How Savvy Nonprofits Are Using Generative A.I.

- **Using A.I. to depict poverty without exploiting people**

- **Solving for the time-consuming chore of pairing needs and resources**

- **Ensuring humans have the final review**

- **Personalizing and customizing communications**

By now, many nonprofit professionals are familiar with A.I. chatbots such as ChatGPT and Microsoft Co-Pilot, which require little technical knowledge to use and can assist with everyday tasks like correspondence and scheduling. But there's much more A.I. can do, and nonprofits are just scratching the surface of A.I-powered work.

Generative A.I. — also called modern A.I. — learns from data to create new text, which can be prose, poems, essays and more, as well as images, and computer code. It is evolving quickly and has already enabled some nonprofits to accomplish projects that would have been impossible just a few years ago. Still, A.I. power-users are outliers in the philanthropy world.

Among nonprofits experimenting with A.I., basic applications are typical, says Ashutosh Nandeshwar, senior vice president for data science and analytics at the consultancy CCS Fundraising. "Most of

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Empowering change: AI use cases for nonprofit innovation

Artificial Intelligence (AI) is revolutionizing the nonprofit and social impact sectors, allowing organizations to maximize their impact and streamline operations. At Microsoft, we have the distinct pleasure of partnering with nonprofits as they explore all that generative AI can offer.

But how do these gains in productivity translate to mission advancement? If you're not sure how generative AI can make a difference in your organization, these nonprofits from around the world offer some inspiration:

- **Deeper community connections: Arapahoe Libraries** in Colorado adopted Microsoft 365 Copilot to enhance its services and streamline administrative tasks. This AI-powered assistant helps library staff quickly find information, collaborate more effectively, and protect patrons' privacy, allowing them to better serve their community.
- **Increased response times: Seguro Project** provides domestic violence support organizations with an AI-powered chatbot built using Microsoft Copilot Studio. This chatbot offers 24/7 assistance, helping individuals access crucial resources and support during times of need.
- **Increased staff bandwidth:** The **British Heart Foundation (BHF)** is Europe's largest independent, non-commercial funder of research into heart and cardiovascular disease, and the organization finances projects using AI to accelerate scientific breakthroughs. Now, the organization is using Microsoft 365 Copilot to improve efficiency and productivity for its operations. By streamlining workflows and reducing manual tasks, the AI solution is empowering BHF to innovate.
- **Safer and more secure research: RTI International** conducts extensive research in over 90 countries— with roughly 3,800 studies last year alone. RTI's thorough data governance policies pair with Microsoft 365 so the AI assistant only surfaces documents that staff members have permission to view and ensures that organizational data never extends into the public domain.

To explore what's possible for you and your team, start building your AI skillset through our free resources for nonprofits. And, if you're ready to leverage our nonprofit grants to further your mission impact, learn more at microsoft.com/nonprofits.

Sincerely,

Erin McHugh Saif
Chief of Industry Technology and Strategy, Microsoft Tech for Social Impact

the use cases are in content generation for marketing, social media," he says.

But some nonprofits are pushing the boundaries further. Already, natural language processors like GPT-4 and other generative A.I. models and chatbots are helping some savvy nonprofits take fundraising, administration, and programmatic work to a new level.

Read on to learn how nonprofits are harnessing A.I. to produce creative fundraising campaigns, automate databases, and personalize content recommendations.

Using A.I. to Depict Poverty Without Exploiting People

Dan Kershaw, executive director of the nonprofit Furniture Bank, used generative A.I. to work around a communications challenge. His nonprofit collects gently used furniture and gives it to people living in homes with little to no furniture — what the group calls furniture poverty. As Kershaw designed the charity's 2022 fundraising campaign, he knew his appeals would be more powerful if they showed donors what furniture poverty looks like.

"The type of social issue that we deal with, it's invisible, in that it occurs behind closed doors," Kershaw says.

Kershaw speaks to Furniture Bank's clients and visits their homes. He has seen nests made of clothing, where children without beds sleep. Yet he worried that photographing the experience of furniture poverty could be exploitative.

The solution: A.I.-generated images.

Furniture Bank often interviews the people it serves about the life-changing impact of its mission, and some of these client stories are published on its website. Kershaw and his team fed the text of 20 interviews it had collected from clients into Midjourney, a generative A.I. tool. They then prompted it to use the interviewees' words to generate 40 images that rendered an experience of furniture poverty. They told the generator the emotions they wanted each image to evoke; whether or how to illuminate subjects; where to focus the image; and other artistic cues.

Furniture Bank asked an A.I. tool to render images of home life without furniture. The imagined images, including this one, illustrated and inspired the theme for its annual campaign.

FURNITURE BANK

The charity estimated that the A.I. images cost less than $900 to produce — far below the cost of sending photographers out to people's homes — and only took a few days to complete.

It took a lot of experimentation to get the images just right, but Kershaw was thrilled with the end results, which were printed on postcards that the charity mailed to its supporters. "It was the first time we were able to show it without being exploitive, and that in itself is liberating," he says.

Those images formed the foundation of the group's 2022 fundraising campaign, and inspired its tagline, "The picture isn't real. The reality is."

The charity has published a gallery of the photos on its website. Many of the photos show the families from behind or with their faces obscured by shadows. The images show children eating meals on the floor or completing homework assignments while seated on the floor. Others show children sleeping in piles of clothing on the floor or sitting quietly on the floor with a parent.

Kershaw says the charity's goal with these images was to spark discussion about furniture poverty. "Once you see it," he says, "you can't unsee it."

Solving for the time-consuming chore of pairing needs and resources

Learning Equality, an education technology nonprofit, used generative A.I. to solve a long-standing problem. The nonprofit works in more than 220 countries and territories to provide schools lacking internet offline access to digital educational products and tools. Its software and toolkit — including an aggregated library of roughly 200,000 practice problems, science lab simulations, and other open educational resources — are meant to supplement the curriculum requirements in each community.

But in practice, it was sometimes challenging for educators to find the materials they needed. Curricula requirements were often only available as PDFs or paper documents. Educators would need to scroll through Learning Equality's database of content and match the resources with discrete learning objectives in their curriculum files. The drag-and-drop tools on the nonprofit's platform helped organize the files, but the process was still clunky.

"You're trying to align to thousands of different learning objectives," says Jamie Alexandre, co-founder and co-executive director of Learning Equality. "You've got hundreds of thousands of pieces of content."

> **GPT-4 was able to digest a huge volume of text, sort the curricula into categories, extrapolate the curricular content into a "topic tree," and break those topics down into discrete learning objectives.**

The process was a time-suck. So, in 2020, Learning Equality set out to digitize the curriculum files. After months of work, they had some success, but the product wasn't sophisticated enough to create reliable formatting or quickly process data from uploaded PDFs of each country's curriculum standards. It still required too much manual labor to be worthwhile.

"We kind of got stalled there," Alexandre says.

Flash forward to 2023, when OpenAI launched GPT-4, its latest large language model. It was able to digest a huge volume of text, sort the curricula into categories, extrapolate the curricular content into a "topic tree," and break those topics down into discrete learning objectives. In addition, through GPT-4, Learning Equality's platform now could automatically recommend practice problems and other re-

sources that aligned with specific learning objectives — such as understanding angles and planes in geometry — in an educator's curriculum requirements. What's more, it made these recommendations in a consistent, user-friendly format.

"That was really a game changer because there was literally no way that could have been done [before]," Alexandre says.

Learning Equality put this model to test in Uganda, where it identified 2,194 distinct learning objectives within the national curriculum standards and matched those objectives with 20,698 pieces of relevant resources from its content library.

> ## "Our work is in a high-stakes, social-impact domain, and we have to be so careful about hallucination and information-bias, equity"

Importantly, the nonprofit's goal was always to lighten the educator's load in locating relevant teaching materials — not to eliminate human work entirely. It still relies on human reviewers — usually local curriculum experts or former educators — to confirm that the A.I. matched the right materials to the right learning objectives.

"Rather than having to search around and filter and find the right pieces and pool them in, they're having to just review these candidate recommendations, determine whether it does specifically meet the criteria and the needs of the learning environment, and then they remove any that aren't — or supplement, if they know of other materials that weren't caught," Alexandre says.

Thanks to generative A.I., the process has been drastically shortened from months to just weeks. And it's cheaper, too.

Ensuring Humans Have the Final Review

Climate Policy Radar, a nonprofit based in the United Kingdom, is using generative A.I. to put information about more than 5,000 global climate rules and regulations into the hands of individuals. The group's database — Climate Change Laws of the World, launched as a compendium of PDF files in 2009 — is now fully searchable thanks to machine learning and natural language processing.

Climate Policy Radar participated in a generative A.I. accelerator program and built a prototype of a tool called Queried that enables a user to pull up a piece of climate legislation, ask questions about its content, and receive answers from a chatbot. The hope is that Queried will make complicated climate regulations accessible to more people.

"Our work is in a high-stakes, social-impact domain, and we have to be so careful about hallucination and information-bias, equity," says Henry Franks, chief technology officer at Climate Policy Radar.

Hallucinations — fabricated, incorrect answers that A.I. delivers confidently — are a serious risk with any generative A.I. tool. There's also potential that a tool may respond with answers that are biased toward a certain language, geography, or culture. A person in Asia, for example, might use the term "typhoon" to ask the bot about extreme weather regulations, whereas a North American user might ask about "hurricanes." Both terms refer to serious storms, and the bot should be wise enough to recognize them as synonyms rather than discrete terms.

To ensure that bias and hallucinations are eliminated, Climate Policy Radar has invited users to test the prototype before it's incorporated into Climate Policy Radar's main database.

Franks emphasizes the importance of having people oversee any A.I.-powered programs and processes.

"Humans are still good at dealing with the limitations of language models, and language models are good at dealing with the limitations of humans," he says.

One of the biggest challenges to A.I. tools is their insistence on giving an answer — any answer, even if it's wrong — to every question that's asked of it. "They're sycophantic," Franks says. "They do what they're told."

Human review helps prevent these mistakes.

Personalizing and Customizing Communications

While these use cases may sound cutting edge, it's important to remember that A.I. is not new to nonprofits. Machine-learning — so-called traditional A.I. — has long helped fundraisers identify potential donors and steward existing ones.

Nandeshwar, the senior vice president of data science and analytics at CCS Fundraising, is especially excited about how generative A.I. can enable fundraisers to personalize donor communications at scale. While he says he doesn't know of nonprofits doing this on their own, this capability is baked into some fundraising technology tools, such as Gravyty and Momentum.

In addition, a technique called retrieval augmentation generation — or RAG — allows nonprofits to train a large language model to write in its organization's style and voice. By feeding the bot a diet of the organization's previous social media posts, direct mail appeals, email newsletters, and other writing, a nonprofit can teach the tool to produce first drafts that sound like the organization's own fundraisers.

A.I. can enable fundraisers to personalize donor communications at scale.

While some licenses to A.I. programs include data protections, Nandeshwar cautions groups to read their contracts carefully and to refrain from uploading any sensitive or proprietary information. Publicly available donor information, such as news articles or a public biography can be shared. These kinds of documents can enable a chatbot to personalize donor communication for all donors in a fundraiser's portfolio.

"The chances of the large language models making stuff up are actually lower, because now it's relying on your data," Nandeshwar says. "You will get better results."

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Please contact connect@philanthropy.com with questions or comments.

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