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Harnessing inclusive innovation to build socially impactful AI: Embracing social impact, cultural diversity, and equity

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Abstract

Society's interest in AI/Big Data: that governments, companies, and NGOs can invest in the development of the world and obtain a successful realization of the policy of CSR & SDG. discussed in this paper is to show how governments, businesses, and NGOs can prove that they are ready to make a difference and join the global commitment to building an integrated and sustainable community that will leverage this unique opportunity to promote the common social interest by utilizing such a promising and complex technology as artificial intelligence. Consequently, the current paper integrates a range of cases. It utilizes a mixed-methods design, establishing that restricted access to resources, primarily relating to education, health, and the economic status that can be traced to marginalization dimensions, determines increased suffering because of the pandemic. These recommendations amalgamate to perform the roles of the diverse sectors to assure that AI benefits all the stages of society by promoting the equity steps of welfare. The study applies a contingency framework, and from the framework, the study develops a plan for how best to approach inclusive innovation to mitigate inequalities, which in turn suggests that societal and environmental objectives should be integrated into the observed innovation to take sustainable development principles. The research contributes to how society can employ the prospects in AI to solve societal problems, noting that such employment of the advantage in AI must incite professionalism and incorporation of society in the design of the measures. On this basis, this study contributes to the theoretical development and the practical recommendations related to using potential AI capabilities to build long-term opportunities for firms and governments to support the sustainable development of the world economy based on achieving the goals set in the UN 2030 agenda. This piece seeks to analyze the events, achievements, and barriers that culminated in the formation of this new week and lays down directions on how the strategy that focuses on inclusive innovation can be implemented.

Keywords: Artificial Intelligence (AI), Inclusive Innovation, Sustainable Development, Corporate Social Responsibility (CSR, Strategic Implementation

Introduction

In a world that can be considered interconnected and globalized, as seen from the perspective of politicians, scholars, entrepreneurs, and representatives of industries, this continues to be a valuable point of view. As opposed to this vision of exclusion, the paper offers inclusion as a weapon to fight for a new development model and as an instrument for breaking the vicious circle of inequality plaguing the world.

The paper introduces the concept of inclusive innovation and its evolving nature. It then compares this view with the traditional perspective on innovation and covers the role of equitable development in the world. I

present my findings about the gaps developing between countries in economics, environment, and social domains. I also identify the main obstacles and the fundamental issues contributing to this inequality.

The paper then analyzes the mechanisms through which innovative approaches can be popularized, which involve government initiatives, cooperation between the private sector, and cooperation with not-for-profit organizations. I provide an intensive case study examination that shows the effects of the projects on community members' lives as they are made to achieve their goals through the development of inclusive innovation. This holds equitability and upgrades living standards in association with the communities, emphasizing the necessity of inclusive innovation.

The paper not only proposes a solution but also underlines the urgency and significance of the obstacles that arise when innovation and inclusive development occur at a large scale. It presents the steps technology can take to become an indispensable element in fostering equality development for the world. Significantly, all proposed solutions form a comprehensive plan for the following social enterprises to aid the underprivileged, potentially preempting the challenges ahead. This underscores the critical role of technology in fostering equality development, compelling the reader to recognize the urgency and significance of this issue.

The Inclusive Innovation

Innovative inclusion represents a shift in the research and development paradigm, which is aware at the community and educational levels. Through establishing a collaborative atmosphere, inclusive innovation ultimately makes the community actively involved in the solutions creation process, providing the solutions with innovation and meeting the local needs 100%. This is a significant aspect of education where the participation of schools and communities in solutions designs brings more outstanding and long-lasting results (George et al., 2012). The mission of inclusive innovation extends to the domains of society and the environment through the joint integration of social and environmental objectives into the innovation process (Pansera & Owen, 2018). This emphasizes the holism of the innovation developed so that it is not only tech-savvy but also reflects the two most important dimensions of sustainability, social and environmental, as it deems to fully understand the complex challenges being addressed.

The Artificial Intelligence (AI)

Applied AI comes under the subfield of computer science, which is the knowledge area of how to construct machines or systems that behave intelligently or similarly to humans. These skills include but are not limited to learning abilities, critical thinking, language, speaking and writing, and sensory or other perception skills. AI is a relative of computer science, born in the mid-1950s, and has evolved into branches in the present world (McCarthy et al., 2006).

The phrase Artificial Intelligence was coined by John McCarthy in 1956 at the Dartmouth conference, marking this event as the field's inception. Allen Newell, Marvin Minsky, and Herbert A. Simon took it a step ahead when they demonstrated through their work that machines could imitate human cognitive functions (McCarthy et al., 2006).

Based on the preceding sections, it is evident that artificial intelligence can be classified into two distinct categories. Therefore, three specific types of AI exist functional artificial intelligence, limited artificial intelligence, and vital artificial intelligence. Some examples of what a weak AI is meant for include but are not limited to Artificial Intelligence that is meant to listen and recognize speech, Artificial intelligence that is meant to translate languages, or artificial intelligence that is employed to recommend or suggest some product on the internet. However, this kind of system obviously cannot possess such a cognition or, in other words, cognitive insight as to the actions in question. However, it functions so that it would like to perform a particular activity in several framed ways as per its programming unconsciously within the boundaries of

the given programming. An instance of feeble AI would be Siri— Apple's virtual assistant that implements various technologies like natural language processing and machine learning without any real intelligence to interact with users in different applications (Russell & Norvig, 2016).

On the other hand, weak AI is restricted to solving only problems and predicting only, whereas strong AI has set the target to mimic and think like a human. Although strong AI for the present remains an abstract concept, two of the theories – computational neuroscience or artificial mind approach – attempt to develop a system capable of independent reasoning with a focus on advanced problem-solving, learning, reasoning, and evolution across diversified domains independent of the specified subject matter (Caporusso, 2019).

AI is one of the most thrilling and demanding frontiers of present-day technology. Its capacity to enhance efficiency, provide personalized services, and address intricate issues can lead to drastic industrial revolutions. However, the evolution and usage of AI have to be approached from an ethical perspective: while enjoying the fruits of tomorrow, we must also consider the long-term social consequences of responsibility (Russell & Norvig, 2016; McKinsey & Company, 2023).

Inclusive Innovation Differs from Other Innovation Types

The main characteristic of conscious innovation, which differs from the traditional models of inventions, is that it is focused not on messy technological breakthroughs or ruthless market competitiveness. This kind of innovation does not bear only on creating new products or services; it carries all the changes that should redefine an innovation scene that would warrant the distribution of benefits of these progresses and preclude the emergence of potential detriments. The key to inclusive innovation is a strong passion for applying environmentally sustainable growth and better living conditions. This approach does not separate innovation from ethical and ecological principles but sees it as a stepping stone for solving the most challenging global problems where the experience of minor changes is not enough, and the whole complexity of the active factors is required to find solutions. Also, including innovation dedicates genuine engagement with the communities it targets. Instead of assuming what a community needs, it connects deeply with those who are the most affected by the social problems and uses their own experience to grind the solutions process, thereby ensuring that any such use and success is locatable in the real-life contexts of the inhabitants (Pansera & Owen, 2018). Through this collective strategy, we ensure innovations that are most relevant and effective and rebuild community spirit reflected through the substantial involvement of the problem holders in the process and enrich their empowerment.

Inclusive Innovation is Essential for Addressing Existing Gaps

The core principles of this social and environmental non-profit organization drive its inclusive approach, making inclusiveness crucial. Hence, it is crucial to comprehend the concept of inclusive innovation. Innovation inclusivity, constituted by producing products and services that are tailor-made to serve or through the development of which disadvantaged communities get excluded, becomes decisive in product or service introduction. This participation refers to the most directly concerned groups of citizens (probably are they the ones) that may have the experiences or skills of intervention that are relevant and effective. Inclusivity can be promoted through the involvement of educators, local schools, and workforce teachers who will designate learning experiences and the kinds of innovation that would be adaptable in the community (Mortazav et al., 2021). As a result, this approach reflects the essential part of the community and schools in the co-design and implementation of the process of the creation of such unique products because they are capable of finding the most severe challenges between teenagers, which triggered the solving of them by the process of designing (George et al., 2012). Rather than the traditional innovation models (which tend to assume that the “conventional” innovation concepts already solve the problem of the absence of minorities/underrepresented/marginalized groups), inclusive innovation ends this problem

by the inclusion criteria. As a result, this change reflects a fading of the past to instigate a new era of capitalist transformation with more equity and justice.

The Existing Gaps

The unequalness in wealth and mortality factors suggests that the poor weaves that separate people of slightly different socio-economic statuses are harsh, and this is a problem that many countries have had for a long time. To be precise, there is a considerable gap between the rich and the poor. It comes from the fact that the global poor group holds just 2% of total wealth, and the group of the wealthiest 10% owns more than two-thirds (76%) of the whole. The social inequalities arising from the economic cleavage are noticeable not only in the level of possessions people have, as health status proves to be one of the major life threats, and even children are affected by this. Among under-five mortality differences, which existing globe backwardness countries are largely responsible for, this elucidates that national and local equity considerations should be the central aspects considered while fighting poverty and subsequent underdevelopment. This pandemic has developed the existing peculiarities that made the rich possess money and the poor lack security. Such a multi-directional signifies the hidden character in the curtain cut, which reveals the need for an integrated approach instead of a segregated approach in connecting the divides in the path to a better world where social equality is no longer a myth but a dream of every human being.

Existence Gaps Affecting Countries and Their Populations

It is essential to realize that inclusive innovation can suffer the neglect of policy, and this is why you need to understand the existence of gaps, those that indicate significant inequality, and the impact on populations across various countries. This type of variation is not confined only to the poorer and middle-sized countries as may be widely believed. Yet, they spread across the nations regardless of disparities in income level. Many countries have seen the degree of inequalities among them rise, as indicated by the liberalization of one part of the population and the income gap between 20% of the upper class and 50% of the most deprived, which doubled over time. The portrayal of this gap is not just a domestic issue but also a global one where the top 10% of the world is the wealthiest and controls and earns 52% of the income, while in comparison, only a minute 8% of the poorest half have some earnings. This gross inequality enlightens the severity of inequality within the countries and as a global issue, thus posing the policy's potency risks. Despite this, there has been a varied trend in Latin America and the Caribbean's automotive industries on the one hand and Africa and Asia on the other, whose circumstances have ranged from a decline of inequality to its varied state. By this disparity, it is clear that some areas moved on and started to fix problems with poverty, while in others, it became even darker with a lot of unaddressed problems, which illustrates in a complex way the present phenomenon and the depth of ongoing gaps and their enormous consequences for any nation and its inhabitants.

Factors Contributing to Existing Gaps

Next, Focusing on the very basis of inclusive innovation, it is essential to note that in most cases, the trends that see persistent inequality deficits between and within nations are caused by the lack of political will. The segregation of income and wealth within the countries has substantially expanded, urging the disadvantaged and highlighting the necessity of holistically working through inequality through a targeted and context-appropriate strategy (Inequality – Bridging the Divide, n.d.). On a roofer description of the situation: from the 1990s until now, total worldwide inequality has decreased because the gap in income between the states has shrunk, but at the same time, within-country gaps, which are more present in developing countries, became a critical factor of global health disparity. This gap is not only economic but also strongly related to available health facilities, education, and employment, highlighting the importance of the national government and corporations in successfully mitigating these inequalities (Inequality – Bridging the Divide, n.d.). Hence, solving these now-occurring disparities requires a detailed approach that must

accommodate the existence of complicated health and human development inequalities at the national level by all means.

Literature Review and Propositions Generation

IS capabilities enable knowledge sharing and innovation within an organization. Two leading theoretical frameworks—the Dynamic Managerial Capability Perspective and Resource Orchestration Perspective—offer persuasive views on how firms can use IS to interplay diverse views and achieve fair innovation outcomes.

Dynamic Managerial Capability Theory

The Dynamic Managerial Capability Theory emphasizes how creative management leverages the volume and diversity of ideas to foster an environment conducive to organizational innovation. These three authors, namely Roberts, Campbell, and Vijayasathy (2016), advocate using organizational autonomy and innovativeness as the main factors that enable senior managers to use information systems novelly. Organizations can expand the innovation landscape they are made of by setting managers free to experiment and working closely with IS, exceeding the routine ways of use. The possibility of managers to sense and implement innovation opportunities via IS is heightened by deliberative organizational systems that stand for independent thinking and a culture of innovativeness. This framework is mainly directed towards organizations that have to be strategic in their behavior, and help IS effectively turn things around regarding generating various novel ideas, hence fostering more inclusive innovation processes.

Resource Orchestration Theory

As a Dynamic Managerial Capability Theory counterpart, the Resource Orchestration Theory focuses on enterprise IS resource mobilization to achieve strategic alignment with operational capabilities, enhancing organizational innovativeness. Viewed from this perspective, their argument proclaims that the business-IT alignment strategy mediates decision-making and business process optimization to eventually create the necessary platform for the innovation process (Yoshikuni & Dwivedi, 2022). The theory concerns how IS incorporates strategic dimensions in an organization to provide an innovative approach that utilizes multiple resources and capabilities. Through resource orchestration via IS strategies with a customized specter, organizations can be sure that their innovation process is fair and cooperative, considering the general public's needs and accepting different stakeholders' different insights.

Moving forward, both methodologies recognize the empowerment of IS to take part in the pursuit of inclusive innovativeness. These incisive recommendations would help organizations craft strategies around deploying IS, thus enabling them to exchange various perspectives and outlooks with each other, leading to more equitable and sustainable solutions. The management capability and resource orchestration perspective are the appropriate theoretical basis to explain how strategic IS may serve the broader objective of innovating organizational inclusiveness and diversity.

The literature review highlights IS's role in improving inclusiveness in the innovation process and its operation, albeit through organizational strategic behavior, leading to equitable value appropriation among all its stakeholders.

Strategies Promoting Inclusive Innovation

To contribute to the success of inclusive innovations, it is essential that from the very beginning, the goal is clear and the growth of equitable solutions is encouraged with the understanding of how diversity and inclusion are vital for the whole process ("Charting the Path to Inclusive Innovation Excellence," n.d.). The

technique is known for being conscious that diversity should be considered right at the initial ideation stage and until the final launch of new goods and services. Through this approach, organizations can take advantage of the diverse thinking and creativeness of their vast range of stakeholders, both marginalized individuals and society, to develop solutions with more effectiveness, equity, and sustainability (Aiello et al., 2021). Besides, this systematic approach, in turn, boosts the innovation process in general and allows the development of goods and services that cover broader requirements; hence, the results of innovation distribution to society will be equitable. Exclusion of particular groups will not happen. Along with establishing such approaches, inclusive innovation reveals itself in quickening the sustainability, equality, and changes initiated at the industry and societal levels. Including inclusivity in the strategies, both in industry and society, reveals a crucial aspect.

Governments Advocating for Inclusive Innovation

A Janus face of innovation, which should be perceived as a combined social and educational initiative by the community, let pass by customary standards of research and development and find additional support for learners from every sector of the community. In other words, education can break the vicious circle of the educational system - organization - branch of power. Implementing inclusive innovations in schools may solve the problem and lead to positive development. Collaborative ways result in the generation of various stakeholders at such a point that the educational innovations are designed and sometimes even at the basis for the community's actual needs, leading to the community's enhancement of their involvement in the innovation process. Generally, the federal government can widen its reach by associating with nonprofits such as Digital Promise Centers' Innovation Center for Inclusive Education. The latter's main aim is the development of inclusive education. This joint work can be fulfilled through intensive co-research and co-design to detect potential solutions, which would help students and teachers deal with the upcoming challenges because they are equally beneficial (Mortazav et al., 2021). The policy implementation via these measures suggests that the government's policy of democratizing innovation in education is the realization that the tools and capabilities for innovation should be made freely available for all under a framework that creates an enabling environment for economic development.

Private Sector Organizations and NGOs Advocating for Inclusive Innovation

Instead, the private sector acts as a catalyst for creating inclusive innovations, and NGOs take the lead; inclusive innovation serves as a connecting pin to build the SDGs (Sustainable development goals). Through the multiple actions that are critical factors to be considered while doing inclusive innovation, the creation of those products and services that can be used by the most considerable masses in society is one of them; this is done to make sure new technologies and processes are equally used in the culture itself, therefore, distributing the benefits more evenly (Alami et al., 2020). Through their joint work on developing solutions for the SDGs, UNDP, and NESTA emphasize the universal effects of innovations for enlarging inclusiveness in society and not for upgrading the level of inequality (Glennie et al., 2020). In addition, this scheme of inclusive innovation consists of all stakeholders doing their best to offer suggestions, thus impacting the innovation process. Inclusive engagement helps spot and address these challenges and develop solutions everyone can adopt. This way, one is sure that the solutions that have been designed meet the needs of the people and are not exclusive; therefore, it will be easy to scale well within the community. Worldwide, private sector and non-government organizations now use participatory practices, which are new inclusive practices developed to overcome barriers to social, industrial, and territorial access and promote systemic inclusion through the organizational innovation processes ("Charting the Path to Inclusive Innovation Excellence," n.d.); (Inclusive et al.: Lessons from International, n.d.).

Successful Instances of Inclusive Innovation

The in-principle concept of inclusive innovation values is sparking a positive shift in the school sector and education enhancement, which aims to increase student engagement. Through collaborative and inclusive innovation processes, schools can now build transformative models that address the unique challenges that students and educators face and establish inclusive and mutually beneficial school settings. For example, Reynoldsburg City Schools in Ohio has been doing people's collaborating with the Digital Promise Center for Inclusive Innovation, which resulted in more innovative models of student learning (Mortazav et al., 2021). The scale factor is shown by replicating the materials in various educational settings, and the significance of co-discovery and co-design in accomplishing results that establish meaningful outcomes is also highlighted (Mortazav et al., 2021). On the other hand, empowering students, families, teachers, and researchers is a crucial component of the educational process, and the value of bringing all of them together in the process of innovation development makes the process more inclusive. Thus, the solutions developed deeply reflect the educational needs and the respective perspectives of all stakeholders (Mortazav et al., 2021). Inclusive innovation can be regarded as an excellent means of restructuring education systems as the disparities are reduced, and teachers, students, and other stakeholders can tackle issues the new century has brought to the educational field.

Case Studies Narrowing Existing Gaps

The presented cases have shown us how inclusive innovation is the main principle in decreasing and starting to eliminate such gaps in times of globalization and technology updates. To illustrate, for every emergent winner linked to globalization and innovation, a loser emerges in the face of the same formats (The Case for Inclusive Innovation, n.d.). This contrast accentuates the necessity to implement policies that give more chances for innovation in taking forms of benefits that are more evenly distributed, thus helping to deal with the possible resistance that might arise by the groups that struggle and simultaneously working actively to close the gaps. For example, the popular uprising in the US is an alarm for marginalized individuals who think that the ongoing processes of globalization have wholly abandoned them. The wake-up call comes in terms of what policies are to be implemented to ensure that the benefits of globalization are equally and comprehensively distributed (The Case for Inclusive Innovation, n.d.). Besides, the data showing that the lives of middle and upper-income individuals are longer than those of the low-income classes indicate how social class profoundly influences people's health. Consequently, the results gained through these two studies underline the idea of using a holistic approach to innovation that attaches priority to cutting-edge technology and provides benefits equally to all to build a more equitable future.

Lessons Learned from the Case Studies

The cases shown in the section will teach something about promoting work-based knowledge innovations where a sense of responsibility and learning have stood due to public investment, especially across different sectors of the groups involving public and private stakeholders. In the Buffalo, New York case manufacturing study, we tend to accentuate the point that there is a need for the US to keep a balance between employees and enterprises to improve the local economy. The future outlook portrays a scenario where considerations for equitable distribution of the benefits and minimizing the risks are incorporated. The future outlook harmonizes with inclusive innovation, which calls for mitigating potential injuries and ensuring that the benefits are widely distributed. Besides, the role of partnerships between a wide range of partners in highly advanced manufacturing grants elevated positions of “innovation and collaboration are not necessarily antonyms” and “more ideas are the fruit of diversity.” Such situations have a particular implication in education. As a result, students’ input becomes a key factor, and subsequently, a sense of contribution is built among learners, resulting in a culture of partnership. Such a trend is widely accepted because the paces of current life taken with a stride were the backbone of development. Data analysis helps

find out the reason for the necessity of using harmonious and creative development approaches, which thus help to achieve the target of implementing change in various sectors, including the manufacturing industry.

This research will systematically investigate how inclusive innovation can be conducted within these five domains to fill gaps and achieve a fair and balanced society through AI technology.

Pathways to a Just, Sustainable, and Equitable Society: Inclusive Innovation for AI Empowerment (See Figure 1)

Thus, the concept of the inclusive innovation that is the focus of CI activity can be considered as a change of making society with discriminative thresholds inherent in it. About inclusive innovation: This implies that when it comes to data innovation, it's going to be all individuals. it will be part of anything related to the society; that part of the society that is unable 'to' fund these developments will not be left out. Considering the appropriate application of AI technology, it can help people who need services like healthcare services, education, legal aid, and other services for some probability of minorities so that they get the assistance they need. On the same note, inclusive also has the potential of being bias-free in areas such as recruitment, security administrations, and banking, which contribute to making fair decisions. Therefore, combining several strategies in response to the context generated by AI much impact on people's lives can be offered, including an equal opportunity to live the same life, Buhrs & Fieseler, (2021).

P1. Inclusive Innovation through AI Aims for a Just Society

The benefits of fostering inclusive innovation include: first, there will be improved employment standards; second, political stability will be enhanced. Third, innovation can act as a fosterer for accomplishing all the sustainable development goals. Another potential avenue to explore emerging technologies' impact involves applying these drives for research on environmental sustainability to improve the integration of the above-said disciplines into the field of management. For example, scholars may continue to enhance the efficiency of smart grid implementation, analyze methods for fertigation that enhance crop yield without damaging the soil and environment, and define new business strategies for waste management and recycling processes instead of regular disposal. These sources also apply to some roles in other processes associated with forming livable cities, including transport solutions, reduced traffic jams, and adaptation of facilities. By continuing sustainability missions and visions in assuming and incorporating these technologies into commodities and people, society can further succeed and move forward with the UN-SDGs for sustainability. In this manner, technology is also a catalyst for sustainable innovation in furthering the sustainable development of society and the natural world, supporting the argument of Fan et al. (2023).

P2. AI for inclusive innovation plays a role in leading to sustainable development

Equal development is an essential objective of AI for inclusive innovation. This is because, with the help of AI, people who were once on the periphery can access superior technologies, thereby decreasing the likelihood of a new generation of 'have' and 'have nots' when it comes to technological advancement. ASI can, therefore, greatly benefit small businesses and, most specifically, entrepreneurs since it can help them get information and tools that were previously a preserve of large organizations. escalation of technology to the masses can create more opportunities for the growth of markets and competition, thus promoting innovation. Moreover, AI can also assist in detecting bias in development in development economics, thus becoming an effective tool for managing the distribution of advantages that accrue from development more evenly across space and society. Inclusiveness of Technology, AI for a more just society As observed by Graves et al. in 2023, AI can increase equity in technology-aware economic distribution.

P3. Inclusive Innovation through AI Fosters Equitable Growth

This is because the engagement of the community has been helpful when it comes to attaining inclusive innovation and artificial intelligence. Thus, the biases of these people make it possible for the released AI technologies in the market to be appealing to different categories of people. Willing user groups may be involved; there is the aspect of collecting information from the people, community, and local agencies and the user-centric design process involving the public. This encourages the creation of a model that uses input from various profiles, making the construction of AI solutions with a vibrant plurality more feasible, offering less resistance since multiculturalism is given some grip, and is therefore highly effective. Also, the relevant and representative community involvement assists in influencing decisions on image acquisition and other data privacy and security concerning the broader ethical questions about using AI systems. Improving the technologies within AI innovation processes means incorporating the community to develop relevant innovations that aim at helping people in general, as highlighted in Yong et al . (2023).

P4. Inclusive Innovation through AI requires Community Involvement

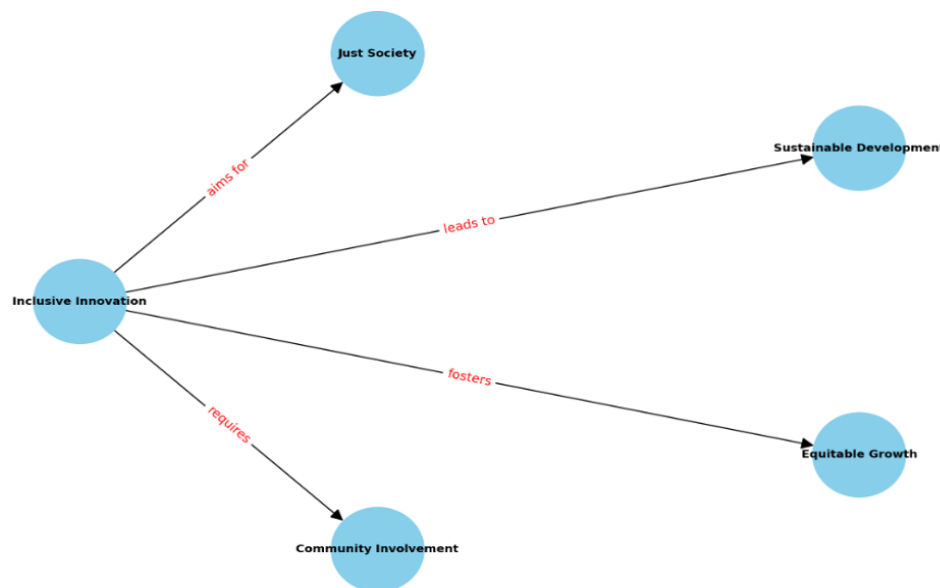


Figure 1: The Framework for AI Empowerment Embances Inclusivity and Innovation

Methodology

This research, alongside a mixed-methods approach, considers the included notion of Inclusive Innovation practically contributing to a socially and economically safe society with equitable growth, active community involvement, and sustainable development. Conversely, the research combines qualitative and quantitative data analysis practices to collect and interpret all possible dimensions of inclusive innovation.

Underpinning our study approach is the inclusive innovation concept, which has the nature of a 'transformative' strategy and is aimed at overcoming socio-economic and ecological imbalances across the globe. This research is aided by the case study analysis of prominent current practices implemented by global initiatives that aim to tackle diagnosed inequalities economically, socially, and environmentally in an inclusive manner. Data gathering will be multifaceted and involve the triangulation of different data sources through documentary analysis, interviews with the stakeholders, and direct observation of the participants to understand better the service delivery and the results of these initiatives.

Social participation within the community is indispensable for the success of inclusive innovation. Therefore, this study will elaborate on the modalities of community involvement in the innovation process. Assessments through town-centered surveys and focus groups will be conducted to gauge the community's perception, participation, and influence of innovation efforts toward its members. This community involvement strategy will be significantly assessed through a close comparative analysis in which similar projects of low community influence are considered.

Equity growth within the framework of inclusive innovations is studied (examined) by the economic indicators and equity assessments. This entails data collection on economic issues in innovation projects, including employment levels, average income rates, and access to essential resources amongst different social groups. We must utilize the immensity of statistical data and econometric models that help uncover distribution patterns and vice-versa.

The study compares sustainability by using indicators of environmental, economic, and social enterprises to detect the viability of a long-term status for inclusive innovations. The indicators are devised into project reports, environment impact assessments, and sustainability audits. Techniques where life-cycle assessment and sustainability indexing methods are employed to assess the practical sustainability of the innovation over time use the data to unfold the potential long-term impact of the practice.

Discussion

Understanding the concept of Inclusive Innovation as a Transformative Strategy

The research findings affirm that inclusive design can lead to radical changes in education and social issues that affect different communities. The investigation explores the complex expression of inclusive innovation, questioning whether it can reframe a new story that places unity at its core and easily blends social and environmental concerns into the innovation path.

The Transition from Conventional Models

Inclusive innovation manifests a profound deviation from the innovation pathways centered on the premium technological and economic trends that mostly deprioritize social inclusion and environmental conservation goals. Unlike traditional models, inclusive innovation will be more concerned with a combination of social and ecological goals than ignoring these critical goals. Through this system, the technology available is most up-to-date and in line with the peculiarities of the local environments, hence becoming more relevant and accessible to adopt and sustain.

Promoting Active Community Involvement and Fostering Collaborative Efforts for Creative Endeavors

The study emphasizes a 'hands-on' aspect of community participation that sparks co-created innovation, making it easy for us to talk with simplicity and adaptability. Local innovation radicalization implies involvement in activities in which communities directly participate in the innovation process, thus gaining power within the dynamics and owners' voices. This makes their innovations adapted to local culture and more favorably received through this approach. Innovation through community involvement: that is the bottom line. In this way, we can ensure that every specific need of the area is considered when creating a local solution that is easily accessible and applicable.

Addressing Disparities and Promoting Equitable Growth

The findings stress the consequences of neglecting inequality within and between countries, with those crucial, like health and economics. Inclusive innovation turns out to be a key enabler of sustainable development through poverty alleviation, where not only lawmakers but also citizens benefit from technological improvement. The collaborative nature of the initiative is also very efficient, as it enables the distribution of benefits for a wider group of people, consequently facilitating the narrowing of inequalities and contributing to a more balanced development.

Crucial Role of Policy and Interdisciplinary Efforts

Through the making of policy, an inclusive culture of innovation is steered to higher heights. Developing policies that promote congruity of efforts across disciplines and allocating commitments to technology is integral and essential for creating a permissive setting favorable to inclusion. The report calls for stronger multi-sectoral alliances incorporating competencies from different areas—education, technology, and the social sciences—to achieve integration and a widespread impact from the interventions.

Future Research Directions and Technological Integration

Although considering inclusive innovation has been justified, the research has identified several gaps. For example, areas that need more attention include using advanced technologies such as big data and artificial intelligence in educational integration. Future studies should be conducted to set an example of how these tools are exploited to improve educational achievements and combat the specific problems of socially marginalized groups.

Confronting Implementation Challenges

Introducing a comprehensive, inclusive innovation process, especially within the education sector, is characterized by several impasses. This could, for instance, include applying innovative technological solutions, such as AI, to help develop policies and create interdisciplinary collaboration. A strategy with vital policy reforms, research initiatives, and a shared vision and talents allocated across different disciplines is necessary for removing these barriers.

Strategies for Overcoming Challenges

To tackle the issues we went through, we required both technological and design strategies that were people-centered. Within the health sector, this will involve an approach to providing structured services where cost partnerships will effectively handle cost while embracing the potential of AI innovations to address the specific needs of different populations. In education, the pandemic has clearly shown the importance of innovative learning solutions that continually make stricter use of technology with the vital human part of teaching to ensure inclusivity and accessibility.

Potential Areas for Future Research and Policy Development

Next, looking toward research and policies for inclusive innovation, attention should be directed to designing equitable learning settings with redistributive technologies in the future. This implies grasping how AI modifies the educational sphere and engaging in processes during which these changes do not aggravate the existing gaps. Planning for a new project should include applying educational psychology principles regarding student involvement in these new academic settings. The project should consider how to ensure accessibility and inclusivity when it is technical.

Conclusion

Inclusive innovation is seen as a way of forming the innovation landscape by the principles of social justice and environmental sustainability, which can then become the basis for advances in AI. This conversation underlines again this transformational potential of inclusive innovation and its scope, with both pathways and challenges, to be actualized towards fostering an equitable and sustainable future. Therefore, an approach involving both inclusive innovation and sustainable development must be adopted as pivotal in steering AI, as a tool, towards positive effects that it should have on society and the environment.

The predominant innovative multicultural societies that proactively encourage the AI supported innovative ecosystem at the helm of accelerated creative fervour will soon redefine the innate concept of innovation. This taking however brings into focus the marvels of integrated innovation and anticipates the adventure ahead. The taking of moving to a knowledge-based, digital world and a post-Fordist economy hence allows consideration of the wonders of pragmatic interconnectivity. The future concerning such action is probably a reality that has not been explored, a road that has not been taken, and a potential problem that has never manifested, and equity and sustainability are the motivating factors of such action. The roads we have yet to uncover and the challenges we must confront all point towards a future where equity and sustainability are primary impetuses for our endeavors. However, if one draws a connection between these two issues, it becomes clear that mainstreaming inclusive innovation and sustainable development is a core business question. This was the sound guiding principle towards technologies that technology solely turned on the blessings of mankind with due regard to the mission-oriented path in addition to confirmation of these noble goals in high regard.

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