A Case for Philanthropic Informatics

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Introduction

Questions about the continued relevance of the nonprofit sector have piqued our cultural interests, seeping out of the purely academic discourse and into the popular media. In a recent book aimed at the popular press, new media scholar Clay Shirky has argued that new technologies enable people to organize themselves without the formal structures of traditional organizations (2008). And even more provocatively, he contends that "now that there is competition to traditional institutional forms for getting things done… their purchase on modern life will weaken as novel alternatives for group action arise." A recent New Yorker article by Malcom Gladwell pushed back at this assertion, drawing from an extensive body of social movement research which demonstrates the myriad ways organizations provide key infrastructures that are crucial for achieving large-scale social impact (2010; see also McAdam 2005).

This debate, while perhaps fruitful for drawing broader attention to the importance of research in this area, largely misses the point, focusing on a coarse distinction about what does or does not constitute an organization as opposed to asking how information and communication technologies might better serve all philanthropic efforts toward the common good. For the reality is that nonprofit organizations have a history of being shapeshifters, adjusting their own work to adapt to changes in the social and economic context. (Voida 2011; see also Til 1994). Moving forward, nonprofit organizations will need to adapt to changes in the technical context, as well. Researchers studying the public's grassroots use of technology in times of crisis, for example, have observed that organizations need to adapt, in particular, to leverage the public's "emergent, improvisational, and innovative technology use" (Palen & Liu 2007). While this may be a tall order, it is not one that is beyond the pale for nonprofit organizations. One might certainly engage in productive research to help nonprofits adapt to the constantly changing ecology of technologies-to improve their information management systems (e.g., Voida et al. 2011), engage in digital fundraising (e.g., Goecks et al. 2008), or connect with advocates and volunteers via social media (e.g., Voida et al. 2012).

But to stop there would be to diminish the legacy of shapeshifting within the nonprofit sector and to ignore the deeply-rooted interactions and interdependencies among technology and our cultural institutions. Philanthropic activity transcends organizational boundaries, if such things exist. And organizations, themselves, are changing in ways that fundamentally defy our traditional understanding of organizational structure and genre.

In this chapter, then, I argue that a focus on the design of information technologies for nonprofit organizations, or any institutional form for that matter, is too narrow a focus to support the full breadth of philanthropic activity and the full diversity of stakeholders in this domain. Instead, I challenge the research community to take up a more holistic unit of analysis, one that engages in the study and design of information and communication technologies to support any philanthropic work that is being done, in whatever context or contexts that might be. Here, I present a case for philanthropic informatics.

Nonprofit Organizations are Shapeshifters

Historically, nonprofit organizations have functioned as shapeshifters, filling the gaps between other sectors and offering goods and services that are underprovided by other organizations and institutions (Voida 2011; see also Til 1994). So as the context surrounding nonprofit organizations has changed, the work of nonprofit organizations has changed, as well. In general, then, there has not been one static instantiation that we can point to and say, "That is and will always be the nonprofit organization." This continues to be the case.

In the United States, a federal social services program exists to help provide nutrition assistance to low-income households[1]. The program, called the supplemental nutrition assistance program (SNAP), is beneficial not just to the low-income households who are often suffering from food insecurity; the positive impact of the program also extends into local communities, as the federal monies behind SNAP are spent almost immediately at local stores and spur economic growth within the local community (Zandi 2008). It is in the best interest of many, then, to help ensure that eligible individuals and households are enrolled in this program. The state of California has the lowest rate of participation of any state in SNAP (Cunnyngham et al. 2013) and there are a number of efforts aimed at increasing participation. One of these efforts is the deployment of an e-government system-Benefits CalWIN- that allows individuals and households to apply online for supplemental nutrition assistance.

[1] http://www.fns.usda.gov/snap

I have been part of an ongoing research collaboration, studying the deployment of this e-government system within one county in Southern California. We have carried out fieldwork with the social services office that is responsible for processing all of the online applications. Data collection at this field site began in May 2011 when one researcher interviewed a social services administrator who oversees more than 1400 staff members distributed among 7 different offices. This interview lasted 90 minutes and provided a high-level orientation to the social services organization and their deployment of the e-government system, Benefits CalWIN. Eight months after that initial interview, in January 2012, another social services administrator organized a three-day visit. During that visit, the same researcher interviewed 11 additional social services workers for one hour each. The 11 additional interviewees represented five different positions in the organizational hierarchy, from the on-site manager who directs the center, to supervisors in middle management positions, and eligibility technicians who process the social services applications and determine eligibility. We also interviewed an administrator responsible for implementing social services policy mandates within the county.

Because of the fixed and intensive period of interviews, all data analysis occurred after data collection. We conducted our data analysis iteratively and inductively using open coding, memoing and affinity diagramming techniques (e.g., Corbin & Strauss 2008). This fieldwork has foregrounded the ways that the values of the social services workers conflict with the values that are embodied in the e-government system (Voida et al Under Review). We found that these conflicts caused misunderstandings and communication delays between clients and social services workers; caused additional administrative overhead for both the clients and the social services workers; impeded access to the service for clients; and raised questions about the potential for clients enrolled via the online system to become long-term self-advocates in the program.

Yet this particular institutional focus is only one facet of our research. Indeed, if it were the only institutional focus, we would have missed out on some of the most compelling insights and research opportunities in this area. The deployment of Benefits CalWIN corresponded with a sharp downturn in the US and international economies. During economic downturns, the need for food and nutrition assistance typically increases while federal and state funding to support social services operations tends to decrease. In these situations, it is often the nonprofit sector that steps up to help fill the gap between available services and local needs.

In this Southern California county, local nonprofit organizations with a vested interest in fostering food security were given grants to help step up-to become advocates for social services programs within their communities and to assist clients in applying for supplemental nutrition assistance. The employees hired with this grant money and tasked with this responsibility were outreach workers.

So in addition to carrying out fieldwork at the social services office, we also carried out fieldwork with outreach workers and their colleagues at three nonprofit organizations. Over a seven-month period, we carried out approximately 49 hours of observation of nine outreach workers at 15 community outreach locations. We conducted 20 semi-structured interviews with individuals working in three nonprofit organizations, including all 10 outreach workers in this county, three outreach work supervisors, and seven other workers within the outreach organizations (e.g., staff in charge of social media, IT support, and other assistive programs). We interleaved data collection and analysis, which was conducted iteratively and inductively using coding, memoing, and affinity diagramming (Charmaz, 2006).

Outreach workers embody the shapeshifting nature of nonprofit organizations and their work reveals some of the challenges inherent in functioning as intermediaries in the fluctuating space between institutions and sectors (Dombrowski et al 2012; Dombrowski et al Under Review):

- Outreach workers mediate between clients' misconceptions about social services programs and the official program rules and regulations;
- Outreach workers foster bureaucratic literacy, education and empowerment so that clients can function as self-advocates within the social services program;
- Outreach workers believe they are evaluated by clients based on their knowledge of a program with which they are not formally affiliated (i.e., they are often mistaken for social services workers, which they are not, and assumed to have knowledge about the state of an application, to which they are not privy); and
- Outreach workers believe they are evaluated by clients based on their expertise using a system, Benefits CalWIN, over which they have no control. When the system breaks down, it undermines their hard-won rapport with clients. In response, outreach workers have adopted supplemental technologies as workarounds (e.g., using their cellphones as mobile hotspots to counter inconsistent WiFi access or using a scanner to scan client documents so that they can take the information back to their office and input it into the system under more favorable technical conditions)

This research exemplifies the shapeshifting nature of nonprofit organizations. Just as, historically, nonprofits have adapted their work practices to the evolving social and economic context, they shapeshift, as well, to adapt to the evolving technical context. In this case, they have stepped up to serve as intermediaries with an e-government system in support of the larger goal of reducing food insecurity within their communities. These nonprofit organizations have shapeshifted both in terms of the services they provide and in terms of how they provide those services.

From a methodological perspective, then, research in philanthropic informatics necessitates an ecosystem perspective, understanding not just the institutions in

which the philanthropic work and technology interventions originate, but exploring the interrelationships and interdependencies between institutions, as well. This type of a perspective is essential for understanding the experiences of a breadth of stakeholders and it broadens our understanding of who may influence and be influenced by the philanthropic work we study. Further, an ecosystem perspective allows us to uncover sites where essential philanthropic activity is occurring largely invisibly, in the taken-for-granted infrastructures of our communities and cultural institutions (see e.g., Dombroswki et al 2012).

Nonprofit Organizations Have Ill-Defined Boundaries

Nonprofit organizations, particularly charitable or volunteer-driven NPOs, have a long history of having ill-defined boundaries. These organizations have been sites of key partnerships with the public since the late 19th century (Hall 1994; Til 1994). They frequently rely on members of the public to contribute both time and money towards organizational goals—to increase their quality of service, to reach out to new clientele, to engage in community outreach and education, and to influence policy decisions (Brudney 1994). Volunteers working with nonprofits are a significant resource to the workforce. In the United States[2], for example, approximately 64.5 million people (~26.5% of the U.S. population) volunteered for a nonprofit organization last year, with a median of 50 hours worked annually per volunteer (Bureau of Labor Statistics). NPOs also frequently rely on members of the public to contribute financially to their work. In 2012, individuals and institutions in the U.S. donated a combined $316 billion to nonprofit organizations; individual donations accounted for 72% of this total (Giving USA 2013). Without these kinds of partnerships with the public, NPOs would be hard-pressed to do the work that they do.

From a research perspective, then, where does one draw the boundary around an institution like an NPO that relies so fundamentally on members of the public for its work? Are volunteers, donors, and advocates a formal part of the organization? If an advocate retweets an orgnaization's tweet, is that work being done within the boundaries of the organization? If an employee of the organization uses a personal social media account to conduct her work, is that work still being done within the boundaries of the organization?

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[2] I motivate this argument with statistics detailing the interdependence of the U.S. nonprofit sector because it is larger, by percentage of GDP, than that of any other country (O'Neill 2002). However, many other countries also have thriving and important nonprofit sectors (Salamon & Sokolowski 2004).

As part of another collaboration, I have conducted fieldwork with volunteer coordinators at a variety of nonprofit organizations. We recruited 23 participants (22 female), all of whom were responsible for managing the volunteers in their nonprofit organizations. We recruited participants in three different metropolitan areas in the Western United States, primarily via snowball sampling, and we continued recruiting participants until we had achieved data saturation regarding both the use and non-use of technology as well as sampling breadth along two dimensions: the size of the volunteer program and the domain of the nonprofit. Participants represented volunteer programs along a continuum from those just starting to recruit volunteers to those managing established programs with ~2300 volunteers. Participants also represented seven of nine major classes of nonprofits, including arts, education, environment, health, human services, foreign affairs, and public benefit (e.g., community service clubs) (National Center for Charitable Statistics 1999).

We conducted semi-structured interviews using a protocol designed around the following areas of interest:

- The background of the organization, its mission, and the ways that the interviewee believed her work and the work of the volunteers contributed to this mission;
- The nature of the work undertaken by the interviewee, with an emphasis on coordination work both within and outside of the organization; and
- The role of digital and analog technologies in her work.

Interviews lasted 60 minutes, on average. We interleaved data collection and data analysis, which was done iteratively and inductively using grounded theoretical methods (Corbin & Strauss 2008).

We identified two broad classes of technology in our initial analysis, each associated with a distinct set of issues and challenges for the field of human–computer interaction. The first class of technology included databases and personal information management tools (e.g., Microsoft Outlook and Excel) that had been appropriated for organizational use (Voida et al 2011). The second class of technology included a variety of social computing technologies—both those that are marketed to the general public and appropriated by volunteer coordinators (e.g., Facebook and Twitter) as well as third-party social computing applications that have been developed specifically for nonprofits and volunteer coordination (e.g., VolunteerMatch) (Voida et al 2012).

This fieldwork foregrounds the thorny nature of organizational boundaries. Operating under significant resource constraints, volunteer coordinators struggle to manage the breadth of information that is essential both for conducting the day-to-day operations of their volunteer programs and for analyzing and reflecting on the scope and impact of the volunteers within the organization (Voida et al 2011). In general, volunteer coordinators craft assemblages of paper-based tools, spread-

sheets, and address books in an attempt to satisfice their information management needs. Databases are often seen as an impractical solution because of the overhead it would take to set one up, migrate data into the system, and maintain it over the long term. A number of participants had used custom databases, however; in most of these instances, the volunteer coordinators had recruited volunteers with expertise in information technology to help set up their databases. Yet, when these IT experts no longer had time to volunteer, the databases were frequently abandoned. So to what extent are these volunteers working within the boundaries of the organization? Under what circumstances? Just while they are in the building, working on the database? What about when they run out of time for volunteering but still possess critical organizational knowledge? Are they still part of the organization then? The same questions arise for advocates and donors. To what extent and under what conditions does their philanthropic activity fall within the boundaries of the nonprofit organization?

Many volunteer coordinators in this same study reported that a single point-person in their organization managed the "official" organizational social media account (Voida et al 2012). Because these volunteer coordinators did not always have easy and direct access to the organization's social media accounts, many of them used their personal social media accounts to recruit volunteers and to advertise events and opportunities that were being hosted by their organization. When an organization's employees use personal accounts in social media, is that philanthropic work within the boundaries of the organization? If so, does that make a third party, public social media service like Facebook or Twitter an organizational information system?

Because of the extraordinary collaboration between organizations and the public and because of the increasing use of public social media by organizations, providing a useful delineation of the boundaries around nonprofit organizations is becoming increasingly difficult. From a philanthropic informatics perspective, the boundaries around an organization are of less utility than the boundaries around the philanthropic work being done. Indeed, it may be that the ill-defined organizational boundaries, themselves, are key to many of the compelling research questions in this space, for example:

- How can technology be designed to support the fluid involvement and multifaceted identities (e.g., Brewer & Gardner 1996; Farnham & Churchill 2011) of the stakeholders in this domain?
- How can technology be designed to support the distributed facework (e.g., Goffman 1959) implicated in philanthropic activities?

Organizational Genres are Increasingly Blurred

Scholars in several fields are calling into question the traditional distinctions between various organizational genres and the divisions of scholarship about each genre. The field of political science, for example, has traditionally distinguished among three genres of organizations: political parties, interest groups, and social movements (Chadwick 2007). Each genre of organization is associated with a set of repertoires, "a limited set of routines that are learned, shared and acted out through a relatively deliberate process of choice" (Tilly 1995). Political parties, for example, use repertoires that comply with parliamentary rules and adhere to hierarchical organizational structures; interest groups use repertoires that comply with lobbying laws and typically do *not* require mass mobilization; and social movements use repertoires characterized by experimentalism and *do* rely on mass mobilization (Chadwick 2007). These repertoires are significant embodiments of organizational culture:

> Repertoires play a role in sustaining collective identity. They are not simply neutral tools to be adopted at will, but come to shape what it *means* to be a participant in a political organization. Values shape repertoires of collective action, which in turn shape the kind of adoption of organizational forms. (Chadwick 2007, p. 285)

Yet new, more hybrid organizational forms now challenge these traditional distinctions, blending repertoires from multiple organizational genres and even switching from one set of repertoires to another (Chadwick 2007). Chadwick references the nonprofit organization MoveOn as an exemplar of this phenomenon. MoveOn began as a small website in 1998; it hosted an online petition requesting the U.S. Congress to set aside an extended, partisan debate over a single issue and "move on" to more important issues. Once that debate had waned, MoveOn adopted a new set of repertoires and functioned for several years as an anti-war movement. But by 2003, MoveOn had adopted yet another set of repertoires, acting as lobby group in opposition to proposed changes to rules governing the Federal Communications Commission. The same year, MoveOn hosted an unofficial Democratic primary, a repertoire associated with political parties, another organizational genre, entirely.

The methodological implications of making strong academic distinctions based on organizational genre can be seen more clearly in the division between studies of organizations and studies of collective action. Despite both being studies of forms of "coordinated collective action" (Campbell 2005), the fields of organizational studies (OS) and social movement analysis (SM), have taken largely divergent analytic paths (Clemens 2005, McAdam & Scott 2005). In general, where OS focuses on organizations (the structure), SM focuses on organizing (the processes); where OS focuses on established organizations, SM focuses on emergent ones; where OS focuses its unit of analysis on fields of related organizations, SM focuses its unit of analysis on a particular movement; where OS focuses on power in terms of institutionalized or "prescribed" politics, SM focuses on power in terms

of marginalization and disenfranchisement; and where OS focuses its attention on local impacts, SM focuses its attention on impacts to "politics with a capital 'P'" (McAdam & Scott 2005).

Despite these stark contrasts, however, researchers from both disciplines have recently begun attempts to identify important synergies between them (Campbell 2005; Clemens 2005; McAdam & Scott 2005). One key area of synergy, bridging between theories of organizations and public collective action, are the recognized mechanisms by which both organizations and grassroots movements have been found to develop and change including (1) environmental mechanisms that externally influence actors' abilities to enact change, such the presence of allies in a sitting political party, and (2) relational mechanisms, including both formal and informal networks (see also Porta & Diani 2006) that connect organizations and individuals (Campbell 2005).

Research, then, that sets its unit of analysis on a particular organizational genre will have to wrestle with both definitional and methodological challenges. As more organizations take up new and hybrid repertoires, researchers will have to make decisions about how to handle organizations that don't fit traditional genres or that morph from one genre to the next. In this case, is a nonprofit organization still an object of empirical interest if it adopts the repertoires of a political party, instead? And even more challenging, perhaps, is the realization that fields of study develop methodological and theoretical biases based on organizational genre and that, eventually, these can serve to limit the generalizability and impact of the research.

Instead, I argue that a more holistic unit of analysis, focused on philanthropic work, enables an interdisciplinary approach to the study of work undertaken for the common good. It allows the research community to ask questions not just about the technologies being used, but to explore sociotechnical questions about how the relationships between technology and organizational form influence philanthropic work.

Conclusion

I have argued here that a focus on studying the design and use of technologies in nonprofit organizations or other institutions of civic engagement has significant limits. These limits stem from three primary characteristics and phenomena related to organizational function and form:

- Nonprofit organizations are shapeshifters. While these organizations may still be operating within a recognizable and internally consistent genre, nonprofits evolve to pick up the slack from other institutions and sectors as the sociotech-

nical context in which they operate changes. The philanthropic work undertaken by nonprofit organizations is constantly changing; at any given time, a particular philanthropic activity might be under their purview or under the purview of other institutions or sectors. To set one's unit of analysis on the nonprofit organization means that extended lifecycles of philanthropic work cannot be studied as the sociotechnical context changes and the site for the work may or may not be within the unit of analysis.

- Nonprofit organizations have ill-defined boundaries. Not only does the scope of work around the boundaries of nonprofit organizations change, the boundaries, themselves, are ill defined and even permeable. The extraordinary collaboration and interdependence among the organization and members of the public that serve as volunteers, donors and advocates raises significant questions about who is "in" and who is "out," what technologies are "in" and what technologies are "out." In the end, these distinctions limit our ability to the study whole of philanthropic work as it is carried out by individuals with complex relationships to organizations.
- Organizational genres are increasingly blurred. The repertoires of collective action that had previously been signals to the identity of one genre of organization have increasingly been taken up in blended and hybrid forms by different genres of organization. So to set one's unit of analysis around the nonprofit or other genre of organization is perilous as it is becoming increasingly unclear whether organizational genres will be at all differentiable moving forward.

Instead of plunging headlong into definitional questions of organizational form and function that will serve to significantly limit the scope of inquiry in this domain, I argue for a unit of analysis focused on the work, itself. Philanthropic informatics takes philanthropic work as its unit of analysis, and traces its challenges and influences across individual and collective action, sectors and boundaries, hybrid and dynamic organizational and institutional forms. It draws from research conducted across academic disciplines and across methodological divides. It builds on synergies and the larger, shared goal of supporting philanthropic work wherever it can be nurtured and provoked.

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