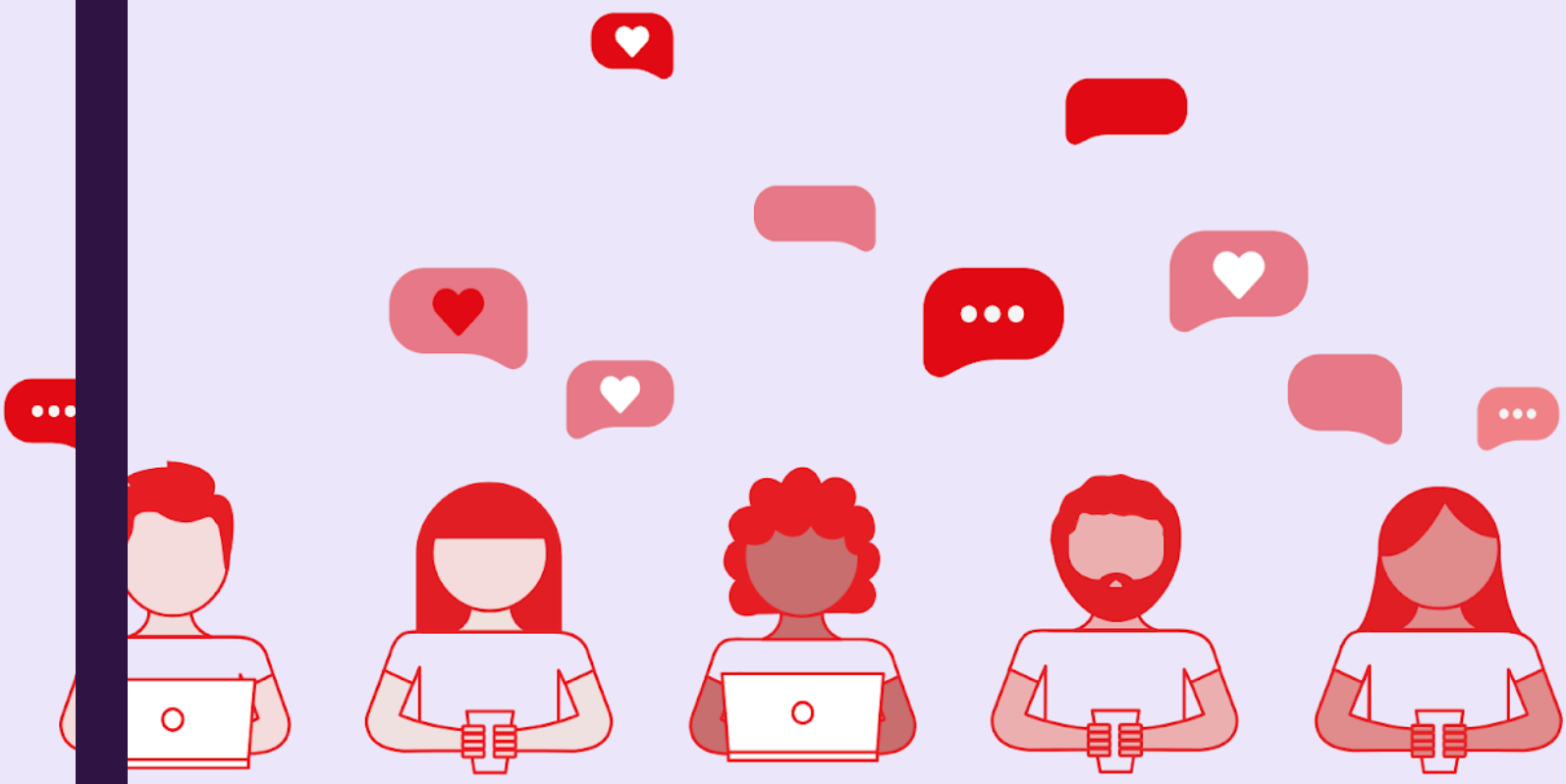

CASE STUDY

Sustaining Scaled Impact, AI & Technology at Crisis Text Line

Sarah Di Troia

AUGUST 2025

PROJECT EVIDENT

About Project Evident

Project Evident harnesses the power of data, evidence, and technology to achieve greater impact. We believe that by empowering practitioners to drive their own data and evidence building while also strengthening the surrounding ecosystem, we can increase the number of effective solutions in the social and education sectors and scale them faster, ultimately producing stronger, more meaningful, and more equitable outcomes for students and communities.

Project Evident's **OutcomesAI** practice provides consulting, technical assistance, resources, and tools to support practitioners — nonprofits, school districts, and funders. We achieve this by strengthening their ability to utilize AI to enhance their understanding, improve their impact, support informed decision making, advance R&D, and allocate resources toward achieving better and more equitable outcomes. We recognize the potential for misuse of data, evidence, and technology and seek to limit harmful practices. We serve on the EDSAFE AI Steering Committee and strongly recommend the S.A.F.E. Benchmarks Framework for K-12 AI efforts. Project Evident's differentiator is its use of AI to drive outcomes. We support processes to detect and avoid technology overriding our evaluative work in delivering equitable outcomes.

Why We Created the Equitable AI Adoption Project

Artificial intelligence (AI) and generative AI hold great promise for helping nonprofits expand their services and achieve more equitable outcomes for the people and communities they serve. Few in the philanthropic, social, and education sectors would claim satisfaction with society's progress in addressing persistent social problems. Grantmakers and nonprofits share the goal of scaling impact, and AI provides new tools to achieve this goal.

A February 2024 working paper by Project Evident and Stanford's Institute for Human-Centered Artificial Intelligence found that approximately 80% of funders and nonprofits believe their organizations would benefit from using more AI, specifically for mission-related work. However, there is a question about "how" – a lack of clarity about how AI will benefit individuals and organizations, as well as a lack of organizational expertise and materials about AI for social and education sector organizations, were the most frequently cited barriers for funders and practitioners, after concerns about bias. With the support of the Gates Foundation, the Equitable AI Adoption (EAIA) project aims to inspire and inform practitioners and educators on how AI can help them achieve their mission. To that end, EAIA is surfacing, creating, and disseminating stories of early adopters to study progress, distill broadly applicable insights, and share findings. At the same time, we are leading a Community of Practice comprising 15 nonprofit organizations in developing a practical and actionable tiered AI adoption framework to support others on their journey.

Acknowledgments

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CRISIS TEXT LINE | Gates Foundation

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CASE STUDY

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Introduction: Why Sustaining Scaled Impact with AI Matters

Artificial Intelligence (AI) has enormous potential to scale impact, enhancing the depth of individual outcomes and the breadth of outcomes across communities. This case study with Crisis Text Line illuminates the significant gains that can be created by scaling impact through AI while highlighting the importance of technology implementation, safety, and innovation. Nonprofits and grantmakers who adopt AI to scale impact must understand the scope and scale of technical considerations to ensure they effectively implement AI, achieving their desired outcomes while maintaining financial sustainability.

A February 2024 working paper by Project Evident and Stanford's Institute for Human-Centered Artificial Intelligence found that approximately 80% of funders and nonprofits believe their organizations would benefit from using more AI, specifically for mission-related work. Unfortunately, philanthropy and nonprofits have a mixed track record when investing in technology, which could limit the potential benefits of AI to enhance more equitable outcomes. 45% of nonprofits believe they spend too little on technology, citing available budget and a lack of grant or funder support as the top two barriers to technology investment within their organizations. Not surprisingly, only 25% of nonprofits received foundation grants that included budgets for technology.[1]

The reality is that scaling impact through technology is never a one-and-done activity. The accelerated pace at which AI is developing means there are constantly new ways that AI can be applied to enhance more equitable outcomes and meet clients, especially youth, where they are. However, rapid technological change also means a faster rate of code becoming outdated or brittle, Application Programming Interfaces (APIs) that connect systems breaking, and new applications rendering prior approaches obsolete. These considerations are in addition to the fact that AI needs to be maintained against model drift, as algorithms "learn" from new data flows generated by human activity. As the social and education sectors adopt AI to enhance their outcomes, the cost of funding scaled technology innovation, security, technology debt, or "tech debt" – the accumulation of technical compromises made over time that must eventually be addressed – should be understood and addressed by practitioners and their funders for AI to further mission attainment sustainably.

[1] NTEN and Heller Consulting. (n.d.). (rep.). 2024 Nonprofit Digital Investments Report

Technology-powered nonprofits focused on scaling impact face four realities that drive investment in ways that are different from traditional nonprofits. While Crisis Text Line is an extreme case given their significant scale of impact, the lessons from Crisis Text Line about how to maintain and manage technology hold true for all nonprofits seeking to use technology to scale their outcomes:

THE COST OF ENTERPRISE SCALE: While technology is a cost-effective means to scale impact, nonprofits are beholden to the same large technology companies and their fees as for-profits.

THE COMPOUNDING EFFECT OF TECHNOLOGY DEBT: As technology ages, the cost of maintaining it increases, while the budget typically remains static or decreases.

THE INNOVATION PARADOX: Limited funding forces nonprofits to make tradeoffs between technological innovation and system maintenance.

THE PRICE OF PRIVACY: Security protocols are rapidly evolving, and costs are rising in an increasingly dangerous online world.

> "Tech debt is something we want to handle; we want to solve it. But it's also a dynamic and persistent problem."
>
> *—Matthew Vanderzee, Chief Technology Officer*

Crisis Text Line is a prime example of an organization with an impressive scale of impact that is navigating these realities. While not all organizations will incorporate AI to the same degree as Crisis Text Line, the lessons from its journey will apply to other organizations that desire to deploy AI to enhance and scale more equitable outcomes. We are grateful that Crisis Text Line agreed to share its story candidly and comprehensively, providing practical and actionable insights into AI adoption that will benefit other social and education practitioners.

Who is Crisis Text Line?

Since its inception, Crisis Text Line has been a technology-powered nonprofit. In the words of Dena Trujillo, the organization's CEO, "Its entire existence is really because of and exists in technology." Crisis Text Line was founded in 2013 to address the lack of text-based mental health crisis support at a time when 73% of teens had access to a smartphone and were sending roughly 100 texts a day. In an era where anxiety, depression, and suicide rates are experiencing exponential growth, Crisis Text Line offers free, 24/7, confidential text-based mental health support in English and Spanish to people in their moments of need. From 2019 to

2024, Crisis Text Line supported over 11 million conversations in the US for people struggling with everything from loneliness and anxiety to depression and suicidal ideation. Over 58,000 texters at imminent risk for suicide were successfully de-escalated through their conversation; 85% of texters reported finding the conversation helpful; and 61% of texters reported they don't have anyone else to talk to.[2] Supported by a team of roughly 80 clinicians and more than 16,000 volunteer crisis responders each year, Crisis Text Line engages in over 3,800 text conversations daily, providing critical support to people in need. Its researchers, in turn, offer invaluable insights to help better understand societal mental health. This is what scaled impact looks like.

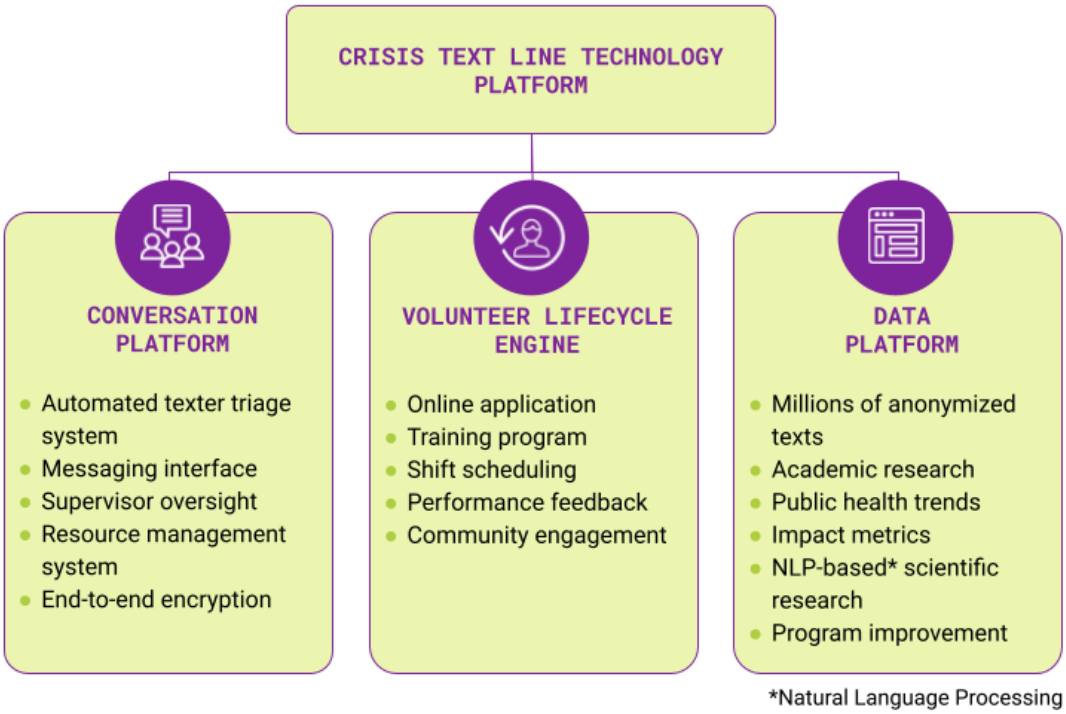
"Crisis Text Line is a human-centric platform. We're not trying to replace our volunteer crisis responders with chatbots,[3] but we can absolutely enhance their work, enabling them to be more efficient, safe, and supported," says Matthew Vanderzee, Crisis Text Line's Chief Technology Officer. Over time, the organization has expanded to accommodate a growing list of partners using Crisis Text Line's technology and model for their texters, including organizations in Canada, the UK, and Ireland. Together, these three partners support roughly 1 million additional conversations per year. In addition, Crisis Text Line has customized its services to integrate with government systems, serving as a national backup center for the 988 Suicide & Crisis Lifeline in the US. This integration provides text and chat services in both English and Spanish. Crisis Text Line also supports affiliate partners in customizing integrated services for their local governments in Canada and the UK.

Data Architecture, Infrastructure, and Governance

As a technology-powered nonprofit, Crisis Text Line differs significantly from traditional crisis hotline organizations or direct service nonprofits. The most significant difference is evident in the numbers, both in terms of scale and the technology budget. Crisis Text Line and its three country affiliate partners, leveraging their technology systems, collectively support nearly 20,000 conversations every three days. It operates on a scale that would be unthinkable for a traditional direct-service organization, even one that has grown through geographic replication. Accordingly, its technology budget looks different. A typical large nonprofit organization spends 3% of its budget on technology.[4] Crisis Text Line had a $35.6 million expense budget in 2023, and it is estimated that 37% of the budget is allocated to technology, including the Build team (encompassing engineering, product, user experience, and security) and the Research & Impact team (encompassing AI/natural language processing clinical research science, impact evaluation, and data and research ethics). Some of this expense is due to Crisis Text Line's decision to host other partners on their platform, essentially becoming a Software as a Service (SaaS) provider for other nonprofits. This is a complex and atypical path for most nonprofits seeking to become technology-powered.

[2] Crisis Text Line, (2023) A Decade of Impact Report
[3] A computer program designed to simulate text-based conversation with human users
[4] How Much Should Technology Cost Your Non-Profit Organization?

When Crisis Text Line was founded, it had to write custom code to create a communication platform for volunteer crisis responders, texters, and clinicians. Now, many applications that underpin the platform can be purchased instead of being custom-coded. Vanderzee said, "I'm firmly in the 'buy' camp because we should not be building something that another high-quality supplier has built; we're not the experts in that. Our expertise is in mental health crisis support." Today, Crisis Text Line's technology platform comprises three distinct areas: the conversation platform, the volunteer lifecycle engine, and the data platform, each designed for different users. "We have the texter as a persona, the volunteer crisis responder as a user, and our clinical supervisory team that oversees all these conversations. We also have downstream users like our researchers and analytics users," said Vanderzee.

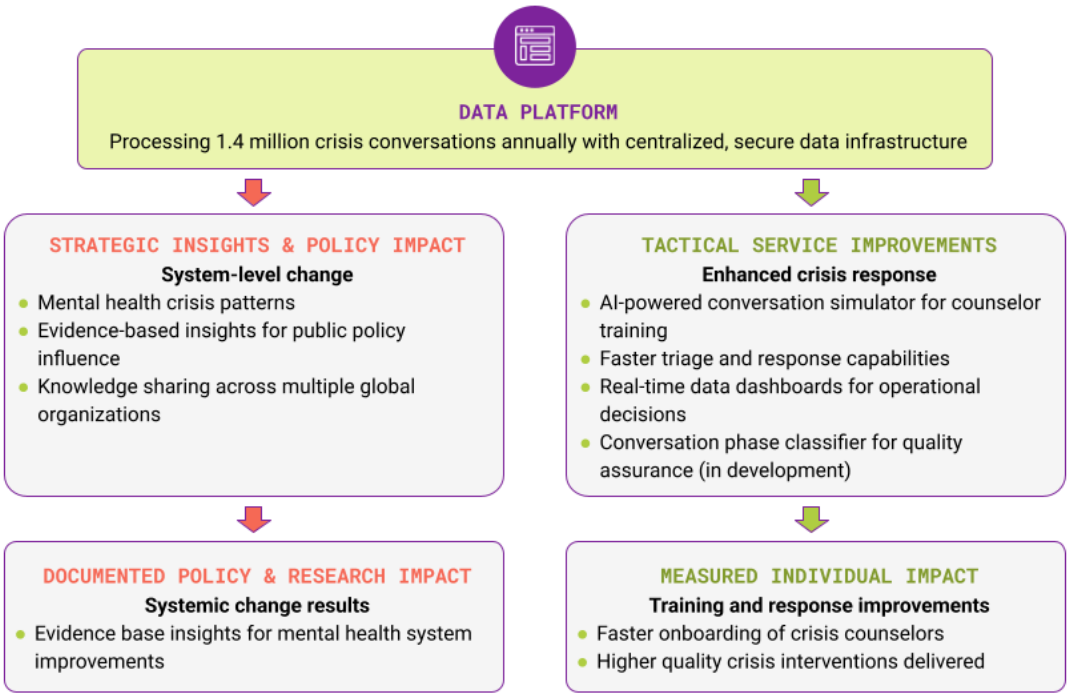


The conversation platform is the heart of Crisis Text Line's work. As described by Vanderzee, "When a texter reaches out, our conversation platform is where they are connected to a volunteer, so that they can converse with a volunteer crisis responder and get the support they need." Within the conversation platform is an automated triage system that utilizes machine learning (ML) algorithms to prioritize high-risk texters based on keywords and patterns. It places them at the front of the texter queue, much like a mental health emergency room. The platform's foundation consists of a real-time messaging interface and a web-based dashboard that enable volunteer crisis responders to manage and respond to live texts, with multi-channel integration supporting SMS, web chat, and WhatsApp for enhanced accessibility. The dashboard includes supervisor oversight tools, allowing clinicians to monitor conversations in real-time and intervene if necessary, as well as a resource management system that enables volunteer crisis

responders to share relevant support materials quickly. The conversation platform features end-to-end encryption and robust privacy protocols to safeguard user data.

In the US, over 16,000 volunteer crisis responders support millions of text messages annually, necessitating a volunteer lifecycle engine, which Vanderzee describes as a “sophisticated volunteer training, acquisition, onboarding, and support system.” The lifecycle engine includes an online application, background check, and a comprehensive 15-hour virtual training program covering active listening, crisis intervention, and self-care strategies. The team has developed a generative AI chatbot for training that can simulate texter responses in high-stakes or low-stakes crisis scenarios, allowing volunteer crisis responders to practice their skills in a simulated environment. Once volunteer crisis responders are ready to take on conversations, a shift scheduling system allows them to select shifts that fit their availability. Additionally, a performance feedback mechanism is implemented to facilitate ongoing development and adherence to best practices. Finally, the platform fosters community engagement among volunteer crisis responders with a dedicated space for connection, sharing best practices, and receiving support from peers and staff.

Helping shed light on crisis and mental health trends to inform public health responses and support scientific and academic research is a core part of Crisis Text Line’s mission. As Trujillo noted regarding the organization’s data platform to support analytics, "We've recently shifted everything over to a data intelligence platform; it is more agile and allows us to leverage natural language processing and conduct scientific research that would never have been possible before." In addition to supporting internal scientific research for external consumption, the data platform facilitates analysis to drive internal improvements, optimize training and triage algorithms, support volunteer performance, and enhance impact metrics.



The investment in a data platform enables a dramatic expansion of evaluation and insight generation compared to more traditional learning tools such as the Plan-Do-Study-Act (PDSA) approach. A traditional PDSA approach tests small samples, requires weeks or months per cycle, and tackles one improvement at a time. A data intelligence platform enables an organization to adopt a research and development (R&D) approach to learning. It can analyze millions of data points simultaneously in real-time, enabling continuous learning from every interaction, with multiple improvements being tested in parallel. PDSA is excellent for testing specific, human-generated hypotheses about improvements, but it requires already knowing what to test. A data intelligence platform identifies patterns and opportunities outside of a human-directed hypothesis. Business intelligence platforms could have a far-reaching impact on real-time learning across social and education organizations.

> "Switching to a data intelligence platform was transformational. The metaphor in my brain is like going from riding a bike to flying an airplane. That's the difference for us. We were riding a bike before, and now we're flying - even ready to launch rockets."
>
> *—Margaret Meagher, Chief Impact Officer*

Staff Capabilities

In addition to the required investment in technology and vendor licenses to deploy technology to scale impact, there are associated staff costs for addressing technology debt, maintenance, security, and innovation. Crisis Text Line has two technology-focused teams: Build, which develops the company's technology platforms, and Research and Impact, which uses AI/ML research science to derive meaning from the data.

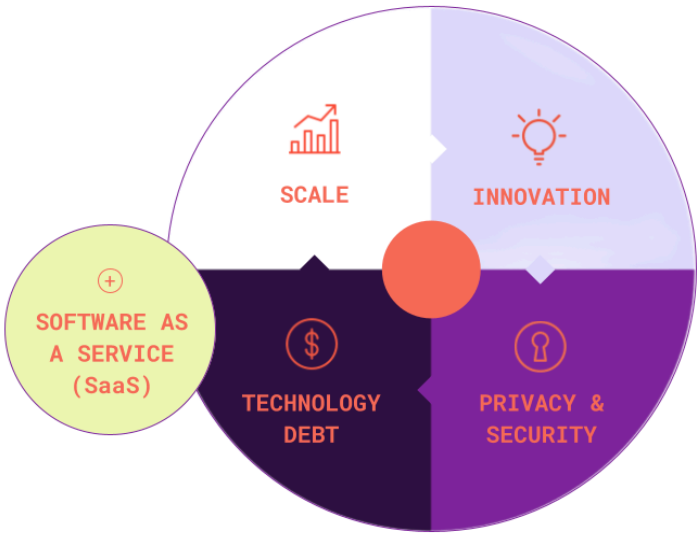
The Build team comprises approximately 50 people with diverse capabilities and skills. This team supports customized platforms for the US service and its affiliate partners in Canada, the UK, and Ireland. Within the Build function, 33 engineers comprise multiple teams, including the engineering team; full-stack development team, who build the features that users see as well as the underlying service model; data science team who turns data into platform efficiencies; product management and user experience team who understand the various users; and a security team. Vanderzee notes, "We've been able to find people who are at the right intersection of wanting to have a big impact with their time and be able to use all of the skills grown over their career." While Crisis Text Line endeavors to align with technology-powered nonprofits and "to pay market rates, it is hard, especially given that there is no equity compensation and the market evolves quite dramatically with respect to AI."

The Research and Impact team comprises ten highly specialized individuals with interdisciplinary skills spanning clinical psychology, data science, ML, natural language processing (NLP), data storytelling, and impact evaluation. "The team of machine learning and

natural language processing scientists comes from various disciplines because credentialing for what we need in this new, AI-forward version of monitoring, evaluation, research, and learning functionality is a nascent field," offered Margaret Meagher, Chief Impact Officer. In the near term, she sees a future when the Research and Impact team "evolves into two symbiotic streams: one is our AI-powered clinical research science and the other is robust impact evaluation and storytelling." The combination of powerful AI tools alongside skills on the Research and Impact team, including four ML and NLP scientists as well as three licensed clinical psychologists, two of whom are clinicians who code, has enabled Meagher to bring "the gold standard of doing clinical research into our organization in ways that didn't exist before."

What to Plan for When Becoming Technology-powered

Crisis Text Line is a complex, technology-powered, mission-driven nonprofit. However, the drivers of technology costs – scale, technology debt, innovation, and privacy protection – are valid for any technology-powered nonprofit.



SCALE: Technology is a way to lower the cost of scaling impact. Crisis Text Line could not have supported over 1.4 million conversations in the US in 2024 (with an additional 1 million through affiliate partners) on a nonprofit budget using a traditional call center model. However, larger operations require more sophisticated and expensive technology solutions. Vanderzee noted, "We have almost as many vendors as we have employees, and that's daunting. As scale increases, technology costs increase exponentially."

> "Anytime you're talking about five digits worth of users, you're at this enterprise tier of price, which does provide a per-user discount – but certainly we can't pay for each of our 20,000+ monthly volunteer and staff users across all four countries."
>
> *—Matthew Vanderzee, CTO*

TECHNOLOGY DEBT: Technology debt is an inherent aspect of software development that requires ongoing attention. Technology depreciates, and custom code becomes brittle. Crisis Text Line is 12 years old and has under-laying custom code in its platform. Maintenance requirements increase as systems age and become more complex.

> "Half of our time goes to maintenance and keeping things running."
>
> —*Matthew Vanderzee, CTO*

INNOVATION: Organizations must strike a balance between innovation and maintaining existing systems. Technology is evolving rapidly, as is how society, especially youth, interacts with it. If nonprofits do not innovate, they risk missing out on enhanced outcomes and limiting youth engagement. Generative AI, in particular, presents new opportunities for Vanderzee's team. "Generative AI developments in the industry have led to this notion of co-pilot. How do we get more help on the screen in front of our volunteer crisis responders so they have more support while holding these difficult conversations?" Few nonprofits have specific R&D budget line items, which contrasts sharply with for-profit companies. For example, healthcare information and technology companies spend 24% of their sales on R&D, compared to Crisis Text Line, which spends an estimated 37% of its entire budget on technology and research.

> "I think right now, the innovation percentage of the budget is small relative to what it should be."
>
> —*Matthew Vanderzee, CTO*

SECURITY: Security, privacy, and regulatory requirements continuously evolve, requiring ongoing investment. "We never had in our budget the hiring of a VP of security. Guess what? We just hired a VP of security. The world is more dangerous. Not only have data, privacy protection, and ethics evolved, but security has to be higher," said Trujillo. Over the last decade, protecting personal data has become a legal requirement rather than a recommendation, led by regulations like the General Data Protection Regulation (GDPR - 2018) in Europe and the California Consumer Privacy Act (CCPA - 2020) in the US, which require organizations to collect, use, and store data responsibly. Crisis Text Line's investment in a data intelligence platform to store its dedicated, de-identified data enhances security while enabling more powerful, yet controlled, analysis capabilities. The number one way Meagher says Crisis Text Line protects privacy is through "the de-identified layer, making sure that we have a distinct layer where the data has been transformed and de-identified, such that we minimize exposure to personally identifiable information."

> "What defines good practices today in terms of data ethics and security in the world is fundamentally different from what it looked like ten, five, or even three years ago."
>
> —*Margaret Meagher, Chief Impact Officer*

SOFTWARE AS A SERVICE (SaaS): Crisis Text Line is part of a small group of nonprofits that, in addition to utilizing a technology platform to guide direct service work, have made their technology available on a fee-for-service basis to other

> "We made sure international organizations had their own instance of the platform."
>
> —*Matthew Vanderzee, CTO*

organizations. Many aspects of becoming a SaaS provider create additional costs and complexities. "We couldn't just add international users into the US platform for obvious reasons such as data privacy, different regulatory environments, different data environments, and so forth," said Vanderzee. While this creates additional costs for Crisis Text Line, and the affiliate fees do not cover all expenses, having a few organizations become SaaS providers is ultimately a more efficient use of resources to support the global mental health system than having each organization build its own technology platform.

What Grantmakers Miss When Supporting Technology Implementation

Overall, philanthropy does not have a strong track record in funding technology. The share of grantmakers providing technology and tools for nonprofits has decreased to 20% from 23% in 2022. As a result, 45% of nonprofits say they are spending too little on technology, and those who are spending too little on technology cite cost (77%) and lack of grant or funder support (47%) as the most significant barriers to greater technology use.[5]

One challenge is that grantmakers do not see technology as integral to program delivery despite AI's promise to enhance more equitable outcomes. In the case of Crisis Text Line, Trujillo believes, "You can't separate what is program and what is overhead relative to technology, which is the way most philanthropy is structured – because the technology is the program." However, AI will inevitably transition from a "nice-to-have" investment to a necessity to operate efficiently in society. Nonprofits do not just need funds to start new projects; they also need to cover the costs of maintenance and technology debt. But, "funders, especially the big ones, don't pay for ongoing services. They want what's new, what's exciting," says Trujillo.

Grantmakers also need a dose of reality about what technology, especially AI, really costs, which they may find hard to understand, as funders have adopted technology more slowly than nonprofits. In our February 2024 report, "Inspiring Action: Identifying the Social Sector AI Opportunity Gap," we found that more practitioners than funders (by over a third) claimed that their organizations utilized AI. The result is that even grantmakers who invest in technology may not be investing enough. The challenge, as observed by Trujillo, is that "The amount of money (funders) give you is a small fraction of what is required to implement the projects that have a big enough vision and a big enough potential for impact to get funded." Even though technology can help both nonprofits and philanthropists realize their shared goal of significantly scaled impact, technology-powered nonprofits often find themselves in the same position as non-technical nonprofits. They try to eke out innovation using scarce general operating funds, scrambling for new investors when current grantmakers want to move on, and seeking support to maintain their current work rather than starting new initiatives to catch funders' attention.

[5] 2024 Nonprofit Digital Investments Report | NTEN (Page 9)

Recommendations

Most nonprofits will not require the large technical team that fuels Crisis Text Line, but their experience with technology costs is instructive to all nonprofits seeking AI to enhance outcomes. Both grantmakers and nonprofit practitioners need to think and plan for the sustainability of technology investment from the outset to ensure lasting gains. For nonprofit practitioners, this entails adding new capabilities to their teams and realistic planning and budgeting for technology scale, innovation, technology debt, and privacy and security to support impact scaling. For grantmakers, this means rethinking the role of technology in achieving grantees' missions.

FOR NONPROFIT LEADERS

- Prepare for technology as an ongoing investment, not a one-time expense.
- Plan for technology scale, innovation, technology debt, and privacy and security.
- Familiarize yourself with the capabilities and the salary requirements of specialized staff to innovate and maintain your technology stack.
- Rethink your measurement, evaluation, and learning (MEL) function to surface new opportunities to assess impact and new capabilities needed on your MEL team.
- Track the cost of R&D specifically and your overall technology spend generally, and share this information with funders and peers to establish cost norms for technology-powered nonprofits.

FOR GRANTMAKERS

- Learn about technology and AI and explore how they can lead to more equitable outcomes.
- Reorient budget analysis to include technology as a program cost, not administrative overhead.
- Fund the full cost of technology to scale impact, including technology licenses, technology-oriented staff, innovation, data privacy, maintenance, and technology debt.
- Fund sustainable technology practices with multi-year investments.
- Champion innovation by providing general operating support or requesting that tech-oriented R&D be a line item in program-related grants.
- Stay up-to-date with evolving data privacy and security regulations and best practices to share with grantees, safeguarding the data of vulnerable communities.

FOR THE SECTOR

- Develop common standards for tracking and reporting technology budget items, enabling the field to better compare and learn from one another as more nonprofit practitioners adopt technology to scale their impact.

> "We need funders that understand that your investment in technology is never done."
>
> *—Matthew Vanderzee, CTO*

Appendix

Resources

- Crisis Text Line uses Databricks to Deliver Efficient and Effective Support to Those in Need
- Funding the Future: Grantmaker Strategies in AI Investment
- Inspiring Action: Identifying the Social Sector AI Opportunity Gap
- Chronicle of Philanthropy/AWS case study
- PagerDuty Customer Story