

Prospectus

Leveraging Data Analytics to Maximize Fundraising Efficacy for The Children's Inn at the

NIH

(Technical Topic)

**An Examination of Motivating Factors in Philanthropy and Their Evolution in the Wake of
Technological Developments**

(STS Topic)

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December 8, 2020

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On my honor as a University student, I have neither given nor received unauthorized aid on this assignment as defined by the Honor Guidelines for Thesis-Related Assignments.

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Introduction

Nonprofit organizations (NPOs) were hard-pressed to compete for philanthropy dollars even before COVID-19 spurred many donors in the United States and across the world to tighten their purse strings (Bose, 2014). In addition to exacerbating financial concerns, the virus has forced the majority of personal and organizational interactions to move online, making effective use of technology a matter of survival for many nonprofits (Swift, 2020). Ever since the late 1960s, when “computers became decision-making support systems,” commercial businesses have flocked to use data to enhance their operations, performance, and financials (Foote, 2018). However, nonprofits have, for the most part, been slower to adapt to shifting technological landscapes (Nageswarakurukkal et al., 2019). Without the dedicated staff or budget space to explore new technologies, nonprofits may understandably allow data analytics to fall by the wayside in light of more direct priorities such as launching fundraising campaigns, holding public events, and, of course, carrying out the actual mission of the organization. But there may be vast opportunities for these organizations in implementing data-informed decision-making platforms to improve their strategy and efficiency in reaching donors and accumulating the funding necessary to further their causes (Sajewski, 2014).

Tasked with leveraging limited budgets to achieve the maximum possible impact, and increasingly held accountable to target spending metrics by nonprofit evaluators, NPOs must carefully weigh the amount and nature of investments they make in a variety of support functions. As one of these many potential investment opportunities, analytics may be viewed as inconsequential in comparison to more immediate demands, or as excessively daunting given a lack of technical expertise available among staff members (Birkholz, 2020). Additionally, there are tradeoffs involved in the costs of investing in data and automation that may be involved, and

therefore expected payoffs must exceed these up-front financial costs as well as justifying the time and energy involved in establishing new analytics practices. Furthermore, effective data analytics rely upon effective data collection as a precursor, which leaves some traditional or smaller scale organizations with a lot of ground to make up.

Technological developments have the potential to widen these gaps existing between nonprofits competing for donation dollars. Several types of third-party players have developed pronounced roles in the nonprofit sector, exerting a significant influence over the ways that donors screen and select the targets of their philanthropy (Heist, 2019). With the rising popularity of mechanisms such as donor-advised funds, crowdfunding platforms, social media campaigns, nonprofit evaluation organizations, and social impact bonds, nonprofits have faced positive pressures to be transparent and tie funds to results. However, these intermediaries often evaluate nonprofits within narrow lenses that rely upon subjective valuation methodologies, and the network effects resulting from mass media have the potential to present significant barriers to entry for less well-established organizations and new entrants within the nonprofit community (Lowell et al., 2005).

The digital age has fundamentally changed how philanthropists interact with charities and make giving decisions. Therefore, nonprofit organizations must remain aware of and adaptive to these shifts in order to reach and capitalize on prospective donors. To secure more donors and to improve access to last-chance treatments for children facing life-threatening illnesses, this research will analyze philanthropy threads and provide strategic guidance for a mid-sized NPO.

Leveraging Data Analytics to Maximize Fundraising Efficacy

The Children's Inn (TCI) at the National Institutes of Health (NIH) is a "Place Like Home" which operates similarly to a Ronald McDonald House, offering free housing and enrichment services to the families of children undergoing experimental treatments at the NIH. One of the three key goals in TCI's recently launched strategic plan is focused on expanding and diversifying its donor base to ensure sustainable financial viability (Lucca, 2018). As part of this pursuit, the leadership team at TCI is hoping to expand its use of data analytics to improve the organization's fundraising efficacy. Therefore, my capstone team will attempt to leverage extensive data collected and provided by TCI as well as information sourced externally from the Census Bureau and consumer insights databases to provide recommendations for TCI to better market towards existing donors and target new prospective donors.

Our primary point of contact at the organization is TCI's Director of Leadership and Legacy Giving, who was hired in the past year. The Inn is also currently undergoing a database migration from Blackbaud to a Salesforce platform, and has been forced to cancel several crucial in-person fundraising events or replace them with virtual alternatives in the wake of the COVID-19 pandemic. In this time of massive change, upheaval, and uncertainty, we hope to help TCI approach answers to some of their largest organizational questions and challenges. In the past, the staff members overseeing donor management and fundraising appeals have made relatively simplistic and arbitrary distinctions between donor groups in their marketing approach. Though they make adjustments to their communications if specifically requested by donors, such as distributing updates and appeals through email rather than paper mail, for the most part they otherwise treat donors in a uniform way. TCI primarily uses their databases as historical records rather than analytical tools; our goal is to help them make this transition.

TCI provided the research team with exhaustive records of their individual and organizational donors, as well as records of individual transactions that can be linked to donors and to particular fundraising campaigns. Changes in the data collection formats and quality over time present challenges, but the data also present opportunities due to its extensive history and inclusion of name and address records that we are using to garner extensive supplemental demographic information on these individuals from external sources. Leveraging this augmented database, we plan to experiment with techniques including clustering, regressions, and random forest models to better understand optimal fundraising opportunities in terms of the ideal timing and format of campaigns, new and existing donors to target, and which factors are most effective in predicting and differentiating donation patterns. The first stage of this process involves developing metrics to categorize donor behaviors. In order to do this, we plan to adapt the Recency, Frequency, and Monetization (RFM) model utilized widely in the commercial marketing space, and then develop unique measures specific to TCI's marketing approach (Bult & Wansbeek, 1995). We also plan to look into social network analysis, which has been demonstrated to prove effective in allowing organizations to better reach prospective donors by keying in on individuals identified within interorganizational circles, and when deemed appropriate, purchasing demographic or contact data for donors to similar organizations (Johnson, 2010). Ultimately, we will deliver a comprehensive marketing plan that dictates which target demographic indicators the Inn should target, how to interact with different donor types, and what kind of data they should collect and monitor. This guide will be accompanied by a dashboard that makes it easy to visualize some of the key decision factors and success metrics in real time. The anticipated flow of data and work is summarized in Figure 1.

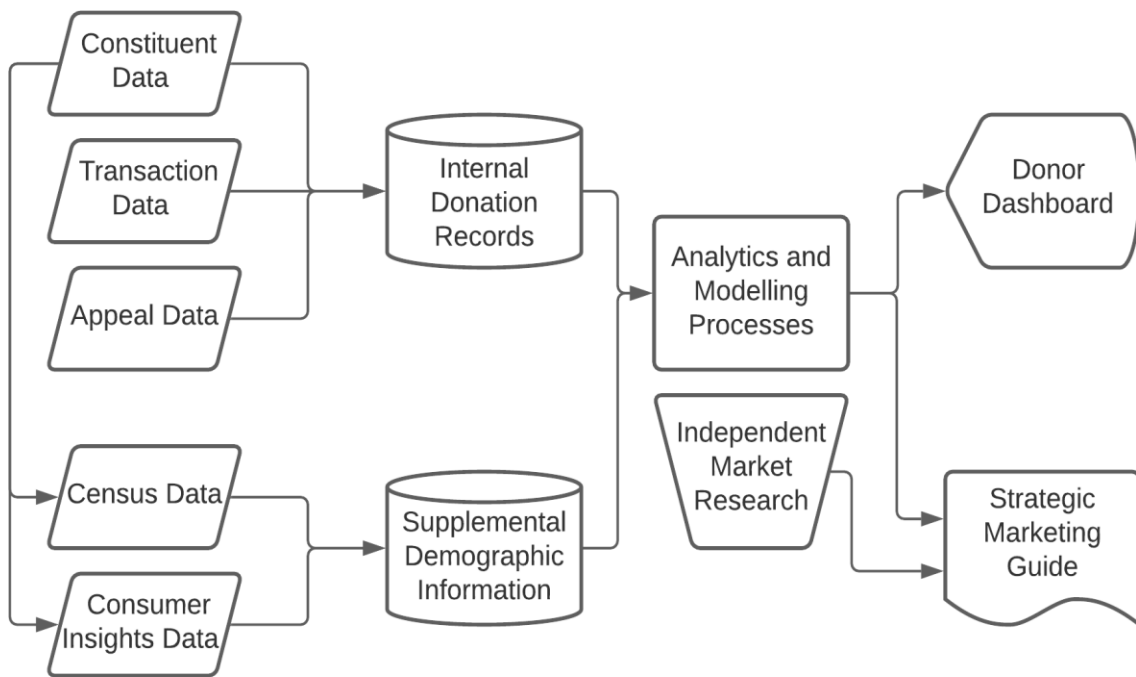


Figure 1. TCI Capstone Data and Process (Eiland, 2020).

The nature of TCI’s structure and the changing industry create challenges that will influence our approach in developing this analytics strategy. Most importantly, the strategic guide and dashboard interface need to be constructed such that they are intuitive for someone with limited time and technical knowledge. For this to be true, the system must update seamlessly and in real-time to reflect the latest data, and its reporting capabilities should ideally be dynamic to adapt to new trends or needs. For example, if a new segment of donors emerges among TCI’s pool, the dashboard interface should enable this group to be manually differentiated from existing clusters, or ideally, could detect this anomaly and adjust autonomously to reflect the new group and notify users of this change. Developing this type of system requires a balance of analytical depth and user friendliness in its approach and design.

Because of this, consistent communication with the client will be essential in guiding the ongoing approach and deliverables of the team.

Leveraging Actor Network Theory to Investigate Motivating Factors in Philanthropy

While some aspects of nonprofit fundraising analysis may be conducted with analytical tools, another important facet entails developing a qualitative understanding of the fundamental drivers behind philanthropy in the United States and globally. Part of this challenge involves differentiating how those of different demographic and socioeconomic backgrounds decide how much, when, and to whom to give. Increasingly, these complex psychological tendencies are tied to how humans interact with technology, as more organizations seek to appeal to a wider network of donors than ever before through means such as social media and targeted online marketing (Lovejoy & Saxton, 2012). Despite increasing opportunities to leverage technological systems for fundraising efforts, many nonprofits such as TCI have still relied heavily upon paper mail campaigns and physical fundraising events. However, in the wake of COVID-19, they are being forced to rethink how to connect with donors historically reached in these ways (Osili, 2020). As part of this process, nonprofits are seeking to better understand how different segments of their donors prefer to interact with and respond to various types of contents and appeals.

Though TCI touches multiple service sectors across both health and human services, Americans, and particularly those of older generations who are more able and likely to donate in larger average amounts, give more frequently to religious organizations than these two sectors combined (National Philanthropic Trust, 2020). Whereas historically nonprofit marketing analysis has striven to understand how donors decide to give to particular causes on the basis of the groups' causes, branding, and transparency, recent studies have suggested that younger

donors may be more agnostic to particular causes and instead responsive to specific events (Lilly Family School of Philanthropy, 2019). This trend necessitates a focus by NPOs on their communication style and donor experience, as well as a consideration of the interactions and roles played by various actors in the space. Donations are received from various constituent types including individuals, corporations, and foundations, with tools like crowdsourcing and donor-advised funds making philanthropy more accessible, but also more complex, than ever before (Colinvaux, 2017).

Sites such as Charity Navigator and CharityWatch have defined internal metrics that they use to evaluate and score nonprofits based upon factors such as “Financial Health” and “Accountability & Transparency,” which are calculated from specific figures and ratios such as the percent of budget spent on administrative and fundraising expenses (Charity Navigator, 2016). Although their data aggregators and formulas attempt to adjust for nonprofits operating in different cause segments, they often offer overly simplistic outlooks based solely upon recent financial performance, oftentimes only based upon the past fiscal year (Lowell et al., 2005). These types of scoring methodologies place no value on measured or even perceived impact of services in terms of desired outcomes, which means they reflect a severely incomplete picture of a nonprofit’s holistic health and success. Nonetheless, they serve as valuable tools to hold nonprofits accountable and enforce the type of transparency that donors widely report as a major priority (Behn et al., 2010).

Described by Bruno Latour (1992), actor-network theory (ANT) aims to segment sociotechnical systems based upon the stakeholders they involve. Latour’s focus on generalized symmetry, the equal treatment of human and non-human actors, enables the consideration of not just the parties at the forefront of philanthropic transactions, but also the systems and external

mechanisms more indirectly influencing the ongoing cultural interpretation and dynamics of their interactions. In particular, the interessement phase, in which new actors enter a network to assume roles suggested by other actors, is relevant in considering how third parties have sought to provide evaluation of nonprofits and guidance for donors to better reinforce the organizational transparency that has been increasingly valued and demanded by donors. Additionally, Latour's discussion of how technologies may discriminate against particular demographic groups (i.e. doors against frail people or package deliverers) will be useful in evaluating the ways in which technological advances and third-party involvements may inhibit the success of less well-established NPOs. ANT is therefore a very suitable model to map out and analyze the influences of various types of nonprofit evaluators and intermediaries, as well as to dissect the methodologies they use to assess organizations and the ways that their content is used by consumers to make philanthropic decisions. While personal, physical interactions with an organization are clearly tied to stakeholder engagement, donors now rely upon these third-party actors to form their understanding of various giving opportunities, and increasingly to actually facilitate the transaction process as well (Wan et al., 2017). Mapping these complex interrelations among and in between nonprofits and donors will inform a more effective approach to social impact fundraising for all parties involved.

Research Questions and Methods

A review of literature in the philanthropy sector over the past few decades reveals that the marketing techniques employed by organizations and the values of donors evolve rapidly in response to sociotechnical developments. How are donor decision-making processes and giving behaviors changing as the philanthropy scene is continually influenced by technological

advances and the emerging entities that accompany them? Understanding these trends and their implications is essential for nonprofits hoping to leverage existing donors and seek new ones, especially for less well-established organizations in danger of being left behind to “compete for shrinking resources with increasingly outmoded tools and methods” (Beckley et al., 1996). The answer to this question will emerge from analysis of both existing market studies and reports as well as original surveys and interviews conducted with nonprofits, donors, and experts in the philanthropy sector.

Thematic analysis will be conducted based upon previously published nonprofit sector reports as well as interviews with experts in the fundraising and marketing spaces. Prior work reviewed will include the recent Nonprofit Needs Survey Results by the Center for Nonprofit Excellence and the National Council of Nonprofits *Nonprofit Impact Matters* report, which “tells the story of nonprofits from their perspective” (2019). Interviews will be with Jerry Montgomery, founder of the marketing firm 5W Strategists, and Virginia Hawkins, the former chief strategy officer of a nonprofit helping victims of sexual trafficking called Starfish Project. This background knowledge will provide context for the development of various hypotheses, which will then be tested by ranking and scoring the results of a survey which has been distributed to hundreds of donors of The Children’s Inn (TCI) at NIH, a mid-sized health and human services nonprofit. The nonprofit perspectives and survey results will be compared to evaluate how donor priorities and behaviors are perceived by fundraising officers versus how they are reported by actual donors. The survey will also attempt to gauge how donor motivations differ in online and social media contexts, as research has suggested that behaviors are fundamentally different on these platforms (Saxton & Wang, 2013). Interviews will also be conducted with younger individuals engaging heavily with technology, primarily fourth year

students from the University of Virginia. These interviews will be evaluated as case studies in order to understand in more depth what various types of donor journeys look like from idea conception to post-transaction sentiment. This interview process will attempt to permeate the psyche of donors as they consume various forms of marketing content, i.e. deciding to which nonprofit they would be more inclined to donate after watching a video ad and reading an appeal letter. Subsequent analysis will then seek to align these reported donor priorities with opportunities for improvement on the part of fundraisers, such as more selective campaign distribution or more intentional market orientation (Sargeant & Shang, 2016).

The results of the donor-facing survey are expected to be finalized by the end of 2020. In the coming weeks, the aforementioned interviews will be scheduled in order to gauge the views of those involved with the opposite end of the fundraising process. Following this period, quantitative analysis of the survey results will be used to detect statistical patterns in donor responses, and the insights will be compared to the thematic findings of the interview case studies. Early 2021 will then be dedicated to distilling and articulating the alignments and conflicts between the two stakeholder groups' accounts and their relations to previously and newly identified actors in the sector.

Conclusion

As donors' interactions and behaviors evolve alongside developing technologies, it is essential for nonprofits to understand how to appeal to their preferences. One key component of maintaining an edge in this increasingly competitive space is becoming more intentional about harnessing and leveraging data. The comprehensive strategic marketing guide and real-time analytics dashboard delivered to The Children's Inn at NIH will help them to better understand

which new and existing donors to target, how to best reach them, and how to adapt to sector changes in the future. An analysis rooted in actor network theory regarding how different types of donors make decisions, as well as how the philanthropy scene is changing in light of technological advances, will augment this analytical work, enabling the implementation of more insightful and proven fundraising strategies. By more fully understanding the motivating factors behind philanthropic donations, nonprofit leaders can be more intelligent and deliberate about how they collect and utilize data that can enable their organizations to acquire more financial support and better fulfill their missions.

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