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Designing A Next-Generation Digital Donation Platform Utilizing Evidence from Surveys and Behavioral Economics

Eighty-seven percent of US adults use a mobile phone and seventy-seven percent of those use a smartphone.[1] These percentages increase every year. The world is going digital, particularly as "digital native" generations makeup more of the economy and older generations become increasingly fluent with digital ecosystems.

Particularly, financial services and banking are moving to digital platforms at blazing speed. Fifty-three percent of smartphone users actively utilize mobile banking.[2] From a demand perspective, Millennials are especially eager to handle their money at their digital fingertips. 70% have said they would prefer financial services from Google, Apple, or Amazon than their existing financial institution.[3] It is increasingly an expectation that personal and financial administration can occur through mobile and web applications that have a pleasing user experience. From a supply perspective, financial technology ventures raised $2.29B in collective venture funding in 2015. Similarly, the three-year study, "Millennial Disruption Index" identified financial services as the industry most likely to experience disruption by new technology.[4] This activity is fostering innovation and accelerating the evolution of analog

[1] https://www.federalreserve.gov/econresdata/consumers-and-mobile-financial-services-report-201603.pdf
[2] https://www.federalreserve.gov/econresdata/consumers-and-mobile-financial-services-report-201603.pdf
[3] https://www.startupgrind.com/blog/fintech-leapfrogs-to-mobile-will-wearables-be-next-1/
[4] http://www.millennialdisruptionindex.com/

finance into digital. Money is quickly becoming digital. The financial systems of many western European countries have already become nearly entirely digital.

With this rapid movement, one would expect charitable giving to benefit. Making a charitable gift uses the same technology as other financial movements, though it is sometimes wrapped in a charitable-giving specific product. At current US levels of digital adoption, one would expect to see, at least, general parity between digital adoption in charitable giving activity and the rest of the financial economy. Yet only 7% of total charitable giving in the US transacts online in any form. This is far less digital adoption than any area of the financial services industry. Online giving is increasing but only at 9% per year,[5] and this is even lower than comparable rates of digitization in other sectors. By percentage of sales, on an industry-wide basis, total retail shopping is more digital than charitable giving.

This situation, in itself, is not necessarily a problem, but analog methods of moving and processing money in the charitable sector are becoming increasingly costly. Facilitating checks, cash, and wire transfers require administrative labor (labor is increasingly expensive relative to other expenses), have higher risk of fraud, and, many times, require sizable transaction costs for the organization, the donor, or both. Furthermore, a charitable sector that is digitally-depressed will become increasingly out of stride with the lifestyle of future donors. Incongruence with the interactive preferences of donors will mean decreasing donations,[6] which will be discussed further in this paper. The charitable sector seems to be exposed to unnecessary difficulty.

[5] http://www.networkforgood.com/digitalgivingindex/
[6] https://www.blackbaud.com/files/resources/surveyresults/OnlineGiftDonorProfile_ResearchResults.pdf

Either incentives for online giving have not been strong enough or there is some kind of market failure. A new approach to digital tools in the charitable sector is needed. In order to find an effective solution, two things must be understood: (1) why digital adoption has been so low for the charitable sector and (2) what makes people give to charity. Hypotheses on these two issues will inform design for an effective digital solution in concert with generally accepted technology and user-experience design trends.

DIGITAL NON-ADOPTION IN CHARITABLE GIVING

Diagnosing why charitable giving has been largely non-digital must start with analyzing some giving and behavioral observations. Charityvest conducted a survey in early 2016 that asked over 450 randomly selected respondents nationwide about their giving habits and preferences. The average respondent in our sample stated they give $2374.53 (lower than the national average reported in other studies[7]) per year and support 3 charities, making ~10 gifts per year for an average gift size of ~$240. Donors were asked to identify their favorite ways to give to charity and to rate various factors related to giving that encourage or discourage their personal giving activity. Related to the non-digital-adoption question in giving, two issues emerged from the data: (1) donors do not believe—or strongly believe if they do—that the online experience of giving to charity is better than offline, and (2) donors have friction with the perceived and experienced costs of online charitable giving. Stated more simply, the cost-benefit analysis of using online giving for the average donor is not favorable.

In the Charityvest study, 49% of active donors utilized online channels to give in the past year, yet 59% of active donors reported online channels were their *current preferred method* of

[7] https://www.nptrust.org/philanthropic-resources/charitable-giving-statistics/

giving (over offline channels). Furthermore, 81% reported they would like to use an online tool to manage their donations in the future. There is a clear theoretical gap between what value online giving can—and perhaps should—deliver in the donor's mind. Only a portion of donors who want to use online methods actually use them, and only a small fraction of total giving value comes through that channel (7% as earlier noted). It would seem that, in addition to the gap between desired and actual usage of online channels, there is a gap in the amount per gift given online as well. The average gift size between offline and online channels are similar, but the standard deviation of online is much smaller.[8] Generally, donors do not make large gifts online. Both usage gaps and size gaps cause online giving to trail offline so greatly.

This is likely, in part, because online donation experiences are not typically well-designed. A 2015 study by Dunham & Company, a web marketing firm for nonprofits, indicated that up to 66% of online giving transactions are abandoned before they are completed.[9] Nonprofit sites in the study were further analyzed along various marketing quality metrics and indicated various shortfalls with website-quality benchmarks, e.g., 84% of nonprofit websites (and giving portals) were not optimized for mobile viewing and most organizations required more than 3 clicks to complete a gift. Each factor was correlated with giving transaction abandonment. A separate industry study from NetworkForGood indicated that nonprofits can raise seven times more money on optimized giving pages than non-optimized.[10]

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[8] https://generosityresearch.nd.edu/assets/13043/american_express_charitable_gift_survey.pdf

[9] https://www.dunhamandcompany.com/2014/01/nonprofits-receive-poor-grades-in-study-of-online-fundraising-dunhamcompany-study-finds/

[10] http://www.networkforgood.com/nonprofitblog/how-giving-is-growing-online-the-latest-from-the-digital-giving-index/

Exacerbating the issue of quality donor experiences, design incentives in online giving are not fully aligned between donors and nonprofits. Online giving solutions are not focused on donor preferences, which is sub-optimal. Most services used to facilitate online giving fall into two general categories: general payment software and nonprofit-specific giving software. For general payment software (like PayPal or Stripe), revenue is collected on successful transactions, but within this category, nonprofits are a relatively small target market. Online retail merchants are a much larger target, so tools are optimized for merchant customer experiences, not donor giving experiences. For the nonprofit-specific solutions, revenue is collected on transaction fees and usually some kind of servicing cost, with the service portion most typically being a flat monthly or annual subscription. These solutions must still use a payment servicer, and so transaction fees are extremely low margin. The profit margin is in the subscription fees, which is paid purely by the nonprofit. Design incentives align on a quality experience for nonprofits, not for donors. This is not ideal for the donor or the nonprofit in the bigger picture.

The second digital non-adoption issue that presented in the Charityvest study is the powerful, reported effect of transaction costs on online giving behavior. 43% of donors reported that they would not give through an online channel—at all—if there were transaction fees present. Separately, 63% of donors reported they would increase their giving if there was a method to donate online without transaction fees. A quick Google search on "charitable giving fees"also yields links to blogs with comments of many people decrying the presence of these fees.

This behavior on behalf of donors is likely due—at least in part—to attentional bias. Variable costs incurred to process gifts are staggering but largely similar for online versus offline gifts, especially for smaller gifts. Donors are more aware of online transaction fees because they are clearly listed on the donation websites and there is discussion about them in general culture. Conversely, donors are unaware of the existence of sizable costs for offline channels because admin costs within nonprofits are not discussed and they are usually non-visible (they do not show up in financial statements as transaction cost but rather in employee headcount and opportunity cost of effort).

It is worth briefly comparing the offline versus online costs of charitable giving transactions to press the point further. To process a gift, the nonprofit must—at a minimum—financially process the transaction, book the transaction in its accounting systems, record the transaction in its records (CRM or otherwise), and receipt the donor for the gift. A 2016 PayPal study[11] noted that the financial portion of costs for a nonprofit to process a $50 dollar gift across offline and online giving channels were extremely similar—$3.63 for a paper check and $3.15 for online portals and "digital wallets" (PayPal). These costs are merely financial, however, and are not "fully loaded." The activities to book, record, and receipt gifts may be more efficient for online donations because there is likely some form of electronic record that is automatically produced for most online gifts, but it must still occur whether online or not, and so the cost comparison on the "normal" administrative portion of our comparison is largely similar.

Exploring factors unique to each giving channel, there are cost differences. Nonprofits will incur greater costs for checks as they are much more prone to costly, problematic transactions—bounced, damaged, or fraudulent checks; losing the paper check in the mail; etc.

11 https://www.paypalobjects.com/digitalassets/c/website/marketing/global/shared/global/social-innovation/documents/Understanding-the-Costs-of-Charitable-Giving-Final.pdf

Checks can be an expensive form of payment. It is only in larger denominations that checks can become more cost effective—the transaction costs of checks are fixed, while online forms are mostly variable. This is a major reason why online charitable giving is depressed. The principle of checks being fixed cost is intuitively understood by donors and nonprofit staff members, and the admin costs are invisible. So for larger gifts, therefore, which comprise a larger proportion of total giving value, there are significant perceived economic incentives to encourage an offline gift.

There is almost no correlation in the Charityvest dataset between reported giving amounts and desire to donate online versus offline, but evidence of this effect shows up in the reported sensitivity to transaction costs and ex-post analysis of giving data. Larger donors in the Charityvest dataset were twice as likely to report sensitivity to transaction fees, for example. Additionally, in a 2011 Blackbaud study of multi-channel giving (offline versus online) the most significant finding was that regular donors—those whose made a commitment to support an organization monthly—were most likely to be acquired online for the first gift, but then more than 50% likely to *move* to offline giving.[12] The reverse is not true. The study found no evidence that *any* donors were moving from offline channels to online. No primary reasons were supplied, but it must be assumed that perceived transaction costs play a major role in this calculus for donor and nonprofit incentives. For the nonprofit sector, online giving has been more of a marketing tool than a desired primary giving channel.

In summary, donors do not perceive the experience or economics of online charitable giving to be significantly enhanced over offline channels. Perhaps more importantly, structurally, is that

[12] https://www.blackbaud.com/multichannel

the market for charitable giving software is not currently incentivizing this to change within nonprofits. Change in online giving, therefore, will need to incorporate enhanced donor-centered user experience design, improved perceived economics, and, at least in part, an effective non-market strategy (partnerships/alignment with strategic people, organizations, companies and influencers) in order to unlock the efficiencies that digital finance can bring into charitable giving.

WHAT MAKES DONORS GIVE TO CHARITY

The other area that must be explored to inform a solution is motivation. If a system is built without effective understanding of giving motivation—or the range of giving motivations—it is far less likely to succeed. It must, if bringing other efficiencies, avoid hindering motivations. Many academics and industry professionals have attempted to investigate what makes donors give to charity in recent decades. This paper will not attempt to provide original thought or evidence in this arena, but rather to make bold summary claims of what has already been shown in the evidence.

In reading through scores of published papers on giving and parallel topics, it is deduced that giving motivation is captured at two levels, in order of effect on behavior:

1. Personal identity—that giving presents an opportunity for a person to signal, to oneself or others, that something is true about oneself.[13][14][15] This can occur in multiple ways:

[13] http://onlinelibrary.wiley.com/doi/10.1111/j.1465-7295.2012.00468.x/abstract

[14] http://econpapers.repec.org/article/eeejeborg/v_3a67_3ay_3a2008_3ai_3a1_3ap_3a228-238.htm

[15] http://home.uchicago.edu/ourminsky/Charity_Default_Goswami_Urminsky.pdf

a. First, giving to a specific effort or cause may be an opportunity to relationally signal support for a second party,[16][17] either someone who is involved in the specific effort or who holds it personally valuable for other reasons. Giving can be an opportunity to signal to that second party that they are highly valued by the giver. The giver wants the second party to believe that something is relationally true about themselves.
b. Second, giving may give an opportunity to signal to oneself that something is true about one's own personal identity.[18][19] A simple example is if someone wants to be a person who cares about the environment, a gift to an environmental conservation group may help them feel more vested in the environment on a moral level. This generally follows the Biblical proverb, "Where your money is, there your heart will be also."
c. Third, giving may present an opportunity to market to the world that one is a certain type of person,[20][21] Giving to support children in need can represent an opportunity to provide evidence to the world that one is the *type of person* who cares about children in need. It becomes, therefore, an opportunity to purchase a quality signal.

Each of these identity signals relate to the "story" that giving a gift may tell—to the donor themselves, to limited second parties, or to broader third parties (the mass audience). A giving platform must be sensitive and intentional on the opportunity it

[16] http://www.iza.org/files/ectra_falk_gift-exchange.pdf
[17] http://ices.gmu.edu/wp-content/uploads/2010/07/Fall_09_Price.pdf
[18] http://www.darkcoding.net/research/social_labeling.pdf
[19] https://site.stanford.edu/sites/default/files/kesslermilkman_identityincharitablegiving.pdf
[20] http://karlan.yale.edu/sites/default/files/1-s2.0-s0167268114002017-main.pdf
[21] https://www.chapman.edu/research-and-institutions/economic-science-institute/_files/WorkingPapers/Red-Cross-2015.pdf

presents for the donor to tell a story about their identity through giving. This will drive perceived donor value by the platform.

2. Altruism—that giving presents an opportunity to participate in making someone else's life better, and this has "happiness effects" in its own right.[22][23] This category must be precisely defined because much of the research in the area of "warm-glow giving" bleeds into the pro-social benefits of giving, which would then fall under the first giving motivation cited above. This motivation attempts to capture altruism purely—that there are circumstances for certain people at certain times when they have no explicit, self-interested motivation in giving, other than to taste, experience, or hope for the joy it can bring another person. Though this is more rare than the first, and therefore likely has a smaller aggregate effect on actual giving behavior, it is important to recognize. Various models, reductionist and non, have been proposed to explain altruism effects, but the only important thing here is to recognize it as a critical motivation.

There are other motivations that are widely proposed such as psychological, religious, and various prosocial motivations, but it is asserted here that all of these broad motivation sets are derivative of the two motivations above. For example, religious belief may motivate one to give but it would, on a deeper level, come from either the first—to signal to oneself or others a commitment to religious belief—or the second—to live out religious faith in the altruistic service of others—above.

[22] http://www.cmu.edu/dietrich/sds/docs/loewenstein/helpvictimAltruism.pdf

[23] https://philanthropy.iupui.edu/files/research/altruistic_and_joy-of-giving_motivations_in_giving_behaviors.pdf

Holding the two proposed primary motivations in view, a platform to digitally move charitable giving forward would need to incorporate levers that move people along these motivations toward giving. Based on various sources,[24] this paper also proposes three summary levers to utilize—or to avoid hindering—giving motivations to the greatest extent possible:

1. Price. It is evident that donors perceive a price to giving opportunities, that is, the amount of money and time required from the donor to fund one dollar of charitable activity.[25] Prices come from transaction costs of making the gift (time and money required to make the gift), perceived internal efficiency of the nonprofit and/or the fundraising effort, and the efficiency profile of the specific giving opportunity. The lever for the digital giving platform is to lower the price of giving by:
    a. Lowering transaction costs of giving. Make the process of giving a gift near-instant (perhaps like Amazon.com's 1-click ordering) to lower the amount of time required to make a gift and lower the fees involved to the greatest extent possible. It needs to be evident that the gift mechanism itself is lean.[26][27]
    b. Provide high-quality information. Inadequate information or presentation of information about the opportunity affects the price of giving.[28] Donors must dig deeper to gather information about the opportunity—which is a substantial transaction cost—or take a leap of faith on the opportunity. Both reduce giving amounts on average as donors feel less confident when limited information is presented.

[24] http://www.ideas42.org/wp-content/uploads/2016/06/Behavior-and-Charitable-Giving_ideas42.pdf
[25] http://www.nber.org/papers/w19082
[26] https://www.povertyactionlab.org/sites/default/files/publications/295-%20January%20'10.pdf
[27] http://www.sciencedirect.com/science/article/pii/S0167268114002492
[28] http://fulltext.study/article/969763/UnInformed-charitable-giving-%E2%98%86

  c. Enable matching and seeding.[29] Visible indicators of other pre-existing gifts that "seed" or match the donor's gift will effectively lower the price of a gift in the donor's mind.[30][31][32]

2. Sociability. Donors find value in the relational dynamics that charitable giving can create. The lever for a designed giving platform is to provide digital forums for certain social behavior around charitable giving.
    a. Recognition & selective recognition. Donor behavior is encouraged when they can be recognized for it in a way that is preferred for them.[33] Allow and enable donors to be intelligently recognized by others when they give.
    b. Friendships. Donors respond to people they like and respect.[34][35] Leverage social connections between opportunities to increase giving activity.
    c. Small socially-friendly incentives. Enable organizations and donors to "challenge" one another with competitions and prizes. Lotteries have been shown to materially increase giving outcomes.[36] Non-monetary gifts such as books and speaking event invitations also increase giving activity.[37]

[29] http://www.nber.org/papers/w12338
[30] http://econweb.ucsd.edu/~jandreon/Econ264/papers/List%20Lucking-Reiley%20JPE%202002.pdf
[31] http://www.nber.org/papers/w13728
[32] http://home.uchicago.edu/~jlist/papers/Small%20matches%20and%20Charitable%20Giving_Evidence%20from%20a%20natural%20field%20experiment.pdf
[33] https://www.chapman.edu/research-and-institutions/economic-science-institute/_files/WorkingPapers/Red-Cross-2015.pdf
[34] https://www.scu.edu/media/college-of-arts-and-sciences/psychology/documents/Burger-et-al-PSPB-2004.pdf
[35] http://karlan.yale.edu/sites/default/files/bmgfmatching_sept2014.pdf
[36] http://ices.gmu.edu/wp-content/uploads/2010/07/Fall_09_Price.pdf
[37] http://onlinelibrary.wiley.com/doi/10.1111/j.1468-0262.2007.00800.x/abstract

   d. Reminders of past gifts. Donors who are reminded of prior gifts feel more invested in the cause or organization and feel recognized for previous status and, thus, increase giving.[38]
   e. Photographs & media. Creating emotional connections with individual people—either those involved with the work or those who are beneficiaries—through media have shown to increase giving activity.[39]
   f. Careful presentation of facts. Hard facts given to donors after heart-warming emotional stories have been shown to eliminate the positive effects of emotional appeal. Information is usually helpful, but its proliferation for charitable giving's sake must be carefully designed.[40]
   g. Emotional Quotient (EQ) in giving. By asking donors for money in ways that serve their own emotions—or that avoid the emotional roller coaster of giving versus not giving—overall donations can be increased.[41] Emotional intelligence in the presentation and "the ask" affect giving totals.
3. Quality.
   a. Transparency. Visible indicators of activity among other donors can signal quality to a prospective donor and increase both the likelihood of participation and the donation amount.[42]
   b. Quality affiliations. Sharing information about high-quality major supporters increases donation activity.[43] People view well-reputed existing affiliations as quality signals.

[38] https://site.stanford.edu/sites/default/files/kesslermilkman_identityincharitablegiving.pdf
[39] https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3807035/
[40] http://www.sciencedirect.com/science/article/pii/S0749597806000057
[41] https://ideas.repec.org/a/eee/pubeco/v95y2011i11p1349-1357.html
[42] http://econpapers.repec.org/article/eeejeborg/v_3a67_3ay_3a2008_3ai_3a1_3ap_3a228-238.htm
[43] http://www.nber.org/papers/w17954

c. Lead givers. Identification and encouragement of "lead givers"—individual people who explicitly donate publicly, by name, in order to encourage others to donate is a quality signal and increases the likely participation of others[44].

d. Similarities between donors. Donors give more when they experience relatability to other donors supporting a particular cause, even when they do not know them. Familiarity of other donors to oneself serves as a quality signal for the initiative. Leveraging factors of familiarity will increase giving.

DESIGNING A NEXT-GENERATION GIVING PLATFORM: CHARITYVEST

Synthesizing the above, for a charitable giving platform to be widely adopted over the next generation it will need to intelligently capitalize on both digital trends and the behavioral characteristics of donors. Where digital trends and consumer behavior meet are "digital platforms." Digital platforms are web- and mobile-based channels that more efficiently facilitate the interaction of many-to-many stakeholders in order to exchange content, services, products, and/or money, etc.[45]

A digital platform for charitable giving would be able to leverage economies of scale that would originate from many donors and nonprofits all in one place. It would also generate large amounts of behavioral data to predict donor behavior and facilitate improved donor interactions. It would represent an opportunity to improve both the economics and experience of charitable giving, the critical areas where online giving is currently lacking.

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[44] http://www.nber.org/papers/w13728
[45] https://hbr.org/2015/05/a-cheat-sheet-for-marketers-on-the-future-of-digital-platforms

Charityvest is an endeavor to create this type of online platform. It will do this by leveraging technology, business strategies, and behaviorally-focused design to lower the price of giving, increase sociability of the giving process, and increase the use/leverage of intelligent quality signals (per the levers discussed above). In 2015, the Charityvest team discovered that the combination of donor-advised funds and web technology could create an operating model to make this possible.

Donor-advised funds are accounts that enable donors to make make tax-deductible contributions to charity without committing to a specific charity. The money can sit in the account in perpetuity, and the gift—once the donor decides to make a gift—is facilitated by the sponsoring organization (provider) of the donor-advised fund. Donors are able to both leverage the flexibility yielded by these accounts to make charitable contributions when it is most tax-advantaged to do so, and to enjoy not having to facilitate the gifts to organizations—the sponsor of the donor-advised fund does this. Currently donor-advised funds are quite expensive, require large minimum balances to open, and are complicated to understand.

Different from existing donor-advised funds, Charityvest will not charge anything for the donor or nonprofit to use the platform. It will be absolutely free—no transaction fees. Instead of a fee model like most online platforms, Charityvest will utilize an insurance/bank capital asset management model. It will aggregate capital across all accounts to invest assets "in the system" in low-risk investments to create revenue. Additionally, Charityvest will be the first to fully automate the operation of donor-advised funds. The system can operate additional funds for almost no variable cost, creating massive economies of scale.

Charityvest will have a massive economic advantage. The management team estimates it will be, on average, $.10-$.15 cheaper per dollar raised for nonprofits due to the elimination of transaction fees and the automation of receipting back to donors (our system does this automatically). And, because it can store financial information (like Venmo or Amazon.com), donations into the fund are secure and simple—one click. This lowers both the hassle and the price of giving.

An online platform with many donors will yield other opportunities to utilize the levers to move donors along their motivation for giving. It will be very simple to create peer-to-peer gift matching, challenges, giving groups, and lead gifts. All of this encourages more giving. Additionally, intelligent recommendations based on your friends' giving behavior can be facilitated. This will increase the probability that new charity discovery for donors is value-add and lowers acquisition costs for nonprofits.

Nonprofits will also be delighted because Charityvest can deliver intelligent analytics on donor behavior and produce digital records of their giving that they can export.

Overall, Charityvest is endeavoring to fill the gap of digital giving. A tool has not yet come along that marries intelligent technical deployment and thoughtful donor-centric design. The integration of donor-advised funds and web platform technology can build the future of giving.