



AI-Powered Assistance: A Case Study of the "Be My Eyes" Application from the Perspective of Ethical Entrepreneurship and Social Innovation

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Abstract. Artificial Intelligence (AI) technologies are increasingly integrated into social and entrepreneurial ecosystems, transforming the way individuals with disabilities interact with their environment. This rapid integration raises important ethical considerations related to data privacy, algorithmic bias, informed consent, and the social responsibility of technology developers.

This paper presents a case study of Be My Eyes, an AI-assisted mobile application designed to support visually impaired individuals by connecting them with sighted volunteers and automated vision tools. The study investigates how this platform embodies the principles of ethical entrepreneurship and social innovation, offering a sustainable model for inclusive technological development.

Drawing on academic literature from AI ethics, accessibility design, and digital entrepreneurship, the paper analyses the evolution of Be My Eyes from a volunteer-based service to a hybrid system incorporating OpenAI's visual recognition model, while examining issues of transparency, accountability, and user autonomy.

The findings suggest that ethical entrepreneurship in the context of AI requires not only technical excellence but also a strong commitment to governance practices that ensure equitable access, responsible data management, and regulatory awareness. The Be My Eyes initiative demonstrates how responsible innovation can enhance human dignity, foster independence, and promote social inclusion in the digital age.

Keywords: Artificial Intelligence (AI), Ethical Entrepreneurship, Social Innovation; social responsibility, Accessibility, Be My Eyes.

1 Introduction

In the era of rapid technological transformation, Artificial Intelligence (AI) has become a defining feature of twenty-first-century innovation. Its capacity to analyse data, recognise patterns, and automate decision-making has made it a critical driver of progress

across multiple fields from education and healthcare to business and social services. At the same time, this rapid expansion raises important ethical risks related to responsibility, inclusion, and the societal consequences of automated decision-making.

One of the most compelling areas where AI demonstrates both its opportunities and challenges is in supporting persons with disabilities. By enhancing accessibility and autonomy, AI based tools have the ability to reduce inequalities and promote inclusion in both social and economic spheres, while also requiring strong social responsibility to ensure fair and transparent use [1]. In this context, technological entrepreneurship plays a crucial role in aligning innovation with moral responsibility. Ethical and socially oriented ventures are increasingly expected to balance economic objectives with inclusive and responsible practices.

Among the emerging AI applications that bridge technology and social purpose, Be My Eyes stands out as a pioneering example. Launched in Denmark in 2015 by social entrepreneur Hans Jorgen Wiberg, the application was designed to help people who are blind or visually impaired by connecting them with sighted volunteers via live video calls. In 2023, the platform integrated OpenAI's GPT-4 Vision technology, transforming its service from purely human centred assistance to a hybrid system combining human empathy and machine intelligence [2].

This paper explores Be My Eyes as a case study of ethical entrepreneurship and social innovation in the context of AI. It investigates how technological entrepreneurship can align profitability with moral responsibility and how AI can be ethically deployed to serve the needs of marginalised communities. By examining the challenges and opportunities associated with this AI-powered initiative, the study aims to contribute to the growing discourse on responsible and inclusive innovation.

2 Ethical Dimensions of AI in Social and Entrepreneurial Contexts:

The integration of Artificial Intelligence (AI) into social and entrepreneurial contexts has been the subject of increasing academic interest over the past decade. Scholars have explored how AI can enhance accessibility and inclusion while simultaneously raising ethical questions concerning autonomy, fairness, and accountability [3]. The ethical implications of AI are particularly significant in contexts that involve vulnerable populations, such as persons with disabilities, where issues of privacy, transparency, and informed consent become central [4].

Research on AI-driven accessibility tools highlights the potential of intelligent systems to remove barriers for people with sensory or cognitive impairments. Assistive technologies such as screen readers, speech recognition, and image interpretation tools are increasingly powered by AI algorithms that can adapt to users' individual needs [5]. These systems foster independence, improve quality of life, and enable participation in education and employment. However, scholars caution against the risk of overreliance on automated systems, which may reproduce social biases or fail to address diverse accessibility requirements [6].

2.1. Ethical Entrepreneurship and Social Innovation:

Ethical entrepreneurship is defined as the practice of aligning business innovation with moral values and social responsibility [7]. It seeks to create economic value while addressing social challenges through fair and transparent business models. Within the field of social innovation, technology-based ventures are increasingly recognised for their potential to drive inclusive growth [8]. Scholars argue that entrepreneurs play a crucial role in shaping the ethical landscape of technological development by embedding principles of justice, accountability, and respect for human dignity into their organisational practices [9].

2.2. AI and Social Entrepreneurship for Disability Inclusion:

A growing body of literature examines the intersection of AI, entrepreneurship, and disability inclusion. Studies show that socially oriented ventures employing AI can provide accessible services, adaptive learning platforms, and employment matching systems that empower persons with disabilities [10]. Yet, these initiatives face persistent ethical dilemmas, including potential data misuse, exclusion through design bias, and inequitable access to emerging technologies [11].

In summary, existing research underscores both the promise and the peril of AI in the context of ethical entrepreneurship. While AI can serve as a powerful tool for social transformation, its deployment must be carefully governed by ethical frameworks that prioritise fairness, transparency, and inclusivity. Against this backdrop, the *Be My Eyes* application provides a valuable case through which to examine how these principles are implemented in practice.

3 "Be My Eyes" Application

The Be My Eyes Application represents a distinctive convergence of Artificial Intelligence (AI), social entrepreneurship, and ethical innovation. The "Be My Eyes" application also works as follows: it operates as an AI-assisted accessibility platform.

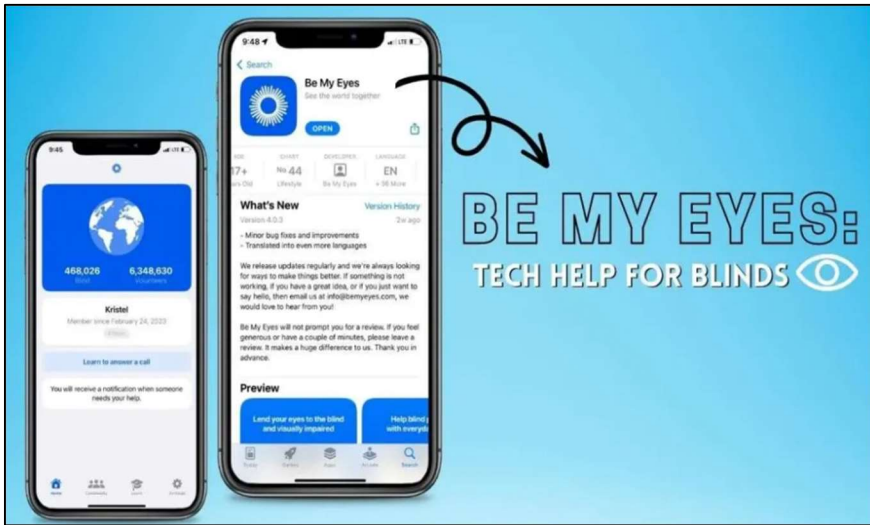


Fig. 1. Illustrative image of the "Be My Eyes" application interface, showing its instant assistance features for visually impaired users. Source: [12]. **used for illustrative purposes.**

The Be My Eyes application represents one of the most successful examples of AI-assisted social innovation aimed at empowering persons with visual impairments. Founded in Denmark in 2015 by Hans Jørgen Wiberg, who himself is visually impaired, the platform was created with the mission of bridging the communication gap between blind individuals and sighted volunteers through real-time video connection. The app allows users to request visual assistance via their smartphone camera, enabling volunteers to describe objects, read labels, identify colors, or provide directions.

The "Be My Eyes" operational framework presents a structured system that combines human support and artificial intelligence to assist visually impaired users in real time.

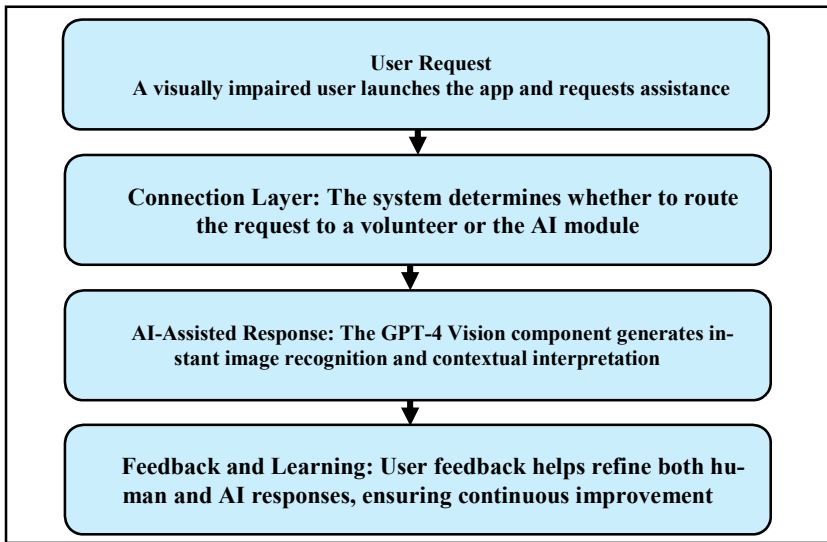


Fig. 2. Be My Eyes Operational Framework. Source: Developed by author, based on [2]

User Request: A visually impaired user launches the app and requests assistance.

Connection Layer: The system determines whether to route the request to a volunteer or the AI module.

AI-Assisted Response: The GPT-4 Vision component generates instant image recognition and contextual interpretation.

Feedback and Learning: User feedback helps refine both human and AI responses, ensuring continuous improvement.

The framework demonstrates the synergy between human empathy and machine efficiency in creating a seamless, ethical support system.

4. "Be My Eyes" Application from Human Assistance to AI Integration:

Originally, *Be My Eyes* relied entirely on the altruism of its global community of volunteers. Within the first five years, the app grew to include more than 6 million volunteers and 500,000 visually impaired users worldwide [13]. However, recognising the limitations of human availability and response time, the company introduced an innovative partnership with OpenAI in 2023. This collaboration led to the integration of GPT-4's visual recognition capabilities, marking a significant transformation from human-mediated assistance to an AI-enhanced hybrid model. The new feature, known as *Virtual Volunteer*, enables users to receive instant AI-driven descriptions of their surroundings such as reading documents, interpreting signs, or navigating digital interfaces [14].

4.1. "Be My Eyes" Application Entrepreneurial Vision and Business Model:

From an entrepreneurial standpoint, *Be My Eyes* exemplifies ethical entrepreneurship a form of business innovation driven by social responsibility rather than profit maximisation. The platform operates on a freemium model, providing free access for individual users while offering paid services for corporate partners who wish to make their customer support more accessible. This approach ensures financial sustainability while maintaining the app's core social mission.

4.2. "Be My Eyes" Application Social and Ethical Impact:

The impact of *Be My Eyes* extends beyond technological convenience; it embodies the principles of inclusive design, human-centred innovation, and ethical AI deployment. The app empowers visually impaired individuals by granting them greater autonomy and confidence in daily tasks. Moreover, by integrating ethical safeguards such as data privacy protection, transparency in AI processing, and the promotion of volunteer empathy it sets a benchmark for responsible innovation in the assistive technology sector [11].

Be My Eyes demonstrates how social entrepreneurship, when combined with AI, can address systemic barriers to inclusion while maintaining ethical integrity. It illustrates a paradigm where technology serves humanity, rather than the reverse, highlighting the potential for AI to drive both social good and sustainable enterprise.

From the above, it is clear that the *Be My Eyes* application initiative lies at the intersection of basic dimensions of ethical entrepreneurship within social projects based on artificial intelligence, embodying a comprehensive model of responsible innovation, as the following figure shows:

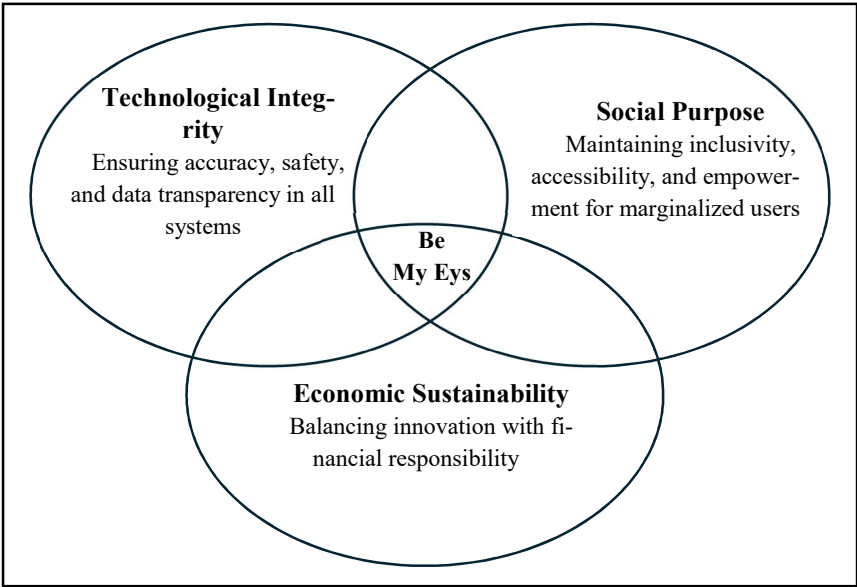


Fig. 3. Ethical Entrepreneurship Model for AI-Based Social Innovation.

Source: Developed by author, based on [7]; [4]

This graph shows the following:

Technological Integrity: ensuring accuracy, safety, and data transparency in AI systems;

Social Purpose: maintaining inclusivity, accessibility, and empowerment for marginalized users;

Economic Sustainability: balancing innovation with financial responsibility.

5. Ethical and entrepreneurial challenges of the Be My Eyes Application

The success of *Be My Eyes* as an AI-powered social innovation is not without significant ethical and entrepreneurial challenges. As the platform evolves from a volunteer-based initiative to an AI-driven service, the need to maintain transparency, trust, and inclusivity becomes increasingly complex. This section discusses the primary ethical dilemmas and business challenges faced by the *Be My Eyes* initiative, framed around four interrelated dimensions: data ethics, algorithmic fairness, sustainability, and social responsibility.

5.1. Data Ethics and User Privacy:

The integration of AI into assistive technologies inevitably raises concerns regarding data collection, storage, and use. Visually impaired users often share sensitive visual and audio information, such as personal documents or household environments. Scholars like Mittelstadt et al. (2016) warn that without strong privacy frameworks, AI systems risk infringing on users' rights and autonomy. *Be My Eyes* mitigates this through encrypted communication and a strict non-recording policy; however, as the AI component grows, ensuring ethical data stewardship remains an ongoing challenge.

5.2. Algorithmic Fairness and Bias:

Another major ethical concern is the potential for bias in AI systems. Visual recognition models, such as those developed by OpenAI, are trained on large datasets that may inadvertently reproduce societal biases [15]. In accessibility contexts, biased AI outputs can lead to misinformation or exclusion. *Be My Eyes* addresses this by incorporating human oversight and iterative testing, but the balance between automation and human judgement remains delicate. Maintaining algorithmic fairness is essential for preserving the platform's credibility and moral integrity.

5.3. Entrepreneurial Sustainability:

From a business perspective, maintaining sustainability while prioritising ethical and social goals poses a strategic challenge. Ethical entrepreneurship literature highlights the “dual mission dilemma” of social ventures: the tension between economic viability and moral commitment [16]. *Be My Eyes* navigates this dilemma through a mixed-revenue model combining corporate partnerships with free public service. Yet, the reliance

on partnerships with tech giants introduces dependency risks that may influence the platform’s ethical autonomy.

5.4. Social Responsibility and User Empowerment:

The ultimate measure of ethical entrepreneurship lies in its social impact. *Be My Eyes* embodies the ethos of user empowerment enhancing autonomy, confidence, and participation for visually impaired individuals. However, as AI assumes a greater role, there is a risk of reducing human empathy to algorithmic interaction. Maintaining a human-in-the-loop design ensures that technology remains a facilitator rather than a replacement for social connection [11].

In essence, the discussion reveals that the ethical and entrepreneurial success of *Be My Eyes* depends on balancing technological efficiency with moral accountability. The initiative illustrates that sustainable social innovation requires continuous reflection, transparency, and a commitment to inclusivity.

Based on the above, the table below summarizes the ethical challenges, their risks, mitigation strategies, and how they have been addressed by the *Be My Eyes* application.

Table 1. Ethical Challenges and Mitigation Strategies Adopted by *Be My Eyes*. Source: Developed by author, based on [11].

<i>Ethical Challenge</i>	Description / Risk	Mitigation Strategy (Adopted by <i>Be My Eyes</i>)	Ethical Principle Addressed [4]
<i>Privacy</i>	Sharing sensitive visual or audio data (personal documents, surroundings) may risk user confidentiality.	Encrypted communication; strict non-recording policy for all video sessions.	Explicability & Accountability – ensuring transparency and responsibility in data use.
<i>Bias</i>	AI visual-recognition models may reproduce social or dataset biases, leading to misinformation or exclusion.	Continuous human oversight; iterative algorithmic testing and retraining to reduce bias.	Fairness – preventing discrimination and ensuring equitable access.
<i>Dependency</i>	Overreliance on automated AI assistance may reduce human empathy or user agency.	Adoption of a hybrid (human + AI) service model maintaining human-in-the-loop interaction.	Beneficence – promoting human well-being through supportive, not substitutive, AI.
<i>Accountability</i>	Lack of clear responsibility between AI developers, corporate	Transparent user policies; adherence to corporate ethics	Accountability & Justice – ensuring answerability and

	partners, and users can undermine trust.	codes and governance standards.	moral integrity in system design.
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6. Conclusion

The case of *Be My Eyes* demonstrates how Artificial Intelligence (AI), guided by ethical entrepreneurship and social innovation, can generate profound societal value. Far from being a purely technological enterprise, the platform represents a moral and social experiment in redefining accessibility, inclusion, and empowerment for visually impaired individuals. Its hybrid model, integrating human compassion with AI precision, illustrates how technological advancement can coexist with ethical integrity.

From an entrepreneurial perspective, *Be My Eyes* challenges the dominant narrative of profit centred innovation by prioritising social purpose and human dignity. The initiative shows that ethical entrepreneurship can thrive when innovation is directed toward genuine social needs rather than commercial exploitation. However, sustaining this model requires continuous ethical vigilance, transparent governance, and adaptability to technological evolution.

Looking forward, the lessons drawn from *Be My Eyes* extend beyond accessibility technologies. They suggest that the future of AI entrepreneurship must be inclusive by design, embedding ethical principles such as fairness, accountability, and transparency at every stage of development. Policymakers, developers, and entrepreneurs alike must work collaboratively to establish global frameworks for responsible AI, ensuring that technology serves humanity rather than dominates it.

In the final analysis, the *Be My Eyes* case embodies a hopeful vision of digital transformation one in which innovation empowers, connects, and uplifts reaffirming the shared ethical responsibility of all stakeholders in shaping a humane and equitable technological future.

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