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AI: Way to Achieve Sustainable Development Goals

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ABSTRACT: Artificial intelligence is currently on the verge of completely transforming human civilization. It expands the boundaries of human potential and efficiency. Artificial intelligence cannot be viewed solely as a technological advancement. Rather, it is being seen as a crucial tool for bringing everyone together, enabling development, and expanding access to opportunities. The advancement of AI is currently being seen as a new hope for the sustainable development of human civilization. It is believed that innovations driven by artificial intelligence will make unprecedented contributions to achieving the seventeen sustainable development goals set for the well-being of human civilization. Achieving sustainable development goals requires a global consensus on how to develop and use artificial intelligence to benefit the planet, its people, and the entire human civilization. Artificial intelligence technology will provide unprecedented support in achieving all of the sustainable development goals set by 2030. The present research paper analyses all the possibilities which point to the fact that artificial intelligence is not only the technology of the present but also of the future through which the concept of human welfare through sustainable development can be strengthened and realized.

KEYWORDS: Artificial Intelligence, Human Civilization, Sustainable Development Goals, Technological Advancement.

I. INTRODUCTION

In September 2015, 17 sustainable development goals were established at the United Nations general assembly. During this general assembly, agenda 2030 was adopted, under the framework of which these seventeen sustainable development goals were set forth. The primary objective of these 17 sustainable development goals is to create, by the year 2030, a society in which no individual is left behind in the race for development. These 17 sustainable development goals are grounded in the concept of "sustainable development for all." In other words, the 17 sustainable development goals are based on the concept of "Ram Rajya" (an ideal state of governance). Their aim is to construct a society—indeed, a world—where every individual can integrate into the mainstream of development and advance toward sustainable progress. Human life on Earth has been placed at the very core of these 17 sustainable development goals. The target for achieving these 17 sustainable development goals has been set for the year 2030. Continuous efforts are currently underway to realize these 17 development goals. The present era is the era of artificial intelligence. Artificial Intelligence is constantly working to make human life simpler and of higher quality. In the current context, artificial intelligence is being viewed as a beacon of new hope for the attainment of the sustainable development goals. Scientists, researchers, and policymakers have begun to acknowledge that artificial intelligence could play a pivotal role in achieving these sustainable development objectives. Through diverse innovations and effective solutions, artificial intelligence has the potential to prove instrumental in fulfilling all the targets associated with the sustainable development goals. The utilization and significance of artificial intelligence are steadily increasing across various sectors, including education, healthcare, science, agriculture, energy, employment, governance, and security. The day is not far when human civilization, empowered by artificial intelligence, will successfully achieve the sustainable development goals and march forward toward a future of sustainable development.

II. METHODOLOGY

The research paper is based on the combined research approach both analytical and comprehensive. qualitative and quantitative data are used for analysis purpose. The sources of quantitative data include reports published by United Nations, human development reports published by UNDP, statistical data, policy documents, reports published by

UNESCO, UNICEF, published articles both online and offline etc. While qualitative data is collected from direct interaction and communication with focused groups. Observation, participation, empirical studies and autoethnography are also used to collect qualitative data.

Objectives

Certain objectives of the study are:

1. This study focuses upon the role of AI (Artificial Intelligence) in achieving the sustainable development goals (SDGs).
2. The study aims to understand the present situation of artificial intelligence and sustainable development goals.
3. The study also focuses upon the possibilities and challenges in the context of the role of AI in achieving sustainable development by 2030 as prescribed in the United Nations sustainable development summit held in New York in September 2015.

III. REVIEW OF LITERATURE

The 2030 agenda for sustainable development, adopted by all United Nations member states in 2015, provides a shared blueprint for peace and prosperity for people and the planet. 2015 was a landmark year for multilateralism and international policy shaping, with the adoption of several major agreements. In March 2015 Sendai Framework for disaster risk reduction was adopted. Addis Ababa Action Agenda on financing for development was formed in July 2015. The historical announcement of agenda 2030 came in existence in September, when 17 SDGs were adopted at the UN sustainable development summit in New York. Paris Agreement on climate change also took place in December, 2015. The study of SDGs is a point of prime attraction for researchers in 20th century. With the development and increasing involvement of AI in daily life researchers and policy makers are intended to study the role and potentialities of AI in achieving SDGs by 2030. Walia, A and Kaur, J studied the progress in achieving sustainable development goals in global context in 2020. Mukarram, M in 2020 analyzed the impact of COVID-19 on the achieving sustainable development goals. In 2024 Yadav, Preksha & Millán-Tudela, Luis & Marco-Lajara, Bartolome conducted a detail study on the role of AI in assessing and achieving the sustainable development goals. In 2025 Ozili, P.K. analyzed the role of artificial intelligence in achieving sustainable development goals. This research reveals the specific AI applications for each SDG. Purandare, Shraddha & Bhadange, in 2026 studied the relation between AI and SDGs and find out that AI is bridging the gap between technology, humanity and sustainability. This research finds out that AI is playing a major role in achieving SDGs. UN yearly reports on the development in achieving SDGs, analyze and reveal the latest situation of SDGs in present world scenario. The human development report and index also indicate the gaps in achieving the SDGs by 2030. The deep and analytical research in this direction helps the policy makers to calculate and evaluate the entire process towards achieving SDGs by 2030.

What is AI

The term "artificial intelligence" (AI) has gained popularity over the past few years. Artificial intelligence represents an artificial mind created by humans. Artificial intelligence is a branch of computer science. It is a process based on computers, mobile phones and the internet. Artificial intelligence enables machines to learn, to think, solve problems, and make decisions like humans. Artificial intelligence recognizes and interprets patterns using technical data and algorithms available on the internet. Artificial intelligence is a process that continuously improves and improves itself by learning from experience and work. Artificial intelligence is designed to mimic human intelligence. Just as we use our brains to perform various tasks, make decisions, and analyze, AI uses computers and the internet to perform these tasks. Artificial intelligence works similarly to the nervous system in the human body. The millions of neurons in the human brain, combined with the nervous system, store and process information. Similarly, artificial intelligence uses mathematical calculations to process information and solve complex problems using artificial neural networks, which are available through computers and the internet. The aim of AI is to create intelligent machines that can perform tasks that typically require human intelligence and brainpower, including reasoning, decision-making, and problem-solving. AI is a broad field that includes machine learning, deep learning, natural language processing (NLP), and computer vision. The scope of AI is vast. AI is currently being used not only to simplify human life but also to solve problems related to various aspects of human life and the environment. Artificial intelligence is being seen as a new hope for the sustainable development of human civilization.

The development of AI began in the 1950s, when Alan Turing introduced the concept of artificial intelligence in his paper "Computing Machinery and Intelligence." In it, he explored the possibility of machines thinking like humans. He laid the theoretical foundation, but the artificial intelligence we know today is the result of decades of innovation. The

term "artificial intelligence" was first used in 1956 by John McCarthy, also known as the father of artificial intelligence. He developed the first artificial intelligence program, naming it "Logic Theorist." In 1966, Joseph Weizenbaum invented the first chat bot, named "Elisa." In 1972, Japan created the first intelligent humanoid robot. In 1980, the first national conference on artificial intelligence was held at Stanford University. In 1997, the deep blue computer, designed by IBM, caused a sensation by defeating world chess champion Garry Kasparov. In the year 2002, artificial intelligence first developed a vacuum cleaner with artificial intelligence. Similarly, in 2012, Google developed a device called 'Google Now' which could provide information to users in the form of predictions. In the year 2014, a chat bot was developed which listened to people's problems and solved them. In the year 2022, Chat GPT created a stir in the world of artificial intelligence. By using Chat GPT, many human tasks and problems started getting solved easily. Currently, the best forms of AI like Google Gemini, Open AI and India's own AI module Sarvam have made their mark in the field of global artificial intelligence.

What are Sustainable Development Goals

The sustainable development goals, designed to advance the peace and prosperity of humankind on Earth, are the culmination of decades of work and effort. The Earth Summit held in Rio de Janeiro in June 1992 called for a global partnership to improve human life and protect the environment. The 2002 Johannesburg declaration and plan of implementation reaffirmed the global community's responsibility to eradicate poverty and protect the environment, placing greater emphasis on agenda 21. These efforts to achieve sustainable development culminated in the establishment of the 2030 agenda for sustainable development at the United Nations sustainable development summit held in New York in September 2015. This agenda was based on 17 points, known as the 17 Sustainable development goals (SDGs). These 17 sustainable development goals address the elimination of poverty and other deprivations, as well as improvements in health and education, reduction of inequality, strategies to promote economic growth, and addressing the challenges of climate change. These sustainable development goals are global goals. The responsibility of fulfilling these goals has been given to all countries of the world. It is also recognized that achieving the sustainable development goals is possible only through global efforts. It has been determined that these sustainable development goals should be fully achieved by 2030, ensuring a safe, peaceful, and prosperous future for humanity. In brief, the seventeen sustainable development goals are: No poverty, zero hunger, good health and well-being, quality education, gender equality, clean water and sanitation, affordable and clean energy, decent work and economic growth, industry, innovation and infrastructure, reduced inequality, sustainable urban and community development, responsible consumption and production, climate action, life below water, life on land, peace, justice and strong institutions, collective participation in achieving the goals.

How AI supports SDGs

According to John McCarthy, the pioneer of AI who coined the term artificial intelligence in 1956, said that "AI is the combination of computer science and engineering to create intelligent devices for human welfare." The primary objective of artificial intelligence is to empower machines to think and understand like humans, enabling them to serve human tasks and purposes. The primary objective of artificial intelligence is human well-being, and the sustainable development goals strive to move the human race in this direction. Artificial intelligence is working in almost all areas and aspects that are included in the sustainable development agenda. Efforts are being made to develop technologies in agriculture through the use of artificial intelligence that can increase food production while also addressing the adverse effects of climate change on agriculture. A prosperous and strong agricultural economy will lead to the elimination of poverty and hunger (sustainable development goals 1, 2). Artificial intelligence is also contributing to improving the quality of human life. Innovations and new research conducted through artificial intelligence are continuously striving to improve human life, health, and the standard of living. Continuous efforts are being made to provide clean water, clean air, and clean energy for human life (sustainable development goals 3, 6, and 7). With the development of artificial intelligence, technology has become equally accessible to all sections of society. Every segment of society, whether male or female, disabled or otherwise, is equally utilizing technology and progressing towards their development. Initiatives such as women's empowerment and welfare of the disabled have proven more effective through the use of artificial intelligence (sustainable development goals 5, 10). Artificial intelligence has made it possible to anticipate serious crises related to climate change and to strive for the sustainable development of life on land and in water (sustainable development goals 13, 14, and 15). Research, inventions, and innovations conducted through artificial intelligence can prove effective for sustainable economic growth, sustainable urban development, and community development (sustainable development goals 8, 11). AI is working for the SDGs in various manner like; the data interpretation, trend projections, anticipation of climate related changes, automation, resource optimization,

anticipation of challenges and risks in medical and health care, inventions for the betterment of human life etc. We can find a specific AI application for each section of SDGs.

IV. APPLICATION OF AI IN ACHIEVING SDGS

AI and Healthcare:

In recent years, there has been an unprecedented increase in the use of artificial intelligence in various fields. The healthcare sector is no exception. The application of AI has revolutionized traditional healthcare practices. Currently, unprecedented progress has been made through its application in disease diagnosis, drug development, patient care, and disease scanning and imaging. Diseases are now being identified with greater accuracy. AI can accurately analyse vast databases using machine learning algorithms. This accurate analysis enables better predictions in medical care. The use of AI in the fields of cardiology, oncology, neurology, pathology, etc. has promoted quality and accurate healthcare. Its use is not limited to disease diagnosis; its use in the field of medicine is also steadily increasing. Drug development is a long and slow process. The application of AI simplifies, and makes this process more accurate. The use of AI has reduced the time taken in the entire process of drug research, testing and its human application to such an extent that diagnosis of global epidemics has become possible in a very short time.

At the India Impact Summit 2026, the compendium on the real-world impact of AI in health, a report jointly released by the Ministry of Electronics and Information Technology, the World Health Organization (WHO), and the Indian Council of Medical Research (ICMR), presented 24 case studies. This report is being called India's medical manifesto. The report states that while large countries are drowning in debt by building medical infrastructure, India is sharing healthcare with AI. The use of Indian AI in cancer screening in Kenya and Rwanda demonstrates this fact. This demonstrates India's use of AI in the medical field. Kerala's "Nayanamritam" for diabetic retinopathy detection, "Leera" for TB diagnosis, HealthVaani and AI for brain CT scans, among others, have proven that AI is breaking new ground in the medical field. For those who have lost their ability to speak, an AI-based technology device, "ParaSpeak" has been developed. It is worn around the neck and recognizes and repeats a person's slurred speech. "Wavy" (Wearable Assistant for Your Vision) is being used to teach Braille, helping the blind learn Braille. Interestingly, AI tools used to screen for serious diseases have been shown to have accuracy exceeding 97% in the lab, but in real-world settings, this accuracy drops to around 85% in hospitals. In the Indian context, the lack of data on rare diseases and rural populations poses a significant challenge.

AI and Agriculture:

While global population growth is putting significant pressure on agricultural production, the agricultural sector is also facing challenges posed by the climate crisis and climate change. The agricultural sector is under immense pressure to maximize production. To address this, it is crucial to leverage innovative methods and technological advances in agriculture. The changing global conditions of today are jeopardizing our food production. Innovation in agriculture has become essential to address these challenges. The use of AI in agriculture is continuously increasing. Analyzing agricultural data through AI has revolutionized agricultural production, food supply, yield enhancement, crop optimization, crop combination, irrigation intensity, weather forecasting, crop mapping, and other areas. Furthermore, AI is also being used extensively for risk management in agriculture. Within the agricultural sector, the application of AI technology is continuously expanding across areas such as crop monitoring, pest and disease identification, precision irrigation, livestock monitoring, yield prediction, weed management, soil management, and weather forecasting. On July 10, 2025, Google launched the AMED API (Agriculture Monitoring and Event Detection – Application Programming Interface) as part of new open-source AI innovations aimed at empowering Indian agriculture. This tool is entirely AI-driven. Its primary function is to provide real-time monitoring of farms and crops across India. A key feature of this tool is that it is open-source, allowing anyone to use it free of charge. It utilizes satellite imagery to provide information regarding agricultural activities and crop conditions. Leveraging satellite-based technology, it offers insights into crop health, soil moisture, and weather patterns, thereby assisting farmers in making informed decisions. The 'Kisan e-Mitra' chatbot is another AI-powered tool; it provides farmers with information regarding the PM Kisan Samman Nidhi and various other government schemes. The Union Budget 2026-27 also proposes the introduction of the AI-based "Bharat Vistar" digital platform. This is an information network that leverages interconnected databases to facilitate decision-making and enhance efficiency for farmers. By aggregating databases from various platforms, it provides insights and actionable conclusions that can be utilized for the agricultural sector. The Agriculture Landscape Understanding (ALU) tool—a generative AI-based utility—is immensely beneficial for farmers, as it provides information regarding soil conditions, weather patterns, and climatic factors. Furthermore,

this AI tool offers recommendations on the optimal timing for sowing and harvesting operations, thereby contributing to an increase in crop production. The future agricultural landscape is poised to undergo a complete transformation through the deployment of AI-equipped drones, high-resolution satellite imagery of crops, AI sensors attached to dairy livestock, self-driving tractors, robotic harvesters, and similar technologies.

AI and Energy:

AI is also playing a crucial role in the development of sustainable energy and green energy. It is working in areas such as power theft, grid failure, renewable energy, and green energy management. It is believed that the precise use of AI can not only play a significant role in saving the planet but also establish a new dimension in the field of green energy. Smart grid analytics has made the use of solar and wind energy more efficient. Smart grid analytics eliminates uncertainty. This AI analyses millions of weather data points and predicts with 95% accuracy how much solar or wind energy will be generated in the next 24 hours. This ensures uninterrupted energy supply. Reactors monitored by AI-powered tools have increased biofuel production capacity by 18 to 27%. AI tools are also being used to prevent power loss and theft during power distribution, ensuring consistent and equitable distribution of electrical energy. For this, an indigenous tool called Pravah is being used which uses satellite imagery to determine how much electricity should be consumed in a particular area and sends an alert to the electricity department if the consumption is higher than the estimated one. India's energy demand is projected to double by the year 2030. To address this challenge, AI is emerging as a transformative tool. The application of AI is continuously expanding across various domains, including forecasting renewable energy generation, grid management, minimizing transmission losses, managing energy production and demand, deploying AI-based smart meters, real-time detection and prevention of energy theft, reducing carbon emissions, and facilitating the development of electric vehicles and charging networks. Through the application of AI—by enhancing energy availability, fostering innovation, and mitigating climate change—significant strides can be made toward achieving three key sustainable development goals: affordable and clean energy; industry, innovation, and infrastructure; and climate action. By utilizing specific algorithms, AI can forecast fluctuations in energy generation and demand, thereby enabling more efficient grid management. In a pilot project conducted in Gujarat, an AI-driven model successfully reduced the discrepancy between forecasted and actual solar energy generation by 30%, thereby facilitating the optimization of energy distribution. An AI technology known as ABB Ability Energy Forecasting is capable of providing accurate forecasts regarding energy consumption. Furthermore, AI-powered solar panels and wind turbines are capable of providing predictive forecasts for energy generation. AI is also making a significant contribution toward the decentralization of energy production. With the objective of promoting electric vehicles, AI is also functioning efficiently in managing power distribution to EV charging stations and regulating the load on the power grid.

AI and Environmental Conservation:

In the contemporary era, the crises posed by environmental degradation and climate change have emerged as grave, tangible problems. These crises are impacting us in every conceivable way. Addressing them necessitates proactive and forward-looking measures. In recent years, the application of AI has emerged as a powerful tool in the realms of environmental conservation and the fight against climate change. The primary objective of the India AI Impact Summit-2026—held from February 16 to 20, 2026, at Bharat Mandapam in New Delhi—was to assess the capabilities of AI in the field of sustainable development and to foster its wider adoption. Currently, the entire world is grappling with crises stemming from climate change. The adverse effects of environmental degradation and climate change are becoming evident on a massive scale. The utilization of AI is steadily increasing in the areas of forecasting the adverse impacts of climate change and mitigating their effects. The Ministry of Earth Sciences has deployed high-performance computing systems with a capacity of 22 petaflops to facilitate weather forecasting. These systems aid in the development of models capable of generating accurate weather predictions. Through an AI-based transformer neural network developed by Indian researchers, monsoon behaviour can now be predicted 18 days in advance. Furthermore, several AI-based models have been developed to accurately forecast data points related to climate change.

AI and Education:

In the field of education, the application of AI is not only significantly simplifying the teaching process but is also making the learning experience more personalized and interactive for both students and teachers. By analysing students' learning paces and styles, AI tools curate specialized educational content tailored to the specific needs of each individual student. Through AI, teachers receive assistance with lesson planning and assessments, thereby saving valuable time. Platforms such as AI chatbots provide students with round-the-clock support, offering them immediate feedback and guidance. AI platforms effectively serve as virtual tutors for both students and teachers. AI platforms like

Coursera, Carnegie Learning, and Century Tech adapt course content based on students' behaviour and performance. AI platforms such as ChatGPT have assumed a pivotal role in understanding human language and generating appropriate responses. Platforms like Brightspace Insights and IBM Watson Education prove invaluable for predicting students' classroom performance and identifying at-risk learners. Duolingo utilizes AI algorithms to customize language lessons based on a learner's performance and progress. The AI-based platform 'Noji' is particularly useful for acquiring new vocabulary.

The most significant benefit of utilizing AI in education is its capacity to provide personalized learning. Every child in a classroom is unique, possessing distinct learning styles, skill sets, and areas of weakness. This is precisely where the role of AI in education becomes paramount; through the use of AI, learning materials can be customized to suit the individual student. It is here that the realization of equal learning opportunities truly begins. For students with special needs, AI can generate lesson plans and educational materials specifically tailored to their individual requirements. Conversational AI systems also leverage speech recognition and text-to-speech technologies. AI tools extend equal learning opportunities to students situated hundreds of kilometres away from the classroom, while simultaneously providing 24×7 support. In a diverse country like India, the learning gap is a significant obstacle in education. AI has emerged as a powerful solution for remote areas. It has facilitated personalized learning for rural and remote students. A unique experiment involving AI has been conducted in government schools in Andhra Pradesh and Telangana. The AI-powered app "Nestam" is being used to teach coding, AI, and machine learning to students in grades three through nine, at a cost of only ₹500 per student per year. Similarly, the AI "Amira" is being used in government schools run by the municipal corporation of Delhi. This technology allows children to listen to pronunciations aloud and correct mistakes.

AI and Urban Planning:

India is steadily advancing on the path of economic growth and progress. In the near future, economic expansion is expected to trigger an unprecedented surge in the urban population. Given the challenges posed by this accelerating urbanization, it becomes imperative to focus on sustainable models of urban development; only then can the vision of a 'Developed India by 2047' be realized for every citizen. Artificial Intelligence (AI) is currently being leveraged in urban planning to transform cities into smarter, more sustainable, and more liveable spaces. AI holds the potential to play a pivotal role in addressing the multifaceted challenges arising from urbanization. Specifically, AI applications can be utilized for optimizing land use, zoning, traffic management, infrastructure development, utility services, and the identification of ecologically sensitive zones within cities. The primary objective of urban planning is to create cities that are both healthy and pleasant environments for human habitation. Unlike traditional master plans, urban planning strategies formulated through the application of AI are inherently flexible. These strategies not only address current requirements but also anticipate future challenges stemming from urban expansion, offering proactive solutions to mitigate them. AI-driven models analyse data related to population demographics and land use, thereby assisting planners in the effective management of housing and infrastructure. Furthermore, AI enables the more efficient analysis of satellite imagery, facilitating the monitoring of urban structures, housing density, and changes in green cover. AI provides diverse, integrated platforms where data pertaining to transportation, energy flows, and water systems can be analysed to formulate cohesive and coordinated plans. Digital twins- virtual replicas of real-world conditions offer planners the capability to test and evaluate various interventions and strategies prior to their actual implementation. Through the application of AI, real-time sensor data is being utilized to optimize traffic signal timings within cities, thereby enhancing overall traffic flow and efficiency. Additionally, AI is being deployed to manage energy consumption and maintain grid stability within urban environments. By analysing satellite imagery and land parcel data through AI-based platforms, it is possible to predict how land use will evolve over time. Planners can test various zoning scenarios to strike a balance between development and quality of life. AI can also be utilized to safeguard cities against the escalating threats of floods, fires, and landslides. Through the application of AI to analyse diverse datasets, risk maps can be generated to provide guidance for emergency management decision-making. Building Information Modelling (BIM) can be integrated with asset management systems to ensure that records remain up-to-date throughout the entire lifecycle of a project. Generative AI platforms analyse parameters such as sunlight, airflow, and circulation to provide customized design options for buildings and urban environments. Currently, AI is also being employed in the landscape design of cities.

AI platforms such as Archivinchi, Style Transfer AI modules, Virtual Staging, Inpainting AI modules, and Texture Mapping are contributing to enhanced communication, iteration, and evaluation within the fields of architecture and urban planning. In the future, AI-driven cities are expected to demonstrate superior outcomes through advanced data connectivity and automation. Urban systems will leverage robotics, analytics, and digital twins for the continuous

management of infrastructure. The application of AI in construction will lead to improvements in precision, safety, and scheduling within the urban context.

AI and Climate Change:

Artificial Intelligence is playing a significant and revolutionary role in addressing the emerging challenges resulting from climate change. By analysing vast datasets and generating forecasts, AI helps in environmental conservation by providing solutions to the challenges posed by climate change. AI plays a successful role in mitigating the impacts of climate change by operating primarily in areas such as climate and weather forecasting, energy efficiency and renewable energy, agriculture and afforestation, disaster management, and urban planning. AI-based satellite technology is being utilized to understand the impact of global warming on the melting of glaciers. This technology can map the vast glacial regions of Antarctica in less than one-hundredth of a second. This aids in understanding the rate at which glacial regions are melting as a consequence of global warming. AI based satellite imagery and ecological expertise are also being employed to map the climatic impacts of deforestation. In the Netherlands, an environmental organization named "The Ocean Cleanup" is utilizing AI-based technologies and data analytics to assist in clearing plastic pollution from the oceans. In São Paulo, Brazil, a company called Cipremo uses AI-based technology to predict where and when climate-related disasters will occur, and how they will impact the environment and climate. Eugenie.ai, based in California, USA, has developed an emissions tracking platform that integrates satellite imagery with data obtained from machinery and industrial processes. By utilizing the patterns derived from this analysed data, the platform assists companies in tracking and monitoring their emissions, thereby helping them reduce their carbon footprint by 20 to 30 percent. AI is playing a crucial role in weather forecasting and in preparing for natural disasters; the India Meteorological Department (IMD) employs AI-based Advanced Dvorak Technique (ADT) to forecast the intensity of oceanic cyclones. The Ministry of Earth Sciences has installed high-performance computing systems (supercomputers) with a massive capacity of 22 petaflops. These powerful computer systems aid in developing models capable of generating even more accurate weather forecasts. An indigenous AI-based landslide warning system, developed in India, now provides alerts as early as three hours before a landslide occurs, boasting an accuracy rate of over 90%. The "Indian Land Data Assimilation System," funded by ISRO, accurately predicts potential landslide and flood-prone areas. In collaboration with the Ministry of Panchayati Raj, the India Meteorological Department has launched an AI-based weather forecasting service at the Gram Panchayat (village council) level. This service covers nearly all Gram Panchayats across India and allows for the simultaneous utilization of multiple weather forecasting models. On May 27, 2025, the Government of India launched the "India Forecasting System", a weather forecasting model developed entirely within India. The Government of India is also developing an AI chatbot named "Mausam GPT," designed to provide farmers and the general public with information regarding climate and weather conditions. AI offers advanced surveillance and monitoring technologies for the conservation of forests, cameras installed in forest areas provide real-time footage. AI-driven solutions are proving instrumental in sectors such as renewable energy, eco-friendly agriculture, and disaster forecasting. These represent not merely technological achievements, but serve as indispensable tools for addressing climate-related challenges. India is demonstrating that AI can be a powerful weapon in the battle against climate change.

AI and Discrimination:

A life of dignity, free from discrimination, for all is a fundamental pillar of the sustainable development goals. Moreover, it constitutes a key sustainable development goal in its own right. A life free from discrimination is the right of every individual. Eliminating all forms of discrimination through AI is a critically important objective—one that requires a balance between technology and human values to be successfully achieved. All forms of discriminatory behaviour based on caste, gender, language, colour, economic status, and similar factors fall under the purview of discrimination. AI can prove to be instrumental in building a world that believes in a discrimination-free society and equitable justice. The most significant feature of AI is that it is a computer- and internet-based technology, equally accessible to everyone without any discrimination. AI is playing a pivotal role in eliminating all forms of discrimination prevalent in the fields of education, healthcare, and employment. The goal of a high-quality life for all can be achieved through the medium of AI.

Artificial Intelligence is emerging as a powerful tool for mitigating gender-based discrimination and fostering gender equality in the workplace. Currently, AI-based solutions are being rapidly adopted to reduce gender bias. Various AI-driven platforms are continuously working toward the goal of minimizing gender-based discrimination. Today, diverse AI-based hiring tools conduct "blind screenings" by removing information such as gender, names, and photographs from applicant profiles, thereby ensuring that candidates are evaluated based on their capabilities rather than their

gender. Similarly, "Nari Raksha" is an AI-based system that enhances women's safety and mitigates potential threats through the use of geospatial analysis and computer vision. "Yashoda AI" provides legal protection and assistance to women belonging to marginalized sections of society. Through this platform, women can gain access to digital literacy, digital safety resources, and legal remedies, thereby enabling them to protect themselves from violence. To support rural women, a platform named "HELPSTiR" is active in Maharashtra; it connects rural women with local NGOs and government welfare schemes. Tools such as "AtenaIA" offer young women and girls the opportunity to break traditional stereotypes by connecting them with mentors and role models in the STEM (Science, Technology, Engineering, and Mathematics) fields. However, AI platforms are now making equal opportunities available to women in these sectors as well. The India AI Impact Summit 2026 released a proposal on AI solutions for women's empowerment, highlighting 23 specific AI-driven initiatives across India. These solutions play a pivotal role in improving women's health, safety, and financial inclusion.

AI is assisting in the advancement of social justice and the provision of equal opportunities by identifying and eliminating caste-based discrimination and biases within society. In the future, AI has the potential to emerge as a powerful tool for eradicating such forms of discrimination entirely. Various AI-based tools help detect, mitigate, and ultimately eliminate caste-based biases that often surface during diverse hiring processes. This ensures that all sections of society receive equal opportunities in recruitment. AI-based tools focus exclusively on a candidate's skills, experience, and qualifications, rather than on their social background. Furthermore, various AI-driven content moderation tools identify and remove caste- and religion-based content from social media platforms. A platform named "IndiaCASA," developed by IIT Madras, measures discrimination based on caste and religion within AI models and assists in rectifying it. Developers of AI platforms utilize datasets specifically designed to dismantle stereotypical notions and social prejudices. Through the promotion of digital welfare, AI platforms ensure that opportunities are extended to those individuals who are truly deserving of them.

AI is also playing a significant role in mitigating discrimination based on economic status. Through various channels, AI assists in uplifting the poor and low-income segments by integrating them into the mainstream. NITI Aayog has recommended the 'Mission Digital Shram Setu' to identify workers in the informal sector. AI-powered platforms identify and verify these workers, ensuring that the benefits of government schemes reach them directly. Governments strive to ensure that AI tools remain impartial toward the poor and the working class, thereby reducing discrimination. Banks have now begun utilizing AI-based tools to extend credit to workers and the poor. These tools analyze data points such as electricity bill payments, mobile recharge patterns, and UPI transactions. This facilitates access to credit even for individuals who lack a formal CIBIL score. By imparting financial education and literacy, AI tools empower the poor and workers economically, enabling them to effectively counter discrimination rooted in financial and economic disparities.

AI and Quality of Life:

Artificial Intelligence is currently viewed as an integral part of our lives. In the modern era, it is impossible to imagine human life without AI. AI is not only making our daily lives easier but is also enhancing our quality of life. Various AI-based platforms are making significant contributions toward making human life simpler and more convenient. Through AI, continuous improvements are being witnessed across numerous sectors, including human health, education, skill development, daily living, agricultural productivity, time management, security, governance, disaster prediction, energy availability, and environmental protection. The application of AI in these fields has made human life better and safer than ever before. Due to diverse AI platforms, the accurate diagnosis of serious and incurable diseases has now become possible. In the medical field, the use of AI has not only increased average life expectancy but is also propelling human health to new heights. Virtual assistants for health advice and the development of new medications have revolutionized the medical sector. Through the application of AI, personalized learning has become a reality today, offering every learner the opportunity to acquire knowledge in a manner tailored to their specific capabilities and skills. Due to AI, education is no longer confined to the four walls of a classroom; rather, it has reached students residing in remote villages and hamlets across distant regions. Various AI chatbots are serving as smart assistants for people in their daily lives. The use of tools such as Meta AI, Siri, and Alexa is simplifying daily human routines. In the realms of navigation and traffic management, the application of AI facilitates significant savings in both time and fuel. The agricultural sector is undergoing continuous improvement through AI, leading to increased productivity and making it possible to ensure an adequate supply of food grains for a growing global population. Furthermore, the use of AI algorithms for weather forecasting and prediction has made agricultural operations significantly easier. AI has rendered every task automated and precise, thereby significantly minimizing the likelihood of errors in human life. Through capabilities

such as reading the human mind, facial detection, and high-resolution cameras, the safety and security of the general public have been further bolstered. Governments are now able to ascertain the potential benefits and drawbacks of various schemes through AI-driven analysis even before their actual implementation. Consequently, it has become possible to forecast the probable success of these initiatives. It is widely believed that in the near future, the application of AI will elevate the quality of human life to a level far beyond anything we have ever imagined.

V. LIMITATIONS AND CHALLENGES

The goal of achieving the sustainable development goals has been set for the year 2030. These goals were established during a conference organized by the United Nations in New York in September 2015, with the objective of fully realizing them by 2030. Analysis demonstrates that artificial intelligence is playing a powerful role in facilitating the achievement of these sustainable development goals by the target year. However, it is also true that the positive and negative aspects of any technology become apparent only after it has been put into continuous use. Similarly, the application of artificial intelligence presents its own set of limitations and challenges. In the context of developing nations like India, these limitations and challenges assume even greater significance. AI is a machine-learning-based software. Concurrently with the expanding use of AI, the fear of unemployment is also growing in the contemporary world. AI performs tasks with greater precision and quality than human labor. The increasing adoption of AI poses a significant threat of job displacement within traditional sectors. This directly impacts the eighth sustainable development goal: "Decent work and economic growth." AI is a software system that operates based on the data fed into it. If the input data is biased, the likelihood of various forms of discrimination arising increases. This affects three specific sustainable development goals: "Gender Equality," "Reduced Inequalities," and "Peace, Justice, and Strong Institutions." The deployment of AI requires access to vast quantities of personal data. The utilization of such large volumes of personal data heightens the risk of privacy violations. Furthermore, the use of AI platforms necessitates sophisticated technology and high-cost hardware. Currently, access to such advanced and expensive technological equipment remains largely confined to urban and developed regions. In reality, people residing in rural and low-income areas are currently lagging behind and remain unable to reap the benefits of AI-driven technologies. This exacerbates inequality and undermines a key objective of the sustainable development goals: "Reduced Inequalities." It is frequently observed and indeed felt that running and training AI models requires a substantial amount of energy. Excessive energy consumption and the emission of greenhouse gases constitute a significant drawback of AI technology. This adversely impacts "Climate Action," a key objective among the sustainable development goals. Currently, there is a dearth of infrastructure necessary to support the expansion of AI. Factors such as limited access to high-speed and adequate internet in rural areas, power shortages, and a scarcity of technical expertise and capital hinder the proliferation of AI technology. Furthermore, India faces a severe shortage of trained professionals capable of working on AI platforms, alongside a palpable scarcity of high-quality, sufficient data. At present, AI chatbots are universally accessible to everyone; individuals can obtain information or seek advice through AI chatbots from virtually anywhere. However, if an AI system makes an erroneous decision or provides incorrect advice, it remains unclear who should be held accountable. This directly impacts the goal of "Peace, Justice, and Strong Institutions." Moreover, the application of AI currently lacks a comprehensive legal and regulatory framework, thereby creating a risk of its irresponsible utilization.

VI. FUTURE DIRECTION

The Global South's first India AI Impact Summit 2026 was held in New Delhi on February 19-20, 2026. The primary objective of this summit was to explore the potential for ensuring that AI will become a crucial technology for future human well-being at the global level. This global summit charts a path to a future where AI serves human civilization, inclusively, and promotes development. The primary objective of developing artificial intelligence technology should be to promote social development and welfare-oriented innovations that can protect our planet Earth. The summit also aimed to consider the challenges facing us as a result of the rapid growth of AI. These challenges relate to job losses, increased energy consumption, and the use of AI for unfair and unethical purposes. The event was based on three fundamental pillars, called sutras. These three sutras outline how artificial intelligence can be used to achieve human well-being and sustainable development.

The first principle addresses 'people'. The concept behind this principle is that artificial intelligence will serve as a force for human progress. This principle emphasizes that artificial intelligence should remain focused on human

welfare while respecting cultural diversity. Artificial intelligence should maintain the concept of security, trust, and development for all within human civilization.

The second principle of this global summit is 'planet'. This second principle advocates global sustainable development. It states that artificial intelligence must minimize its resource footprint and adapt to issues such as climate change and environmental protection.

The third principle of this summit is 'Progress'. This principle ensures inclusive development and recognizes that artificial intelligence is an engine for inclusive development. It ensures that resources and facilities generated by artificial intelligence will be available to all social strata in equal proportion. To make the discussions at this summit more effective, inclusive, and purposeful, seven cycles were identified:

1. Human capital
2. Inclusion for social empowerment
3. Safe and trustworthy AI
4. Resilience, innovation, and efficiency
5. Science
6. Democratizing AI resources
7. AI for economic growth and social good

VII. CONCLUSION

In September 2015, 17 Sustainable development goals were established at the United Nations General Assembly. During this general assembly, Agenda 2030 was adopted, under the framework of which these seventeen sustainable development goals were set forth. These 17 sustainable development goals are grounded in the concept of "sustainable development for all." Artificial intelligence is currently on the verge of completely transforming human civilization. It expands the boundaries of human potential and efficiency. Artificial intelligence cannot be viewed solely as a technological advancement. Rather, it is being seen as a crucial tool for bringing everyone together, enabling development, and expanding access to opportunities. The advancement of AI is currently being seen as a new hope for the sustainable development of human civilization. It is believed that innovations driven by artificial intelligence will make unprecedented contributions to achieving the seventeen sustainable development goals set for the well-being of human civilization. AI is a machine learning-based technological system that utilizes vast databases. An AI system makes decisions and performs tasks based on the data provided to it. AI is a technology that inherently possesses the potential for continuous evolution. It is evident that AI is not a completely infallible or perfectly precise technology. This technology undergoes continuous self-improvement—a process driven by the data databases made available to it. Just as every issue has two sides, AI technology, too, presents two distinct facets. Its advantages and disadvantages—its positive and negative aspects—stand before us in equal measure. In the contemporary world, the application of AI across society and technology is steadily expanding. Human civilization's reliance on AI is on the rise. Consequently, it is imperative at this juncture that caution be exercised in its deployment. AI currently functions as a double-edged sword for human society and civilization. But in the last, it will not be a hyperbole to say that "the day is not far when human civilization, empowered by artificial intelligence, will successfully achieve the sustainable development goals and march forward toward a future of sustainable development."

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