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Technologies Transforming the Life!

TECHNOLOGY has become an integral part of our lives. From the moment we wake up in the morning till we return to bed at night, we can count on varied examples of how technology has become an inseparable part of our activities. In every small and big task, we can easily see some technology involved to ease the task. Before the various technological advancements, life certainly presented various challenges. However, technological evolution has brought significant societal transformations over the years. Communication, space, transportation, agriculture, healthcare, education, etc., have all been impacted by technological developments, presenting digital transformation.

The recent past has well demonstrated India's prowess in technological advancements with some major accomplishments, such as the Chandryaan-2, Aditya-L1 and the upcoming Gaganyaan mission, along with investment in renewable energy, the rapidly evolving tech industry, etc. India is constantly pushing its boundaries and striding towards a culture of innovation, which could easily be witnessed by the remarkable achievements in different sectors and the surge of startups for capacity building that supports the ideas of entrepreneurs and innovators.

There are several Government missions, schemes, and initiatives that are transforming the country across multiple fields and driving socioeconomic development. To showcase the progress made in science and technology over the last decade, a compilation — *A Decade of Science & Technology Panorama for Aatmanirbhar Bharat*, was recently released. The report was prepared by the office of the Principal Scientific Advisor to the Govt of India in association with the Foundation of Advancing Science and Technology (FAST) India and twenty-two Line Ministries, Departments and Organisations.

India is rapidly emerging as a key player in the global tech arena, adopting life-changing technologies that are shaping the global technological landscape. Some of them include signing the Artemis Accord, which commits to sustainable and transparent space activities, the Semiconductor Mission, the Rollout of 5G in India, advancing in digital payments, Space explorations, the AI mission, and many more.

Since AI has become a transformative tool transforming the world in countless ways, a significant step to further strengthen India's AI ecosystem, the Cabinet has approved an allocation of over Rs 10,300 crore for the IndiaAI Mission. The funding will support various components of the mission, including vital initiatives like the IndiaAI Compute Capacity, IndiaAI Innovation Centre (IAIC), IndiaAI Datasets Platform, IndiaAI Application Development Initiative, IndiaAI FutureSkills, IndiaAI Startup Financing, and Safe & Trusted AI.

Emerging technologies are not only pushing the boundaries of innovation and development but also strengthening inclusive socioeconomic growth, sustainable development, and global competitiveness, positioning the country at the forefront of the digital age. Continuous investment in R&D, education, and infrastructure is crucial for unlocking these developments' full potential for society's benefit.

We are quite aware that the future of technology possesses numerous possibilities, which, however, come with some limitations, ethical issues, and societal implications that must be carefully explored. Besides, digital literacy, which helps individuals access information responsibly, effectively and securely, is another crucial aspect that needs to be addressed sincerely.

On National Technology Day 2024, a reminder of the need for inclusivity and accessibility in technological developments, *Science Reporter* has also attempted to touch on various aspects of technology with a cover story on "How AI is Transforming Education" and other interesting features.

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