MCS WHITE PAPER:

WHY BOSTON NONPROFITS ARE BEHIND IN TECHNOLOGY ADOPTION, ITS CONSEQUENCES, AND WHAT TO DO ABOUT IT

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Abstract:

The paper provides recommendations to nonprofit organizations, nonprofit technology intermediaries, and funders as to how to encourage more rapid technology adoption and to ensure effective use of technology. Specifically, the white paper recommends that the network of intermediaries establish a coordinating council that develops and delivers on a regional strategic plan for technology assistance.

1   INTRODUCTION

The following paper is derived from research conducted by Stephen Rockwell as part of a thesis requirement for the MBA program at the Massachusetts Institute of Technology's Sloan School of Management.   The thesis was entitled "Critical Factors in the Adoption and Effective Use of Technology". This white paper distills the thesis through the lens of the Greater Boston nonprofit community of which Management Consulting Services (MCS) is particularly concerned.

In a cross-region comparison of nonprofit organizations, the research concluded that Boston lagged behind other regions surveyed in technology adoption and use.   A number of policy recommendations derive from these findings and other available research. The recommendations are intended to spur nonprofit technology adoption and effective use in the greater Boston area.

2   ARE BOSTON-AREA NONPROFITS BEHIND IN NONPROFIT TECHNOLOGY ADOPTION?

The short answer is "yes." Boston-area nonprofits are behind the technology adoption cycle as compared to San Francisco Bay area and Philadelphia area nonprofit organizations. A survey conducted in the spring of 2007 tested adoption of three critical nonprofit technologies:

> ➤ constituent relationship management (CRM)
> ➤ online donation processing
> ➤ Web 2.0 (blogging, social networking, etc.).

The results demonstrate that Boston ranked lowest in terms of technology adoption in each technology category. (See Table 1 below.)

Technology	Boston	San Francisco	Philadelphia
CRM	60%	67%	74%
Online Donation	63%	77%	73%
Web 2.0	14%	35%	19%

Table 1: Comparative Adoption Rates

The organizations polled also rated the technological proficiency of the nonprofit sector within their own region. Boston nonprofits confirm the low adoption rates by rating the sector's technological proficiency lower than nonprofit staff did in the other regions surveyed (See Chart 1 below). The perception of technology proficiency supports the reality of laggard technology adoption.

Self-rating of technological proficiency of region's nonprofit sector

Scale:
5 - Very Proficient

1 - Not Proficient At All
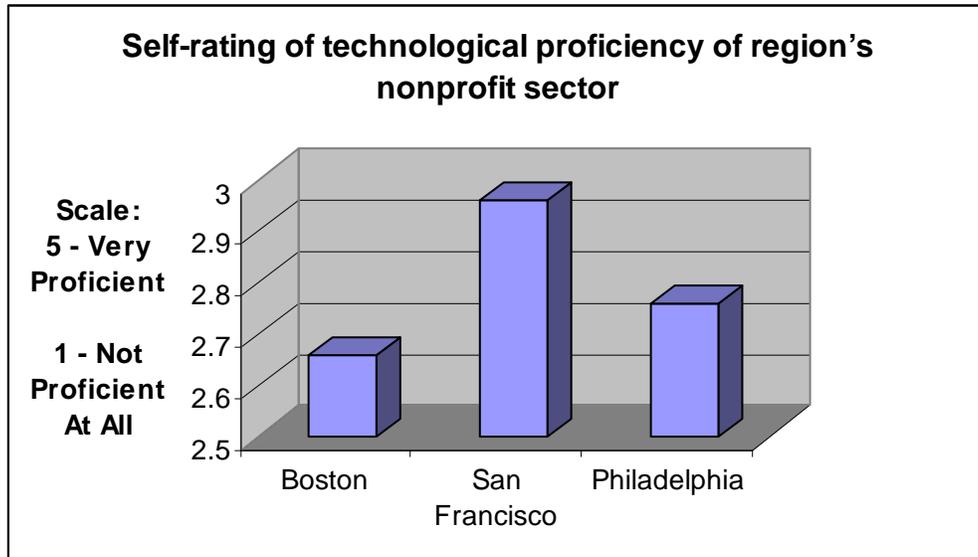
3   POTENTIAL RATIONALE FOR ADOPTION LATENCY

The research came to no definitive conclusion as to why Boston appears to have such latency or time lags in technology adoption relative to the other regions surveyed. One might expect such differences given the strength of San Francisco Bay's corporate technology leaders, but Boston also has a long standing high tech culture, and Philadelphia's corporate sector does not necessarily share the same attributes.

The one critical difference identified in the research is the perceived availability of technology funding, used as an imperfect proxy for the actual amount of funding available. The survey demonstrated wide disparities about the perceived availability of funding, which was used as a proxy for actual funding of technology. As one Boston-area respondent noted, "I suspect

> "We were unable to secure technology funding from any foundation in the Boston area during a critical time in our organization's growth. It appeared that technology and infrastructure were low on the priority list."
>   Boston Nonprofit Professional

they do not realize just how much easier their jobs in these areas would be if they were able to invest in technology and perhaps more important, training. There is grossly inadequate availability of funding for such endeavors." Of all respondents who answered the question, 91% of nonprofits in Boston said funding for technology was inadequate in Boston, compared with 79% of nonprofits in Philadelphia and only 38% of nonprofits in San Francisco. This stark contrast in the perception of funding availability has real consequences on technology adoption latency.

Differences in quality and availability of technology support and consulting might also account for differences. For example, if technology consultants in Boston are less effective than those in San Francisco, the nonprofit community in Boston would lag in its adoption of technology. However, intermediary organizations and individuals that consult with nonprofits to adopt and effectively use technology were rated highly across regions. Similarly, intermediaries and consultants were viewed as widely available and in adequate supply in each region, although some organizations referenced the high cost and lack of funding.

Another potential rationale for regional technology adoption differences includes the existence or lack of a coordinating entity. Both Philadelphia and San Francisco have such intermediaries to assist in the coordination of nonprofit technology assistance, encourage adoption within the sector and technology investment by the local funding community whereas Boston does not. This difference was not tested in the research and warrants further examination.

4   CONSEQUENCES OF ADOPTION LATENCY

The consequences of late technology adoption for nonprofits are largely unknown and require focused research on the outcomes and performance gains of early adopters versus later adopters and some analysis concerning levels of strategic IT investment and performance in terms of program outcomes and operating efficiency. There is widely available research on the corporate sector that has some relevancy in the nonprofit sector.

Dr. Peter Weill, Director of MIT's Center for Information Systems Research, notes that companies that "…link their IT investment strategies to their business strategies are well-placed to outrun their competitors along desired performance dimensions…In

effect, IT savvy yields a substantial financial premium."[1] Indeed, of Fortune 500 companies he measured, the top 5% in terms of IT-savvyness outperform the market by 40%.

For nonprofits, the gains may be both financial and mission-oriented in terms of the double bottom line within which most nonprofits must function. Those nonprofits that adopt technology the fastest, use it most effectively, and develop their own innovations are more likely to perform with greater social impact and efficient operations. Those funders who incorporate technology into their grantmaking will likely see more positive program outcome results. The degree to which corporate gains from IT are relevant in the nonprofit sector should be tested by more research on early and later adopters.

5   POLICY RECOMMENDATIONS TO SPUR GREATER ADOPTION

1. ESTABLISH A COORDINATING BODY THAT WILL DEVELOP AND DELIVER ON A REGIONAL STRATEGIC PLAN FOR TECHNOLOGY ASSISTANCE.

The lack of coordination and knowledge sharing around technology hampers efforts to efficiently deliver technology services throughout the Greater Boston nonprofit sector.

Greater Boston and Massachusetts have a wealth of organizations and independent consultants with strong expertise across the range of technology related services, ranging from basic tech support to strategic technology planning to customized software implementation.   Institutions such as the Tech Foundation's and NTEN's sponsorship of local knowledge sharing among tech providers and users as well as the well attended annual "Grassroots Use of Technology" conferences provide proof of concept of the need for and willingness of the local nonprofit tech community to contribute to common planning and coordination. We suggest the formalization of a coordinated network that will develop and deliver on a regional strategic plan for technology assistance that will engage organizations, intermediaries, and funders.

The plan would call for a coordinating entity or council that would measure progress against the plan and connect with national efforts such as NTEN. The council would also encourage intermediaries to adopt certain niches while recognizing that

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[1] Weil, Peter and Aral, Sinan. "Generating Premium Returns on Your IT Investments. MIT Sloan Management Review, April 2006 p.42.

competition allows for choice amongst nonprofits and encourages service innovation amongst intermediaries. A model for this perhaps exists with longstanding local advisory organizations such as the Massachusetts Technology Leadership Council.

2. RECOMMENDATIONS FOR THE FUNDING COMMUNITY

A. Increase overall funding for technology. Over 90% of nonprofits surveyed in the Boston area feel that funding availability was inadequate, whereas just 38% of San Francisco nonprofits had a similar sentiment. Simply more investment is required and most funders can and should play a role in improving the technology capacity of the nonprofit sector.

B. Consider IT Investments in Portfolio. Investments must be made strategically through the lens of an investment portfolio. Borrowing from Dr. Peter Weill's corporate portfolio concept of IT investment, nonprofit funding should be categorized in the following manner:

- *Infrastructure*: Telecommunications hardware and software. This should be funded though accepting and encouraging proposals with a technology line item in program grants, similar to general administrative expenses.
- *Informational*: Outcomes and organizational performance tracking data systems.
- *Transactional*: Increase efficiency of organization by creating or making available case management, donor interaction and other essential systems that reduce costs and improve workflow, particularly among small and medium sized organizations.
- *Strategic*: High-risk/high return investments. As the nonprofit ecosystem better funds and manages infrastructure, nonprofits can begin to make the move from effective use to innovation. Funders should look for strategic investments that can significantly improve or change the face of service delivery and social impact. Strategic investments today for the sector as a whole would likely focus on Web 2.0 technology, identified as seriously lagging in our region.

Different weighting of the investment portfolio is likely necessary. As a benchmark, the average corporate weights are: 46% Infrastructure, 26% Transactional, 17% Informational, and 11% Strategic.

C. Utilize the expertise of technology assistance providers in IT investment decisions. Most foundations, individual donors and corporations do not find themselves on the cutting edge of technology adoption.   Funders should utilize the expertise of intermediaries to evaluate proposals to determine which new technologies have the most likelihood of social impact.

3. RECOMMENDATIONS FOR THE TECHNOLOGY ASSISTANCE COMMUNITY

A. Ensure greater accountability by evaluating impact. Intermediaries must open themselves up to greater accountability and scrutiny from nonprofit customers and funders. Because technology assistance providers operate in a market where the participants have limited knowledge, metrics for success should be clearly communicated to stakeholders. A coordinating council should develop a common set of evaluation tools to support these accountability efforts.

B. Empower customers to make strategic IT decisions. The overarching goal in service provision must be to transfer enough knowledge so that nonprofit decision makers are able to make effective strategic decisions without having to understand the nuts and bolts of the technology.   Metrics for success aid this knowledge transfer, but intermediaries must encourage organizations to think strategically about how technology will lead to restructuring operational, communication, and programmatic processes for an organization.   While there is a role for the one-off technology project, most technology issues require the marriage of strategic management and technology.

4. RECOMMENDATIONS FOR NONPROFIT ORGANIZATIONS

A. Leaders should not leave IT decisions to the IT people. Leaders with limited knowledge or expertise about information technology tend to delegate IT decisions to the CIO, IT staff or technology consultants. Leaders do not need technical expertise to be able to manage IT at the strategic level. Leaders need to insist that key tech decisions be framed in ways that illustrate the policy and strategy implications for the organizations in ways that boards and executive leaderships can own those decisions.

B. Move away from episodic engagement with IT to ongoing strategic management. Nonprofit organizations must focus more attention on the strategic management of technology and less on the technical proficiencies required for development and support. Those technical capabilities that are not core to the organization's mission should almost always be outsourced.

C. Develop network thinking with other organizations and stakeholders to share resources and solve problems. The mission-orientation of nonprofits gives each organization a unique sense of purpose.   As a result, true partnerships in which resources are shared or problems are solved collaboratively are rare.   IT can be both an enabler (social networking sites) and a motivator (because of high cost barriers) for building partnerships, sharing technologies and ensuring effective adoption.

ABOUT MCS AND NONPROFIT TECHNOLOGY

Management Consulting Services is dedicated to enhancing the impact of the nonprofit sector. We do this in collaboration with nonprofit organizations, funders and major donors. Our work occurs at the organizational level with practical approaches to management challenges as well as at the community level through collaborative learning projects and knowledge dissemination to the sector.

We have partnered with Database Designs Associates to launch the *Management Consulting 2.0 Initiative* that seeks to address some of the challenges identified in this paper. *Management Consulting 2.0* aims to increase the overall awareness and use of emerging new Internet technologies in order to drive strategies that advance mission and improve effectiveness. For more information, click here: http://www.mcsorg.org/?q=managementconsulting2-0 or contact Stephen Rockwell, srockwell@mcsorg.org, 617-861-6150, ext. 204.

We are hopeful that this effort in partnership with other new efforts of the vibrant nonprofit technology assistance community in Massachusetts will lead to improved adoption and proficiency with technology within the nonprofit sector.