### EXPLAINER

# Artificial Intelligence in Nonprofit Organizations

#### What is artificial intelligence?

Artificial intelligence is a general term for several types of computer programming that are used to develop deep analyses of data sets and perform tasks. Employing a specific set of orders designed to solve problems — called an algorithm — AI software can tease out unseen information and solutions, and ultimately do work that has typically required human intelligence. Those programs and algorithms often do certain kinds of jobs more effectively and efficiently than humans.

AI actually encompasses several types of computation. Machine learning works to continually improve how a program breaks down and categorizes bits of information. Robotics involves using algorithms to program autonomous machines. And natural language processing (NLP) uses the interaction





Einstein Prediction Builder helps us evaluate our work, and better understand what we're doing well and where we need improvement.

> Austin Buchan, CEO, College Forward



Learn more about how College Forward is using Nonprofit Cloud to power their mission.

bit.ly/collegeforwardNPC

between computer and human languages to perform tasks.

# Why are some nonprofits starting to use AI?

Organizations have taken on this emerging technology to eliminate time-consuming tasks, collate and analyze staff members' ideas on how to improve their operations, and make charitable giving easier.

One major reason some have opted in has to do with organizations' often-tenuous bottom line.

Traditionally, nonprofits have worked with the minimum staff necessary, and as little overhead as possible. Using AI-powered technology can help nonprofits fill operational gaps at a lower cost. AI tools can be more efficient than personnel for some jobs. The new tools allow organizations the opportunity to repurpose existing staff to do things that only humans do well, such as reach out directly to clients and donors.

Despite these advantages, AI has been put to use by few nonprofits, when compared with the business world. That is very likely to change, say champions of these emerging technologies.

#### How are nonprofits using AI?

AI tools are already helping nonprofits work more effectively and efficiently. Below are examples of the many ways this technology is helping nonprofits:

#### 1. Advance their mission.

Algorithms can help organizations parse through data to see what populations they can help or how they can reach more people to serve. AI can help groups better analyze the quality of their services and — with the help of machine learning, which allows a program to get smarter — do it over a long period of time and as data changes.

A small handful of nonprofits have employed other types of AI to gather information relevant to the work they do. Some have used drones, a form of robotics, to map landscapes and assess the risk of flooding and other disasters.

Another group, Wild Me, uses an open-source software platform to track members of endangered species, combining AI and image-recognition software to monitor how individual animals are faring.

AI can provide solutions for nonprofits whose mission is to provide direct services to individual human clients, but who often have problems scaling up their caseloads. Generally, scaling up is often expensive and labor consuming, requiring both larger tech platforms and more employees.

Some organizations report longterm advantages to growing their programs with the help of AI — ones that help them overcome the fear that comes with the cost.

Other groups have streamlined their programs by using AI. It once took so long for human readers to collate and process scholarly journal articles that Conservation International found itself one year behind. With the help of technologists, the organization now uses an AI tool that crunches and publishes article data within a month.

Crisis Text Line, a nonprofit telephone hotline and the largest opensource database on youth-crisis behavior in United States, still uses human volunteers to talk with troubled youth. But with the help of "Chatbots" — algorithmic programs designed for communication — the group has also been able to shorten its response time to high-risk texters from 120 seconds to 39 seconds by sending an alert to volunteers.

#### 2. Improve fundraising.

AI has the potential to help nonprofits over all overcome a "stuck" market for giving. Since 1997, total donations have hovered consistently around two percent of gross domestic product annually.

Nonprofits who use AI can raise more money while lowering the costs of fundraising — a win-win for organizations with tight budgets.

At the Cleveland Clinic, for example, AI has reduced the need for employees to manually sift through thousands of donor prospects. With the help of AI, the clinic now processes 80,000 gifts per year using the same number of workers it did to process 30,000 donations just a few years ago. It has automated a couple of positions once held by humans and relocated those employees to jobs elsewhere in the hospital, lowering the cost of its fundraising operation.

Besides making fundraising less expensive, AI can help fundraising professionals reach more potential donors. It can more precisely peg which ones are most likely to make a gift, and in doing so, make the time your employees spend with prospects more valuable. What's more, AI can streamline the outreach process, making it more personalized to the donor.

Predictive AI tools can home in on data points that can identify the prospects most likely to donate, allowing nonprofits to deploy their teams in the most meaningful way. Instead of sending fundraisers out to lunch or dinner with wealthy people randomly — even when they may have no history of giving to a particular type of organization or have the kind of experience that would predispose them to giving — AI can help pinpoint donors who have a deep sense of engagement and an affinity for the organization.

Some groups have put natural language processing (NLP) to use in order to make giving easier. The Fred Hutchinson Cancer Research Center has put an NLP app to work that allows donors to give simply by voicing their wishes to Amazon's Alexa.

#### 3. Streamline administrative tasks.

AI-driven software can eliminate the need for staffers to perform repetitive tasks, such as scheduling and rescheduling meetings, arranging introductions, sending reminder messages, and managing calendar functions.

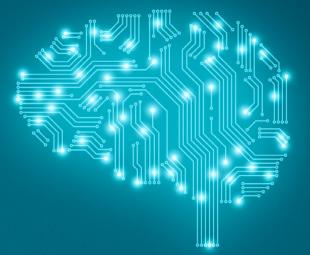
Some chatbots are programmed to book travel. Others automate basic conversations that employees currently have with clients or customers, intelligently answering frequently asked questions online or by text. Bots, as they are sometimes called, can also drive more complex queries toward human staffers — and quickly.

## Al can help pinpoint donors who have a deep sense of engagement and an affinity for the organization.

Some nonprofits, such as the Benefits Data Trust, have used machine learning-fueled AI to help their clients enroll in government assistance programs — a task previously done by people.

Leaders at some organizations laud

Fears about the cost of new tech, insecure databases, and algorithms that magnify human biases regarding class, gender, and race can fill nonprofit managers with angst.



AI for its ability to save them from some human error, such as the entering of incorrect data or the collection of inadequate information.

## What are the potential problems that can come with using AI?

To be sure, as AI has been developed, controversy has emerged right along with it. Will corporations and governments use burgeoning facial and voice recognition software for only the right reasons? Who will control the results of AI? Will dizzyingly multiplying technologies be properly regulated to protect privacy and other basic human rights?

Some nonprofit managers worry that the "human touch" that many groups have cultivated might disappear once computer programs handle many of the same jobs.

Fears about the cost of new tech, insecure databases, and algorithms that magnify human biases regarding class, gender, and race can fill nonprofit managers with angst. Algorithm bias is a particular point of concern. Organization leaders have expressed anxiety that such a bias may lead to a change in the level of services for some kinds of clients, or will consistently elevate one type of donor prospect at the expense of others.

Others link the accelerating

development of artificial intelligence technologies with the obsolescence of workers. Some experts say that displacement, loss of income, and a lack of employability are legitimate worries, both for workers and society at large. Within the next decade, studies suggest, nearly half of the nation's 150 million workers will need to adapt to the march of progress, which includes increasing amounts of AI. Or they'll need to adapt to a workless future. This includes many nonprofit employees.

The concern of the moment for nonprofit leaders, however, is affordability. Though the cost of AI becomes cheaper over time, organizations necessarily remain budget-conscious to a fault.

Still, experts say, organizations should do what they can to raise the money to cover AI products, startup costs, maintenance, and training for employees. The promise of artificial intelligence is too great for organizations to ignore. The prospect of reaching more needy people with better programs, running operations less expensively and more efficiently, and finding more ways to raise money await those organizations that twin their futures with the rapidly emerging future of technology.

The Chronicle is fully responsible for the report's editorial content. ©2019 by The Chronicle of Higher Education, Inc. All rights reserved. This material may not be reproduced without prior written permission of The Chronicle. For permission requests, contact us at copyright@chronicle.com

#### THE CHRONICLE OF PHILANTHROPY.