New Media and the Education for Sustainable Development in India [1]

Nuevos Medios y educación para el desarrollo sostenible en la India

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Abstract

Education for Sustainable Development (ESD) is a significant concept or a subject that was developed and nourished by UNESCO. The idea reflects the integration of the key issues of sustainable development into the educational process. It mainly focuses on the environmental, economic, and social agendas that support the development of the present scenario and secure the future. The concept focuses on education that encourages every human being to gain knowledge, skills, attitudes, and values that support development and a sustainable future. The article entitled **'New Media and the Education for Sustainable Development in India'** evaluates two main case studies of ESD in India and reflects the concept of Education for Sustainable Development, how it gains a high priority in India, and gets reflected into the syllabus and curriculum of the central and state education systems. Along with these the article also focuses on the support of new media and digitalization that transform the education system and provide a momentum to the concept of Education for Sustainable Development.

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Resumen

La Educación para el Desarrollo Sostenible (EDS) es un concepto significativo o un sujeto que fue desarrollado y promovido por la UNESCO. El concepto refleja la integración de los problemas clave del desarrollo sostenible en el proceso educativo. Se enfoca principalmente en las agendas medioambientales, económicas y sociales que apoyan el desarrollo del escenario actual y aseguran el futuro. El concepto se centra en la educación que fomenta que cada ser humano adquiera conocimientos, habilidades, actitudes y valores que apoyen el desarrollo y un futuro sostenible. El artículo titulado "Nuevos Medios y la Educación para el Desarrollo Sostenible en India" evalúa dos estudios de caso principales de EDS en India y reflexiona sobre el concepto de la Educación para el Desarrollo Sostenible, cómo adquiere alta prioridad en India y se refleja en el syllabus y currículo del sistema educativo central y estatal. Además de esto, el artículo también se centra en el apoyo de los nuevos medios y la digitalización que transforman el sistema educativo y dan impulso al concepto de la Educación para el Desarrollo Sostenible.

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Palabras clave: Desarrollo Económico, Educación para el desarrollo sostenible, Crecimiento educativo, Desarrollo Ambiental, Nuevos medios, Desarrollo Social

Introduction

Education for Sustainable Development, or ESD, is a unique and emerging form of schooling that primarily focuses on sustainable development. It is manifested by UNESCO, which instructs to assimilate the education or the knowledge of sustainable development into the teaching-learning process. It is the education or the learning that is necessary to maintain quality of life and a sustainable society. The concept of Education for Sustainable Development aims to empower learners of all ages. It enables every individual, group, or community to acquire knowledge, skills, attitudes, and values to support current development and maintain a sustainable future. It mainly concentrates on the environmental, economic, and social agendas that support the development of the present scenario and secure the future. Education for Sustainable Development primarily addresses environmental factors, such as environmental protection, ecological systems, biodiversity, and climate change, on the one hand, while, on the other hand, it reflects economic and social sustainability. The article entitled 'Education and Sustainable Development' addresses about the nature of Education for Sustainable Development or ESD as "Education for sustainable development (ESD) promotes the development of the knowledge, skills, understanding, values and actions required to create a sustainable world which ensures environmental protection and conservation, promotes social equity and encourages economic sustainability" (Nevin, 2008, p. 50). Whereas in the initial part of the book 'Education for Sustainable Development and Disaster Risk Reduction', Education for Sustainable Development was mentioned as: "Education for Sustainability is a lifelong learning process that leads to an informed and involved citizenry having the creative problema-solving skills, scientific and social literacy, and commitment to engage in responsible individual and cooperative actions. These actions will help ensure an environmentally sound and economically prosperous future. Education for Sustainability has the potential to serve as a tool for building stronger bridges between the classroom and business, and between school and communities." (Shaw, 2014, p. 2)

In India, sustainable development has been pursued across various fields since the early days. Still, the concept of Education for Sustainable Development, or ESD, was manifested by UNESCO and brought pace in it and shows its reflection in the syllabus and curriculum of the central and various states' education systems. In the post-independence era, India shows an eagerness to study the environment and environmental sustainability, which gradually grows and takes a new shape over time. Later, the 'National Education Policy 2020' was developed and shows a great interest in SDG4 and Education for Sustainable Development. India refreshes its education policy with a new one called the 'National Education Policy 2020', which serves as a mission and vision of the Indian education system. It consists of several policies that aim to elevate the Indian education system to a new level.

Along with various other policies and instructions it also tries to integrate education related to sustainable developments into multiple stages of education. The article entitled *'Sustainable Development Goal -4 and National Education Policy 2020: Towards Achieving Quality Education'* mentioned, *"National Education Policy2020 (NEP 2020) of India aligns seamlessly with the principles and objectives laid out in Sustainable Development Goal 4 (SDG 4), emphasizing inclusive and equitable quality education for all." (Sharma, 2024, p 538)*

However, the arrival of new media has a significant effect on Education for Sustainable Development. It has changed the implementation style of Education for Sustainable Development. New media inform, educate, and raise awareness in society about sustainable development issues and help the public recognize its necessity. It helps disseminate the concept of Education for Sustainable Development to an infinite degree and propagates various data and information on sustainable development to the masses. Through new media, several online courses on sustainable environmental, economic, and social development were offered to learners of various ages and from multiple places. New media-supported digital or e-libraries offer learners a wide range of books, journals, and other content related to sustainable development. It also provides extensive data and information on Education for Sustainable Development to the researcher for various research purposes. New media plays a significant role in environmental, economic, and social sustainable development and provides an overall support to the concept of Education for Sustainable Development.

Objectives of the Research

Education for Sustainable Development is a new concept adopted by the Indian education system, and it has become a subject of learning at various stages. However, support for new media helps propagate the concept across a wide spectrum. The involvement of new media in the propagation of Education for Sustainable Development makes it significant and a vital subject of research. However, the article entitled *'New Media and the Education for Sustainable Development in India'* shows a broad scope of study and was conducted to find out the correct explanation while focusing on the following objectives:

- ❖ Significance of the Concept of Education for Sustainable Development
- ❖ The effectiveness of the Education for Sustainable Development in maintaining sustainable development in India.
- ❖ Significance of New Media in Education for Sustainable Development

Methodology

The article entitled *'New Media and the Education for Sustainable Development in India'* is based on two primary case studies and a thorough analysis of various content and documents related to Education for Sustainable Development, its allied sectors, and the role of new media in the field. It analyzes both the case studies and several articles and chapters published in journals and books, along with statements and content published on various websites and web portals of the Government of India, various educational institutes, environmental and socio-economic organisations, and international agencies. The article also reflects several case studies of programmes and academic courses related to Education for Sustainable Development that run across India or the Indian states for the welfare of the environment and a sustainable society.

Procedure

The article entitled *'New Media and the Education for Sustainable Development in India'* is a case-study-based research study in which two cases were selected to analyse and reach a conclusion. The case studies help to analyze various qualitative and quantitative factors related to sustainable development and Education for Sustainable Development in India.

Case Study of Education for Sustainable Development in India:

Case Study 1: Environmental Education: In India, environmental education is an excellent case study of an early form of Education for Sustainable Development. India started the environmental education while focusing sustainable development and ecological awareness.

Later, in response to a Public Interest Litigation, the Supreme Court of India, in December 2003, directed that environmental education be made a compulsory subject and that it remain under the observation of NCERT. Later, the NCERT developed a model syllabus, which was adopted by every state in India. India stands as one of the few countries worldwide that made environmental education compulsory for every student. The example of environmental education in India derives as an excellent case study of Education for Sustainable Development in India.

Case Study 2: National Education Policy 2020: The National Education Policy 2020 (NEP) of India introduced a set of new, highly valued educational policies that redefine the Indian education system from a new perspective. The National Education Policy 2020 was developed with a vision of academic advancement and to support Sustainable Development Goal (SDG) 4. The National Education Policy focuses heavily on Education for Sustainable Development, inclusive and equitable education, the elimination of all discrimination in education, promoting skill-based education for employment, universal literacy, etc. The example of National Education Policy 2020 is an excellent case study that shows how SDG4 and especially Education for Sustainable Development is getting incorporated in the Indian education system and how it is promoting the values of the present scenario while securing the future.

Result

The article entitled *'New Media and the Education for Sustainable Development in India'* analysed two case studies, 'Environmental Education' and India's 'National Education Policy 2020'. After analysing both the case studies, it came to a conclusion that India is highly conscious about sustainable development and Education for Sustainable Development from the very beginning. In the case study of environmental education, it was revealed that the Indian administration is highly aware of environmental studies and its role in society. In contrast, the case study of National Education Policy 2020 showcased how India acknowledged and accepted sustainable development and Education for Sustainable Development in its education system.

Discussion

The Concept of the Education for Sustainable Development (ESD)

Education for Sustainable Development is a form of education that focuses on and nurtures the concept of sustainable development. It is the teaching and learning process that delivers the knowledge of sustainable development. The idea is mainly based on two subjects:

education and sustainable development. The article entitled *'Education for Sustainable Development'* tries to highlight the basic fields or the two subjects that helps to develop the concept of Education for Sustainable Development (ESD) as *"The term Education for Sustainable Development contains two parts, namely education and sustainable development."* *(Thakran,2015, p. 56)*. Education is the process of teaching and learning, whereas sustainable development is development that helps fulfil present needs without compromising the future. Sustainable development is the key factor in Education for Sustainable Development. Sustainable development was mentioned in the *'Report of the World Commission on Environment and Development: Our Common Future'* as *"Humanity can make development sustainable to ensure that it meets the needs of the present without compromising the ability of future generations to meet their needs."* However, education plays a significant role in imparting knowledge about sustainable development; without it, disseminating that expertise will be difficult. The *article entitled 'Educational for Sustainable Development in India: A Narrative Review'* discusses the role of education in promoting the concept of sustainable development, stating, *"Without education, sustainable development cannot be achieved at any level."* *(Choudhary, 2022, p. 69)*.

Education for Sustainable Development is a new and broad concept that primarily focuses on integrating the key factors and issues of sustainable development into the education process. The concept can also be defined as the knowledge of sustainable development incorporated in the teaching-learning process or the education system to encourage every human being to gain knowledge, skills, attitudes, and values that support present development and a sustainable future. It is the learning that is needed to improve the present and to secure the future of human beings and their environment. The concept of Education for Sustainable Development focuses on educating the public and making them aware of sustainable development, emphasizing the learning of environmental, economic, and social factors that support the present development and secure the future. The concept of Education for Sustainable Development helps the public understand the real value of environmental, economic, and societal sustainability. It is a multidisciplinary teaching-learning approach that encompasses various aspects of the environment, financial factors, and social factors.

Education for Sustainable Development is a global concept that was developed mainly by UNESCO and nourished by several international organisations and almost every nation of the globe along with the UNESCO. UNESCO defined the term Education for Sustainable Development in its website as: *"Education for Sustainable Development (ESD) empowers learners of all ages with the knowledge, skills, values, and attitudes to address the interconnected global challenges we are facing, including climate change, environmental degradation, loss of biodiversity, poverty and inequality.*

Learning must prepare students and learners of all ages to solve the challenges of today and the future. Education should be transformative and allow us to make informative decisions and take individual and collective action to change our societies and care for the planet." (UNESCO). The definition defines the term Education for Sustainable Development (ESD) and mentions its functions and objectives. The statement is highly conscious of the challenges of the present and the future, and it tells the global society that learning must prepare students and learners of all ages to find solutions to current difficulties and future challenges.

In the *'Sustainable Development Education Panel: First Annual Report 1998'*, the definition of Education for Sustainable Development (ESD) wonderfully defines the meaning of ESD, domain of work and its scopes as:*"Education for sustainable development is about the learning needed to maintain and improve our quality of life and the quality of life of generations to come. It is about equipping individuals, communities, groups, businesses, and government to live and act sustainably; as well as giving them an understanding of the environment, social, and economic issues involved. It is about preparing for the world in which we will live in the next century, and making sure that we are not found wanting"- (Sustainable Development Education Panel: First Annual Report 1998)*. The definition of Education for Sustainable Development, introduced by the Sustainable Development Education Panel in its First Annual Report, focused on the learning needed to improve the quality of life and maintain sustainability. It also focused on the understanding of the environment, social, and economic issues for every individual, community, group, business, and government to live. However, the Education for Sustainable Development is also considered an essential part of Sustainable Development Goal (SDG 4). The book published by UNESCO, entitled *'Education for Sustainable Development – SOURCE BOOK'*, explains the goals of the Education for Sustainable Development (ESD) and mentions it in a broad sense as: *"Thus, ESD is far more than teaching knowledge and principles related to sustainability. ESD, in its broadest sense, is education for social transformation aimed at creating more sustainable societies. ESD touches every aspect of education, including planning, policy development, programme implementation, finance, curricula, teaching, learning, assessment, and administration. ESD aims to provide a coherent interaction between education, public awareness and training with a view to creating a more sustainable future." (UNESCO, 2012)*. In India, Indra Gandhi National Open University (IGNOU) defines Education for Sustainable

Development (ESD) in their book as *"Education that allows every human being to acquire the knowledge, skills, and attributes and values necessary to shape a sustainable future. In other words, the ESD is the process of equipping students with the knowledge, skills, and attributes needed to work and live in a way that safeguards environmental, social, and economic well-being, both in the present and for future generations."* (IGNOU, egyankosh, p. 153)

Education for Sustainable Development primarily focuses on environmental, economic, and social sustainability. Ecological sustainability is the ability to maintain the present and secure the natural environment and natural resources for the future. Education for Sustainable Development prioritizes ecological sustainability. Teaching about environmental sustainability is part of the concept of Education for Sustainable Development. In the introductory part of the book *'Education for Sustainable Development: Research Overview',* it was mentioned *"ESD has become an important element of environmental policy making and sustainable development strategies"* (Wals and Kieft, 2010, p. 11).

Along with environmental sustainability, economic and social sustainability were equally important and played a vital role in Education for Sustainable Development. Economic sustainability is also a significant part of the Education for Sustainable Development programmes. Economic sustainability primarily focuses on the development of the current economic system without compromising the future. While focusing on the concept of Education for Sustainable Development, economic sustainability mainly deals with the economical studies like the trade and commerce, changing pattern of business, alternative ways of developing economy, dynamic of leadership and its significance in the industry and corporate organisations, significance of corporate social relationship and community relations, consumerism in trade, globalisation of economy, rural economic development, etc along with a sustainable future. These economic studies mainly support the growth of the present economic infrastructure and help draw a portrait of economic sustainability for the future. The significance of social sustainability is also no less critical in Education for Sustainable Development (ESD). In the article *'Economic, social and environmental sustainability in development theory and urban planning practice',* social sustainability was mentioned as: *"Social sustainability encompasses notions of equity, empowerment, accessibility, participation, sharing, cultural identity, and institutional stability. It seeks to preserve the environment through economic growth and the alleviation of poverty"* (Basiago, 1999, p. 149).

The Education for Sustainable Development has shown a wonderful goal to propagate the education about sustainable development, which will help to learn how to meet the present needs and to secure a sustainable future. It makes the public aware of the environmental, economic, and social sustainability. The article entitled *'Education for Sustainable Development'* mentioned the goals of Education for Sustainable Development as *"The goals of ESD are to promote awareness of the interdependence of natural, socio-economic, and political systems at local, national and global levels to encourage analytical reflection and decision making."* (Sulaiman, 2019, p. 817).Through Education for Sustainable Development (ESD), the Sustainable Development Goals (SDGs) can be achieved. Education for Sustainable Development is one of the key tools for achieving the Sustainable Development Goals (SDGs). In the book *'Education for Sustainable Development Goals: Learning Objectives'* it was mentioned, *"At the same time, it is important to emphasize ESD's crucial importance for all the other 16 SDGs, With its overall aim to develop cross-cutting sustainability competencies in learners, ESD is an essential contribution to all efforts to achieve SDGs, enabling individuals to contribute to sustainable development by promoting societal, economic and political changes as well as by transforming their own behaviour."*(UNESCO, 2017, p. 8).

Education for Sustainable Development in India

Education for Sustainable Development is a universal concept adopted by most responsible nations worldwide. However, India is not lagging behind in the adoption and promotion of the idea of Education for Sustainable Development (ESD). India adopted the concept of sustainable development from the early days and tries to disseminate it among its citizens with a heavy momentum. To promote environmental education, one of the main parts of Education for Sustainable Development, India took a few essential steps. In 2003, the Honourable Supreme Court of India directed that environmental education be made a compulsory subject and promoted nationwide. It makes the public aware about the environment and ecological issues. The article entitled *'Role of Education in Sustainable Development of Modern India'* clearly mentioned how the Honourable Supreme Court of India played a significant role in the promotion and propagation of environmental education: *"In 2003, the Honourable Supreme Court of India directed that EE should be a compulsory subject at all levels of education. It further directed that the NCERT should prepare a model syllabus for class I to XII, Which shall be adopted by every state in their respective school."* (Yadav, 2016, p. 82).Whereas the article *'Integrating Education for Sustainable Development (ESD) into Geography Curriculum at University Level in India'* mentioned the arrival of Education for Sustainable Development in India as *"In India, ESD has*

not taken a solemn form into the curriculum. It is still in the form of environmental education, where environmental awareness is imparted through a compulsory component in schools and colleges. Environmental education has become compulsory in India after the Honourable Supreme Court in it judgement of 18 December 2003 directed that the NCERT shall prepare a Model syllabus of environmental Education. The NCERT developed the Model syllabus and submitted it to the Honourable Supreme Court. (Ray.G.N.1991) This has paved the way to making the environment a part of education." (Patwardhan and Kokane, 2022, p. 87)

The education departments of the Government of India directed its schools, colleges, and universities to include environmental education in their curriculum. The central education system, as well as state governments' education systems, make ecological education a compulsory subject from primary to higher education. In the syllabus and curriculum, it was listed as environmental studies or environmental science. In contrast, in a few cases, the subject or its topics were also placed directly in science or social science books. Ecological education not only focuses on the environment and biodiversity, but also on society and its hygiene. They keep environmental education as a part of their curriculum to educate the learners about the environment, natural resources, biodiversity, various types of pollutions and pollutants, and their hazards on the environment and human beings, various precautionary steps to avoid pollutions, to maintain a healthy environment, how to keep a clean and hygienic society, etc. Environmental education is also reflected in the syllabi of various state and central government competitive examinations. Indra Gandhi National Open University (IGNOU) mentioned in their book, *"Traditionally, India has been a sustainable society. To promote the value of sustainable development in education, the Indian government has directed its various education departments to actively work on an Environment Education* (EE) *component as a part of curriculum."* (IGNOU, Egyankosh, p 154).

Along with environmental sustainability, India also focuses on economic and social sustainability. Economic sustainability is a major part of Education for Sustainable Development. Economic sustainability development was discussed by the International Economic Development Council as *"The investment in business, social, built, and natural environments that create increasing prosperity for all, now and into the future." (IEDC, 2017, p. 2).* In India, several educational courses have been developed that educate learners about economic sustainability, how to build business organisations, and the economic infrastructure, without harming the environment and maintaining a sustainable future. Along with environmental and economic sustainability, the education for social sustainability is

also playing a significant role in India. The significance of society and the necessity of social sustainability are being reflected in the syllabi of various educational courses. The courses span primary to higher education, where learners learn multiple aspects of society and its sustainability. The courses help build a better society for the present and future generations and strengthen the concept of education for social development. Education for social sustainability mainly focuses on education propagation, poverty eradication, gender equality, caste equality, health awareness, rural development, the promotion of cultural diversity, economic growth, and sustainability, among other areas.

However, in India, the 'National Education Policy 2020' has shown a high priority to Education for Sustainable Development. The 'National Education Policy 2020' has become an integral part of the Indian education system. It has emerged as a guiding force for the Indian education system, with a range of new policies and directives. It serves as a modern vision for the Indian education system. The 'National Education Policy 2020' has shown a deep interest in Education for Sustainable Development, or education related to sustainable development. It tries to integrate various subjects related to sustainable development into the education process at multiple levels. It provides a deep focus on environmental education, education for social and economic sustainability, technical education, and education through modern media and technology. The article entitled *'Role of Education for Sustainable Development in India'* mentioned the integration of sustainability principles into the education system, as *"India's National Education Policy (NEP)2020 acknowledges the necessity of integrating sustainability principles into education at all levels and highlights the significance of schooling for sustainable development. The NEP contains many provisions to support sustainable development within education and recognizes it as an essential priority area for education." (Kaur,2023, p. 29).* Whereas in the book *'Interdisciplinary Approaches And Strategies For Sustainable Development'* Dr. Eknath Mundhe mentioned in the chapter *'Education for Sustainable Development in India'* about NEP 2020 and Education for Sustainable Development as *"The National Education Policy (NEP) 2020 in India emphasizes the importance of education for sustainable development and recognize the need to integrate sustainability principles across all level of education."* (Mundhe, 2023, p10).

Challenges of Education for Sustainable Development in India

In India, Education for Sustainable Development faces numerous challenges for various reasons. The challenges are creating a heavy negative impact on the propagation or promotion of Education for Sustainable

Development. Among these, a few essential challenges are a lack of resources, a lack of well-trained teachers, a lack of understanding of the concept, curriculum integration, socio-economic disparity, a lack of infrastructure development, digital divide, and knowledge gaps.

> *Lack of Educational Resources:* Educational resources are vital across all fields of education. In the propagation and promotion of Education for Sustainable Development, educational resources play a significant role. In India, the subject is new, and the government is trying to incorporate it into the education system. However, as the subject is new and multidisciplinary, educational resources are insufficient. The insufficiency of educational resources is emerging as a significant challenge for Education for Sustainable Development.

> *Lack of Well-Trained Teachers:* Teachers and professors are essential for the development of every educational field. They are highly necessary for the promotion and propagation of education. Education for Sustainable Development is a new concept that was recently incorporated into the education system, but in some cases, teachers and professors are not well-trained in the subject or its application in society, which poses a challenge to its implementation.

> *Lack of Understanding the Concept:* Education for Sustainable Development is a new, broad concept that encompasses both education and sustainable development. The subject is vast and multidisciplinary, with a complex structure that makes it difficult for some students, scholars, and teachers to understand. The phenomenon of lack of understanding is developing as a drawback that is narrowing the system of propagation of Education for Sustainable Development.

> *Curriculum Integration:* In India, it was documented that, in earlier days, the concept of Education for Sustainable Development was mainly associated with environmental studies or environmental education. The subject was not correctly integrated with the educational curriculum. It was presented as a significant issue to the new topic. Still, the New Education Policy 2020 of India has changed the system and has focused on SDG 4, especially on Education for Sustainable Development. The policies directed to integrate Education for Sustainable Development into the educational curriculum and to maintain practice for a sustainable society.

> *Socio-Economic Disparity:* Socio-economic disparity has been a significant issue in India since the early days. In the age of modernity, education systems remain affected by socio-economic disparities. It is also highly affecting in the propagation of the subject Education for Sustainable Development and becoming a significant challenge. Children of affluent families can easily enter schools, colleges, and universities and take courses in Education for Sustainable Development. In contrast, children from the economically weaker section, in several cases, failed to do so.

> *Lack of Infrastructural Development:* In the context of Education for Sustainable Development, the poor infrastructure of educational institutions poses a significant challenge. The school, college, university, or any other form of academic institution that has inadequate infrastructure, such as a few computers, a poor internet connection, a poor library, a lack of sufficient teachers, and improper classrooms, fails to provide enough facilities to student, which directly affect their education system and has a negative impact. These factors of less infrastructural development also influence the propagation and promotion of Education for Sustainable Development.

> *Digital Divide and Knowledge Gaps:* In the modern age, most work is done by digital technologies and internet facilities. Digital systems and the internet have also entered the education system. Most schools, colleges, and universities use new media systems or digital technologies to deliver information, instructions, and education. Digital media is also essential for the propagation of Education for Sustainable Development. Educational institutes deliver information, instruction, and study material related to Education for Sustainable Development through digital media. Students and scholars who can connect digitally may get information, instructions, or study materials directly from digital sources. In contrast, those who cannot access the digital technology may suffer and create knowledge gaps.

Roles of New Media in Education for Sustainable Development

The arrival of new media is seen as a blessing of technology to human civilization. The 21st Century has presented the new media as an essential medium which acts as an easy means to disseminate information and to communicate interactively across the globe. It is the latest form of media, characterized by interactivity. It has a broader domain and can be operated globally. New media is digital media and can perform multipurpose

tasks. New media has opened a vast space for education. Several websites with internet connectivity are providing various information and data to students and the general public. New media is allowing everyone to access and learn any information they choose and as needed. New media are making the teaching and learning process more interesting and enjoyable. In the article entitled *'New Media and the Development of Education Sector: Appraisal of Selected Schools'*, it was mentioned as: *"New media in learning is a means of collaboration and interactivity whereby teaching and learning could be interesting and fun-filled" (Udoudo and Ojo, 2016, p. 4)*. However, the role of new media in the advancement of Education for Sustainable Development is enormous and significant.

In India, the broader domain and multiple functional approaches of new media demonstrate their ability to perform various tasks. Along with its numerous functions, new media also support the progress of the concept of Education for Sustainable Development from multiple dimensions. New media are playing a significant role in the information-sharing and dissemination process through their vast network. It disseminates information about sustainable development and Education for Sustainable Development to the public and provides them with ample opportunities to understand the concept and its benefits. Along with information and data dissemination, it is also acting as a tool of communication and digital learning. New media has become a platform that delivers several online courses on environmental, economic, and social sustainable development, which students and scholars can easily access and participate in not only from India but also from across the globe. While dealing with the concept or the subject of Education for Sustainable Development, it has now proved to be an effective medium that engages a massive number of students from various parts of the globe. New media also helps scholars and researchers conduct multiple research projects on Education for Sustainable Development and provides them with Access to digital libraries for various purposes. The role and function of new media are significant, and it promotes the Indian programmes and courses on Education for Sustainable Development to reach a global platform. However, in India, the roles of new media in promoting the concept of Education for Sustainable Development are enormous and extraordinary.

❖ **New Media and the Information Dissemination on Education for Sustainable Development**

New media bring revolution in the field of information dissemination process as well as in the educational system. It plays a significant role in the information and data sharing process, and its impact on the education system is significant. It has helped shift the teaching and learning process from traditional to a modern approach. In the article *'New Media and the Development of Education Sector: Appraisal of Selected Schools'* it was mentioned as: *"New media bring the world closer to the learner faster than it would have been with the traditional method of learning. They make information available. They are easy and convenient ways of visiting the library through the use of an Internet-connected device" (Udoudo and Ojo, 2016, p. 4)*. India also gains the touch of modernity in the educational system.

However, in India, new media and internet facilities are accelerating the progress of Education for Sustainable Development. Several government and private organisations, educational institutes, and research organisations are now using various websites, blogs, and social media to present academic information on environmental, economic, and social sustainable development, which viewers can access at their convenience. In India, new media became an easy means to disseminate various messages related to the programmes of Education for Sustainable Development. Along with these, several e-books and e-journals provided viewers with information on multiple topics related to Education for Sustainable Development. The Government of India's Niti Aayog website presents an overview of the SDGs, along with a section called 'Education' that provides an overview of the role of education in environmental and socio-economic factors. The web portal of Niti Aayog also details various projects sponsored by the Government of India related to education based on sustainable development. The data and information delivered through new media are highly informative and beneficial for the citizen as well as for the progress of Education for Sustainable Development.

❖ **New Media and the Online Courses on the Educational for Sustainable Development**

New media are promoting the concept of Education for Sustainable Development from various dimensions. It is serving as a platform for multiple online courses related to Education for Sustainable Development. Along with interactive facilities, the new media develops as an excellent tool of communication and presentation, and it also reflects as a modern platform of education. In India, several governments and private organisations, educational institutes and research organisations are now using the new media platform for online classes related to various aspects of Education for Sustainable Development. Through their websites or web portals, they easily deliver lectures on various aspects of sustainable development, provide study materials, display research articles, etc., which target a vast range of students and scholars. Several online applications, such as Google Meet and Zoom, are also used by teachers for taking classes, giving

demonstrations, conducting online seminars and conferences, and meeting and discussing various issues related to ESD. National Programme on Technology Enhance Learning (NPTEL) a joint venture of IITs and IISc funded by Ministry of Education (MoE), Government of India collaborate with the another Government of India online platform called Swayam to enhance digital learning, promote online classes and to offer several online courses related to Education for Sustainable Development to encourage education as human right and a force to maintain sustainable development and peace. Centre for Environment Education (CEE) was established as a centre of excellence under the Ministry of Environment, Forest and Climate Change, Government of India, working in the field of environmental education and Education for Sustainable Development. They also launch Green Teacher Online Courses on ecological education. The online platform of education is not only used by India for environmental education or for the Education for Sustainable Development, internationally, the SDG Academy, the flagship education platform of the Sustainable Development Solution Network, which is a global initiative of the United Nations, also delivers online courses on multidisciplinary topics related to the 17 Sustainable Development Goals.

❖ **New Media and the Massive Student Engagement**

In India, governments and private educational institutions disseminate information on programme and course details through various forms of new media. The programmes related to Education for Sustainable Development also gain momentum with the use of new media, and it shows several advantages. One of the main advantages is that it engages a massive number of students from various parts of the nation as well as of the globe. It overcomes the problem of geographical boundaries and reaches scholars and researchers from far distant lands. The online virtual classes help the institutes to disseminate lectures and information on Education for Sustainable Development among a massive number of students, scholars, and researchers.

On the other hand, most students, scholars, and researchers prefer new media as an educational platform because it offers several benefits. The availability of computers, smart mobile phones, and the vast internet facilities make the new media more acceptable as a platform of education. Scholars and researchers can easily access lectures, study material, research article, graphical data, etc whenever they want according to their own preferences. They get all the details directly from the portals or the websites. The interactivity is another main reason why most of the students, scholars, and researchers prefer new media as a platform of Education for Sustainable Development. In case of any queries, they can directly interact with the teachers and

professors. New media bring revolution in the concept of digital literacy and the Education for Sustainable Development.

❖ **New Media and the Research on Education for Sustainable Development**

Research is a systematic, scientific way to search for evidence or knowledge necessary to conduct research in every branch of study or subject, to reveal the truth and to provide justification for facts. In the field of Education for Sustainable Development, research is playing a significant role, and the new media are supporting it in numerous ways. Several scholars and researchers are using various forms of new media to gather primary and secondary data on aspects of Education for Sustainable Development. The data enrich the research and help the researchers reach the target. Most websites provide researchers with extensive secondary data that they may use in research analysis or as a literature review.

In contrast, a few websites and web applications also help researchers conduct surveys and gather primary data. New media helps the researcher not only gather data and information but also disseminate their research conclusions or generalisations. These data and information are helping society in numerous ways and supporting the present development, and maintaining a sustainable future. The role of new media in research on Education for Sustainable Development is enormous. Several government organisations also publish their research on Education for Sustainable Development on their web portals for the benefit of society, scholars, and researchers. The government website of Niti Aayog presents various details of Sustainable Development Goal (SDG), it presents - overview, core function, partner, report, projects, etc. The State government of Assam on its website of Elementary Education detailed about Sustainable Development Goal (SDG), Education for Sustainable Development (ESD), and their roles in society. These data are highly beneficial for scholars and researchers researching the Sustainable Development Goals (SDGs) or Education for Sustainable Development (ESD).

❖ **New Media and the Digital Libraries**

The roles and functions of libraries in promoting the concept of sustainable development or Education for Sustainable Development are significant. In the article *'Towards the Sustainable Development Goal: Concept of Green Library and Green Information Literacy'*, the role of the library in promoting sustainable development was described as: *"In promotion of sustainable development, libraries play a vital role in accessing information without any dichotomy and discrimination."* *(Vyas and Kinjal , 2021, p. 675)*. However, new media help develop and promote technologically advanced

digital libraries full of diverse data, information, and knowledge. The emergence of new media and the internet has brought about extraordinary changes in reading culture. A digital library is a collection of data, books, magazines, valuable manuscripts, and other published material organized in an electronic format. It can be operated through various websites via the internet. Digital libraries vary in size and scope in several ways. Depending on the digital library's specification, a reader can collect books, magazines, or any valuable data. A digital library provides digital data that users can access from anywhere using internet access. Digital libraries also play a significant role in promoting sustainable development and Education for Sustainable Development. It disseminates several books, journals, and data on sustainable development across the environment, economics, and society to students, scholars, and researchers. It helps readers understand various topics related to sustainable development. It provides readers with a broad range of issues related to sustainable development, available from anywhere at any time without going to institutes or libraries. In India, the UNIC has initiated a digital library that serves as a repository of UN e-resources in digital format, providing various local information and publishing other major UN publications and reports. The digital library helps maintain a free and balanced flow of information and offers enormous data on environmental, economic, and social sustainable development.

❖ **New Media and the Education for Sustainable Development on the Global Platform**

New media is a digital medium that operates globally and provides a vast source of information and knowledge. In India, Education for Sustainable Development gains global prominence through the support of new media. It provides an international platform for various programmes and courses related to Education for Sustainable Development, organised by multiple Indian colleges, universities, and other institutes. These Indian educational institutes present to the world through their websites and social media what India thinks about sustainable development, how they plan to achieve the goals, how Education for Sustainable Development helps promote sustainable development in India, etc. They regularly upload various lectures, concepts, theories, philosophies, research, photographs, etc on their websites, which successfully reach a global audience. They present all the details through the online system and satisfy the viewers globally.

Along with the educational institutes, various government departments are also publishing multiple details related to sustainable development and Education for Sustainable Development on their websites and web portals, which are viewed not only by the Indian but also by the viewers from across the globe. Government websites and web portals present information to raise public awareness about sustainable development and the policies and schemes launched by India, on the one hand. At the same time, they aim to showcase and place Indian programmes on the global stage.

Conclusions

In India, Education for Sustainable Development has now become an integral part of the education system. It instructs society how to deal with the present circumstances and to secure the future. The Education for Sustainable Development is providing knowledge of sustainable development and pushing the students, scholars, and researchers to critically analyse the concept of sustainable development and its roles in society. However, it was revealed that new media play a significant role in Education for Sustainable Development. Unlike print media and electronic media such as radio and television, new media serve several functions in distinct and meaningful ways. The continuous propagation of information and data through new media is accelerating the field of Education for Sustainable Development. It successfully overcame geographical boundaries and disseminates various data and information related to several programmes, courses, theories, and study materials on sustainable development and Education for Sustainable Development. It provides scope for the Indian government and several Indian educational institutions to promote the concepts of sustainable development and Education for Sustainable Development, and to launch online programmes and courses. New media have been successful in attracting a large number of scholars and students who are excited about Education for Sustainable Development. New media helps advance digitalization within the concept of Education for Sustainable Development and provides a global platform. India is successfully educating its society about sustainable development through new media for enhancing its developmental activities without compromising the future. However, in India, the role of new media in the propagation of Education for Sustainable Development is enormous. In India, new media are acting as a blessing for the promotion and propagation of Education for Sustainable Development.

Further Research Scope

This article delineates the concepts of Education for Sustainable Development, environmental sustainability, social sustainability, and economic sustainability, and discusses the use of new media in advancing Education for Sustainable Development. However, it provides a wide scope for further research across various fields related to sustainable development, Education for Sustainable Development, and the use of new media in advancing Education for Sustainable Development, along with environmental, social, and economic sustainability. The article will also motivate the researcher to examine the behavioural changes of the learner arising from Education for Sustainable

Development and the participatory approaches that may develop as a result.

Conflict of Interest

The author has no conflict of interest related to funding or any other issues.

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