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Roderick L. Lee

The Pennsylvania State University at Harrisburg, rlee@psu.edu

Anol Bhattacharjee

University of South Florida, abhatt@usf.edu

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A THEORETICAL FRAMEWORK FOR STRATEGIC USE OF THE WEB AMONG NONPROFIT ORGANIZATIONS

Roderick L. Lee

The Pennsylvania State University at Harrisburg
rlee@psu.edu

Anol Bhattacharjee

University of South Florida
abhatt@usf.edu

ABSTRACT

The diffusion of advanced Internet-based technologies, in particular the World Wide Web (Web), provides new ways for nonprofits to innovatively and creatively confront the complex challenges faced by their current operating environment. The forces at play include decreased government funding, increased demand for programs and services, decline in civic participation, and increased public demand for greater oversight and accountability. Unfortunately, many nonprofits lack the organizational and technological capacity necessary to exploit the strategic potential of the Web. This phenomenon has been coined the *organizational digital divide* – the inequalities between organizations in society that can strategically use the Web to support their mission and those that cannot. In order to better understand the factors that contribute to the organizational digital divide, we develop a theoretical framework that explains why some nonprofits can strategically use the Web to advance their mission and goals, while others cannot. We conclude with strategies for bridging the organizational digital divide.

Keywords

Organizational digital divide, Diffusion of Innovations, Nonprofit organizations

INTRODUCTION

In response to the economic recession of 2008 – 2010, nonprofits in the U. S. social sector are increasingly being called upon to provide essential programs and services that the private for-profit and public government sectors *cannot* or *will not* provide. These nonprofit organizations are human change agents that have long been recognized as a vital part of the social, economic, and political fabric of the American society (Drucker 1992). Over 1.8 million of these mediating institutions exist to build human and social capital in the broader communities in which we all live and work. However, their mere survival is being threatened by four environmental forces: (1) decreased government funding; (2) increased demand for programs and services; (3) decline in civic participation; and (4) and increased public demand for greater oversight and accountability.

Strategic use of the Web is seen as a way that nonprofits can innovatively and creatively address these four challenges (Hackler & Saxton, 2007; Kanter & Fine, 2010; Saxton & Guo, 2009). Therefore, in order to adapt and survive the current operating environment, theorists have argued that nonprofits should adopt a Web strategy that is designed to transform their activities and practices that are more aligned with the organizational mission and goals (Kanter & Fine, 2010; Saxton & Guo, 2009). The most anticipated strategic outcomes are: (1) new program and service delivery models; (2) revenue generation; (3) volunteer recruitment; (4) relationship building; and (5) online accountability. However, the existence of the organizational digital divide threatens these strategic outcomes.

The organizational divide refers to the inequalities between organizations in society that can strategically use the Web to advance their mission and those that cannot. While private and public sector organizations, and large nonprofits have benefited from the strategic use of the Web, many micro and small nonprofits lack the organizational and technological capacity necessary to translate the use of technology into strategic outcomes (Kang and Norton 2004; Kirschenbaum and Kunamneni 2002; Kvasny and Lee 2010; Kvasny and Lee 2011; Robertson 2001; Schneider 2003).

Left uncorrected, the organizational digital divide can continue to lead to a digital society that consists of *organizational cans* versus *organizational cant's*, with respect to strategic use of the Web. Despite calls for research on the organizational digital divide in IS (Dewan & Riggins, 2005), very few studies have actually been conducted. In order to address this gap in research, we develop a theoretical framework that articulates a set of factors that explain the variance in levels of strategic use of the Web. This paper concludes with strategies for bridging the organizational digital divide.

THE NONPROFIT CONTEXT

Currently, there are 1.8 million nonprofit organizations in the United States. In 2005, nonprofits employed 12.9 million people. Total revenue in 2008 was \$1.9 trillion and total assets were \$4.3 trillion (Wing et al. 2010). As such, the nonprofit sector represents a substantial part of the US economy. However, mainstream research in IS tends to be dominated by studies in private and public sector contexts.

Recent studies based on strategic management highlight the ways in which nonprofits can use the Web to enhance their social mission (Bryson, 2004; Hackler & Saxton, 2007; Saxton & Guo, 2009). However, the organizational digital divide threatens the strategic use of the Web. In order for IS research to begin to address the organizational digital divide, it is important to understand that existing models developed in private and public sector contexts may not account for the specific individual, organizational, and environmental characteristics that are unique in nonprofit settings (Drucker, 1992; Moore, 2000).

Basic Differences between the Sectors: Revenue, Public Value, and Population Served

Prior research has identified two key distinctions among organizations across the three sectors (Drucker, 1992; Moore, 2000). These factors include *defining sources of revenue* and *public value delivered* (see Table 1). In the private sector, the sale of products and services represent the primary sources of revenue, whereas appropriated tax dollars represents the defining source of revenue in the public sector. Unlike private sector organizations, nonprofits are not in business to earn profits and they do not possess the ability of the public sector to levy taxes. Charitable contributions in the form of money, volunteer time, and contributed materials are the primary sources of revenue in the nonprofit sector.

The second key defining difference between organizations that operate across the sectors is the public value delivered and how value is measured. Moore (2000) indicated that the principle public value delivered by private sector organizations is financial returns to its shareholders and the use value of its products and services delivered to customers. As such, private sector organizations are generally interested in maximizing shareholder wealth (Porter 1998).

The principle value delivered by public sector organizations is the achievement of the politically-mandated mission. In Moore's original framework performance was measured in terms of the efficiency and effectiveness in achieving the mission. In addition, Moore originally grouped public and nonprofit organizations in the same category and excluded financial performance (Moore, 2000). In light of growing public concern over the national debt and public activism, it is necessary to add financial sustainability and constituent satisfaction.

Unlike private sector organizations, nonprofit organizations are driven by their social mission and the creation of social value (Bryson, 2004; Moore, 2000). The principle value delivered by nonprofits is achievement of its social mission and satisfaction of stakeholders. However, given the decrease in government funding and increased demand for greater oversight and accountability, it is necessary to explicitly add financial sustainability and accountability as performance metrics.

	Private	Public	Nonprofit
Normative goal	Maximize stakeholder wealth	Achieve politically-mandated mission	Achieve social mission
Defining source of revenue	Sale of products and services	Appropriated tax dollars	Charitable contributions: money, volunteer time, and contributed materials
Measure of performance	Financial performance and customer satisfaction	Mission effectiveness and efficiency, constituent satisfaction, and financial sustainability	Mission effectiveness and efficiency, stakeholder satisfaction, financial sustainability, and accountability
Key Calculation	Find and exploit distinctive competitive competence of the firm.	Find better ways to achieve the politically-mandated mission	Find better ways to achieve the social mission
Characteristics of the Population Served	Technologically, sociologically, and economically privileged	Technologically, sociologically, and economically advantaged	Technologically, sociologically, and economically disadvantaged

Table 1. Basic Differences Between Sectors

Finally, we consider the significant characteristics of the population served. The private sector is generally concerned with the maximization of shareholder wealth. They are more likely to cater to individuals that have a higher educational attainment, socioeconomic status, and greater levels of Web use. Similarly, public sector organizations are generally concerned with achieving the politically-mandated mission. They also tend to be more responsive to the needs of a clientele that has a higher socioeconomic status and is increasingly using the Web and social media to organize. However, nonprofits that serve the unique needs of local communities tend to have a client base that has a lower socioeconomic status, and experience lower levels of Web use.

Strategic Use of the Web by Nonprofits

Based on a review of the literature, there are five strategic aims that are currently being used to address the environmental challenges that nonprofits currently face: (1) new program and service delivery models; (2) revenue generation; (3) volunteer recruitment; (4) relationship building; and (5) online accountability (Hackler and Saxton 2007; Kanayama 2003; Saxton and Guo 2009).

New Program and Service Delivery Models

The economic recession of 2008 – 2010 in the U.S. and record unemployment has led to an increase in demand for programs and services in local communities. In order to address this problem, nonprofits are increasingly turning to the Web to extend the reach of their programs and services.

Revenue Generation

Financial sustainability is a critical component of successful nonprofit mission fulfillment. However, the soaring national debt has led to a decrease in government funding for nonprofits. Therefore, nonprofits are turning to the Web as an alternative channel in order to solicit charitable contributions to support their mission (Kanter and Fine 2010).

Volunteer Recruitment

Researchers have reported a decline in civic participation (Putnam 1995; Putnam 2000). Unlike private and public sector organizations that primarily rely on paid staff, many nonprofits rely on volunteers to support their cause. Strategic use of the Web provides alternative ways in which nonprofits can recruit volunteers (Kanter and Fine 2010).

Relationship Building

The evolution of the Web has revolutionized the way in which relationships are developed and maintained. As such, nonprofits of all types are using the Web to build relationships and trust with their core stakeholders and clients (Kanter and Fine 2010).

Online Accountability

High profile scandals such as the United Way and the Red Cross have spurred demands for greater oversight and accountability in the nonprofit sector (Hackler and Saxton 2007). While some nonprofits are strategically using the Web to demonstrate financial and performance disclosure, they are failing to use these technologies to engage their core stakeholders (Saxton and Guo 2009; Waters et al. 2009).

THE ORGANIZATIONAL DIGITAL DIVIDE

The organizational digital divide is a complex and multi-dimensional phenomenon that has recently captured the attention of researchers in the field of IS (Dewan and Riggins 2005; Forman et al. 2005; Kvasny and Lee 2010; Kvasny and Lee 2011). While previous studies focused on the *first order effects* regarding access to the Web, less attention has been given to the *second order effects* regarding the inequality in the ability to strategically use the Web. Despite a decade of research on the organizational digital divide, the topic is relatively underexplored in the field of IS. As a result, IS researchers have called for more research that seeks to better understand the organizational digital divide (Dewan and Riggins 2005).

The concept of the organizational digital divide was first explored in the policy literature as a way to explain the disparities in organizations' capacity to strategically use information technology to advance their mission (Kirschenbaum and Kunamneni 2002; Robertson 2001). An early report released by the National Committee for Responsive Philanthropy (Robertson 2001) suggested that the organizational digital divide was pervasive between the organizations in the nonprofit and their counterparts in the private and public sectors.

In an ethnographic study, Schneider (2003) found that nonprofits and faith-based organizations lacked financial resources, technical expertise, and time. Similar results were reported in a survey of small minority faith-based organizations (Lee 2003). In another study, Kvasny and Lee (2010) identified the structural inequalities (e.g., technology, processes, and

management) that were exacerbated by new government requirements. Using the same sample, Kvasny and Lee (2011) approached the organizational digital divide from an organizational culture perspective. They found that leaders viewed technology more as a *necessary evil* for administrative work and less of a *strategic resource* to support the mission of the organization.

A survey in 2000, reported that 66 percent of nonprofits had a website (Green 2001). However, the results also revealed that there was a disparity in ways that nonprofits were using the Web. Kanayama (2003) examined the Web adoption and use by 430 small and medium-sized nonprofit organizations. Based on a content analysis of the organizations' Websites, the researcher found that there was a significant gap in the strategic use of the Web. Given the social significance of nonprofits to the American society and the rapid diffusion and evolution of the Web, it is surprising the very few studies have examined the Web adoption and use in nonprofits settings.

DIFFUSION OF INNOVATIONS

While significant gains in the strategic use of the Web have been made in the private and public sectors, studies have consistently shown that many nonprofits the Web (Kang and Norton 2004; Saxton and Guo 2009; Waters et al. 2009). This outcome should be expected based on the information technology adoption cycle, which suggest that the adoption cycle starts anew with each innovation. Therefore, we approach the organizational digital divide from a diffusion of innovations perspective.

The diffusion of innovations (DOI) theory indicates that innovations are diffused in certain settings and particular social systems continuously over time. The original theory as proposed by Rogers (1995) identified five factors: relative advantage, compatibility, trialability, observability, and complexity. Moore and Benbasat (1991) extended Roger's original theory by expanding upon the factors that influence adoption. These eight factors include voluntariness, relative advantage, compatibility, image, ease of use, result demonstrability, visibility, and trialability. Yet in another study, three factors were identified that influence adoption of innovations: technical compatibility, technical complexity, and perceived need (Bradford and Florin 2003).

THEORETICAL FRAMEWORK

Kimberly & Evanisko (1981), identified several factors that influence the adoption of innovations: characteristics of individuals; characteristics of the organization; and characteristics of the environment.

Strategic Use of the Web

Strategic use of the Web is defined as the ability of nonprofits to use the Web to support their mission and goals. Strategic use of the Web is based on five ways in which nonprofits can leverage the strategic potential of the Web: (1) new program and service delivery models; (2) revenue generation; (3) volunteer recruitment; (4) relationship building; and (5) online accountability. It is posited that levels of strategic use are influenced by key individual, organizational, and environmental characteristics.

Individual Characteristics – Leaders Education and Understanding of the Strategic Potential of the Web

At the individual level of analysis, the strategic use of the Web is based on the nonprofit leader's level of education and their understanding of the strategic potential of the Web is based. Researchers have found that the higher the level of education, the more likely the leader is to support technological innovation (Rogers and Shoemaker 1971). Similarly researchers have found that when leaders understand the strategic significance of technology, they tend to embrace technology, as opposed to shying away from it (Kvasny and Lee 2011; Shorters 1999). Therefore, it is posited that a nonprofit leader's level of education and understanding of the strategic potential of the Web is positively associated with the strategic use of the Web.

Organizational Characteristics – Size, Assets, and Age

At the organizational level of analysis, researchers have consistently found a positive correlation between organizational size and innovation (Berlinger and Te'eni 1999; Damanpour 1992; Iacovou et al. 1995; Kimberly 1976; Kimberly and Evanisko 1981; Rogers 1995; Schneider 2003). Organizational size is measured by the number of employees and asset size. Larger organizations are more likely to employ more professional and skilled workers. Therefore, they are more likely to benefit from technical expertise. Alternatively, lack of technical expertise is a key barrier to technology adoption and use in smaller nonprofits (Lee 2003; Schneider 2003). Therefore, it is posited that larger nonprofits are more likely to be able to exploit the strategic potential of the Web than micro and small nonprofits.

An organizational asset refers to the total assets as reported on the IRS Form 990. Larger organizations have greater assets than smaller organizations. On the other hand, lack of financial resources is a key barrier to technology adoption and use in

smaller nonprofits (Lee 2003; Schneider 2003). Therefore, it is posited that larger nonprofits with more assets are better able to exploit the strategic potential of the Web than micro and small nonprofits.

Organizational age refers to the chronological age of the organization. According to strategic management theorists, organizational age increases inertia and reduces discretion (Hambrick and Finkelstein 1987). Therefore, it is posited that younger nonprofit organizations are more likely to exploit the Web for strategic aims than older organizations.

Environment Characteristics – Geographic location

At the community level of analysis, community size (Mohr 1969) and geographic location (Forman et al. 2005) has been linked to innovation. Community size indicates whether the organization is located in an urban or rural setting. The urban leadership hypothesis suggests that urban organizations will be more likely to be able to strategically use the Web, based on access to a well-developed Internet infrastructure. However, Internet providers have been less willing to lay down the infrastructure to support broadband connections in rural settings. Therefore, we posit that nonprofits centrally located near urban centers are more likely to be able to strategically use the Web than nonprofits in rural settings.

CONCLUSION

In recent years, IS researchers have begun to examine the broader societal impacts of information systems (IS) and technologies. This trend is tied to the realization that inequality based on Web access and use is a major ethical and social concern in a digital society. This paper developed a theoretical framework for conceptualizing strategic use of the Web in nonprofit settings. This framework can be used to inform research and design interventions in nonprofit settings that are aimed at bridging the organizational divide. Although many strategies exist to bridging the organizational digital divide, two approaches have produced promising results: participatory design (Lee and Carroll 2010) and service-learning in IS (Lee et al. 2010). Finally, although our model specifically focused on nonprofits, the findings can be generalized to micro, small, and medium-sized enterprises.

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