. By becoming educated on technology's potential to reach more clients, advocating for the creation of joint innovations such as Center4, and initiating collaboration with donors and the private sector, barriers can be overcome and social impact can be strengthened. Overall, the advocacy and social justice efforts of social workers can contribute to the expansion of technology in the nonprofit sector.

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