

ARTIFICIAL INTELLIGENCE AS A CATALYST FOR SOCIAL ENTREPRENEURSHIP AND VOLUNTEERING ENGAGEMENT

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Social entrepreneurship often emerges from grassroots volunteering driven by solidarity and local knowledge. Against the backdrop of rapid technological change, artificial intelligence (AI) acts as a catalyst, converting voluntary engagement into scalable social innovations. This paper explores how AI facilitates the transition from informal volunteering to structured social entrepreneurship models that stimulate economic development and job creation. Drawing on social innovation theory and the RBV, the study analyzes how AI tools - such as skill-matching algorithms, predictive models for community needs, and digital impact measurement platforms - enhance organizational capacity and social inclusion. The paper further examines governance and ethical implications, arguing that AI-driven social entrepreneurship can support ESG transformation when technological innovation remains aligned with solidarity and human-centered development. By integrating AI, grassroots initiatives transcend traditional boundaries, creating sustainable value and fostering inclusive growth in the digital era.

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1 Introduction

Grassroots volunteering has long been a foundational mechanism for addressing unmet social needs, fostering solidarity, and strengthening local communities. Historically, many social enterprises have emerged from informal volunteer initiatives driven by civic engagement and collective responsibility. While volunteering generates social value and mobilizes human capital, it often remains constrained by limited scalability, fragmented coordination, and insufficient resource optimization. In this context, “individuals, community groups, and organisations step in, supporting and complementing governmental efforts through entrepreneurial, volunteer or other kinds of initiatives - sometimes even taking over certain social functions traditionally performed by state institutions” (Vasilka, 2025). This dynamic illustrates how civic engagement increasingly extends beyond complementary action and evolves toward structured social initiatives.

In parallel, contemporary societies are undergoing rapid digital transformation, characterized by the expansion of Artificial Intelligence (AI), big data analytics, and algorithmic decision-making. While AI is predominantly associated with corporate efficiency and industrial automation, its transformative potential within the social and solidarity economy remains underexplored. The integration of AI into socially oriented organizations creates new opportunities for scaling impact, enhancing inclusion, and improving evidence-based decision-making.

This paper argues that AI functions as a strategic catalyst in the transition from informal volunteering engagement to structured models of social entrepreneurship. By enabling intelligent skill-matching, predictive identification of community needs, and automated impact measurement, AI transforms dispersed voluntary energy into coordinated, sustainable, and economically viable social innovation. Drawing on social innovation theory, the resource-based view (RBV), and the social and solidarity economy framework (SSE), the study develops a conceptual model explaining how AI enhances organizational capabilities, supports the inclusion of marginalized groups, and contributes to employment generation within socially driven enterprises.

The contribution of this paper is: 1) it bridges the literature on volunteering and social entrepreneurship through a digital transformation perspective; 2) it conceptualizes AI as a dynamic capability within mission-driven organizations; 3) it situates AI-enabled social entrepreneurship within the broader ESG and sustainable governance discourse, emphasizing the importance of human-centered and ethically grounded technological adoption. This paper is theoretical in nature and does not include empirical testing, but it proposes a structured conceptual framework to guide future research. Its main conceptual contribution lies in positioning AI not only as a digital tool for improving organizational efficiency, but as a socio-technical and institutional enabler that supports the transformation of volunteering into structured social entrepreneurship. In this way, the paper advances existing literature by linking volunteer-based civic engagement, AI-supported capability building, and ESG-oriented governance within one integrated conceptual framework.

2 Theoretical framework

This study builds its analytical foundation on three complementary theoretical perspectives: social innovation theory, the RBV, and the social and SSE framework. These perspectives allow for a multidimensional understanding of how grassroots volunteering initiatives evolve into structured social entrepreneurship models, and how AI can act as a catalytic enabler within this transition. Social innovation theory provides insight into the emergence and scaling of socially oriented solutions; the RBV explains how organizational capabilities and intangible assets generate sustainable value; and the SSE framework situates these processes within a normative context of collective welfare, inclusion, and democratic governance. By integrating these lenses, the study conceptualizes AI not merely as a technological tool, but as a strategic and institutional infrastructure that strengthens the transformation of voluntary engagement into economically viable and socially impactful enterprises.

2.1 Social innovation theory

Social innovation refers to the development and implementation of new ideas, practices, services, or governance arrangements that address unmet social needs and generate societal value beyond purely economic returns (Ünlü & Rao-Nicholson, 2026). Unlike conventional innovation, which is often assessed primarily in terms of

technological advancement or profitability, social innovation is oriented toward social welfare, inclusion, and systemic improvement. Importantly, recent conceptualizations emphasize that social innovation can be embedded within technological innovation and may combine social purpose with revenue-generating models, thereby blurring the traditional boundary between non-profit and market-based approaches (Ünlü & Rao-Nicholson, 2026).

The non-profit sector has historically functioned as a key source of social innovation. Non-governmental organizations often experiment with new approaches to mitigating social problems, mobilizing communities, and complementing state action in areas where public intervention is insufficient (Safarov, 2025). He highlights structural constraints that limit the scalability of such innovations, including tight budgetary conditions, fragmented ecosystems, and weak coordination between donors, beneficiaries, and innovation developers. These limitations create a structural gap between grassroots problem-solving and sustainable institutionalization.

Volunteering plays a critical role within this landscape. Research demonstrates that volunteering can extend beyond service production and contribute directly to social innovation processes, particularly when volunteers participate in idea generation, implementation, and diffusion of new practices (de Wit et al., 2017). In this sense, volunteering constitutes an upstream phase of social innovation - an incubation environment where needs are identified and solutions are tested. Yet, as de Wit et al. (2017) argue, without organizational structures that enable scaling and institutional learning, the impact of such initiatives often remains localized.

Recent ecosystem-oriented perspectives further expand this understanding. The Quadruple helix model, which integrates government, academia, industry, and civil society, underscores that systemic social innovation requires coordinated cross-sector collaboration rather than isolated initiatives (Ng, 2025). Fragmentation, asymmetry of resources, and institutional rigidities often hinder such collaboration (Ng, 2025). From this perspective, digital infrastructures - including AI-enabled platforms - can potentially act as integrative mechanisms facilitating data sharing, stakeholder coordination, and shared evaluation metrics.

Social innovation theory suggests that the transition from volunteering to social entrepreneurship depends not only on motivation and civic engagement, but also on mechanisms that enable coordination, scalability, and institutionalization. This creates a theoretical opening for considering AI as an infrastructural enabler of systemic social innovation.

2.2 Resource-based view (RBV)

The Resource-based view (RBV) posits that sustainable advantage derives from resources that are valuable, rare, inimitable, and non-substitutable (Barney, 1991). While originally developed in the context of competitive firms, RBV has increasingly been applied to mission-driven organizations and social enterprises. In these settings, key strategic resources often include social capital, community trust, volunteer commitment, local knowledge, and legitimacy.

Empirical evidence from work integration social enterprises (WISEs) indicates that social innovation and competitiveness are closely linked to internal capability configurations that combine social mission and operational adaptability (Krejčí & Duháček Šebestová, 2025). In particular, innovation efforts that integrate employee development with product and service innovation contribute to both inclusion and economic sustainability. This illustrates how mission-driven organizations can leverage intangible assets to create hybrid forms of value.

From an RBV perspective, AI may be conceptualized as a strategic capability that enhances the effective utilization of existing resources. AI systems can support intelligent skill-matching between volunteers and tasks, predictive identification of emerging social needs, and automated impact measurement. Such functionalities increase the productivity of social capital and reduce coordination costs. In online volunteering contexts, volunteer experience has been shown to influence project completion rates and retention, with diminishing returns at higher levels of experience (Urrea & Yoo, 2022). AI-enabled systems can optimize task allocation by matching urgency, complexity, and volunteer experience, thereby increasing overall organizational performance.

Furthermore, volunteering is increasingly connected to human resource development and employability pathways (Kals et al., 2025). If supported by appropriate technological infrastructures, volunteer engagement can generate skill acquisition, certification, and professional spillovers. In this sense, AI becomes a dynamic capability that transforms dispersed voluntary contributions into structured organizational capital, strengthening the strategic position of social enterprises within the broader social and solidarity economy.

2.3 Social and solidarity economy (SSE)

The Social and solidarity economy (SSE) provides the normative and institutional context within which social innovation and social entrepreneurship operate. SSE organizations prioritize collective welfare, democratic governance, and reinvestment of surplus for social objectives. Economic viability is pursued not as an end in itself, but as a mechanism for sustaining social mission. Within this framework, social enterprises - particularly WISE models-serve as vehicles for integrating disadvantaged groups into the labor market (Krejčí & Duháček Šebestová, 2025). Social innovation supports these enterprises by introducing new organizational practices, inclusive employment models, and hybrid governance arrangements. However, as Safarov (2025) notes, limitations in social investment markets and coordination mechanisms may restrict their growth potential.

The Bulgarian experience provides a relevant institutional context for understanding the transition from volunteering to structured social entrepreneurship. The adoption of the Law on social and solidarity economy enterprises (2018) marked a significant step toward formalizing and recognizing social enterprises as distinct economic actors within the national legal framework. The law defines social enterprises, establishes criteria for registration, and introduces mechanisms for certification and public recognition, thereby creating a structured environment for organizations pursuing social objectives through economic activity. In practice, however, many socially oriented initiatives in Bulgaria still originate from grassroots volunteering, civic mobilization, and community-driven responses to social challenges. The regulatory framework offers institutional legitimacy and visibility, yet scaling remains constrained by limited financial instruments, fragmented support ecosystems, and insufficient digital infrastructure. In this context, AI may serve as a complementary governance and coordination tool - supporting transparent impact reporting, better

matching of vulnerable groups to employment opportunities, and more efficient resource allocation - thus reinforcing the objectives embedded in the national SSE legislation while enhancing its practical effectiveness. In this sense, the Bulgarian context illustrates a broader structural pattern in which formal regulatory recognition does not automatically translate into operational scalability. This gap reinforces the argument of the paper that AI can function as a bridging infrastructure between institutional frameworks and practical implementation, enabling more effective coordination, resource allocation, and impact measurement within social entrepreneurship ecosystems.

Digital transformation introduces new possibilities but also new risks. Evidence from corporate contexts suggests that AI adoption can improve ESG performance by enhancing transparency, reducing information asymmetry, and supporting evidence-based governance (Liu & Shen, 2025). Translating this insight into the SSE context implies that AI can strengthen accountability, improve impact reporting, and enhance stakeholder trust. At the same time, ethical considerations, such as algorithmic bias, digital exclusion, data governance, etc. must be addressed to ensure that technological adoption remains aligned with solidarity and human-centered principles.

Importantly, motivations for volunteering are themselves evolving. Research distinguishes between traditional value-driven motivations and reflexive motivations linked to self-development and career advancement (Frgelcová, 2025). AI-supported platforms can potentially respond to both motivational profiles through personalized engagement pathways, recognition systems, and skill-based progression structures. Such systems must avoid instrumentalizing volunteering in ways that undermine internal commitment.

The integrative perspective developed in this study is summarized in Table 1, which synthesizes the core contributions of the three theoretical pillars and their relevance to AI-enabled transformation.

Within this integrated framework, AI can be conceptualized as an enabling infrastructure that supports the transformation of grassroots volunteering into structured social entrepreneurship. By enhancing coordination, scalability, inclusion, and accountability, AI may catalyze the transition from localized solidarity actions

to sustainable, employment-generating social enterprises aligned with ESG-oriented governance.

Table 1: Integrative theoretical framework

| Theoretical pillar | Core concept | Key mechanisms | Contribution to AI-enabled transformation |
|-------------------------------------|--|--|---|
| Social innovation theory | Emergence and scaling of socially oriented practices | Collaboration, systemic coordination, diffusion of innovation | Explains how volunteering initiatives generate new social practices and how AI enhances scalability and impact measurement |
| Resource-based view (RBV) | Strategic value of tangible and intangible resources | Volunteer skills, social capital, organizational capabilities | Conceptualizes AI as a dynamic capability that strengthens the strategic use of volunteer-based resources and improves efficiency |
| Social and solidarity economy (SSE) | Normative framework of inclusion and public value | Democratic governance, reinvestment of surplus, collective welfare | Anchors AI adoption in human-centered values and ensures that technological transformation supports inclusion and ESG objectives |

Source: Author's conceptualization based on Social innovation theory, Resource-based view, and Social and solidarity economy literature.

3 AI as a factor for transforming volunteering

AI can be conceptualized as an enabling infrastructure that strengthens the transformation of volunteering from informal civic engagement into structured, scalable, and economically sustainable social action. Rather than replacing human solidarity, AI augments coordination, enhances learning processes, and reduces structural inefficiencies that often constrain grassroots initiatives.

3.1 Intelligent skill-matching and resource optimization

One of the most immediate contributions of AI lies in optimizing the allocation of volunteer resources. Research on online volunteering platforms demonstrates that volunteer experience significantly affects project completion rates and retention, although the effect diminishes at higher experience levels (Urrea & Yoo, 2022). This

suggests that effective task allocation and experience management are critical for performance.

AI-based skill-matching algorithms can analyze volunteer profiles, experience levels, availability, and task urgency to improve alignment between competencies and project needs. Such systems reduce coordination costs and increase completion rates, especially in contexts where urgency varies. From a RBV perspective, AI enhances the productive utilization of volunteer skills and social capital, transforming dispersed human effort into structured organizational capability.

In addition, as volunteering increasingly involves reflexive motivations - personal development and employability (Frgelcová, 2025) - AI-enabled platforms can personalize engagement pathways, recommend skill-building opportunities, and track competency development. This strengthens volunteer satisfaction while creating clearer transitions toward professional or entrepreneurial roles. For instance, digital volunteering platforms such as UN Volunteer Online Volunteering or matching platforms used by NGOs demonstrate how algorithm-based systems can improve alignment between volunteer skills and project needs.

3.2 Social needs – predictable identification

Moving beyond operational optimization, AI can contribute to identifying emerging social challenges. Predictive analytics tools can process large volumes of community data, detect patterns of vulnerability, and anticipate resource shortages. In the context of non-profit innovation ecosystems, limited coordination and fragmented information flows are often cited as barriers to scaling social innovation (Safarov, 2025).

By enabling real-time data integration across stakeholders - public institutions, civil society organizations, and social enterprises - AI can support earlier intervention and more targeted program design. Within the Quadruple helix framework (Ng, 2025), AI-driven platforms may function as shared infrastructures that connect government, academia, industry, and civil society actors around common data ecosystems.

In this sense, AI strengthens systemic responsiveness and reduces informational asymmetry, thereby facilitating a smoother transition from volunteer-driven initiatives to institutionalized social enterprises.

3.3 Impact measurement and accountability

A recurring limitation of grassroots volunteering is the difficulty of measuring social impact and demonstrating value to funders, policymakers, and beneficiaries. Social innovation often struggles with fragmented reporting systems and limited evaluation capacity (Safarov, 2025).

AI-enabled impact measurement platforms can automate data collection, monitor performance indicators, and generate transparent reports aligned with ESG criteria. Evidence from corporate contexts suggests that AI adoption may improve ESG performance by enhancing transparency and decision quality (Liu & Shen, 2025). Social enterprises operate under different institutional logics, similar mechanisms - improved data accuracy, reduced information asymmetry, and real-time reporting - can enhance legitimacy and trust within the social and solidarity economy.

AI-supported reporting tools used by social enterprises enable automated ESG reporting and real-time impact tracking. By strengthening accountability mechanisms, AI contributes not only to operational efficiency but also to governance quality.

3.4 From volunteer experience to entrepreneurial pathways

Volunteering is increasingly recognized as a site of skill development and human capital formation (Kals et al., 2025). When supported by structured organizational systems, volunteer engagement can generate professional competencies, networks, and leadership skills that feed into social entrepreneurship. In practice, some platforms already connect volunteering experience with employability pathways through digital badges and micro-credentials.

AI can facilitate this transition by:

- tracking accumulated experience;

- identifying entrepreneurial potential;
- connecting volunteers with incubators or funding opportunities;
- supporting digital credentialing and certification systems.

Such mechanisms are particularly relevant in contexts where social enterprises - such as work integration social enterprises (WISEs) - serve as vehicles for employment inclusion (Krejčí & Duháček Šebestová, 2025). AI-enhanced systems can match vulnerable individuals with suitable training and employment opportunities, reinforcing inclusion while improving enterprise sustainability.

AI operates as a structural bridge between volunteering and social entrepreneurship. It enhances the scalability of social innovation processes, strengthens organizational capabilities, and supports governance mechanisms aligned with inclusion and ESG objectives. The transformative potential of AI is contingent upon ethical design, transparent governance, and safeguards against digital exclusion - issues that will be addressed in the following section.

4 From volunteering to social enterprise: stages

The transition from grassroots volunteering to structured social enterprise does not occur automatically. It is a gradual process shaped by organizational learning, capability accumulation, institutional support, and increasingly, digital infrastructure. Based on the three theoretical pillars, the concept of transformation, structured as a multi-stage process, is summarized in Table 2, where the individual stages of transition from volunteering to social enterprise are systematized and linked to the catalytic role of AI.

The transformation from grassroots volunteering to structured social enterprise should not be interpreted as a strictly linear progression, but rather as a dynamic and iterative process characterized by feedback loops between stages. The transition between the identified stages is driven by several interrelated mechanisms. First, cumulative learning effects emerge as volunteers repeatedly engage in problem-solving activities, leading to the gradual development of organizational knowledge and routines. Second, capability consolidation occurs through the structuring of roles, processes, and governance arrangements, often supported by digital tools. Third, coordination efficiency increases as AI-supported systems enhance matching,

information flow, and decision-making processes. Finally, institutional pressures related to sustainability, legitimacy, and access to funding encourage formalization and the transition toward social enterprise models. These mechanisms highlight that the transformation process is not automatic, but dependent on organizational learning, technological integration, and institutional context. Even after formal institutionalization, social enterprises frequently continue to rely on volunteer engagement as a source of innovation, community embeddedness, and social legitimacy. Volunteering remains a mechanism for detecting emerging needs, testing solutions, and sustaining participatory governance practices. Sustainable transformation depends on continuous interaction among civil society, public institutions, academia, and industry. Innovation and institutional development therefore co-evolve within a broader ecosystem of actors.

Table 2: Stages of transformation from volunteering to social enterprise

| Stage | Characteristics | Drivers | AI-enabled contribution |
|---|--|--|--|
| Stage 1: Civic mobilization | Grassroots engagement; identification of social needs; value-driven or reflexive motivations | Community solidarity; volunteer initiative; social awareness | Data aggregation and mapping of community needs; improved coordination and visibility |
| Stage 2: Social innovation experimentation | Pilot initiatives; collaborative problem-solving; informal structures | Iterative learning; network collaboration; resource improvisation | Intelligent skill-matching; predictive analytics; real-time feedback and digital documentation of impact |
| Stage 3: Organizational structuring | Formalization of roles; governance arrangements; capability consolidation | Accumulated knowledge; social capital; mission alignment | Workflow optimization; performance tracking; volunteer lifecycle management; competency tracking |
| Stage 4: Institutionalization as social enterprise | Economic sustainability; hybrid governance; employment inclusion | Business model development; stakeholder legitimacy; market integration | ESG-aligned impact reporting; predictive workforce inclusion models; transparent governance dashboards |

Source: Author’s conceptualization based on Social innovation theory, Resource-based view, and Social and solidarity economy framework, and AI transformation literature.

Within this evolving system, AI operates not as a one-time technological intervention but as an embedded infrastructural capability that supports coordination, learning, data integration, and accountability across the entire lifecycle of social enterprise development. AI-enhanced systems improve visibility of social needs, optimize experimentation processes, consolidate organizational capabilities, and strengthen transparency mechanisms aligned with ESG principles.

Conceptually, the mechanisms of transition can be summarized sequentially as follows: (1) civic mobilization generates social awareness and collective engagement around unmet needs; (2) social innovation experimentation produces novel solutions through collaborative and iterative problem-solving; (3) organizational structuring consolidates capabilities, formalizes governance arrangements, and enhances operational efficiency; (4) institutionalization enables the creation of sustainable social enterprise models that combine economic viability with social mission.

Across these interconnected stages, AI enhances coordination, scalability, accountability, and inclusion, thereby accelerating the transformation of voluntary engagement into structured social entrepreneurship aligned with ESG-oriented governance and long-term public value creation.

5 Governance, ethics and ESG implications

The integration of AI into volunteering ecosystems and social enterprises introduces significant governance implications; it also raises concerns related to transparency, accountability, and algorithmic bias. This transformation introduces new layers of institutional responsibility. While AI systems enhance analytical capacity and operational consistency, they also redistribute decision-making power toward algorithmic processes. In mission-driven organizations working in the social and solidarity economy, redistribution requires careful oversight to prevent opacity, concentration of information control, and reduced participation in discussions.

Empirical evidence indicates that AI adoption may contribute to improved ESG performance through enhanced data accuracy and decision quality (Liu & Shen, 2025). Within the context of social enterprises, governance quality extends beyond informational efficiency to include procedural fairness and mission coherence. Algorithmic systems embedded in volunteer allocation, workforce inclusion, or

impact assessment may unconsciously prioritize measurable outcomes over social complexity. This dynamic generates a governance tension between quantification and mission integrity.

At the same time, evolving motivational structures in volunteering require institutional sensitivity. Performance monitoring mechanisms, ranking systems, automated evaluation tools may improve coordination yet simultaneously reshape the normative foundations of voluntary participation. Governance arrangements must therefore ensure that digital infrastructures reinforce, rather than instrumentalize, civic commitment.

From an ESG perspective, the central implication lies in institutionalizing responsible AI within solidarity-based economic models. Essential conditions become transparent data governance, inclusive algorithm design, participatory oversight mechanisms, and alignment with public value objectives. Sustainable governance in AI-enabled social enterprises is thus determined not solely by technological capability, but by the degree to which digital systems are embedded within democratic, human-centered institutional frameworks.

6 Discussion

The integration of AI into volunteering ecosystems and social entrepreneurship raises several critical questions that extend beyond operational efficiency and technological optimization. At the conceptual level, an important issue concerns the extent to which AI-mediated coordination reshapes the nature of civic engagement itself. If digital infrastructures increasingly structure how volunteers are matched, evaluated, and retained, does this transformation enhance collective capacity, or does it gradually redefine volunteering in more instrumental and performance-oriented terms? This study contributes to the literature by conceptually linking micro-level volunteer engagement with macro-level institutional transformation through AI-supported coordination, capability development, and ESG-oriented governance mechanisms.

A second question relates to capability formation and power distribution. When AI becomes embedded in decision architectures: allocating tasks, predicting needs, and structuring impact measurement. So, who ultimately controls the underlying data

and algorithms? Does the concentration of informational power risk weakening participatory governance within solidarity-based organizations, or can algorithmic systems be designed in ways that reinforce transparency and collective oversight?

A further discussion point concerns the balance between scalability and mission integrity. While digital systems enable rapid growth and measurable outcomes, social enterprises operate within normative commitments to inclusion, dignity, and democratic participation. Can AI-driven models of coordination and reporting preserve these commitments under conditions of expansion, or do they introduce pressures toward standardization that may marginalize context-specific social realities?

Finally, the relationship between AI and employment inclusion warrants closer examination. If AI supports more efficient workforce integration and entrepreneurial pathways, under what conditions does this lead to genuine empowerment rather than conditional participation governed by data-driven performance thresholds? How can AI-enabled social enterprises ensure that technological mediation strengthens long-term social mobility rather than reproducing structural inequalities?

The consequences of AI adoption in volunteering and social entrepreneurship depend on how digital systems are governed, interpreted, and steered by human actors. AI does not operate autonomously within solidarity-based ecosystems; its outcomes are shaped by managerial choices, institutional oversight, and the capacity of organizations to retain human judgment at the center of decision-making processes.

7 Conclusion

This paper has explored the transformation of volunteering into structured social entrepreneurship through the lens of AI as an enabling infrastructure. The analysis has shown that grassroots civic engagement, while rich in solidarity and local knowledge, often faces limitations related to scalability, coordination, and institutional sustainability. AI has been conceptualized as a mechanism capable of strengthening these dimensions by enhancing resource allocation, supporting data-driven decision-making, and facilitating organizational consolidation.

The transformation process was examined as a dynamic, multi-stage trajectory in which civic mobilization evolves into social innovation, organizational structuring, and ultimately institutionalized social enterprise. Across these stages, AI contributes by improving coordination, strengthening capabilities, and reinforcing accountability mechanisms. At the same time, the analysis emphasized that technological integration must remain embedded within solidarity-based values, democratic governance, and human-centered decision-making.

The discussion highlighted that AI does not autonomously determine outcomes in volunteering or social entrepreneurship. Its impact depends on how digital systems are designed, governed, and managed by human actors. Responsible integration requires transparency, participatory oversight, and alignment with broader public value objectives. When embedded within such frameworks, AI can accelerate inclusive economic participation, support employment creation, and enhance governance quality within the social and solidarity economy.

In this sense, AI represents neither a replacement for civic engagement nor a purely technical upgrade, but a structural catalyst whose transformative potential unfolds only when guided by deliberate institutional design and ethical management.

As a conceptual study, this paper does not aim to provide empirical validation or case-based evidence. Instead, it offers a structured theoretical framework that can serve as a foundation for future empirical research and practical applications in the field of AI-driven social entrepreneurship and volunteering ecosystems. In this way, the study provides a foundation for understanding how AI can be strategically embedded in social innovation ecosystems to support sustainable and inclusive development.

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