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Multi-Dimension Framework for Global Education System

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Abstract

In today's growing interconnected and rapidly evolving world, where all aspects of human life are interdependent, a broader understanding of cultures, economies, politics, and social issues is required. Considering the importance of education role in this issue, diverse traditional education systems around the world have resulted in fragmented approaches that fall short in preparing individuals for the complexities of an interlinked global society. To this end, it is necessary to provide a new innovative education model that adapts to and integrates evolving socio-economic and technological dimensions. This paper presents a great vision of a comprehensive framework for a dynamic global education system leveraging cutting-edge digital technologies such as artificial intelligence to interconnect economic, social, cultural, technological, and well-being dimensions aligning with the Sustainable Development Goals (SDGs), thereby facilitates equitable access to quality education and aspires to transcend conventional boundaries leading to foster holistic development and global collaboration.

Keywords: Artificial Intelligence, Global Education System, Sustainability, Technology.

Introduction

In the face of accelerating changes on how we live and work, the role of school education and the nature of the curriculum have become highly contested (1). The world is facing shared problems such as the COVID-19 pandemic, climate changes, wars, economic and social crisis such as uncertainty, inflation, stagflation, unemployment and immigration problems. Furthermore, cultural issues related to gender inequality, religion restriction toward specific groups and existence of discrete and different educational systems in countries/ regions are major concerns of many societies in the path of development and globalization. On the other hand, considering technological development and future studies related to transforming in a digital world, establishing a dynamic global education system is necessarily needed. In other words, taking pace in line of integrity, solidarity and globalization it is needed to provide a global educational system with reliable data and dynamic framework. This framework for increasing students' competence requires global understanding, intercultural communication skills, and embracing diversity (2). Research indicates that traditional methods of education reform have been relatively ineffective, implying a necessity for innovative perspectives on educational governance and transformation strategies to ensure schools adapt to a swiftly evolving external environment. At this time, the major underlying pressure to change has stemmed from developments in technology and a lot of concerns related to uncertainty about human-being lives in presence of non-predicted situations (3). Therefore, what then should be the future of education in face of the growing technologies and current problems related to sustainability of development set by United Nations SDGs? How can we be confident about what learning matters most and ensure high standards as external expectations change? How can we balance interrelated apparent tensions between pressure to raise standards and student/teacher well-being? How can schools best address gender inequalities and injustice and meet the diverse needs of sustainable development goals related to human beings life? Can school systems reform in ways and at a pace that reflect an increasingly complex digital future world? What might be the key characteristics of a learning education system that can meet these challenges and lead to reach an ideal educational system?

To answer the above questions we need to know the characteristics and attitudes of modeling a

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global education system and impact of this system in a globalized world. The idea of a global education system has its roots in the internationalization of education that began in the 19th century with the establishment of institutions such as the International Bureau of Education (IBE) and the United Nations Educational, Scientific and Cultural Organization (UNESCO). These organizations aimed to promote educational exchange and collaboration between different countries and cultures. The concept of a global education system is closely linked to the idea of education as a fundamental human right. The need for a global education system is also linked to the challenges of globalization. The concept gained further prominence in the 20th century with the emergence of global citizenship and the growing recognition of the interconnectedness of the world. The Millennium Development Goals (MDGs) and the subsequent Sustainable Development Goals (SDGs) both underscored the critical role of education in achieving sustainable development. The 2030 Agenda for Sustainable Development, endorsed by 193 United Nations Member States in 2015, presents an ambitious action plan aimed at fostering sustainable prosperity for people (4). To realize this ambitious vision, the 2030 Agenda's 17 Sustainable Development Goals (SDGs) aim to eliminate extreme poverty and foster universal peace by comprehensively integrating and balancing the economic, social, and environmental dimensions of sustainable development. While all 17 SDGs are crucial for achieving the transformative vision of the 2030 Agenda, education serves as the primary catalyst for development. Education is inherently connected to the other SDGs through the principles of human rights and dignity, social justice, inclusion, protection, and the celebration of cultural, linguistic, and ethnic diversity, alongside shared responsibility and accountability. SDG 4-Education 2030, with its 7 outcome targets and 3 means of implementation, strives to ensure inclusive and equitable quality education and promote lifelong learning opportunities for all (5).

Thomas Friedman, in his book, "The World is Flat," argues that globalization has made the world more interconnected and interdependent, and that a global education system is necessary to equip learners with the skills and knowledge needed to thrive in a rapidly changing world (6). It is also argued that a global education system is necessary to prepare learners for the complex challenges of the 21st century, such as global warming, economic inequality, and social injustice. Many scholars have also highlighted the benefits of a global education system. For example, in the article, "Global Citizenship Education: A Critical Introduction to Key Concepts and Debates," it is argued that a global education system can promote global citizenship, cultural diversity, and social justice, as well as foster international cooperation and understanding (7). Similarly, in his article, "Global Education in Practice: Teaching and Learning Strategies," Marrin (2022) suggests that a global education system can prepare learners for the global job market and equip them with the skills needed to succeed in a globalized world. However, despite the growing interest in a global education system, there are also several challenges that need to be addressed. For example the difficulties in implementing a global education system, including the need to reconcile different cultural values, beliefs and practices, and the difficulty of establishing common standards, rules and assessment methods can be mentioned. However, Scholars argue that such a system is necessary to promote sustainable development, human rights and global citizenship (8). Survey on the literature reviews also highlights the role of technology in facilitating the development of a global education system. Technology has made it possible to deliver education to remote and marginalized communities, overcoming barriers of time and space. Online learning platforms, Massive Open Online Courses (MOOCs), and other digital resources are being used to provide access to education to those who previously had limited opportunities. The literature reviews also emphasize the importance of collaboration and partnerships in the development of a global education system. Collaboration is essential in addressing the complex challenges facing the global education system, such as the digital divide, gender disparities, and poverty. In order to reach this goal digitalization of education has the potential to enhance the effectiveness and efficiency of education, and can furthermore help to promote the fourth UN sustainability goal, to ensure inclusive and quality education for all and promote lifelong learning (9). However, changing how education is done is by no means an easy task,

and processes for introducing technologies in order to improve education and learning therefore become important to study (10). Communities must prepare for ongoing transformations. It is crucial to align with modern trends in digitalization and the application of Information Communication Technology (ICT) across all aspects of life, facilitating the widespread distribution of information and knowledge (11). There are empirical researches performed to investigate the effectiveness of digital education that show the efficient outcomes of digital education in many aspects (12). It is important to highlight that the implementation of innovative technologies in education offers unique prospects to integrate instruction, research, and service in impactful and compelling manners (13). Hence leadership of digital transformation and technology is needed for digital global era (14).

While various digital education platforms exist, none offer the holistic approach needed to meet the educational, professional and social needs of students globally. This paper proposes a transformative, learner-centered approach to education, emphasizing the interdependencies between socio-economic aspects of life and global challenges. By addressing research questions related to the necessity, barriers, and interlinkages between sub-systems and the global education system, this study seeks to ensure quality training, focusing on modern labor market demands and individuals' holistic development emphasizing its interconnectedness with socio-economic factors and Sustainable Development Goals (SDGs). In other words, the system examines how it expands upon existing paradigms in global education, offering a comprehensive analysis of pertinent literature.

Theoretical Foundation and Definition of Terms

We are living in an increasingly interconnected world where new digital technologies have significant effects on the rate of globalization. Global financial, economic, geopolitical, and societal interactions, along with advancements in communication, technology, media, and transportation, have led to an uneven distribution of people, products, and data. Regarding the dramatic acceleration of social and technological changes, the role of education is to trigger people's awareness and responsibility to handle this transformation (15). As mentioned earlier, Education can be considered as a necessity that plays a pivotal role in the development of individuals and societies. However, the traditional education system faces various challenges, such as lack of access particularly in presence of non-predicted events like the pandemic and wars as living in remote areas, financial constraints, disabilities and inequalities, and outdated curriculum instructions and regulations. These challenges have resulted in a large section of the population being deprived of quality education. Considering the global disparity in educational attainment, particularly highlighting the significant challenges faced by children in impoverished regions. Pre-pandemic assessments indicate that 90% of children in low-income nations, 50% in middle-income nations, and 30% in high-income nations are unable to acquire essential secondary education competencies required for successful integration into the workforce and broader societal participation (16). With the increasing use of technology, there is an opportunity to create a new digital education system that can overcome these challenges. The concept of a global education system is closely linked to the idea of education as a fundamental human right. Therefore, constructing an international educational framework will offer learners the chance to contemplate and communicate their perspectives and roles within interconnected communities. This will facilitate the comprehension of intricate social, ecological, political, and economic relationships, promoting the development of innovative ways of thinking and behaving. According to the Maastricht Global Education Declaration, global education is an approach that broadens individuals' awareness and understanding of the realities of a globalized society, inspiring them to strive for a world characterized by greater justice, equality, and universal human rights (9). In this regard, it can be said that global education allows for transformation in analyzing and thinking critically about reality, empowers educators and learners to become active social agents.

Becoming more digital, although it has not yet fully reached that state, that renders it rather intriguing. The shift from the pre-digital period, merely a few years back, to a contemporary digital environment offers abundant opportunities for researchers to

examine a continuously evolving (17). We actively engage in and document this significant evolution, simultaneously fostering additional shifts. The forthcoming generation of currently inconceivable digital technologies and software innovations will continue to reshape economies, communities, and daily existence (18). Advancements in digital technologies have incited broad and varied predictions regarding the evolution of society and culture. Frequently broadly interpreted, digital transformation is recognized as a significant megatrend influencing future developments. It serves as a primary driver for the notion of digitality. In the book "Being Digital," Negroponte asserts that the transition from physical to digital forms is irreversible and inevitable, positing that any element capable of being digitized will ultimately be converted into a digital format (19). He conceptualizes digitality as a notion pertaining to existence within a digitally-driven and digitized culture. Digitality encompasses not merely the abstract mathematical framework or the core technological elements founded on binary systems, but also the societal impacts engendered by digital technologies. These phenomena are frequently linked with technological advancements but do not always arise directly from them; for instance, the swift expansion of the Internet led numerous scholars to assert that it would democratize society in unprecedented manners (20). Norton and colleagues assert that digital transformation involves a reconfiguration of workplace operations driven by novel digital technologies and cutting-edge paradigms (21). His process extends beyond merely adopting a technological remedy; it necessitates the harmonization of digital innovations with human factors and organizational dynamics. Mahlow and Hediger assert that digital transformation fosters the development of new competencies and frameworks via digital tools in a profound and strategic manner (22). Digital transformation is progressively reshaping societal dynamics, encompassing various aspects of daily life, professional environments, and community interactions. The integration of technological advancements is evident across multiple domains, such as education, transportation, information management, communication, and healthcare. This ongoing technological evolution is also significantly influencing governmental operations. The implementation of digital innovations, particularly the incorporation of artificial intelligence (AI), has emerged as a critical objective for public sector entities. Governments are striving to enhance their service delivery through digital means in response to the rising expectations of the populace (23). It means that Digital transformations are perpetually altering the ways individuals live, work, and interact within their communities. These technological advancements are evident in various sectors, including education, transportation, data management, communications, and healthcare. The evolution and deployment of digital technologies are also influencing governmental operations. Embracing digital transformation, particularly the integration of artificial intelligence (AI), has emerged as a top priority for public institutions. Governments, in response to escalating public demands, are progressively seeking to digitize their services through technological means. Global education system, as transformative learning can be applied as a decision-making system. It can provide the development of mutual knowledge and understanding, collective self-awareness and solidarity leading to a better future for all. The system can remove inequality and individualism by creating digital connections and solidarity instead of dividing people through competition, conflict and fear.

Reviewing research and scientific papers, it can be said that there is currently no global digital education system that is universally recognized. However, there are several digital education platforms and systems that are widely used across the world, such as Coursera, Udemy and Edx, Khan Academy among others. These platforms offer a range of online courses and resources, including video lectures, interactive quizzes, and discussion forums, that learners can access from anywhere in the world. However, they could not cover all educational and professional needs of students in all levels of schooling and beyond that.

Recent advancements in global education have been marked by several key trends and innovations aimed at transforming teaching and learning experiences that can be applied in the global education system.

The acceleration of digital transformation, driven by the COVID-19 pandemic, continues to shape education. EdTech solutions such as virtual reality

(VR) and augmented reality (AR) are creating immersive learning experiences, while artificial intelligence (AI) personalizes learning paths and automates administrative tasks. Hybrid learning models, combining online and in-person elements, are becoming standard, offering flexibility and adaptability to students' needs (24). Furthermore, there is a growing emphasis on lifelong learning, with educational institutions offering modular courses, micro-credentials, and stackable degrees. This approach caters to the need for continuous skill development in a rapidly changing job market. personalized learning and adaptive technologies, competency-based education and soft skills Development and gamification and extended reality are the other main trends highlight a shift towards a more dynamic, personalized, and technology-integrated education system that caters to diverse learning needs and prepares students for the future (25).

The framework of global education incorporates dimensions namely, economic, social, technological, political, environmental and well-being each with its rationale and interconnected roles to promote global education objectives.

On Economic aspect side, the system can enhance the efficiency of education by reducing costs and improving resource allocation. It can provide personalized learning experiences that help students develop skills aligned with market demands, fostering economic growth and employment rate. On social side, it can address social inequalities by providing equal access to high-quality learning resources and support, regardless of geographic or socioeconomic barriers. This inclusivity can promote social cohesion and mobility. Integrating AI technologies facilitates innovative teaching methods and learning environments, making education more engaging and effective. It supports adaptive learning, automated grading, and data-driven decision-making, which enhance educational outcomes. Governments can leverage AI to implement and monitor education policies more effectively. AI-driven analytics help in assessing educational needs and outcomes, ensuring that policies are evidence-based and aligned with global education standards. On environmental side, the system can optimize the use of resources in educational institutions, promoting sustainable practices. Virtual learning environments and smart campus management systems reduce the carbon footprint associated with traditional education models. Using the system with its remote and e-learning specifications, the transport will be controlled and the Co2 emission can be reduced. This system can also support the mental and emotional well-being of students by providing personalized counseling, early identification of issues, and tailored interventions. This holistic approach ensures that students are healthy and ready to learn.

These dimensions are interconnected in the system, creating a comprehensive framework that enhances the quality, accessibility, and sustainability of global education. Economic growth through skilled workforce development supports social stability; technological advancements drive efficiency and innovation; political frameworks ensure equitable access and quality; environmental considerations foster sustainability; and a focus on well-being creates a supportive learning environment. Together, they promote the overarching objectives of the global education system.

In this context, "multi-dimensional" and "dynamic" refer to the complexity and evolving nature of the system with the following definitions:

Multi-dimension: Refers to the involvement of multiple interconnected aspects or dimensions—economic, social, political, environmental, technological and well-being—that collectively shape the global education system. The interplay among these dimensions ensures a holistic approach to education.

Dynamic: Refers to the continuously evolving and adaptive nature of the global education system, influenced by ever-changing variables. The education system must adapt to ongoing changes such as technological advancements, policy shifts, economic fluctuations, and societal transformations. This dynamism ensures that education remains relevant, effective, and responsive to current and future needs.

Methodology

This paper employs a qualitative, descriptive methodology to outline the framework for a global education system utilizing artificial intelligence and its potential socio-economic impact. It is described the potential economic impacts, such as improved workforce readiness, innovation, and economic growth, by correlating educational

outcomes with economic indicators. It also discussed the social implications, including enhanced educational accessibility, reduced inequalities, and lifelong learning opportunities, through qualitative analysis of current trends and projected outcomes (26).

By employing this descriptive methodology, the paper aims to provide a comprehensive and theoretically grounded framework for an AI-driven global education system, highlighting its potential to dynamically influence economic and social aspects of life. This approach ensures a holistic understanding of the proposed system that combines theoretical analysis, comparative education studies and expert consultations.

Building on insights from the theoretical research, the next phase in the future survey will focus on designing the framework based on quantitative approach. At that phase detailed technical questioners will be designed for social, educational and cultural indicators and World Bank Database will be used for applying economic, educational, technological and other socio-economics variables. Through the integration of data flow diagrams and innovative technological solutions, the envisioned system holds the potential to revolutionize educational paradigms, fostering socio-economic development and enhancing health outcomes. Moreover, by prioritizing human-computer interaction, distance learning, and internet technologies, this approach paves the way for transformative educational practices in the digital age with providing a core system linking to the sub-systems to reach a brighter future for all.It is worth mentioning that by leveraging AI, block chain, and big data, the system will ensure data security, process improvements, and compatibility with real-world scenarios.

Socio-economic Impacts of the System

Modeling a Global Digital Education System, which aims to provide education to every individual in the world irrespective of their location, language, or socio-economic background will lead the world to reach the Utopia of Education. In this regard, the Dynamic Global Education System is a comprehensive model that leverages digital technologies to provide personalized, flexible, and affordable education to learners across the globe. It comprises various components such as online courses, virtual classrooms, digital libraries, interactive assessments, and AI-based analytics. The system utilizes advanced technologies such as artificial intelligence, machine learning, and block chain not only for providing interconnection between the mentioned dimension that is dynamically flexible and changeable, but also enhancing the security in data analyzing and private information, transparency and scalability. This system would aim to provide an excellence in education that is accessible, engaging, and tailored to the needs of each individual learner. It would enable lifelong learning with the power of technology to create a global learning community that fosters cross-cultural understanding and empowers students to succeed in a rapidly changing world. This system is integrated and interconnected and has the ability to join to sub-systems and digital tools to cover all aspects of a student life such as health and well-being, immigration, workforce supply and demand, educational resources and references. The framework is essential for active participation in the global economy as it promotes lifelong learning, aligns skill demand with supply, and assists individuals in making informed career choices. By designing such system the socio-economic advantages and impacts can be obtained as described in the Table 1.

Table1: Advantages and Impacts of Modeling Global Education System

Advantage	Impact
Removing discrimination	Social
Reinforcing interpersonal communication	Social
Intercultural improvement	Social
Moving toward International solidarity	Social
Multicultural agreements and developments	Social
Improvement in Economic Indexes (Macroeconomic, International Economic, Microeconomic)	Economic
Acceleration in solving conflicts and war problems	Political

Bilateral reinforcement of global sustainable peace	Political
Providing equal opportunity in line of gender equality and empowering women	Social, Economic
Interrelation of transformative education and enhancing creativity	Academic
Opening new windows to Hi-Tech progress	Technological
Moving toward Metaverse	Technological
Providing infrastructure of worldwide digital education	Academic
Digital money- crypto	Law, Economic
Politic- free decision making	Political
Personality improvement and Reduction in crime rate	Social, Psychological
Project-based learning	Academic
Establishing global thinking teams and Think Tank for global challenges	Academic, Social, Political
Environmental benefits (Fuel consumption reduction, Traffic control, Air pollution reduction)	Environmental
Standardized education (no-need for language certs and exams, no-need to assimilation courses, futuristic, dynamic, error-correcting)	Academic
Intelligent system providing customization for different groups and persons	Technological
Decrease in Migration challenges	Social, Political
Improvements related to Natural Resources Scarcity	Economic
New Startups creation	Technological, Economic
Revision and update in International trade and Technological Regulations and rules	Law, Economic, Political

Regarding to the Table 1, Academic impact can be referred to great shifting of understanding and advancing scientific and applicable method within disciplines, global improvement in curriculum and instruction assessment and evaluation and the most efficient selection of tertiary field of study. While, Economic, social, political and environmental impact are regarded to improvement of quality of life through the outcomes of the model such as; implementation of new policies or revision of existing policy to improve the effectiveness, efficiency and government regulations, providing efficient educated workforce for industries and academia, better attraction of scientists and talented students from all over the world for special projects and researches, increase in productivity and performance of workforce through new academic /training strategies.

Advantages and Challenges of the System

A global education system has the potential to provide several benefits, including non-discriminatory access to education worldwide, leveraging technology, collaboration, and innovation to enhance learning outcomes, foster creativity, and prepare learners for the challenges of the 21st century. It can also promote the development of global citizenship and cross-cultural understanding, which is essential in a world that is becoming increasingly interconnected. In other word, one of the main advantages of the global digital education system is the flexibility it provides to learners. Learners can access educational content from anywhere and at any time, making education accessible to people who are unable to attend traditional classrooms. The system also provides a personalized learning experience, allowing learners to learn at their own pace and according to their own learning styles. Another significant advantage of the global digital education system is the cost-effectiveness. Digital education is often less expensive than traditional education, making it accessible to people who cannot afford traditional education. The system also reduces the cost of textbooks and other educational materials, making education more affordable. The system has also enhanced the learning experience for learners. The use of multimedia in digital education enhances the learning experience and makes education more engaging. It also provides access to a vast array of resources, including videos, podcasts, and other

multimedia content, making education more exciting and engaging. Another reason why a global education system is necessary is that it can help to promote cultural understanding and respect. In a world that is becoming increasingly diverse, it is important that we learn to appreciate and celebrate our differences. A global education system can help to promote this understanding by exposing students to different cultures, languages, and perspectives. In general, having a unique global education system could offer promoting standardized quality of education, facilitating global mobility for students and educators, and fostering a common understanding of fundamental concepts. However, allowing for multiple education systems also has merits, as it can cater to diverse cultural, societal, and individual needs, encouraging innovation and customization. The balance between a global framework and localized approaches depends on finding a middle ground that respects cultural diversity while ensuring essential educational standards are upheld.

In economic aspect one of the main benefits is that it can help to promote many economic indexes such as economic growth and development by providing efficient workforce. On the other hand, it can help to promote social and environmental sustainability. By providing students with an understanding of the interdependence of economic, social, and environmental systems, a global education system can help to foster a sense of responsibility and a commitment to creating a more sustainable future. It can be say that, a global education system also presents opportunities for promoting intercultural dialogue, developing innovative pedagogical approaches, and fostering global cooperation and solidarity. In addition, a global education system can support the achievement of the United Nations Sustainable Development Goals (SDGs) by promoting education for sustainable development, gender equality, and social inclusion.

Despite its numerous advantages, the global digital education system faces several challenges. One of the main challenges is the digital divide. Access to digital technology is still limited in some parts of the world, making it challenging for learners to access digital educational content. The digital divide also affects the quality of education provided, as learners in areas without access to digital technology miss out on the benefits of the digital education system. Another significant challenge is the lack of regulation and standardization in the digital education system. The absence of regulation and standardization makes it difficult to evaluate the quality of educational content and the qualifications of the teachers providing the content. The lack of standardization also makes it challenging for learners to transfer credits earned in digital education to traditional educational institutions. It means that there is also a need for greater collaboration and coordination between different countries and organizations to ensure that education policies and practices are aligned. The other challenge is ensuring that the system is culturally sensitive and inclusive. In a world that is becoming increasingly diverse, it is important that the education system is able to accommodate different languages, cultures, and perspectives. However, challenges related to Technology Infrastructure including hardware, software, and internet connectivity, Curriculum Development, Quality Assurance, Access and Equity for learners from different geographical, economic, and social backgrounds are fundamentally main issues that the solutions should be introduced at the first step.

Results

This paper examines the framework of global education system and its comprehensive impact on economic and social aspects of life. A robust global education system fosters economic growth by equipping individuals with essential skills and knowledge, thereby enhancing productivity and innovation. Socially, it promotes equality, cultural understanding, and civic responsibility, which are critical for fostering inclusive communities and sustainable development. The paper explores how a global education system can be designed to address global challenges, adapt to diverse cultural contexts, and meet the needs of an interconnected world. Through an analysis of existing educational models and policy recommendations, this study highlights the transformative potential of education as a catalyst for holistic development. The implementation of an AI-driven global education system has the potential to profoundly impact economic and social aspects of life worldwide. Economically, this framework can enhance workforce readiness by providing tailored educational pathways that align with evolving industry demands. AI can identify skills

gaps in real-time, enabling educational institutions to update curriculum dynamically, ensure students are equipped with relevant skills and provide efficient assignment in job recruitment. This adaptability supports economic growth by fostering a more competent and innovative workforce. Socially, an AI-powered education system promotes inclusivity and accessibility. By leveraging AI, educational resources can be personalized to accommodate diverse learning needs and overcome barriers such as language and disability. This fosters equal opportunities for all learners, contributing to reduced social inequalities. Additionally, AI can facilitate lifelong learning, enabling individuals to continuously update their skills and knowledge, thus promoting social mobility and resilience in the face of global changes. Overall, the integration of AI in global education systems can create a more responsive, equitable, and sustainable educational landscape, dynamically influencing both economic productivity and social cohesion. It can be say that the framework of Global Education System aims to make connection between various socio-economic subsystems and the core system of education, focusing on improving transparency, security, efficiency, and personalization. The integration of new information technologies such as artificial intelligence into the global education system holds immense potential to enhance learning outcomes, streamline administrative processes, and expand access to education. However, it also necessitates careful consideration of ethical issues and continuous efforts to ensure that technological advancements benefit all students equitably. As AI continues to evolve, its successful incorporation into education will depend on a balanced approach that prioritizes both innovation and inclusivity.

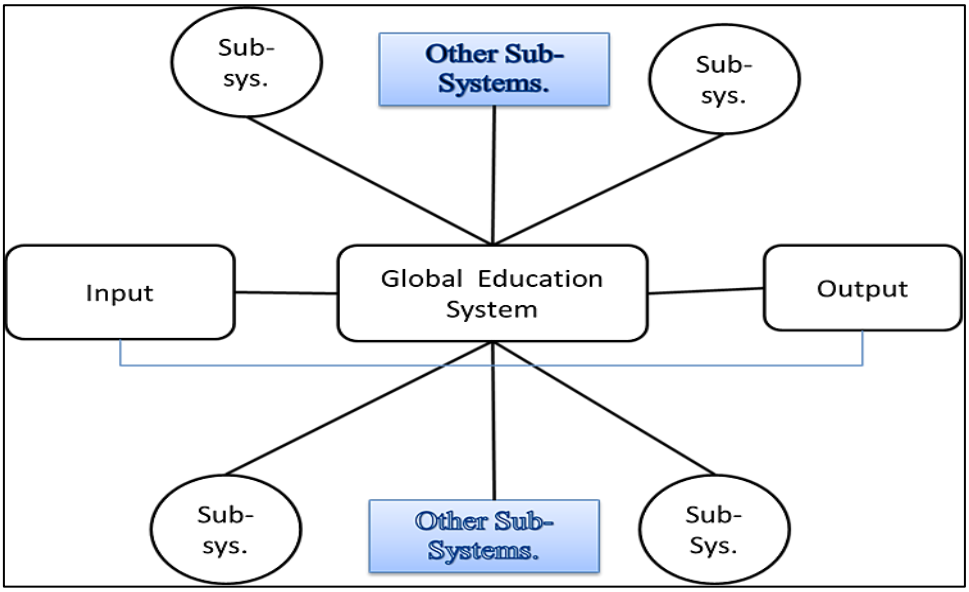

Figure 1: Framework of Global Education System

Discussion

The emergence of digital technologies has disrupted the traditional education system, paving the way for innovative models of learning and teaching. One such model can be a Dynamic Global Digital Education System, which aims to provide education to every individual in the world irrespective of their location, language, or socio-economic background. Developing a global digital education system using new technologies especially Artificial Intelligence (AI) is a complex process that requires a deep understanding of education, new technologies and knowledge of socio-economic impact of effective variables that means it requires collaboration between educators, technologists, and policymakers. With the right approach and resources, however, it is possible to develop a system that can improve access to education and enhance learning outcomes for students around the world. A global education system can address these issues by ensuring equitable access to education for all individuals regardless of their background. Such a system is necessary to promote sustainable development, human rights, and global citizenship. To effectively tackle the challenges related to the Global Education System, a holistic strategy is necessary. This entails establishing a robust

technological framework to ensure seamless learning, offering proactive technical assistance and training to maximize the use of eLearning systems, and employing secure, dependable online platforms to promote safety and collaboration. Incorporating flexible learning approaches and interactive tools, such as forums, is essential for student engagement. Utilizing ICT tools for ongoing feedback and adjustments can further enhance student involvement. Additionally, effective communication via s tools can support a conductive global digital learning environment.

In this way to globalize the system, policymakers must focus on enhancing the technological infrastructure to ensure reliable internet connectivity and device compatibility. It is also needed to provide protocols for connectivity between sub systems such as recruitment system and the core system.

Looking ahead, the role of global education system using AI is expected to expand significantly. Emerging technologies such as augmented reality (AR) and virtual reality (VR), combined with AI, could create immersive learning environments that simulate real-world experiences. AI could also support lifelong learning by providing personalized learning pathways and recommendations based on career goals and market trends. Collaboration between AI developers, educators, and policymakers will be vital to ensure that the integration of AI into education systems is both effective and equitable.

Conclusion

The need for a global education system is also linked to the challenges of globalization in the era of digitalization. Globalization has brought about significant changes in the world economy, society, and culture, with profound implications for education. A global education system is seen as necessary to equip young people with the knowledge, skills, and attitudes needed to navigate the complexities of the globalized digital world. The digital education system has numerous advantages, including flexibility, cost-effectiveness, and enhanced learning experience. However, the system also faces several challenges, including the digital divide and the lack of regulation and standardization. Addressing these challenges is critical for the further development and success of the global digital education system.

Considering a period of time that a student or a teacher does not belong to a specific school/institution/country, and he/she belongs to the global education society. Students and mentors from all over the world are involved in research groups, no one left behind (due to politics, sanctions, nationality, income level, gender, etc...) from his/her enthusiasm to pursue a particular field of study, creator minds working collaboratively on innovations and each person can reach the desired level of education and career goals in an efficient way. This depiction is idealistic now; however, the world necessarily should take place in this line. Barriers, limitations and borders will disappear in the presence of such a dynamic system that ensures all students to find the flexible and optimum way inline of their academic/professional interests.

Developing a global digital education system using AI is a complex process that requires a deep understanding of education, AI, and technology. It requires collaboration between educators, technologists, and policymakers. With the right approach and resources, however, it is possible to develop a system that can improve access to education and enhance learning outcomes for students around the world with its various advantages.

To implement a global digital education system, a framework needs to be developed that considers factors such as Technology Infrastructure, Curriculum Development that is relevant and meets the needs of learners from different geographical, economic, and social backgrounds, Quality Assurance to ensure the content's quality and validity, Access and Equity for learners from different geographical, economic, and social backgrounds. In this regard, executive organizations (UN and all countries will have to develop mechanism to review, update and strengthen their educational policies to support, implement and regulate protocols of the framework.

As children grow, the dynamic global education system offering seemingly limitless opportunities to learn, to socialize, to be counted and to be heard. Especially for children living in remote locations, or those encounter with poverty, exclusion and emergencies that force them to flee their homes, the digital global education system can depict a better future. The novelty of this project is

providing a new study of a global education system based on digital new technologies mainly Artificial Intelligence (AI), that SDG goals are interconnected renders efficient implementation, planning, monitoring, auto correcting, analyzing, reporting, forecasting and providing future facilities in higher education and finding a best fit careers.

In conclusion, the conceptualization and modeling of a global education system characterized by its dynamic and multi-dimensional attributes are integral to the facilitation of globalization and the achievement of sustainable development goals. This system equips learners with the knowledge, skills, and perspectives needed to contribute meaningfully to a globally interconnected world while addressing the challenges and opportunities it presents.

Abbreviations

AI: Artificial Intelligence
ICT: Information Communication Technology
IBT: International Bureau of Education
MDGs: Millennium Development Goals
SDGs: Sustainable Development Goals
UNESCO: United Nations Educational, Scientific and Cultural Organization
MOOCs: Massive Open Online Courses

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All authors contributed equally.

Conflict of Interest

The Authors declare that there is no conflict of interest.

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