

A Study on the Innovations and Impact of Tech-Driven Social Entrepreneurship

Dr. V. Geetha, Dr.C.K.Gomathy, Mr. Shiva Koushik Sripada , Mr. S R Bathrinathan Department of CSE, SCSVMV Deemed to be University, India

Abstract—The age of technological progress has given rise to an influential movement known as social entrepreneurship, which seeks to bring about positive transformations. This research examines the creative advancements and influence of technology-driven social entrepreneurship, investigating how the use of technology is transforming the field of social innovation. Through leveraging the potential of technology, individuals involved in social entrepreneurship are tackling crucial societal issues in innovative ways, leading to substantial change and enduring effects.

Keywords—Tech-driven social entrepreneurship, Innovation, Impact, Technology, Social change

I. Introduction

In recent years, there has been a notable increase in the adoption of entrepreneurial strategies to tackle social issues, known as social entrepreneurship. With the swift progress of technology, social entrepreneurs are utilizing creative technological approaches to address critical global challenges such as poverty, inequality, environmental sustainability, and enhancing access to education and healthcare. The use of technology in social entrepreneurship is making significant strides towards driving widespread transformative impact.

II. Innovations in Tech-Driven Social Entrepreneurship

Social entrepreneurship driven by technology is defined by a diverse array of creative solutions that utilize technological advancements to generate beneficial social outcomes. These inventive approaches encompass multiple areas and fields, including healthcare, education, finance, and environmental sustainability.

Healthcare: In the field of healthcare, social entrepreneurs driven by technology are creating novel methods to enhance the availability of medical services, especially in marginalized areas. These include telemedicine platforms connecting patients with healthcare professionals from a distance and mobile health applications offering tailored health guidance and support. This technological advancement is causing a significant transformation in how healthcare services are delivered and accessed.

Education: Social entrepreneurs in the education sector are using technology to broaden the reach of high-quality education and provide continuous learning prospects. They enable people to gain new knowledge and skills through online educational platforms, interactive tools, and programs focused on digital literacy, irrespective of their location or economic background.

Finance: Technology is playing a pivotal role in enhancing financial inclusion and empowerment within the financial industry, especially for marginalized communities. Digital payment systems, peer-to-peer lending

platforms, and financial services based on blockchain technology are facilitating increased availability of financial resources and services, thereby promoting economic resilience and entrepreneurial activities.

Environmental Sustainability: In the battle against climate change and ecological decline, social entrepreneurs driven by technology are creating inventive approaches to advocate for sustainability and preservation. These include renewable energy innovations, carbon offset platforms, waste management systems, and sustainable agricultural methods. Technology is actively propelling advancements towards a more enduring and environmentally-friendly future.

III. Impact of Tech-Driven Social Entrepreneurship

The influence of technology-driven social entrepreneurship extends widely and has diverse effects, bringing about significant transformations in communities and societies. Through the use of technology to tackle social issues, social entrepreneurs are promoting beneficial changes across a range of areas:

Increased Access and Equity: Social entrepreneurship driven by technology is increasing the availability of crucial services and resources, especially for disadvantaged and underprivileged groups. Technology is playing a vital role in removing obstacles and fostering greater fairness and participation across various sectors such as healthcare, education, finance, and employment opportunities.

Empowerment and Agency: Tech-based social entrepreneurship is promoting empowerment and self-determination by providing people with the necessary tools and resources to take charge of their lives and careers. Digital platforms and innovative technologies are empowering individuals, granting them increased autonomy and decision-making abilities to pursue their ambitions.

Innovation and Creativity: The use of technology in social entrepreneurship is fueling originality and ingenuity, prompting novel concepts, remedies, and strategies for addressing societal issues. By utilizing technological capabilities to confront deeply rooted challenges, social entrepreneurs are expanding the limits of what can be achieved and motivating others to approach social change with creativity.

Scalability and Sustainability: Technology allows social entrepreneurs to expand their influence and connect with a wider audience in a more efficient and impactful manner. Digital platforms and online networks facilitate the widespread dissemination and replication of social innovations, ultimately magnifying their effects and bringing about enduring change.

IV. The Role of Artificial Intelligence in Social Entrepreneurship

Artificial intelligence is transforming the field of social entrepreneurship, providing new and exceptional possibilities to tackle intricate social issues with inventive answers. AI tools like machine learning, natural language processing, and computer vision are being utilized in multiple industries to generate meaningful outcomes and bring about favorable advancements.

Data-driven Decision Making: AI empowers social entrepreneurs to utilize data effectively for making betterinformed decisions. Through the analysis of extensive and varied data sources, AI algorithms can reveal valuable insights and patterns that guide decision-making and strategy development. This allows social entrepreneurs to enhance their impact and make efficient use of resources. *Personalized Interventions*: AI-driven technology has the capacity to provide customized interventions and services designed to meet the distinct requirements and choices of individuals and communities. This includes offering tailored health solutions, personalized educational programs, or individualized financial guidance. AI empowers social innovators to offer more effective and pertinent solutions that address the specific needs of those they serve.



Figure 1. The Role of Artificial Intelligence in Social Entrepreneurship

Predictive Analytics: AI algorithms have the capability to forecast future patterns and results using past data, allowing social entrepreneurs to foresee and minimize potential obstacles before they occur. Whether it involves predicting outbreaks of diseases, identifying vulnerable populations, or projecting market trends, AI-driven predictive analytics provide social entrepreneurs with the ability to take proactive measures in tackling societal issues and fostering beneficial developments.

Automation and Efficiency: AI technology allows social entrepreneurs to dedicate more time and resources to strategic initiatives by automating routine tasks and processes. This includes streamlining administrative duties, data entry, and other manual procedures, thereby boosting operational efficiency and empowering social entrepreneurs to expand their impact with greater effectiveness.

Enhanced Collaboration and Connectivity: AI-driven platforms support cooperation and connection among involved parties, allowing social innovators to utilize shared knowledge and resources to tackle intricate social issues. These platforms encourage enhanced collaboration and creativity within the social entrepreneurship community by facilitating activities such as gathering ideas from a large group of people, exchanging effective strategies, or working together on various initiatives.

Ethical Considerations: AI presents great potential for fostering positive social progress, yet it also gives rise to ethical concerns that require thoughtful management. From biases within algorithms and privacy issues to the displacement of jobs and digital inequality, social innovators must guarantee that AI advancements are created and implemented in a way that prioritizes equity, openness, and inclusiveness.

Page 3

V. Benefits of Tech-Driven Social Entrepreneurship

The utilization of technology in social entrepreneurship brings numerous advantages for both individuals and society. These benefits span a wide range of areas, leading to favorable social results and long-term sustainability:

Enhanced Efficiency and Effectiveness: By utilizing technological advancements, social entrepreneurs are able to create new and effective strategies for tackling social problems. Technology allows for the streamlining of service delivery and optimal allocation of resources, thus empowering social enterprises to maximize their influence and engage with a broader audience in a more efficient manner.

Increased Access and Inclusion: Social entrepreneurship driven by technology increases the availability of crucial services and resources, especially for disadvantaged and underprivileged communities. Digital platforms and mobile apps enable people to obtain healthcare, education, financial support, and other vital services without being restricted by their location or economic circumstances. This facilitates a more equitable and inclusive society.

Cost Savings and Resource Optimization: Technology allows social enterprises to realize cost efficiencies and enhance resource allocation, empowering them to accomplish greater tasks with fewer resources. Through the automation of operations, reduction of administrative expenses, and utilization of economies of scale, technology-based approaches can provide top-notch services at a reduced expenditure. This enhances their sustainability and potential for expansion over time.

Scalability and Replicability: One of the primary benefits of technology-based social entrepreneurship is its ability to expand and duplicate. Online networks and digital platforms empower social entrepreneurs to distribute and reproduce their developments widely, increasing their influence and engaging a larger audience. This capacity for expansion enables social enterprises to tackle widespread challenges and promote significant change throughout whole communities and societies.

Innovation and Creativity: Emerging technologies drive creativity and innovation, empowering social entrepreneurs to craft new approaches to intricate social issues. From artificial intelligence and machine learning to blockchain and virtual reality, these advancing technologies present unparalleled prospects for socially impactful innovations, sparking fresh concepts, strategies, and commercial frameworks that disrupt established norms and foster beneficial societal transformation.

Empowerment and Agency: Empowering individuals and communities through technology-driven social entrepreneurship involves providing the necessary tools, resources, and skills for them to enhance their lives and livelihoods. This is achieved through initiatives such as digital literacy programs, vocational training, and support networks for entrepreneurs. These efforts promote empowerment and self-determination, enabling people to pursue their objectives and aspirations while contributing to the improvement of their own well-being as well as that of their communities.

Collaboration and Partnership: Technology enables various stakeholders, such as government agencies, businesses, non-profit organizations, and local communities to collaborate and form partnerships. With the help of online platforms and digital networks, social entrepreneurs are able to engage with similar-minded groups and individuals. This allows them to exchange information and resources while working together on shared projects that tackle common obstacles for a greater combined effect.

Environmental Sustainability: Social entrepreneurship driven by technology plays a crucial role in advancing environmental sustainability through the creation of inventive measures to reduce environmental harm and encourage the conservation of resources. These include renewable energy technologies, waste management

systems, sustainable agricultural practices, and conservation projects. By harnessing technology, social enterprises can effectively tackle urgent environmental issues and work towards building a more sustainable and adaptable future for everyone.

VI. Challenges and Considerations of Tech-Driven Social Entrepreneurship

While technology-centered social entrepreneurship shows potential for facilitating positive societal impact, it also confronts various obstacles and factors to take into account:

Access and Connectivity: Access to technology and digital infrastructure is still a major challenge, especially in outlying rural areas. Closing the gap in digital access and guaranteeing universal availability of technology are crucial for widespread acceptance and efficiency of social innovations driven by technology.

Data Privacy and Security: The increasing use of technology-driven solutions for collecting and analyzing large volumes of data raises significant concerns regarding the protection of privacy and security. Social entrepreneurs developing such solutions must prioritize safeguarding user data and adhering to data protection regulations to ensure compliance with legal requirements.



Figure 2. Challenges and Considerations of Tech-Driven Social Entrepreneurship

Equity and Inclusion: While technology has the potential to enhance fairness and diversity, there is also a possibility of worsening current disparities. Social innovators should consider the digital divide and develop solutions that are accessible and inclusive for all segments of the population.

Ethical and Social Implications: The rapid progress of technology gives rise to intricate ethical and societal consequences that require thorough consideration. Social entrepreneurs must address these moral challenges and guarantee that their advancements contribute towards favorable social effects, encompassing issues such as algorithmic bias, automation, job displacement, and digital reliance.



VII. References

Author 1.Dr.V.Geetha and Dr.C K Gomathy, Anomaly Detection System in Credit Card Transaction Dataset, AIP Conference Proceedings, https://doi.org/10.1063/5.0212564 Vol 3028, Issue 01 2024

2. Dr.V.Geetha and Dr.C K Gomathy, Crime data analysis and prediction using machine learning, AIP Conference Proceedings, https://doi.org/10.1063/5.0212566 Vol 3028, Issue 01 2024

3. Dr.C K Gomathy and Dr.V.Geetha House price prediction using machine learning, AIP Conference Proceedings, https://doi.org/10.1063/5.0212559 Vol 3028, Issue 01 2024

4. Dr.V.Geetha and Dr.C K Gomathy,Identification of birds species using deep learning, AIP Conference Proceedings, https://doi.org/10.1063/5.0212968 Vol 3028, Issue 01 2024

5. Dr.V.Geetha and Dr.C K Gomathy, Missing child recognition system using deep learning, AIP Conference Proceedings, https://doi.org/10.1063/5.0212567 Vol 3028, Issue 01 2024

6.Dr.V.Geetha and Dr.C K Gomathy, Price forecasting of agricultural commodities, AIP Conference Proceedings,) https://doi.org/10.1063/5.0212568 Vol 3028, Issue 01 2024

7. Dr.V.Geetha and Dr.C K Gomathy, The customer churn prediction using machine learning, AIP Conference Proceedings, https://doi.org/10.1063/5.0212569Vol 3028, Issue 01 2024

8. Dr.C K Gomathy and Dr.V.Geetha, Fall detection for elderly people using machine learning, AIP Conference Proceedings, https://doi.org/10.1063/5.0212561 Vol 3028, Issue 01 2024

9. Dr.C K Gomathy and Dr.V.Geetha, Fall Navigation and obstacle detection for blind, AIP Conference Proceedings, https://doi.org/10.1063/5.0212560 Vol 3028, Issue 01 2024

10. Dr.V.Geetha and Dr.C K Gomathy, Securing medical image based on improved ElGamal encryption technique, AIP Conference Proceedings,) https://doi.org/10.1063/5.0212570 Vol 3028, Issue 01 2024

11. Dr.C K Gomathy and Dr.V.Geetha, Software error estimation using machine learning algorithms, AIP Conference Proceedings, https://doi.org/10.1063/5.0212562 Vol 3028, Issue 01 2024

12. Dr.V.Geetha and Dr.C K Gomathy, Web scraping using robotic process automation, AIP Conference Proceedings,) https://doi.org/10.1063/5.0212571 Vol 3028, Issue 01 2024

13. Dr.C K Gomathy and Dr.V.Geetha, Crypto sharing DAAP, AIP Conference Proceedings, https://doi.org/10.1063/5.0212563 Vol 3028, Issue 01 2024

14. Dr.V.Geetha and Dr.C K Gomathy, Company employee profile using QR code, AIP Conference Proceedings,) https://doi.org/10.1063/5.0212572 Vol 3028, Issue 01 2024

15. Dr.V.Geetha and Dr.C K Gomathy, Unified platform for advertising with predictive analysis, AIP Conference Proceedings,) https://doi.org/10.1063/5.0212573 Vol 3028, Issue 01 2024

16. Gomathy, C.K., Geetha, V., Lakshman, G., Bharadwaj, K. (2024). A Blockchain Model to Uplift Solvency by Creating Credit Proof. In: Mandal, J.K., Jana, B., Lu, TC., De, D. (eds) Proceedings of International Conference on Network Security and Blockchain Technology. ICNSBT 2023. Lecture Notes in Networks and Systems, vol 738. Springer, Singapore. https://doi.org/10.1007/978-981-99-4433-0_39

17. CK.Gomathy, MangantiDhanush, SikharamSaiPushkar, V.Geetha ,Helmet Detection and Number Plate Recognition using YOLOv3 in Real-Time 3rd International Conference on Innovative Mechanisms for Industry Applications (ICIMIA 2023) DVD Part Number: CFP23K58-DVD; ISBN: 979-8-3503-4362-5,DOI:10.1109/ICIMIA60377.2023.10425838, 979-8-3503-4363-2/23/\$31.00 ©2023 IEEE

18. Dr.V.Geetha and Dr.C K Gomathy, Cloud Network Management System, International Journal of Early Childhood Special Education (INT-JECSE) DOI:10.9756/INTJECSE/V14I5.69 ISSN: 1308-5581 Vol 14, Issue 05 2022

19. Dr.C K Gomathy and Dr.V.Geetha, Fake Job Forecast Using Data Mining Techniques, International Journal of Early Childhood Special Education (INT-JECSE) DOI:10.9756/INTJECSE/V14I5.70 ISSN: 1308-5581 Vol 14, Issue 05 2022

20. Dr.V.Geetha and Dr.C K Gomathy, Cyber Attack Detection System, International Journal of Early Childhood Special Education (INT-JECSE) DOI:10.9756/INTJECSE/V14I5.71 ISSN: 1308-5581 Vol 14, Issue 05 2022

21.Dr.V.Geetha and Dr.C K Gomathy, Attendance Monitoring System Using Opencv, International Journal of Early Childhood Special Education (INT-JECSE) DOI: DOI:10.9756/INTJECSE/V14I5.68 ISSN: 1308-5581 Vol 14, Issue 05 2022

22. Dr.C K Gomathy and Dr.V.Geetha, The Vehicle Service Management System, International Journal of Early Childhood Special Education (INT-JECSE) DOI:10.9756/INTJECSE/V14I5.66 ISSN: 1308-5581 Vol 14, Issue 05 2022

23.Dr.C K Gomathy and Dr.V.Geetha, Multi-Source Medical Data Integration And Mining For Healthcare Services, International Journal of Early Childhood Special Education (INT-JECSE) DOI: DOI:10.9756/INTJECSE/V14I5.67 ISSN: 1308-5581 Vol 14, Issue 05 2022

24.Dr.V.Geetha and Dr.C K Gomathy, An Efficient Way To Predict The Disease Using Machine Learning, International Journal of Early Childhood Special Education (INT-JECSE) DOI:10.9756/INTJECSE/V14I5.98 ISSN: 1308-5581 Vol 14, Issue 05 2022

25.Dr.C K Gomathy and Dr.V.Geetha, Music Classification Management System, International Journal of Early Childhood Special Education (INT-JECSE) DOI: DOI:10.9756/INTJECSE/V14I5.72 ISSN: 1308-5581 Vol 14, Issue 05 2022

26. Dr. C.K. Gomathy , Dr. V.Geetha ,G.S.V.P.Praneetha , M.Sahithisucharitha. (2022). Medicine IdentificationUsingOpenCv. JournalofPharmaceuticalNegativeResults,3718–3723.https://doi.org/10.47750/pnr.2022.13.S09.457

27. Dr. V.Geetha ,Dr. C.K. Gomathy , KommuruKeerthi , NallamsettyPavithra. (2022). Diagnostic Approach To Anemia In Adults Using Machine Learning. Journal of Pharmaceutical Negative Results, 3713–3717.https://doi.org/10.47750/pnr.2022.13.S09.456

28. Dr. C. K. Gomathy, " A Cloud Monitoring Framework Perform in Web Services, International Journal of Scientific Research in Computer Science, Engineering and Information Technology(IJSRCSEIT), ISSN : 2456-3307, Volume 3, Issue 5, pp.71-76, May-June-2018.

29. Dr. C. K. Gomathy, "Supply Chain - Impact of Importance and Technology in Software Release Management, International Journal of Scientific Research in Computer Science, Engineering and Information Technology(IJSRCSEIT), ISSN : 2456-3307, Volume 3, Issue 6, pp.01-04, July-August-2018.

30. Dr.C.K.Gomathy, Dr.V.Geetha, Peddireddy Abhiram, "The Innovative Application for News Management System," International Journal of Computer Trends and Technology, vol. 68, no. 7, pp. 56-62, 2020. Crossref, https://doi.org/10.14445/22312803/IJCTT-V68I7P109

31. Dr. C. K.Gomathy, " A Semantic Quality of Web Service Information Retrieval Techniques Using Bin Rank, IInternational Journal of Scientific Research in Computer Science, Engineering and Information Technology(IJSRCSEIT), ISSN : 2456-3307, Volume 3, Issue 1, pp.1568-1573, January-February-2018.

32. Gomathy, C. K., et al. "A Location Based Value Prediction for Quality of Web Service." International Journal of Advanced Engineering Research and Science, vol. 3, no. 4, Apr. 2016.