bloomerang

You and Artificial Intelligence (AI):

A Nonprofit's Guide to Understanding and Getting Started with AI

This eBook about you, Artificial Intelligence (AI), and nonprofits, is co-authored by a human and artificial intelligence, ChatGPT. Can you tell which entity is writing?

All sources derive from ChatGPT unless otherwise noted.

Contents

After examining Artificial Intelligence's (AI) evolution and history, this eBook covers four essential aspects of its application with nonprofits as follows:

We're also including a case study about hospitals' use of AI, as well as a section highlighting how nonprofits can implement AI into day-to-day operations.

The approach of this eBook is to convey the history and facts about AI and nonprofits. It's a large topic but our focus centers on the four essential aspects noted above. We are painfully aware of many other complexities that arise when talking about AI and expect there to be rigorous scrutiny in our field as it continues to roll out. While AI can add value within many touch points in your organization, it should not be seen as a replacement for human engagement and the tools you currently use to maximize your efforts, rather an enhancement to guide and inform.

Introduction

AI's evolution over time

Artificial intelligence (AI) dates back to ancient times, with early concepts and myths that depicted human-like beings and artificial creatures. However, the modern development of AI began in the 20th century with significant contributions from various researchers and developments in computer science. Here are key milestones in its evolution:

Early concepts and myths:

The concept of creating artificial beings with human-like intelligence can be traced back to ancient civilizations. Greek myths, such as the story of Pygmalion and Galatea, and Jewish folklore about the Golem, reflect early ideas about the creation of lifelike beings.

1936 Alan Turing and the Turing Machine

Alan Turing, a British mathematician and computer scientist, laid the foundation for modern computing and AI with his concept of the Turing Machine. This theoretical device influenced the development of digital computers and the understanding of computation.

1951 First AI program

Christopher Strachey wrote the world's first AI program for a Ferranti Mark I computer. The program was designed to play chess, demonstrating early attempts to create intelligent machines.

1956 The Dartmouth conference

The term "artificial intelligence" was coined during a workshop at Dartmouth College in New Hampshire. The conference marked the official birth of AI as a research field and brought together leading thinkers in AI, computer science, and information theory like John McCarthy, Marvin Minsky, Nathaniel Rochester, and Claude Shannon.

The Logic Theorist (1956): Developed by Allen Newell and Herbert A. Simon, the Logic Theorist was the first computer program designed to mimic human problem-solving using logic rules.

1950s and 1960s Early AI programs

During this period, AI researchers developed programs that could perform tasks such as playing chess, solving algebra word problems, and language translation.

1960s and 1970s Perceptrons and the AI winter

The initial optimism about AI progress faded during the "AI winter." Research on perceptrons, a type of neural network, faced limitations, leading to decreased funding and interest in AI research.

1980s Expert systems

Expert systems, which used knowledge-based rules to mimic human decision-making in specific domains, became prominent during the 1980s. Examples included MYCIN for medical diagnosis (the name derived from the antibiotics themselves, as many antibiotics have the suffix "-mycin") and DENDRAL for chemistry (the name DENDRAL is an acronym of the term "Dendritic Algorithm").

1990s to 2000s AI renaissance and machine learning

AI research experienced a resurgence with the advent of powerful computers and advancements in machine learning algorithms. Machine learning techniques, such as decision trees and support vector machines gained popularity.

2010s Deep learning and big data

Deep learning, a subfield of machine learning, became highly influential in AI research. The availability of big data and advancements in computing power accelerated progress in AI applications.

2020s Current advancements

AI continues to evolve rapidly, with advancements in natural language processing, computer vision, robotics, and reinforcement learning. Ethical concerns and responsible AI development have also become significant focus areas.

AI's journey from theoretical concepts to practical applications was shaped by the collaborative efforts of researchers, technological advancements, and evolving understanding of computational intelligence. It remains a rapidly emerging field with potential implications across various industries and aspects of human life.

Setting the scene
AI and nonprofits
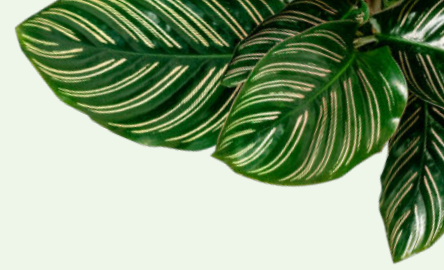
Nonprofits began exploring and using AI technologies as early as the late 1990s and early 2000s. However, the use of AI in the nonprofit sector significantly increased and diversified more recently, especially with advancements in AI technology, increased accessibility, and growing awareness of its potential applications.

In the initial stages, nonprofits primarily used AI for simple tasks such as data analysis and automation of repetitive processes. As AI technology progressed, nonprofits started using more sophisticated AI applications, such as predictive analytics, natural language processing, and machine learning algorithms.

By the late 2000s and early 2010s nonprofits were increasingly incorporating AI into their operations to improve efficiency, enhance program outcomes, optimize fundraising efforts, and engage with donors and supporters more effectively. The growth of AI in the nonprofit sector was also fueled by the availability of cloud computing, big data analytics, and open-source AI frameworks.

AI adoption in the nonprofit sector is well-established and continues to evolve. Given the rapid pace of technological advancements, nonprofits continue to explore and integrate AI into various aspects of their operations.

OpenAI was founded in 2015 as a nonprofit organization with the mission of advancing artificial intelligence in ways that benefit humanity. However, in 2019 it transitioned to a for-profit model in order to secure the necessary resources and funding to continue its research and development efforts. This change was made to ensure the organization's sustainability and ability to work towards its mission effectively.

Case Study from The Washington Post

"Mount Sinai Hospital is among a group of elite hospitals pouring hundreds of millions of dollars into AI software and education, turning their institutions into laboratories for this technology. They're buoyed by a growing body of scientific literature, such as a recent study finding AI readings of mammograms detected 20 percent more cases of breast cancer than radiologists—along with the conviction that AI is the future of medicine."

THE WASHINGTON POST

1   How are nonprofits currently using AI?

Nonprofits are incorporating Artificial Intelligence (AI) into their operations to enhance efficiency, effectiveness, and impact. Here are ways nonprofits utilize AI:

Fundraising and donor engagement

Nonprofits use AI to analyze donor data and predict donor behavior, allowing them to target potential donors more effectively and tailor their fundraising strategies accordingly. AI-powered chatbots are also being used to interact with donors and answer their inquiries promptly.

Program optimization

AI is used to analyze data from various sources, such as surveys and field reports, then identify trends, evaluate program effectiveness, and make data-driven decisions for improvement.

Predictive analytics for social issues

Nonprofits utilize AI and machine learning algorithms to predict social issues and challenges, such as disease outbreaks, environmental disasters, or poverty clusters, to better allocate resources and respond proactively.

Volunteer management

AI assists nonprofits in matching volunteers to suitable opportunities based on their skills, availability, and interests, leading to more engaged and productive volunteer participation.

Content creation and personalization

Some nonprofits use AI tools to generate personalized content and messages for their donors, supporters, and beneficiaries, ensuring more impactful communication. For a thorough view about how nonprofits can maintain their heart in the digital age see Steven Shattuck's recent book on the subject.

Data analysis and reporting

AI-powered tools enable nonprofits to analyze vast amounts of data quickly and derive actionable insights, facilitating evidence-based decision making and more comprehensive reporting to stakeholders.

Natural language processing for research

Nonprofits focused on research and advocacy leverage AI's natural language processing capabilities to analyze large volumes of text, helping them stay updated on relevant developments and trends.

Disaster response and relief

AI and machine learning support nonprofits in disaster response by analyzing satellite imagery and social media data to assess damage, identify critical needs, and coordinate relief efforts more efficiently.

Efficient resource allocation

AI-driven algorithms help nonprofits optimize their resource allocation by predicting demand for services and identifying areas with the greatest need.

Ethical AI development

Some nonprofits focus on promoting ethical AI usage and advocacy, working to ensure that AI technologies are developed and deployed responsibly, and in a manner that benefits society.

2 How can nonprofits be better prepared to integrate AI into operations?

To better prepare your nonprofit for integrating AI into your operations, consider the following steps and strategies:

Assess organizational readiness

Start by conducting a thorough internal assessment to understand your current technological capabilities, data management practices, and the specific areas where AI could add value. An assessment will help identify potential challenges and opportunities. Consider using a third party specializing in technology and AI to conduct the assessment.

Identify key objectives

Clearly define the goals and objectives for integrating AI into the organization. Whether it's improving fundraising efforts, optimizing program outcomes, or enhancing operational efficiency, having a well-defined purpose will guide the AI integration process.

Build your data infrastructure

AI requires quality data. Nonprofits should focus on collecting and maintaining accurate, relevant, and well-organized data. This may involve adopting suitable data management systems and ensuring data security and privacy.

Cultivate AI literacy

Promote AI literacy within the organization to ensure that staff members, board members, and other stakeholders understand the potential of AI, its limitations, and how it can be used to achieve your mission.

Collaborate with AI experts

Nonprofits may not have in-house AI expertise, so partnering with external organizations, technology companies, or experts in AI can provide valuable guidance and support during the integration process.

Start with small pilot projects

Instead of attempting to implement AI across the entire organization at once, start with small-scale pilot projects to evaluate and validate AI solutions. This approach allows for learning, iteration, and minimizing potential risks.

Address ethical concerns

AI integration should be conducted ethically and responsibly. Nonprofits should consider the potential implications of AI on their beneficiaries, stakeholders, and communities, and ensure that AI technologies align with the organization's values and mission.

Encourage innovation and experimentation

Cultivate a culture that encourages innovation and experimentation. Embrace a learning mindset and be open to trying new AI tools and approaches that align with your organizational objectives.

Invest in training and capacity building

Provide training opportunities for staff members to learn about AI, its applications, and how to use AI tools effectively. Building internal capacity will enable your organization to leverage AI more efficiently.

Monitor and evaluate impact

Continuously monitor the impact of AI integration on the organization's operations and mission. Regular evaluation will help identify successes, challenges, and areas for improvement.

Communicate transparently

Keep stakeholders, including donors, supporters, and beneficiaries, informed about your AI initiatives. Transparent communication fosters trust and helps manage expectations.

Adapt and evolve

The field of AI is rapidly evolving, and nonprofits should be prepared to adapt and evolve their AI strategies over time. Stay updated on AI trends and best practices to ensure your organization remains relevant and effective.

By following these steps and focusing on responsible, purpose-driven AI integration, nonprofits can leverage AI technologies to enhance their impact and further their missions.

3 What advocacy role should nonprofits take to ensure AI is safe?

Nonprofits can play a crucial advocacy role in ensuring that AI is safe and beneficial for society. Given the potential impact of AI on various aspects of human life, it is essential for nonprofits to advocate for responsible AI development, deployment, and regulation. Here are some advocacy roles nonprofits can take:

Promote ethical AI development

Nonprofits can advocate for the adoption of ethical AI principles and best practices across industries and sectors. This includes encouraging AI developers to prioritize fairness, transparency, accountability, and privacy protection in their AI systems.

Advocate for regulation and standards

Nonprofits can engage in public policy advocacy to promote the development of AI regulations and standards. They can collaborate with policymakers and stakeholders to ensure that AI technologies are developed and deployed in ways that align with societal values and protect human rights.

Raise awareness and educate

Nonprofits can raise awareness among the public, policymakers, and other stakeholders about the potential risks and benefits of AI. Educating the public about AI technology, its implications, and potential ethical challenges can foster informed decision making.

Encourage multi-stakeholder collaboration

Nonprofits can facilitate collaboration among technology companies, policymakers, researchers, civil society organizations, and other stakeholders to collectively address AI safety concerns. Collaboration can lead to more comprehensive solutions and guidelines.

Conduct research and publish findings

Nonprofits can conduct independent research on AI safety and publish their findings to contribute to the collective understanding of the technology's impact and potential risks.

Advocate for algorithmic transparency

Nonprofits can advocate for greater transparency in AI systems, particularly those used in critical areas such as healthcare, criminal justice, and finance. Transparency ensures that decisions made by AI systems are understandable and accountable.

Promote AI auditing and impact assessments

Nonprofits can call for and support AI auditing and impact assessments to evaluate the ethical implications and potential biases of AI systems. This is especially recommended for sensitive domains such as criminal justice, environmental impact, and healthcare and medical diagnosis to name a few.

Support responsible AI initiatives

Nonprofits can support initiatives and organizations that are actively working towards developing and promoting responsible AI practices. This support can include funding, collaboration, and public endorsement.

Engage with AI developers and industry leaders

Nonprofits can engage with AI developers and industry leaders to encourage ethical practices and influence the development of AI technologies for the public good.

Advocate for AI in the global south

Nonprofits can advocate for the responsible adoption of AI technologies in less-resourced countries to ensure that AI is used to address local challenges and promote equitable access to AI benefits.

By actively advocating for safe and responsible AI, nonprofits can help shape the development and deployment of AI technologies in a way that aligns with social values, addresses potential risks, and maximizes the positive impact of AI on society.

4 How can nonprofits use AI to increase donor retention?

Nonprofits can leverage AI to increase donor retention by employing data-driven strategies and personalized engagement. AI can help nonprofits understand donor behavior, identify patterns, and tailor interactions to build stronger connections with donors. Here are some ways nonprofits can use AI to improve their donor retention:

Donor segmentation and personalization

AI-powered data analysis can segment donors based on various attributes such as giving history, interests, and engagement patterns. By understanding these segments, nonprofits can tailor personalized communication and fundraising appeals, making donors feel valued and more likely to continue their support.

Predictive analytics

AI can analyze donor data and behavior to predict the likelihood of donor churn or lapsing. By identifying donors who are at a higher risk of leaving, nonprofits can proactively take measures to engage them and strengthen the donor relationship.

Automated personalized messaging

AI-driven chatbots and automated messaging platforms can provide personalized responses to donor inquiries, donor acknowledgments, and thank-you messages. This real-time, personalized communication can enhance the donor experience and foster connection with the organization.

Reactivation campaigns

AI can be used to identify lapsed donors. Targeted reactivation campaigns can be designed using AI-generated content and recommendations, encouraging and inviting lapsed donors to re-engage.

Dynamic email campaigns

AI can optimize email campaigns by analyzing donor preferences and behavior to deliver the right message to the right donors at the right time. This approach can lead to higher open rates, click-through rates, and engagement.

Social media listening

AI tools can monitor and analyze social media conversations related to your nonprofit's cause. By understanding your donors' sentiments and interests, you can better engage with them on social media as well as other communications.

Prospect identification

AI can help nonprofits identify potential high-value donors from large datasets. By analyzing donor histories and publicly available data, AI algorithms can highlight individuals who may have a higher likelihood of becoming major donors.

Real-time fundraising insights

AI-powered dashboards can provide real-time insights into fundraising progress and donor engagement. Nonprofits can use this information to make data-driven decisions and adjust fundraising strategies as needed.

Chatbots for fundraising appeals

AI-driven chatbots can assist in fundraising campaigns, answering donor queries, and guiding donors through the donation process. This interactive approach can create a more engaging and personalized fundraising experience.

Donor behavior analysis

AI can help nonprofits understand the factors that influence donor behavior, such as the impact of different communication channels, timing of outreach, or specific campaign themes. This knowledge can inform future fundraising strategies and donor engagement efforts.

By integrating AI technologies into donor engagement strategies, nonprofits can optimize their fundraising efforts, build stronger relationships with donors, and ultimately increase donor retention over time. However, it's essential to ensure that AI applications align with ethical and privacy standards to maintain donor trust and confidence in the organization.

Additional ways AI can help increase nonprofit donor retention

Donor journey mapping

AI can analyze donor interactions and behaviors throughout their journey with the nonprofit, from the first point of contact to ongoing engagement. By understanding the donor journey nonprofits can identify critical touchpoints and potential areas for improving the donor experience.

Churn prediction

AI algorithms can analyze historical donor data to predict which donors are at risk of churning or stopping their donations.

Nonprofits can use these predictions to target at-risk donors with specific retention strategies, such as personalized outreach or targeted fundraising appeals.

Dynamic content personalization

AI-powered content personalization tools can tailor fundraising appeals, emails, and website content to individual donors based on their interests, previous donations, and engagement history. This level of personalization enhances the donor experience and makes donors feel more connected to the cause.

Sentiment analysis

AI-driven sentiment analysis can assess donor sentiments expressed in emails, social media posts, and other communication channels. Nonprofits can use this information to gauge donor satisfaction and adjust their strategies accordingly.

Automated thank-you messages

AI-powered chatbots and automated messaging systems can instantly respond to donor contributions with personalized thank-you messages. Prompt, personalized acknowledgments show appreciation and reinforce the value of donors' contributions.

Donor preference analysis

AI can analyze donor preferences, such as the preferred donation methods (e.g., online, mobile, direct mail) and communication channels (e.g., email, social media). Nonprofits can use this data to engage donors through their preferred channels, making it more likely they will respond positively.

Recurring donor retention

AI can identify patterns in recurring donor behavior to determine factors that contribute to long-term commitment. Nonprofits can then implement strategies to encourage more donors to become recurring contributors and nurture those relationships.

Social media engagement

AI-powered social media listening tools can monitor conversations and interactions related to the nonprofit's cause. This data can help nonprofits engage with donors, respond to questions, and share relevant content to keep donors informed and engaged.

Fundraising campaign optimization

AI can analyze the performance of past fundraising campaigns and identify successful strategies. Nonprofits can use these insights to optimize future campaigns, focusing on approaches that resonate with donors.

Data-driven decision making

By leveraging AI for data analysis, nonprofits can make data-driven decisions on donor engagement and fundraising strategies. This approach ensures that resources are allocated effectively and efficiently, leading to improved donor retention.

Donor surveys and feedback analysis

AI can assist in analyzing donor survey responses and feedback, allowing nonprofits to gain deeper insights into donor preferences, satisfaction levels, and areas for improvement.

Donor experience personalization

AI can help create personalized donor experiences by recommending tailored content, engagement opportunities, and relevant events based on donor preferences and behavior.

By harnessing the power of AI, nonprofits can gain valuable insights, optimize donor engagement strategies, and create more meaningful and lasting relationships with supporters, ultimately leading to increased donor retention and continued support for your mission.

Getting started

- Start small with a pilot project. Choose a small-scale pilot project that is well defined. This helps minimize risks and allows you to learn from the experience.

- Select a knowledgeable vendor to work with who has a track record of working with AI and nonprofits.

- Set achievable goals for the pilot project and outline the steps needed for its implementation.

- Select AI tools and technologies that align with your nonprofit's goals and resources. This could include machine learning platforms, data analysis tools, and AI frameworks.

- Gather relevant data for your pilot project. Clean and preprocess the data to ensure its quality and usability.

- Data preparation is a critical step to ensure accurate AI model training and analysis.

- Work with your team or AI professionals to develop AI models or algorithms for your pilot project.

- Test the models using your prepared data and refine them as needed.

- Implement the AI solution in your chosen area, whether it's donor engagement, program optimization, or another focus.

- Monitor the results and evaluate how well the AI solution addresses the defined problem and meets your objectives.

- If the pilot project is successful, consider scaling up the AI solution to other relevant areas within your nonprofit.

- Continuously gather feedback, monitor performance, and iterate on your AI implementation to improve over time.

- Throughout the process, ensure that your AI solutions adhere to ethical standards and respect donor privacy.

- Collaborate with other nonprofits, AI experts, and organizations to share experiences and learn best practices in AI integration.

- Remember that AI implementation is an ongoing process that requires continuous learning and adaptation. Start small, focus on your organization's specific needs, and gradually expand your AI initiatives as you gain experience and confidence in utilizing AI technologies effectively.

Bloomerang is here for you

Tour Bloomerang

Volunteer Management

Donor Management

Online Fundraising

Payment Processing

Email Marketing

Reporting & Analytics

Integration Hub

Bloomerang is a cloud-based donor management software that helps nonprofits increase donor retention and fundraising success. Its comprehensive features include donor database management, email marketing, online giving, volunteer management, and reporting tools, all designed to streamline fundraising efforts and build lasting relationships.

bloomerang

Bloomerang.com

@BloomerangTech

@Bloomerang

317.296.8100
9120 Otis Avenue
Indianapolis, IN 46216