Impact of Information Technology on Environmental Technology

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Technology and environment barely go hand in hand. But, it is crucial for both of these domains to meet in order to conduct a safe and healthy lifestyle. Sustainable development is the key to lead a bright future. No development shall come at the cost of our environment and earth. This is important to understand how, where and what are we doing wrong to have done such irrecoverable damage to the earth. We need to focus on such steps being taken today by various organizations, industrialists and revolutionaries to prevent tomorrow, and contribute to them.

Introduction:

Environmental technology often mentioned as "Envirotech", may be a practice by one or more of ecology, green chemistry, environmental monitoring, and electronic devices to watch , model and conserve the natural environment and resources to curb the negative impact of human involvement.

Today, we are being part of revolutions and developments in the IT sector. Currently, everyone is eyeing upon INDUSTRY 4.0 and how it will uplift the benchmark set by the human mind and machines. We are sure to see a highly advanced and digitized future. But, it is equally important to ponder upon what these expansions will do to our environment and planet. After all, we develop to live and leisure on this earth.

If conventionally seen, Information technology has had its own negative and positive impacts on the environment. Some positive impacts are:-

- Reduction in consumption of paper: use of WhatsApp, emails, videos, and pictures has replaced letters and papers. Hence, reduction in cutting of trees.

- Reduction in consumption of writing and printing inks: typing documents and storing it in drives ensures easy management and storage.

- Saving the fuel that was earlier used in transportation: just a click and internet connection is required to deliver your data to others. Satellites also help in communicating and regulating the earth and its environment.

Some negative impacts are:-

- Excessive heat generation: In the 21st century, almost everyone has a mobile phone, a laptop, etc. They generate so much heat altogether which can severely damage the earth's atmosphere.

- Use of natural resources in large amounts: Such large numbers of devices use excessive energy for their operation.

- Emission of greenhouse gases: Carbon dioxide is emitted from electronic devices.

- Global warming: A greater concentration of greenhouse gases in the environment causes global warming.

- Soil pollution: caused by the dumping of e-wastes like old computers in landfills.

Technology has negatively affected the environment by compromising human health and safety, endangering natural ecosystems and biodiversity, having a cumulative impact on global systems, and depleting natural resources.

But now, people have begun to realize the damage that technology has imposed on the world. So, sustainability has become the agenda for every movement and revolution. Technologists are thinking ways to carry out developments without hindering nature, and if possible compensate for the previous losses. One such example is Industry4.0. For now, it is estimated that Industry4.0 will be a sustainable revolution, meaning to meet today's needs without compromising with the needs of the future generation.

INDUSTRY 4.0 composes of Big data and analytics, simulation, autonomous robots, internet of services, cloud computing and much more. Professionals are trying to incorporate these to achieve sustainability. For example, a resource-friendly production can be achieved by using intelligent connections of individual objects (Internet of things), automatic start-stop systems to reduce the overall energy consumption by the company. Big data can aid transparency in terms of resources and energy consumption in production.

Technology is also assisting in several other ways to the environment and wildlife protection:-

- Artificial Intelligence: AI is being used to track wildlife. Endangered species like wild tigers and their habitats are being protected by it. As a result of habitat protection, various communities in that area, as well as carbon levels are being protected there.

- Thermal imaging: Thermal imaging camera systems are used to catch poachers and wildlife traffickers, and protect the wildlife.

- Drones +crowdsourcing: Global Forest Watch (GFW) is a monitoring and research system that contributes to forest and wildlife protection using crowdsourcing. This was developed by the World Research Institute. Drones also become eyes of the protector at night, to watch movements and several other issues.
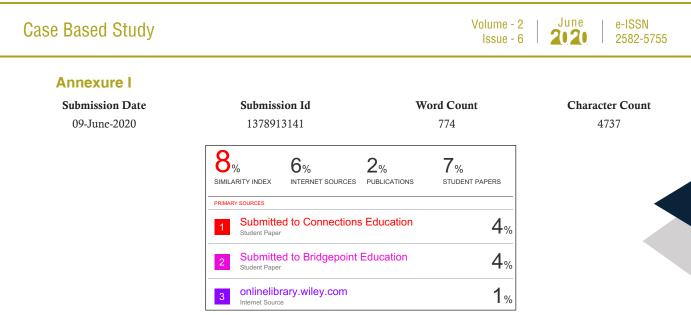
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Arushi Verma - a student, currently pursuing B.tech in Biotechnology (Amity University). I believe that cybernetics and the internet is like a ball of strings which acts like a mediator, and connects several disciplines of our society. As a result, we can all relate to each other better and help different people through our own knowledge.
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Case Based Study

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Annexure I

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Reviewers Comment

Reviewer's Comment 1: The article is well written and explained, and shows today's need to work on the environment with technology. Small approaches like Impact and industry 4.0 are very well explained.

Reviewer's Comment 2: The author tries to connect two extreme ends: technology and environment.The article brings out not only how technology is causing damage to the environment but also the use of technology for sustainable development is portrayed well.

Reviewer's Comment 3: The article brings out a new scope of study where technology can be a stool for sustainable development of an economy.

Editorial Excerpt

The article has 8% plagiarism which is an acceptable percentage for publication. The comments related to this manuscript are noticeable related to Impact of Information Technology on Environmental Technology both subject-wise and research-wise. Sustainable environment is the need of the hour. With explosive industrial development and technological changes, the environment cannot be ignored. It is necessary to understand how and where technology can assist in the protection of the environment and wildlife. It has been earmarked and finalized under the "**Case Based Study**" category.

Acknowledgement

Disclaimer

All views expressed in this article are my own. References for relevant sections can be cited for more understanding. I, as an author have cited my own work along with content from other referenced sources in this particular article. All contents are provided in good faith and make no representation Or warranty of any kind regarding validity and completeness of the content.

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