



FUTURISTIC VISION OF ARTIFICIAL INTELLIGENCE IN DEVELOPING SUSTAINABLE LIFESTYLE PRACTICES AMONG SECONDARY SCHOOL STUDENTS IN INDIA

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Abstract:

Unfolding the concept of artificial intelligence (AI) and the impact on various fields astonishes mankind and leaves them spellbound with every new research. AI replaces human brain perfectly in collecting data, analysing them, storing information and processing them with reference to related topics of researches. AI can predict the delimitation of any new project and jot down all related problems the project may face in future. This futuristic approach can save us from many environmental disasters in future. Application of AI in the field of education sectors can bring magical change in future. Rapid technological advancement has led to massive pollution. Severe uncontrolled pollution, environmental issues like global warming, greenhouse effect, ozone hole formation etc and population explosion are becoming burning questions on the existence of mankind. It is high time to reduce our “carbon footprint” to save our species existence on mother earth. Otherwise, balance in ecosystem will be disrupted completely. So, we should encourage our next generation to follow sustainable lifestyle practices in order to maintain ecological balance of the environment. If we link AI with sustainability the world will become a perfect place for mankind. The present study was undertaken to identify the vast varieties of application of artificial intelligence in fulfilling the sustainable development goals. The study was designed in the mode of qualitative research. 260 secondary school students were given the questionnaire in the form of google form. Samples were selected on a random basis from the three districts of West Bengal. The tool used for the present study was a self-made standardised questionnaire with 20 open ended questions. The tool was standardized by various experts of Teacher Education field from various universities. The final data was analysed qualitatively by developing themes and by coding method. The result was interpreted as there are vast varieties of scopes for using artificial intelligence for achieving sustainable development goals and also encouraging students to follow the sustainable lifestyle practices in their real life.

Keywords- Sustainable lifestyle practices, Secondary School Students, Artificial Intelligence

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OPERATIONAL DEFINITION OF THE TERMS-

- Sustainable lifestyle practices- a lifestyle that uses the resources judiciously and does not over utilize it or pollute it, so that need of future generation is not compromised.
- Secondary School Students- The students studying in class IX and X.
- Artificial Intelligence- A computer system that can work like human brain and it can store and analyze huge amount of data.

INTRODUCTION-

Artificial Intelligence (AI) is the only solution that sustainable development will chalk out, execute, follow up and to plan the future of our mother earth and make sustainability more effective. AI can help us in increasing efficiency, use all the available resources sustainably and reduce the amount of garbage we produce in a day. Combining AI with sustainable development will help all industries to develop better planned projects which will be more sustainable.

Sustainable lifestyle practices are the only way out to utilize our current resources without compromising the need of the future generation. Pollution must be reduced by applying the smart tools and technologies that AI can suggest us for each specific geographical area and every field where pollution is maximum.

According to a research survey published in Nature, AI is capable of helping the world to achieve a huge percentage of the Sustainable Development Goals (SDGs). It can be easily interpreted that; this technology will become a key tool for enhancing a circular economy and building smart cities where people are aware of AI and sustainable development goals so that they use their resources efficiently.

REVIEW OF RELATED LITERATURE-

Carrigan, Marylyn, Moraes, Caroline, Leek, Sheena (2011) published a paper titled as “Fostering Responsible Communities: A Community Social Marketing Approach to Sustainable Living.” The researchers have done an extensive study and have done a qualitative analysis. They showed in their paper that socially responsible organizations can bring changes in the society toward more sustainable modes of living. In their paper the researchers cited an example of a “plastic-bag free” town, Modbury, where small farms influenced communities and the individuals to lead environmentally sustainable lifestyle

practices. Researchers concluded that consumption, social relations and norms are interlinked and these bring behavioural change towards sustainability.

Hobson, K. (2010) published a paper titled as “Competing Discourses of Sustainable Consumption: Does the ‘Rationalisation of Lifestyles’ make sense?” The researcher has done qualitative research. He identified that sustainable consumption is a key concept in the sustainable development paradigm. He stated in his paper that high-income countries should consider and take proper action on the environmental impacts of their household consumption practices. He also stated that sustainable consumption is part of an efficiency –focused rationalisation discourse which represents distinct theories of the environment, the state and the individual. The researcher has done an extensive study and suggested that politically dominant approaches cannot change the attitude of public. He interviewed a lot of people in UK. After analysing he concluded that social justice is the only mean to achieve sustainable consumption. He identified that ‘rationalisation of Lifestyle’ separate individuals from the project of sustainable consumption and hence makes a little sense.

Vinuesa, R., Azizpour, H. (2020) published a paper titled as “The role of artificial intelligence in achieving the Sustainable Development Goals”. In their paper the authors have used a consensus-based expert elicitation process, they found that AI can enable the accomplishment of 134 targets across all the goals, but it may also inhibit 59 targets. However, current research foci overlook important aspects. The fast development of AI needs to be supported by the necessary regulatory insight and oversight for AI-based technologies to enable sustainable development. Failure to do so could result in gaps in transparency, safety, and ethical standards.

Goralski, M.A., Tan, T. K. (2020) published a paper titled as “Artificial intelligence and sustainable development”. In their paper the authors highlighted that Artificial Intelligence (AI) has already created profound impacts on business and society. The researchers have done an extensive study and concluded that AI can significantly affect the work of advancing the Sustainable development goals (SDGs). The researchers have also mentioned that AI opened up a new frontier in the fields of business, corporate practices and governmental policy. Their study combines the

perspectives of business strategy and public policy to analyse the impacts of AI on sustainable development with a specific focus on the advancement of the SDGs. It also draws some lessons on managerial learning and leadership development for global sustainability.

Vaio, A.D., Escobar,O. (2020) published a paper titled as “Artificial intelligence and business models in the sustainable development goals perspective: A systematic literature review”. In the above-mentioned paper, the researchers investigated the literary corpus on the role of Artificial Intelligence (AI) in the construction of sustainable business models (SBMs). The paper provided a quantitative overview of the academic literature that constitutes the field. In the paper the researchers discussed about the relationships between AI and rapid developments in machine learning and sustainable development (SD). The paper highlighted the key contributions, which are: i) a comprehensive review of the key underlying relationship between AI and SBMs, offering a holistic view as needed, ii) identifying a research gap regarding KMS through AI, and iii) the implications of AI concerning SDG#12. Academic and managerial implications are also discussed regarding KMS in the SBMs, where the AI can represent the vehicle to meet the SDGs allowing for the identification of the cultural change required by enterprises to achieve sustainable goals. Thus, business companies, academic research practitioners, and state policy should focus on the further development of the use of AI in SBMs.

RESEARCH GAP-

- ❖ Most of the researches were conducted on teachers or teacher educators. There were very few studies where the sustainable lifestyle practices among secondary school students were examined and linked with Artificial intelligence (AI) in developing the list of scopes for applying AI.

OBJECTIVE- The objective of the present study is-

- ❖ To find out the views and opinions of secondary school students in identifying the various scope of application of AI in achieving sustainable development goals.

RESEARCH QUESTIONS-

- ❖ What are the views and opinions of secondary school students of certain districts of West Bengal of India about the scopes of applying

Artificial Intelligence to achieve the sustainable lifestyle practices?

RESEARCH METHODOLOGY- RESEARCH DESIGN-

The study was designed in the mode of qualitative research. Questionnaire was administered to the respondents. 260 secondary school students were given the questionnaire in the form of google form. Samples were selected on a random basis from the three districts of West Bengal. The tool used for the present study was a self-made standardised questionnaire with 20 open ended questions. The tool was standardized by various experts of Teacher Education field from various universities. The final data was analysed qualitatively by developing themes and by coding method.

POPULATION-

The population of the present study comprised of all the secondary school students studying in Kolkata district and its suburbs.

SAMPLE-

From the total population of secondary school students of Kolkata district and its suburbs, a sample of 260 students have been taken into consideration for this particular study.

DELIMITATION-

The study is delimited to the secondary students (class IX-X) of school. The study is delimited to Kolkata, North 24 Parganas and South 24 Parganas of State West Bengal of India.

DATA COLLECTION-

The researcher for the smooth conduct of research work distributed the questionnaire in the format of google form to the secondary school students of Kolkata, North 24 Parganas and South 24 Parganas of State West Bengal of India.

DATA ANALYSIS AND INTERPRETATION-

Qualitative analysis: From the present study after analysing the collected data qualitatively the following conclusions were made-

- ❖ In the field of traffic control if we apply the artificial intelligence then we can avoid the most polluted area. AI can analyse which type of vehicle will produce most amount of carbon monoxide and other harmful gases and can predict in which area pollution will be most. The concept will remain same as the traffic control with just slight difference that it will be according to the pollution level created by all the vehicles present in that area. So that people

- can avoid busy roads to avoid pollution and get an alternative road for safe travel.
- ❖ In the field of industry before we make an industry AI can predict what kind of pollution it can produce when it will be working. AI can also measure the level of pollution and the ways in which it will cause pollution. In this way we can take some pollution control measures before building up an industry in any specific area.
 - ❖ AI can also check the carbon footprint and it can list the possible reasons in a particular area. In this way we can predict the ways in which we can control the pollution specific for that region.
 - ❖ AI can also predict the climate change in a specific area by analysing all the available data records. We can take the necessary measures accordingly. AI can also come up with intelligent solutions to avoid any kind of devastating change in the nature in near future by analysing all the previous data available.
 - ❖ By analysing all the existing data records AI can predict in which zone what kind of non-conventional sources of energy can be used and in what amount it will be required.

For example, (1) In coastal zone of South India a greater number of windmills should be built to meet up the need of whole South Indian population.

(2) Himalayan range has a lot of rivers which flows with a high current. Hydel power plants can be built to reduce the dependency on non-renewable sources of energy for production of electricity.

(3) The areas must be selected where duration of day is more in a particular season and rainfall is less so that solar panel can be used to generate electricity.

- ❖ AI can predict the intensity of spreading the communicable diseases in different areas according to their population density and other hygiene related factors. Population related other problems can also be predicted, analyzed and solved by interference of artificial intelligence.

CONCLUSION-

From the above research survey, it can be concluded that Artificial Intelligence (AI) is an irreplaceable technology that can completely change the future of mankind in a sustainable way. Application of AI in various fields will reduce the pollution and find new ways to develop sustainable

methods to replace the existing. Sustainable lifestyle practices need the guidance of AI to establish new ways to cope up with the increasing pollution. AI will bring a change in day-to-day behaviour of people which will be towards achieving the goals of sustainable development. The young generation must be aware of utilizing AI in vast varieties of fields to ensure sustainability. AI and sustainable lifestyle practices together can build up a less polluting sustainable world which will become the best place to live for mankind.

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