New Technologies and Fundraising

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giving made simple

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FOREWORD

Giving is declining, younger donors view charitable giving differently than the generations that came before, and the rise of social enterprises, Bcorps and changes in corporate philanthropy strategies has led to a blurring of the lines. What is (and what is not) "charity" and who gets to do it? We are experiencing an exponential rate of change, and no industry is safe from technological disruptions – the charitable sector will not be spared, but many in the sector feel powerless to do anything about it.

In this authoritative guide, CanadaHelps CEO, Marina Glogovac, discusses in an accessible way the existing and emerging technologies and trends changing charitable giving, and makes the case for the Boards, Staff, and Volunteers leading charities to take action now. It's a must read for anyone who works in, volunteers for, or simply cares about the success of the charitable sector in Canada.

A version of this paper will appear in an upcoming book, *Intersections and Innovations: Change for Canada's Voluntary and Nonprofit Sector*, edited by Susan Phillips and Bob Wyatt, to be published by the Muttart Foundation.

Giving in Canada is on the decline. The reasons for this disturbing trend are complex, multi-factorial and understudied, but the potential long-term consequences of charities' declining ability to meet demands for their services, which are actually increasing, cannot be underestimated.

In 2018's *The Giving Report*, analysis from CanadaHelps and Imagine Canada found a number of troubling trends. Between 2006 and 2016, Canada's population grew at a compound annual growth rate of 1.1 percent, which is three times higher than that of donations over the same period. *The Giving Report* also found that fewer Canadians are giving, with just 1 in 5 taxfilers making donations in 2016, down from 1 in 4 in 2006.

Canadians over age 55 gave nearly twice as much money ($6.4B vs. $3.5B) to charity in 2015 than 25-54 year olds; however, the number of people making donations in this age group has declined each year.

Finally, the wealthiest families in Canada are no longer giving at the rates they once did. Families earning $150k-$199k annually have decreased average donations by 4.2 percent per year from 2006-2016. Families earning $200-$249k and $250k+ are also giving less, with both groups down 4.9 percent per year from 2006's averages (CanadaHelps 2018).

Millennials (born between 1980 and 2000) will comprise more than 75 percent of the global workforce by 2025 (DTTL Global Brand & Communications, 2014). This generation has grown up with the internet and they are now reaching professional maturity. Gen Z, which follows Millennials, is a mobile-first, multi-device population; they are true digital natives.

Research suggests that Millennials are giving less in monetary donations and they are fundamentally different than previous generations; this group is not expected to start donating more as their age and incomes increase. 2018 research from Blackbaud found that Millennials, or Generation Y, give the least amount in average donations each year, averaging $389, whereas the group giving the most, Civics (born before 1946), gave $944 annually on average. Gen Y also supported the fewest number of charities (3.1 charities supported vs Civics' 5.4 charities supported), and only 55 percent of the group give (compared to 73 percent of Civics). In the same report, more than 80 percent of Millennials surveyed said they expected their giving levels to stay the same or decrease (Rovner, 2018). The Millennial generation considers influence amongst peers as currency and their time to be as useful as a cash gift. They want to see impact, are much more interested in causes, and have little regard as to who is actually doing the work (i.e. social enterprise vs. traditional charity). Just as fundraising itself is multi-channel today and donations are difficult to attribute to a particular campaign or program, Millennials are comfortable with a multi-pronged approach to making a difference – on their own terms.

These demographic shifts and changes in attitudes have meant that philanthropy in Canada is increasingly falling on the shoulders of a shrinking pool of older

donors. A 2018 research study, *30 Years of Giving*, published by the Rideau Hall Foundation and Imagine Canada confirms some of these troubling metrics. "The overall trend is clear: the donor base is getting ever-smaller and changes in total donations are now primarily driven by variations in how much donors give. From the peak in 1990, the percentage of taxfilers claiming donations has dropped by roughly a third, while the average amount claimed has nearly doubled. This means that charities are relying on an ever-smaller number of people for donations. … The giving behaviours of Generation Y are particularly worrisome; both the donation rates and average donations of this group are low and increasing very slowly." (Lasby, D. & Barr, C. 2018).

In the age of technology and all things digital, chronically capacity-starved charities are failing to engage donors who have become digitally savvy or who are digital natives. Charities are failing to move successfully to a place where consumers today are – online and mobile – and failing to replace direct mail or shrinking corporate or government support.

The decline in giving is occurring against the backdrop of a broad, across the board, technology-propelled upheaval that has occurred with ever-increasing intensity in the last couple of decades. Philanthropy, like the media, travel, retail, publishing, and music sectors, is being affected and transformed by the fast proliferation and widespread adoption of digital, mobile and social technologies.

We live in a time of "disruptive innovations" and "creative destruction". Entire industries have been wiped out, weakened, and in many cases replaced by new ones that simply did not exist a few years ago. This era of creative destruction has brought about a fundamental change in the way people engage with each other, with businesses, with government, and with charities.

On a deeper level, it is not about new products or new ways of doing things, but rather a wholesale re-writing of both the rules of engagement and the rules of business: who can do what, who can compete with whom, and under what circumstances? All sorts of proverbial lines are blurring, old monopolies broken and new ones established, and different competitors are emerging. In the charitable space, the question is: what is charitable and who gets to do "charity"? Old definitions are crumbling or expanding at minimum.

This is a networked information economy dependent upon fast-emerging and fickle consumer trends and preferences and the charitable space is not exempt. Today, consumers are looking for everything to be available anytime, anywhere, and want a seamless experience across devices.

There is no reason to think that the era of rapid change will abate any time soon. With some economic improvement following the 2008-2009 recession era, it is widely believed that disruption will accelerate for the foreseeable future. This chapter explores some of the key forces driving disruption, and the impact of these technological changes on the charitable sector.

KEY FORCES DRIVING DISRUPTION

This is the time of the Fourth Industrial Revolution according to World Economic Forum Executive Chairman, Klaus Schwab: "The First Industrial Revolution used water and steam power to mechanize production. The Second used electric power to create mass production. The Third used electronics and information technology to automate production. Now a Fourth Industrial Revolution is building on the Third, the digital revolution that has been occurring since the middle of the last century. It is characterized by a fusion of technologies that is blurring the lines between the physical, digital, and biological spheres." (Schwab 2016). We're experiencing an exponential rate of change, and no industry is safe from technological disruptions — the charitable sector will not be spared.

UBIQUITY OF BROADBAND AND COMPUTING DEVICES

Broadband has taken over the world. In 2018, more than 4 billion people worldwide were using the internet (We Are Social, 2018). Canadians in 2016 spent an average of 24.5 hours per week online (34 hours per week for young Canadians aged 18 to 34) (Thomson, 2018), and mobile traffic accounts for 45 percent of all online traffic in Canada (Statcounter, 2016).

In the last few years, there has been a decided shift toward smartphone technology. 91 percent of internet users globally own a smartphone, and 84 percent in North America (Global Web Index, 2017). 57 percent of surveyed Millennials said they would give money by mobile device. (Rovner, 2013).

Messaging apps now have more monthly active users than social networks (Business Insider Intelligence, 2016). In the nonprofit space, 18 percent of NGOs use messaging apps to communicate with donors and supporters; they're also being used to create advocacy and information sharing groups. Internationally, where mobile data is significantly cheaper than in Canada, messaging apps can be more affordable than SMS messages (Nonprofit Tech for Good, 2018).

PEER-TO-PEER: NEW MECHANISMS OF INFLUENCE

Internet-facilitated person-to-person interaction is the most significant trend that has come out of the technology-propelled innovation of the last decade. It serves to, among other things, enable the long tail of niche content, buyers and sellers, givers and receivers. This is a new environment where "peer-to-peer" (P2P) is a dominant mode of acting in and understanding the world, especially for younger generations. Sites like Trip Advisor and Yelp helped pioneer the decentralization of reviews, paving the way for user-review based and peer-to-peer powered disruptors like Airbnb, Uber, and TaskRabbit. Social sharing and algorithms analysing individuals' and their social networking behaviour influence everything from shopping behaviour to the type of news people consume.

As a result of this trend, we see a transfer of authority and trust to family and friends, and a breakdown of previously entrenched status quo authority structures; there has been a shift to open, sharing, and transparent interactions. Authority is distributed, which has led to technologies like blockchain and cryptocurrencies that circumvent centralized authorities such as banks.

In the past, it was impossible for people who were spread across the globe to communicate with each other and form a community around niche interests. Internet forums and social networks have allowed this to happen. A distribution of action has since emerged – it can happen "everywhere" now due to apps and forums that galvanize communities around interests and passions.

We now live firmly in a consumer-centric, user-experience driven, platform-agnostic universe – the bar has been set high by Millennials and Gen Z. They want

to create, communicate, and connect on their own terms. This super-powered desire and ability to connect has created the acceleration and incidence of the network effect – the effect that additional users of a good or service have on the perceived value of that good or service to other people. The mechanisms of influence in this new context are fundamentally different.

Within fundraising, there are many examples of the ways in which the network effect and a desire for convenience and immediacy has completely upended traditional donations and will likely continue to do so. The 2014 ALS Ice Bucket Challenge used virality, social currency, and celebrity power to raise more than $115 million in 2014 (ALS Association, 2017). We've also seen the rise of "rage donations," where the motivation to give stems from widely publicised, perceived political or social injustices. Examples of this include a 2018 Facebook Fundraiser that raised $20M USD for the nonprofit RAICES (Refugee and Immigrant Center for Education and Legal Services) in response to U.S. President Trump's policies separating refugee children from their parents at the U.S. border; an Indiegogo campaign started by the Girl Scouts to raise back $100,000 a donor asked the Girl Scouts to return because they welcome transgender girls (angry donors raised $338,000 USD); and donations to the American Civil Liberties Union which reached $24 million in just one weekend in response to a number of restrictive executive orders signed by U.S. President Donald Trump (Stack, 2017). We will also continue to see examples like the GoFundMe campaign that raised more than $15 million for families affected by the 2018 fatal collision between a semi-trailer truck and a bus carrying members of the Humboldt Broncos junior hockey team in Saskatchewan (Humboldt Broncos Jr. Hockey Association Inc., 2018).

Peer-to-peer influence has become ingrained in the way technology is now designed and how it is used, and it has fundamentally changed the way we relate to each other.

PROLIFERATION OF DATA VOLUME & AVAILABILITY

Data is everywhere. Massive amounts of real-time data are constantly being uploaded via mobile devices, sensors and wearable technology such as Apple Watch, Google Glass, and fitness bands. Data drives the new era of agnosticism and freedom from assumptions, which is both liberating and frightening. Data is already enabling problem-solving (e.g. Nest, OpenGov); it will have a significant impact on healthcare, manufacturing, and retail.

The impact of data cannot be overestimated. Data will fuel more information, more accountability, and more competition. Data can change donor behaviour and preferences. Data can help build an accurate picture of the impact of the non-profit sector.

The 2017 Burk Donor Survey found that 72 percent of donors favour charities that communicate measurable progress on their charitable goals, up from 38 percent only five years before (Burk, 2017). The desire to measure is definitely in the zeitgeist and it will only increase. Today, charities must provide constant access to sophisticated and accurate information, presented well, about what they are doing and how they are progressing. With the abundance of

data in the charitable sector, charities have new opportunities to augment their work with technology if they are willing to embrace and invest in it. Some examples of innovative nonprofits using data to drive change include the Tableau Foundation, which is using real-time data about malaria outbreaks to mobilize resources and contain the spread of the disease in Zambia, and MercyCorps, which launched a data aggregation dashboard to give insight to aid workers of where help is needed most (Sangokoya, Davis, Magnoni, Pact, & Declercq, 2019). Data and technology can help charities predict rather than react, identify the best solutions for problems, measure their impact to engage donors, and increase their efficiency and capacity.

It's possible to both capture and use more data through digital technologies. Despite this, charities overall lag in the adoption of data technologies. With digital fundraising expected to continue to grow, charities are at risk of further falling behind and must consider building capacity as an urgent need.

CLOUD TECHNOLOGY

The "cloud" refers to a variety of internet-based computing services that had previously been managed or accessed in-house. Cloud computing provides anytime access to networks, storage, applications or services, and is more cost-effective than traditional models. Common examples are web-based email and document storage, and online constituent relationship management (CRM) database systems commonly used by charities to manage donations and donor stewardship.

Not only is this a growing area of the economy but it allows nonprofits to access more stable, up-to-date, and scalable technology services that are typically at lower costs and don't require the technical expertise and hardware to manage in-house. In theory, this can enable charities to achieve economies of scale, while focusing on their mission and not worrying about building out IT infrastructure. This is an enabling factor that is the good news for charities.

KEY AREAS OF IMPACT OF NEW TECHNOLOGIES IN THE CHARITABLE SPACE

ONLINE GIVING IS ON THE RISE

While Canadians are making fewer charitable donations overall, online giving increased 20.5 percent per year on CanadaHelps' platform from 2006 to 2015. Looking at giving in the United States, 2019 research from Blackbaud found that, over a 36-month period, overall giving grew by 9 percent while online giving grew 17 percent (MacLoughlin, Longfield, & Vellake, 2019). This is indicative of the ease of online giving and the rapid pace to which all commerce is moving to digital. Within online, mobile giving is rapidly increasing, having gone from 14 percent of online giving in 2015 to 17 percent in 2016, and 6 percent of donors worldwide prefer to give mobile (Nonprofit Tech for Good, 2017).

Clearly, online giving is on a trajectory to become the dominant method of giving. The *2018 Global Trends in Giving* report found that 54 percent of all donors prefer giving online (Nonprofit Tech for Good, 2018) while other studies show that donors turn to online giving in the immediate aftermath of a disaster or large crisis (MacLaughlin, 2017). Online giving is increasing in all demographics: in 2015, 31 percent of respondents under 35 years of age had responded to at least one online appeal, but so had 26 percent of middle age and 28 percent of senior respondents. 72 percent of Millennials and 62 percent of all donors say they prefer giving online (Burk, 2017). Email and social media marketing are increasingly where donors learn about causes or are inspired to give; 38 percent of online donors worldwide say that email most often inspires them to give and 57 percent say they first learned about a fundraising event through email (Nonprofit Tech for Good, 2017).

A subset of online giving is mobile giving as mobile devices overtake desktops (Meeker, 2017). In Canada, mobile data traffic will grow fivefold from 2016 to 2021 (Cisco, n.d.). Donors are not simply engaging and giving online but are increasingly doing

so through a smartphone. We have passed the mobile tipping point for online giving. With more than three-quarters of Canadians using a smartphone (Canadian Radio-television and Telecommunications Commission (CRTC), 2016), charities need to shift to thinking mobile first; this means designing online experiences first for the mobile user and then expanding the design to support desktop users. Non-profits that do not prioritize mobile technology and become early adopters of mobile payments in the coming years will struggle to remain relevant (Nonprofit Tech for Good, 2017).

UBIQUITY OF SOCIAL MEDIA AND SOCIAL NETWORKS

Studies show that social media, and particularly Facebook, is an important gathering place for donors of all ages who are already committed to a cause. For instance, 15 percent of Canadians who use social media report donating in response to a social media request. More than half are open to receiving such requests, although their response is dependent on both who makes the request and what the cause is (Hall, Mendez & Masterson, 2017). 18 percent of donors worldwide have given through Facebook fundraising tools (Nonprofit Tech for Good, 2018). Millennials, for their part, are likely to donate if a co-worker asks, and 7 percent of them have raised money through person-to-person fundraising platforms three or more times throughout a given year (Hall et al., 2017).

Giving through social media is nascent at 8 percent, but 30 percent of Millennials give through social media (Burk, 2017). With 74 percent of the world's population over age 18 on social media, its fundraising power is immense. Facebook, for example, raised $10 million in just two days for Nepal earthquake relief efforts (Stone, 2015).

RISE OF CROWDFUNDING AND A PREFERENCE FOR DIRECT ENGAGEMENT

Crowdfunding allows anyone to start their own fundraising initiative and invite others to donate or invest in it. It is a rapidly growing and pervasive method of personal philanthropy, though the size of the global crowdfunding market depends on how you are defining crowdfunding. The crowdfunding market was estimated to be $34 billion in 2015, including P2P lending of $25 billion, reward and donation crowdfunding of $5.5 billion, and equity crowdfunding of $2.5 billion. $17 billion of that was in North America (CrowdExpert.com, 2015). The World Bank hypothesizes that global crowdfunding of all types could grow to $96 billion by 2020 (*info*Dev, 2013).

Crowdfunding platforms have been growing at accelerated rates. Indiegogo has raised more than

$1B from 11 million people, and Kickstarter projects have been funded by more than 14 million people (Crowdfunding, n.d.). GoFundMe has raised $5 billion in "donations" since 2010 from more than 50 million people, and is on an incredible growth trajectory – the company raised $4 billion between 2016 and 2018 alone (Lunden, 2016). Most personal philanthropy does not go to charities and is not receipted, a fact that nevertheless does not seem to have obstructed its meteoric growth. Blackbaud estimates that only 25-30 percent of crowdfunded money went specifically to charities in 2013 (Hall et al., 2017).

According to the *2017 Global Trends in Giving Report*, 44 percent of those surveyed had donated to a crowdfunding campaign, and 16 percent of donors had fundraised for a crowdfunding campaign within the last 12 months (Nonprofit Tech for Good, 2017). 33 percent of those surveyed had donated to a P2P fundraising campaign and 18 percent of donors had created a P2P fundraising campaign within the last 12 months (Nonprofit Tech for Good, 2017).

The overall market of crowdfunding donations may be small now relative to overall charitable giving in Canada, but the for-profit platforms powering this new way of giving are growing at incredible speed.

This, combined with changing demographics and donor behaviour, makes it worth discussing.

According to AFP's 2017 What Canadian Donors Want survey, 53 percent of respondents aged 18-34, 43 percent of those aged 35-54, and 26 percent of those over age 55 agreed with the statement, "In the future, I think I will be more inclined to give directly to causes (through crowdfunding fundraising) than give to a charity." (Bowyer, MacDonald, &. Ali, 2017). What's more concerning is that 16 percent of donors surveyed in 2018 reported that they donate less to nonprofits because they have given financially to crowdfunding campaigns (Nonprofit Tech for Good, 2018).

The success of crowdfunding is highlighting yet another paradox: while donors seek increasing accountability for their gifts to the charitable sector, crowdfunded donations are often made impulsively without that due diligence, out of the belief that this approach eliminates unnecessary bureaucracy and that the direct beneficiaries know best what they need. Unfortunately, this trust is not always well-placed, and there are many reports of fraudulent crowdfunded campaigns, such as with a deceitful GoFundMe campaign by a couple in Pennsylvania, along with a homeless man, that raised $400,000 based on a fake story of generosity. The trio were all charged criminally, and GoFundMe refunded all the money. (Helsel, 2018). Crowdfunding also often addresses a particular person's situation, rather than the broader and systemic issues behind it which naturally are harder to solve. Therefore, crowdfunding is feeding into naïve "solutionism" approach to social problems while circumventing real, potentially long-lasting, and more complex problem solving.

NEED FOR INCREASED SECURITY AND PRIVACY

With the growth of digital donations, security and privacy are critical to ensure the trust necessary for the payment industry to continue to innovate. Digital payments typically require the transmission of

personal information to financial institutions and other parties within the transaction process, such as payment processors. Personal information must also be stored in a database for recurring transactions, and other information associated with digital transactions such as purchasing habits and social media data may also be stored or transmitted. As digital usage grows and more data becomes available, keeping that data private and secure will continue to be of paramount concern for all sectors. With the European General Data Protection Regulation (GDPR) privacy regulations likely to influence Canadian privacy legislation, donors will expect to provide explicit consent for retention of their personal and banking information, and full transparency on how this information will be used.

Web security trends are not positive. According to Phys.org (2017), Google found that the number of hacked websites rose 32 percent in 2016 and that trend has shown no indication of slowing down. Hackers take advantage of websites that fall behind in cybersecurity measures, and website encryption is a key area that charities must pay attention to or risk losing donors wary of providing information on an insecure site (not to mention the reputational damage of a hacked site). For charities and nonprofits taking online donations, it is important they move their websites from HTTP to HTTPS, which encrypts the website and all interactions taking place on it.

EMERGING TECHNOLOGIES PROMISE MORE CHANGE

There are a number of upcoming technologies that will affect the charitable sector further. It's not yet clear to what extent, although there some early case studies and uses that promise to be impactful and potentially transformative.

ARTIFICIAL INTELLIGENCE

The simplest way to describe Artificial Intelligence (AI) is using technology to perform tasks and solve problems that previously could only be done by humans. AI learns and improves over time on its own because of the learning and fine-tuning algorithms embedded in it. It is rapidly changing and improving, and is now relevant for (and increasingly, essential to) the non-profit sector.

Charities have a massive amount of data, most of which is not being leveraged. Effectively using AI to mine this data would be an opportunity to increase and demonstrate charities' impact (which donors are demanding more and more), speed up research, and build internal capacity.

While an element of competitiveness will also exist due to scarce fundraising dollars, the shared desire for public good in the charitable sector opens up opportunities for data sharing that, combined with the power of AI, could be substantial for the sector.

As the cost of AI drops, technology-based nonprofits around the world are starting to use it. An example of this is PAWS, an organization dedicated to combating poaching, which is employing modeling and machine learning to help park rangers map out patrol areas to proactively respond to poaching threats (Derla, 2016).

As with any new technology, the risk is that it will not be accessible for social good purposes despite its promise, due to cost or to a lack of broadly distributed know-how. With that in mind, several tech giants including Google, IBM, Microsoft, Facebook, and Amazon have created a Partnership on AI to Benefit People and Society with four goals: to develop and share best practices; provide an open and inclusive platform for discussion and engagement; advance public understanding; and identify and foster aspirational efforts in AI for socially beneficial purposes

(Partnership on Artificial Intelligence, 2018). A growing list of tech companies are partnering with non-profits to further the use of AI in this space (Schaffer, 2017). For example, UNICEF is applying elements of machine learning to private sector data through this partnership in order to create models that assist emergency response efforts (UNICEF, 2017). Facebook is providing aggregated, real-time platform data for free to a handful of nonprofits such as the American Red Cross to provide valuable information to provide disaster relief teams to help them determine where to dedicate resources (O'Neil, 2017).

While artificial intelligence is already changing the way we live our lives on a daily basis, and the way it becomes embedded in nonprofit work and fundraising is likely to grow, there remains a risk in relying on algorithms. Algorithmic functions are based in logic and data, but there are many opportunities throughout the process to introduce or ignore bias. In addition, solving social problems requires nuance, social context, and understanding differing interpretations of fairness at which machines aren't likely to excel.

MESSAGING (CHATBOTS)

Chatbots are a version of AI that enables users to "chat" with an automated system by asking questions and having the system determine and generate the most likely answer. They enable businesses and nonprofits alike to give users the immediate responses they expect, without the burden of providing a constant customer service response. Chatbots can be embedded on messaging platforms like Facebook Messenger. Examples of non-profits doing this include, Raheem.ai, a Facebook Messenger bot for reporting and rating experiences with police officers, which publicly reports anonymous data (Raheem AI, 2018); a chatbot survey used by The World Food Programme to gather information from migrants about local food prices and security in their home communities (MVAMBlog, 2017); the Climate Reality Project uses a Facebook Messenger bot to alert subscribers to major events and offer actions they can take in response (Climate Reality Project, 2017); and Hello Vote, a chatbot from Fight for the Future in the US that uses text messages and Facebook messenger to send voters the information needed to vote such as polling locations and early voting information (HelloVote, n.d.).

In fundraising, chatbots provide opportunities to engage donors with a cause, soliciting donations and offering an interactive experience to learn about the cause or the impact of the donation. An international development charity, WaterAid, has developed a chatbot to connect donors to a villager in Sierra Leone and provides an interactive experience with messages, videos, and photos of daily life and the impact of WaterAid's work in the community (Hobbs, 2018).

VIRTUAL REALITY

As Virtual Reality (VR) continues to be adopted in the mainstream, activities other than gaming may also become widely-adopted applications. V-Commerce, for example, integrates VR into the purchasing experience to engage consumers with the product.

Non-profits are already using VR to communicate the importance of their work (Matthews, 2017). The Sierra Club created an immersive VR climate change

video, in partnership with the Environmental Media Association and RYOT, with a celebrity narrator to help people understand the drastic changes in our climate and create a sense of urgency for their cause (Sierra Club, 2015). The Clinton Global Initiative (CGI) used VR and Facebook's 360 video to broadcast their video, "Inside Impact: East Africa" to more than a million people to provide an intimate look at how the CGI is enabling local social change in these East African communities (Clinton Global Initiative, 2015). The VR experience offers more than just images of impact, but provides donors with the opportunity to feel the effects of their contributions. It remains to be seen just how widely this technology will be adopted to tell stories in the coming years.

BLOCKCHAIN

Recognized in 2016 by the World Economic Forum as one of the top 10 emerging technologies (Mercy Corps, 2017), Blockchain is a distributed or decentralized ledger technology, or list, of all transactions across a person-to-person network. It allows for transactions to be captured digitally, authenticated, and ensures that the transactions cannot be changed. Its purpose is to enhance efficiency, trust, and transparency with transactions and is the technology underlying Bitcoin and other cryptocurrencies. Blockchain is not just for digital payment transactions, but has various other applications such as subscriptions, receipts, bank accounts, insurance policies, identity documents, and contracts. Canadian banks have already begun to explore blockchain technology for digital identity. The technology is more secure and better at authentication compared to traditional systems, though the governance of the technology is not yet clear.

The Ixo Foundation, based in South Africa, is using blockchain technology to develop "the ixo protocol" to verify claims of impact. Data becomes part of a global impact ledger that can be accessed by organizations, governments, and researchers, and then used by non-profits as proof to support funding arrangements. An example of this in practice is the Amply Project, a mobile app enabled with the ixo protocol to track attendance in South African pre-schools. The teachers log children's attendance, which is then confirmed by an evaluator, and then a verified claim is created. These claims are used to access government subsidies; they are more accurate, verified, and less time-consuming than previous paper-based methods (Ixo Foundation, n.d.).

In 2017, the United Nations' World Food Programme used Ethereum Blockchain to pilot a system with Syrian refugees based in Jordan who were given cryptocurrency vouchers to trade at selected markets. The platform was successfully used to record and authenticate transfers for about 10,000 individuals (del Castillo, 2017).

Though there are a growing number of possible use cases, and many positive examples of the technology's use, not all voices are positive. Blockchain projects need more time to prove themselves, and cryptocurrency market is volatile. In an online article, Kai Stinchcombe argues that blockchain is not the utopic answer that we have been looking for. The successful use of blockchain, he argues, still relies on trusting other humans to follow through and to verify transactions (because a regular user is unlikely to be able to verify them on their own), and there are a number of

examples where successful bitcoin exchanges have been hacked (Stinchcombe, 2018).

BITCOIN AND CRYPTOCURRENCIES

Bitcoin, a cryptocurrency with a value determined by consensus rather than a central bank system or political infrastructure, is becoming increasingly mainstream. Many forward-thinking non-profits are leveraging bitcoin and other cryptocurrencies for fundraising – though it is certainly not yet mainstream.

In the United States, large charities such as The Red Cross, United Way Worldwide, Greenpeace, and Save the Children all accept bitcoin donations (Lamb, 2018). We also see examples of Bitcoin used for Canadian philanthropy. In Canada, Pathways to Education, a charity that helps low-income youth graduate high school, has been accepting Bitcoin donations since 2013 (Donate Bitcoin, 2017). Similarly, a 2017 Christmas crowdfunding event in Toronto raised more than $200,000 for Covenant House Toronto using a decentralized blockchain technology that facilitated cryptocurrencies from around the world (Merry Merkle, n.d.). In Canada, charities can offer tax receipts for the value of these donations as if they were a gift in kind; however, donors cannot take advantage of the capital gains exemptions provided for gifts of other types of asset donations such as securities. (Financial Consumer Agency of Canada, 2018).

Some nonprofits have created their own currencies to help fund their work, such as the CleanWater Coin, created for Charity:Water (Clean Water Coin, n.d.), and another coin created by the RootProject, to support anti-poverty work (RootProject, n.d.).

Again, it's too early to tell whether cryptocurrencies will gain wider adoption, but savvy charities may be able to reach a new type of donor by meeting them where they are at.

SOME FINAL THOUGHTS

As we have seen, the current philanthropic context is characterized by the continued pervasiveness and growth of digital technology and culture; reduced giving by Millennials; increasing fragmentation in the online fundraising space; the rising use and development of artificial intelligence and other emerging technologies like blockchain in all aspects of life; and the increasing use of data to drive decisions amid the context of growing regulation and consumer concerns about data ownership and data privacy.

As the world has become digital, we have seen an unequal adoption of new technologies between sectors. It is clear that charities are going to need to develop new competencies and capabilities to adapt or reinvent their roles and service in the digital age in order to survive and thrive. These new competencies will involve the acquisition and integration of significant digital skills and understanding throughout the organization in order to be able to benefit from the changes and opportunities in the donor environment. The boundaries around the charitable space are more porous and the emerging competition will simply dictate adoption and change as the only choice, or else. Boards across all categories of charities will need to abandon the safe thinking of the past and push for change and risk taking for the sake of the long-term viability of the very organizations they are entrusted to govern.

It is tempting to think that technology democratizes access to success and scale, but this is only partially true. Access needs to be paired with expertise in order to be leveraged, and digital and technology knowledge is expensive and highly sought-after and will be even more so in the future; the procurement of talent will be the biggest issue.

This is the new normal, and it is important for charities to understand the need to reconfigure priorities and disrupt themselves as they are disrupted from the outside. In an environment where failing and learning is usually not easily accepted, this is especially hard for charities.

But charities simply must change their strategies to meet changing donor needs, and be prepared to challenge deeply held assumptions and surface and challenge their own sacred cows.

Increasingly, new donors may not care what is and is not a charity, and will be more open to social enterprises and for-profits who are seen as making a social impact. The blending of market and non-market organizations may trigger changes in reporting, finance, and regulations, but it's clear that charities need to create an even playing field in order to successfully pursue their missions amid new and sometimes better financed entrants into the "charitable" space.

As Lucy Bernholz, Director, Digital Civil Society Lab, Stanford Center on Philanthropy and Civil Society notes:

> *Our dependence on digital data and infrastructure is now complete. Even if you don't do everything online or on mobile, non-profits, foundations, and donors are digitally dependent. The most important thing about this is everything—because digital doesn't work the way analog does. It presents us with new opportunities and new responsibilities. (Shelnutt, 2017).*

Charities – the original social enterprises – have a significant opportunity to scale their impact on and in the world through technology. This opportunity, however, can only be realized if charities take action, and the limited technology competency profiles of many small charities today means their success at this is not a slam dunk. Charities must decisively and urgently break their own status quo patterns of thinking and embrace change, learning (which involves failing and risk taking), and innovation. If they don't, the current broader trends which I have just described, along with the general blurring of forms and purposes, leaves them vulnerable.

In the new, fast-changing, and ambiguous world of social change where we see a convergence of technology and physical world, charities need to make a case for their importance with renewed vigour and conviction, using new tools, methodologies, and competencies. As societal assets of almost unquantifiable import and as effective agents of social change, charities must continue to fight for accurate public perceptions of their work. There are many new tools to help them do that – it is up to them and their boards to embark on the process of digital transformation. This is a path of investment, learning, and risk-taking, but also of significant potential upside for charities and the causes they are engaged in.

SOURCES

ALS Association. (2017). ALS Ice Bucket Challenge Commitments. Retrieved May 13, 2018, from http://www.alsa.org/-fight-als/ice-bucket-challenge-spending.html

Burk, P. (2017). *The Burke Donor Survey: Where Philanthropy is Headed in 2017*. Hamilton, ON: Cypress Applied Research Inc.

Business Insider Intelligence. (2016, September 20). Messaging Apps Are Now Bigger Than Social Networks. Retrieved from http://www.businessinsider.com/the-messaging-app-report-2015-11

Bowyer, M., MacDonald, D., &. Ali, N. (2017). *What Canadian Donors Want*. Study presented at 2017 Survey Findings webinar of AFP Foundation for Philanthropy.

CanadaHelps. (2018). *The Giving Report 2018*. Retrieved from: https://www.canadahelps.org/en/the-giving-report/download-the-report/

Canadian Radio-television and Telecommunications Commission (CRTC). (2016). *Communications Monitoring Report, 2016*. Retrieved from CRTC website: https://crtc.gc.ca/eng/-publications/reports/PolicyMonitoring/2016/cmr.pdf

Catalyst. (n.d.). Smartphone Behaviour in Canada and the Implications for Marketers in 2016. Retrieved from http://catalyst.ca/2016-canadian-smartphone-behaviour/

Cisco. (n.d.). VNI Mobile Forecast Highlights, 2016-2021. Retrieved from https://www.cisco.com/assets/sol/sp/vni/-forecast_highlights_mobile/#~Country

Clean Water Coin. (n.d.). Retrieved from http://www.clean-watercoin.org/

Clinton Global Initiative (Producer). (2015, September 25). Inside Impact: East Africa [Facebook video]. Retrieved from https://www.facebook.com/clintonglobalinitiative/videos/10153250212525318/

CrowdExpert.com. (2015, March 31). Massolution Crowdfunding Industry 2015 Report. Retrieved from http://crowdexpert.com/crowdfunding-industry-statistics/

Crowdfunding.(n.d.)Top Fundraising & Crowdfunding Online Platforms. Retrieved from https://www.crowdfunding.com/

Del Castillo, M. (2017, June 14). United Nations Sends Aid to 10,000 Syrian Refugees Using Ethereum Blockchain. Retrieved from https://www.coindesk.com/united-nations-sends-aid-to-10000-syrian-refugees-using-ethereum-blockchain/

Derla, K. (2016, April 28). Artificial Intelligence vs. Poachers: How AI Can Help Protect Endangered Animals. Retrieved from http://www.techtimes.com/articles/153142/20160424/artificial-intelligence-vs-poachers-how-ai-can-help-protect-endangered-animals.htm

Donate Bitcoin. (2017, December 24). Retrieved from https://www.pathwaystoeducation.ca/donate-bitcoin

DTTL Global Brand & Communications. (2014). *The Deloitte Millennial Survey* (Rep.). Deloitte Touche Tohmatsu Limited.

Financial Consumer Agency of Canada. (2018, January 19). Digital Currency. Retrieved from https://www.canada.ca/en/financial-consumer-agency/services/payment/digital-currency.html#toc3

Global Web Index. (2017). *Trends 17: The Trends to Watch in 2017*. Retrieved from: https://cdn2.hubspot.net/hubfs/304927/Downloads/Trends-17.pdf

Hall, K., Mendez, R., & Masterson, N. (2017, October). *2016 Blackbaud Peer-to-Peer Fundraising Study* (Rep.). Retrieved 17.2

Helsel, P. (2018, December 24). GoFundMe says donations in alleged homeless scam fundraiser returned. Retrieved March 23, 2019, from https://www.nbcnews.com/news/us-news/go-fundme-says-donations-alleged-homeless-scam-fundraiser-returned-n951736

Hobbs, D. (2018, February 01). WaterAid chatbot connects supporters with communities. Retrieved March 23, 2019, from https://www.thirdsector.co.uk/wateraid-chatbot-connects-supporters-communities/digital/article/1456079

Humboldt Broncos Jr. Hockey Association Inc. "Funds for Humboldt Broncos." *GoFundMe*, 6 Apr. 2018, https://ca.gofundme.com/funds-for-humboldt-broncos

*info*Dev. (2013). *Crowdfunding's Potential for the Developing World* (Rep.). Washington, DC: World Bank.

Ixo Foundation. (n.d.). Retrieved from https://www.blockchain-forsocialimpact.com/ixo-foundation/

Lamb, P. (2018, January 08). Transforming the Social Sector: Bitcoin and Blockchain for Good. Retrieved from https://www.huffingtonpost.com/entry/transforming-the-social-sector-bitcoin-and-blockchain_us_59c169e3e4b0f96732cbc9c7

Lasby, D., & Barr, C. (2018). *30 Years of Giving in Canada: The Giving Behaviour of Canadians: Who Gives, how, and why*. Ottawa, ON: Rideau Hall Foundation; Toronto, ON: Imagine Canada.

Lunden, I. (2016, October 19). GoFundMe Passes $3B raised on its platform, adding $1B in only the last 5 months. Retrieved from https://techcrunch.com/2016/10/18/gofundme-raises-3b-on-its-platform-raising-1b-in-only-the-last-5-months/?_ga=2.9933949.939852244.1527763088-494585230.1527763088

MacLoughlin, S., Longfield, C., & Vellake, A. (2019). Charitable Giving Report: How Fundraising Performed in 2018 (Rep.). Blackbaud Institute for Philanthropic Impact.

MacLaughlin, S. (2017, September 19). Giving When Disaster Strikes. Retrieved from https://www.huffingtonpost.com/entry/giving-when-disaster-strikes_us_59c0e106e4b0c3e70e742793

Matthews, K. (2017, January 07). 3 Ways Your Nonprofit Could Benefit from Virtual Reality. Retrieved from http://nonprofithub.org/nonprofit-technology/3-ways-nonprofit-benefit-virtual-reality-going-mainstream/

Meeker, M. (2017). *Internet Trends 2017 - Code Conference* (Rep.). Kleiner Perkins.

Mercy Corps. (2017). *A Revolution in Trust: Distributed Ledger Technology in Relief & Development* (Rep.). Retrieved https://www.mercycorps.org/sites/default/-files/Mercy-Corps-A-Revolution-in-Trust-Blockchain-May-2017_1.pdf

Merry Merkle. (n.d.). Retrieved from https://merrymerkle.com/

MVAMBlog. (2017, August 07). Our Experiment Using Facebook Chatbots to Improve Humanitarian Assistance. Retrieved from http://mvam.org/2017/08/07/our-experiment-using-facebook-chatbots-to-improve-humanitarian-assistance/

Nonprofit Tech for Good. (2018). *2018 Global NGO Technology Report* (Rep.). Reston, VA: Your Public Interest Registry.

Nonprofit Tech for Good. (2018). *2018 Global Trends in Giving Report*. Retrieved from: https://givingreport.ngo/past-reports/

Nonprofit Tech for Good. (2017). *2017 Global Trends in Giving Report*. Retrieved from: https://givingreport.ngo/past-reports/

O'Neil, M. (2017, June 07). Facebook Offers Charities Free Data to Help Them Better Respond to Disasters. Retrieved from https://www.philanthropy.com/article/Facebook-Offers-Charities-Free/240279

Partnership on Artificial Intelligence. (2018). Retrieved from https://www.partnershiponai.org/

Phys.org. (2017, March 20). Hacked websites on the rise: Google. Retrieved from https://phys.org/news/2017-03-hacked-websites-google.html

Raheem AI. (2018). Retrieved from https://www.raheem.ai/

RootProject. (n.d.). Retrieved from https://www.rootproject.co/

Mobile and tablet internet usage exceeds desktop for first time worldwide. (November 1). Retrieved May 31, 2016, from http://gs.statcounter.com/press/mobile-and-tablet-internet-usage-exceeds-desktop-for-first-time-worldwide

Rovner, M. (2018). *The Next Generation of Canadian Giving 2018* (Rep.). Blackbaud Institute for Philanthropic Impact.

Rovner, M. (2013, September). *The Next Generation of Canadian Giving: The Charitable Habits of Generations Y, X, Baby Boomers, and Civics* (Rep.). Retrieved http://www.hjcnewmedia.com/nextgencanadiangiving2013/downloads/The_Next_Generation_of_Canadian_Giving_2013.pdf?_ga=1.73955922.1737266837.1439409211

Sangokoya, D., Davis, N., Magnoni, S., Pact, & Declercq, A. (2019). Civil Society in the Fourth Industrial Revolution: Preparation and Response (Publication). World Economic Forum.

Schaffer, J. (2017, May 18). Tech Giants Join with Nonprofits to Consider AI Practice. Retrieved from https://nonprofitquarterly.org/2017/05/18/tech-giants-join-forces-nonprofits-establish-share-ai-best-practices/

Schwab, K. (n.d.). The Fourth Industrial Revolution: What it means and how to respond. Retrieved March 23, 2019, from https://www.weforum.org/agenda/2016/01/the-fourth-industrial-revolution-what-it-means-and-how-to-respond/

Shelnutt, G. (Ed.). (2017). *Charitable Giving Report: How Non-Profit Fundraising Performed in 2016* (Rep.). Retrieved from https://www.blackbaud.co.uk/document.doc?id=645

Sierra Club. (2015, October 7). *Sierra Club and RYOT Release First Virtual Reality Climate Change PSA* [Press release]. Retrieved from https://content.sierraclub.org/press-releases/2015/10/sierra-club-and-ryot-release-first-virtual-reality-climate-change-psa

Smith, A. (2016, May 19). Shared, Collaborative and On Demand: The New Digital Economy. Retrieved from http://www.pewinternet.org/2016/06/19/the-new-digital-economy

Stack, L. (2017, December 22). Donations to A.C.L.U. and Other Organizations Surge After Trump's Order. Retrieved from https://www.nytimes.com/2017/01/30/us/aclu-fund-raising-trump-travel-ban.html

Stinchcombe, K. (2018, April 05). Blockchain is Not Only Crappy Technology But a Bad Vision for the Future. Retrieved from https://medium.com/@kaistinchcombe/decentralized-and-trustless-crypto-paradise-is-actually-a-medieval-hellhole-c1ca122efdec

Stone, M. (2015, April 30). Facebook Users Have Donated $10 Million to Relief Efforts in Nepal in Just Two Days. Retrieved from http://www.businessinsider.com/facebook-users-donated-10-million-to-nepal-2015-4

The Climate Reality Project. (2017, May 31). We Made a Robot for Good, Not Evil: Climate Reality's New Rapid Response Team. Retrieved from https://www.climatereality-typroject.org/blog/we-made-robot-good-not-evil

Thomson, A. (2018, May 17). Concerns Raised as Report Suggests Canadians Spending More Time Online. Retrieved from https://www.theglobeandmail.com/news/national/concerns-raised-as-report-suggests-canadians-spending-more-time-online/article34360751/

UNICEF. (2017, March 1). *UNICEF announces collaboration with telecommunications giant in drive for 'Big Data' for social good* [Press release]. Retrieved from https://www.unicef.org/media/-media_95005.html

We Are Social. (2018, January 30). Digital in 2018: World's Internet Users Pass the 4 Billion. Retrieved from https://wearesocial.com/blog/2018/01/global-digital-report-2018

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