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"A New Horizon for Indian Economy Development: Artificial Intelligence and Digitalization."

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Abstract:
Artificial Intelligence primarily reducesd many another folds of varid multitasking of humans. Thereby creating human life's additional simplified and jan-packed with resources to optimum utility. In day to day operations of each hu,am actvities AI reworking growth factor on overall all areas of life whether or not social or economy. From web to computer science and AI, rising technologies have given opportunities for social and economic transformation. Digitization has made possible emergence of technologies like social media, data analytics, artificial intelligence, Internet of Things, the process of urbanization is being digitized through initiatives like Smart Cities. The results of artificial intelligence and machine learning for India's development are tremenduosly affecting the decision maker's thinking because everything is changing, including how problems are solved and relationships at work. Advent of AI adoptation having a significant impact on India's populace, educational framework, businesses and adinistation.
Keywords: Artificial Intelligence (AI), Multitasking, Digital India, Technologies, Internet, Digitalization.

Introduction And Meaning Of Artifial Intelligence Which Opened Up The Roadmap Of Digitalization In India:

"Although artificial intelligence (AI) emerged within the Sixties, the packaging exceeded results. The term AI dates back to 1956 and belongs to a Stanford research worker, John McCarthy, who coined this term and outlined its key mission as a sub-field of computing. The thought of AI relies on the thought of building machines, capable of thinking, acting, and learning like humans. AI a branch of technology that aims to form intelligent machines (machine blessed with intellectual processes characteric of Human, like the flexibilty to reason, discover which means, generalize or learn from past experience)".[1] All machines are typically classified into two elementry group-applied & general. Applied machines are additional common and are the system designed to try to do specific tasks like showing intelligent merchantlism stocks and shares, or manoeuvre an autonomous vehicle hat Generalised AI's are less common systems or are the devices which might in theory handle any task.

"AI from the terribly introduction to still currently in any case the innovative analysis and development is dynamic crucially human life to the extent that while not AI nothing will be thought of in close to future. We are 24*7 surrounded through AI and its charming dimensions which have become indispensible presently. Ongoing digital revolution is redefining the pace of progress and gap infinite avenues to remodel society, culture and lifestyles. Smart and connected technology has become an integral a part of business, governments, and communities. IT revolution has given a fillip to the Indian economy and has been a major source of employment and revenue. The mobile revolution has led to the digitization of the life of common man. Passport, visa, railway bookings, withdrawal of cash all been digitized. Government services have been streamlined through Direct Benefit Transfer and the JAM trinity. Digital payments are now possible through apps like BHIM and Rupay debit card, e-sign has been introduced to facilitate digital signature. Common service centres, digital classrooms, and e-hospitals have enabled access to services in rural and remote areas. The Indian IT industry

[1] https://en.wikipedia.org/wiki/Artificial_intelligence

has grown from strength to strength and had becomes a 150+ billion dollar behemoth respected an envied globally".[2]

Review Of Literature:

Jacques Bughin, Eric Hazan, Sree Ramaswamy, Michael Chui, Tera Allas, Peter Dahlström, Nicolaus Henke, Monica Trench (2017), "Artificial Intelligence: The Next Digital Frontier?" discussion paper McKinsey&Company: Revealed "investment in artificial intelligence (AI), describe how it is being deployed by companies that have started to use these technologies across sectors, and aim to explore its potential to become a major business disrupter".[3]

Arindrajit Basu, Elonnai Hickok, Shweta Mohandas, Anamika Kundu Amber Sinha, Pranav M B, Vishnu Ramachandran, Saumyaa Naidu, (2018), "Artificial Intelligence in the Governance Sector in India", Working Draft, The Centre for Internet and Society, India: Examines "technological capacity and funding for AI in governance in India is coming from the private sector - a trend we expect will continue as the government engages in an increasing number of partnerships with both start-ups and large corporations alike. While there is considerable enthusiasm and desire by the government to develop AI-driven solutions in governance, including the release of two reports identifying the broad contours of India's AI strategy, this enthusiasm is yet to be underscored by adequate financial, infrastructural, and technological capacity".[4]

Srivastava, S. K. (2018), "By 2035, 12 wealthy countries' yearly economic growth rates are predicted to have doubled, according to this study. On the other hand, job losses are a possibility. According to the reports that are now available, job losses are predicted to total 47% in the US, 35% in the UK, 49% in Japan, 40% in Australia, and 54% in the EU over the course of the next 10 to 20 years. No nation can escape the effects of technological advancements in the globalised world. By having the required infrastructure and policies in place, benefits can be increased and losses can be reduced. India has not yet developed an AI policy, despite the fact that several other nations have already chosen their approach. This article examines the current situation on a global and national level and offers recommendations for India's future. The global and national adoption rates of artificial intelligence technology have been examined in the report. Although the technology has the potential to significantly boost economic growth, it is likely to have a negative impact on the job opportunity. Policy and regulations, research and development, technology development, and human resource development are all areas in which the government plays a significant part".[5]

Kusum Yadav, Amit Srivastava (2022), this research study reveals "various industries, including healthcare, agriculture, smart cities, manufacturing, energy, smart mobility, retail, education, and skill, could benefit from AI's effective push or incremental value. In India, a number of research centers have been established to improve both the understanding of AI and its application in the country. It has been observed that the Indian

[2] https://meity.gov.in/, https://niti.gov.in/, https://www.digitalindia.gov.in/

[3] Bughin, J., Hazan, E., Ramaswamy, S., Chui, M., Allas, T., Dahlstrom, P., ... & Trench, M. (2017). Artificial intelligence: The next digital frontier?.

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[5] Srivastava, S. K. (2018). Artificial Intelligence: way forward for India. *JISTEM-Journal of Information Systems and Technology Management*, *15*.

economy could benefit incrementally from the implementation of artificial intelligence in a more effective manner".[6]

Objectives of the Study:

1. To understand various initiatives taken by the Government of India for the development of Digitalization through adopting Artificial Intelligence.
2. To undertake analysis on Digital India Programme.

Methodology of the Study

For the purpose of the study various libraries visited and websites and reviewed.

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For the purpose of the study various libraries visited, websites and reviewed secondary data mainly.

"Digitization has made possible emergence of technologies like social media, data analytics, artificial intelligence, Internet of Things, Distributed Ledger Technologies (Block Chain), Internet of medical things (IOMT), 3-D printing, Industry 4.0 etc. Digitization is facilitating precision farming, data-driven farming decisions through use of Artificial intelligence an robotics. The process of urbanization is being digitized through initiatives like Smart Cities. NITI Aayog came up a National Strategy for AI in India a thirty policy recommendations to speculate in research project, encourages reskilling and coaching, accelerates the adoption of AI across the worth chains, and promotes ethics, privacy, and security in AI. However, Digitization has concomitantly effectuated considerable challenges like fake content, online frauds, and cyber-bullying. Responsible behavior clubbed with digital intelligence on the part of the organizations an citizens is what is required to ensure that the benefits of digital technologies outweigh the costs. Under Digital India Programme various initiatives have been undertaken towards providing digital identities, creating digital infrastructure, enabling digital delivery of services and promoting employment and entrepreneurial opportunities that have transformed India into a digitally empowered society while bringing significant change in the lives of citizens".[7]

The advent and journey of Government Initiatives Taken Under Digital India in graphical pictorial representation:

[6] Kusum Yadav, Amit Srivastava (2022). Artificial Intelligence in India: A Systematic review on its Potential and Challenges in India. *International Journal of Research Publication and Reviews, Vol 3, no 4, pp 1660-1663, April 2022.*

[7] https://meity.gov.in/, https://niti.gov.in/, https://www.digitalindia.gov.in/, https://www.mib.gov.in/

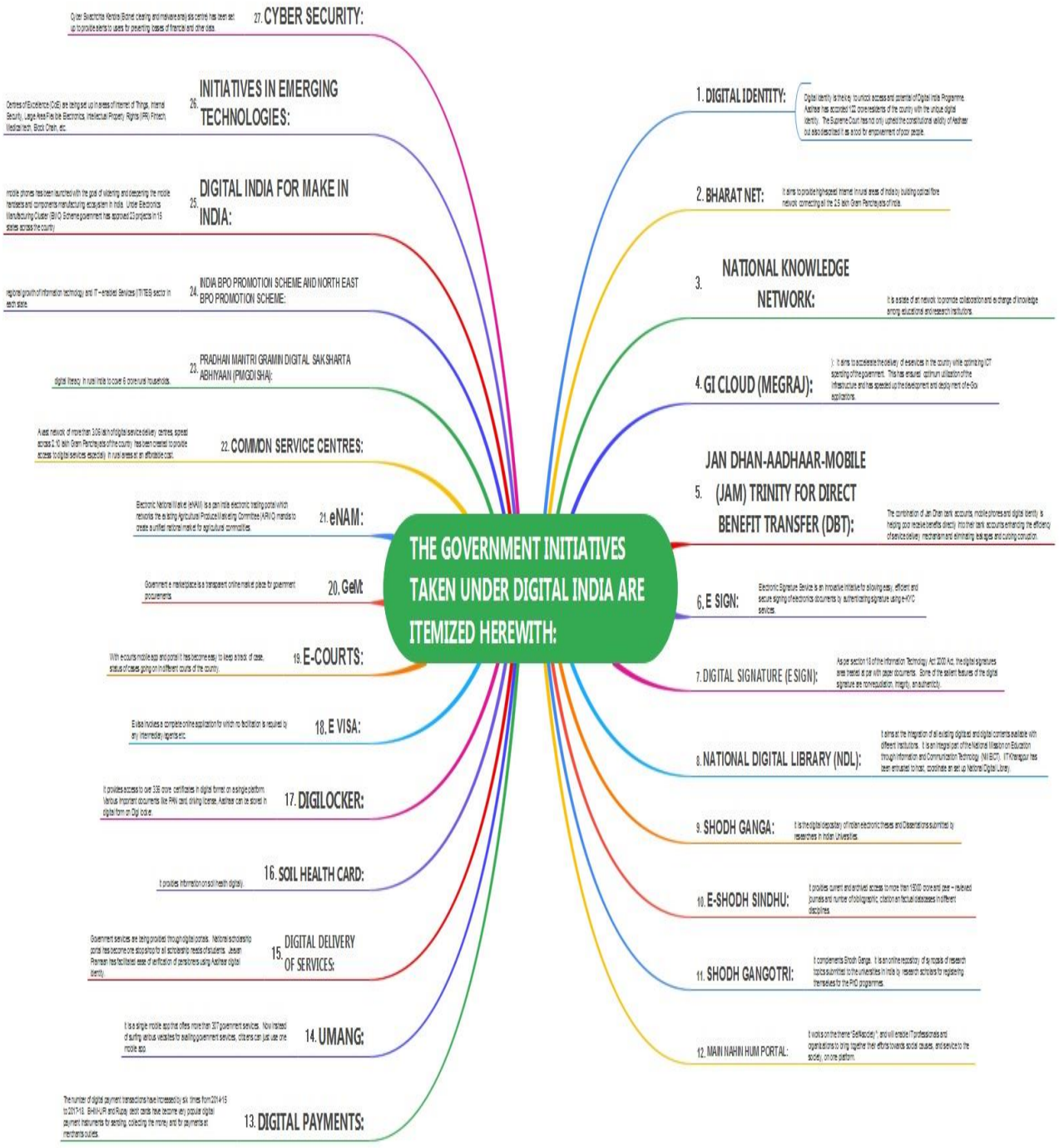

Figure-1.1: Pictoral Represntation Of Government Initiatives Taken Under Digital India[8]

[8]https://www.digitalindia.gov.in/,https://www.mib.gov.in/,https://niti.gov.in/,https://www.nic.in/,https://meity.gov.in/

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Table 1: RECENT INITIATIVES BY INDIA GOVERNMENT

FOR ARTIFICIAL INTELLIGENCE	FOR DIGITALIZATION
The NITI Aayog established the Atal Innovation Mission (AIM), which received financing of Rs 1,000 crore till 2019–20; Atal Tinkering Labs received Rs 12,00,000 for setup expenditures in the first year and Rs 2,00,000 in subsequent 4 years for maintenance and operational costs. Learning facilities for children in grades 6 to 12 so they can hone their abilities and become knowledgeable about cutting-edge technologies like artificial intelligence (AI). Atal Incubation Centres help start-ups that are incubatees in domains like artificial intelligence (AI), internet of things (IoT), cyber-security, and other new fields. These fields include manufacturing, transportation, energy, health, education, agriculture, water, and sanitation.	**Achievements Under the Digital India Programme, financial support of up to 1 lakh per seat in the form of viability gap funding for capital and operational costs was given to encourage the establishment of Business Process Outsourcing (BPO) and ITES businesses. 246 BPO/ITES units operating under IBPS and NEBPS have begun operations, covering 27 States/UTs, and are currently directly employing more than 51,584 people. State-specific information on the creation of BPO/ITES units and direct employment.**
Grants of up to Rs 1 crore are made available through the Atal New India Challenges and Atal Grand Challenges to assist innovation and scalability in the development of technologies and products in 24 designated industries. In the fields of technical expertise, innovation, and design, industry leaders are invited to guide and mentor students through the voluntary Mentor India program. Mentors are expected to spend 1-2 hours per week with the students for at least 40 academic weeks.	**One of the mission mode projects under the Digital India Programme is the Common Service Centres (CSC) Scheme. The Common Service Centres 2.0 Scheme would streamline service delivery using a cutting-edge technical foundation, making e-services, in particular G2C services, available to citizens throughout the nation.**

Source:https://indiaai.gov.in/missions/atal-innovation-mission, https://pib.gov.in/PressReleaseIframePage.aspx?PRID=1885962

Future Scope And Advantages Of The Study:

"The AI boom is yet to peak straighter to this AI based services will become a part of every person's work. Artificial Intelligence means that it will be less and less for me and will be in the interest of others. A lot will depend on how much it can change the world. Everyone and most of the employees and customers who will be using it. AI will spread and reiterate that only large companies will have to face competition. Its product company value is about 120 billion dollars. This technology has not reached anywhere near 11 million dollars. The valuation of the other company in the market has been estimated at $ 29 billion. But there are many companies whose value is more but maybe its around 271 billion, displayed.The key question is, are current AI innovations i.e. Large Linguistic Model (LLM) services like ChatGPT more akin to the Internet and the printing press, or more akin to social media? An AI service will be created for other purposes such companies are coker and we will have better way which is providing good services at less and prices when it comes to LLM then

there are first ones like google and us left address? Oopik's products are yet to come. AI effect of fundamental change Affects every part of the economy, as these changes are readily available on a wide scale across sectors. Money can be earned from Ally but it will be difficult to recover the full cost. The most successful entrepreneurs of Internet media have earned a lot of name and fame while making Internet was not an easy way to earn money even in the eyes of very big. For example, benefiting from the Facebook network effect. One want to stay in touch with own self and with his family. Moso can be an example of this. A link like Facebook and facing competition from major corners can be found in the market. Similarly, Keenhone (a free for self-powered social networking services) does not appear to provide such benefits. In an Interview - Meera Murati, Chief Technology Officer, OpenAI, the creator of **ChatGPT** (**Chat Generative Pre-trained Transformer** , the maker of the much talked about artificial intelligence (AI) chatbot ChatGPT, is very excited about the new technology. But she also advises caution. Indian-origin Murati talks to Time magazine's reporter on aspects such as Top biggest weakness, its ability and control of AI. We didn't expect such an outpouring of interest for our creation, says Murati. In fact we were reluctant to introduce ChatGPT earlier. Chat is primarily a chat circle. He is trained to give information about the next word. It has the same challenges with it as with any other language. This fact can be fabricated. Techno changes us, says OpenAI's motto about many specific warnings on the dangers of AI. We change it and come and give it. How to use The question is how do you use AI in such a way that it integrates with human values. Meera Murati on the question of involving the government in regulation leaving control of AI related activities to companies, Meera Murati Open AI and other companies should create public awareness on this issue The group of companies related to Open AI is very small, so there are others outside technology People should be included in the system. Of course it should have government and regulatory agencies. On the apprehension that the pace of innovation will slow down in the involvement of governments, Murati says that in view of the impact of technology in the future, there is a need to take everyone along. Intel and Co have gone further".[9]

India has joined the world race to become an AI powerhouse. AI has the potential to feature some USD one trillion by 2035. "India's digital prowess will grow in 2023 and over the next five years, driven by technology, start ups, semiconductors, electronics and computing, IT Minister Rajeev Chandrasekhar has said".[10] "In terms of technological advancements and funding for AI (Artificial Intelligence), India ranks sixth in the Global AI Vibrancy ranking. The industry is anticipated to reach $7.8 billion by 2025, marking the year of advanced technology and artificial intelligence".[11] "Globally, India ranks third, right behind China and therefore the America, in terms of penetration of AI skills. Regarding USD a hundred and fifty million is endowed in India's AI sector by non-public players; seventy percent of organizations in India developed build use of AI by 2020. Corporations in India are finance heavily within the AI area. Rising investments and deals in automation, AI, Machine Learning, and massive knowledge flourishing the start-up landscape within the country. Over half (58 percent) of the businesses that AI in India work on scale, on the far side pilot and take a look at comes – one in every of the very best within the world. Investment in AI start-ups in India has matured to USD seventy three million in 2017 from USD forty four million in 2016. India had the

[9]https://openai.com/blog/chatgpt/,https://www.google.com/,https://epaper.patrika.com/,
https://www.bhaskar.com/

[10] https://www.business-standard.com/article/economy-policy/digital-economy-poised-for-strong-2023-says-mos-it-rajeev-chandrasekhar-123010100429_1.html

[11]https://news.abplive.com/business/budget/budget-2023-artificial-intelligence-can-propel-indian-economy-to-greater-heights-1577665

third largest variety of AI start-ups among G-20 nations in 2016, growing at a CAGR of eighty six percent since 2011. Four hundred start-ups are acting on AI and Machine Learning domains".[12]

Challenges And Limitations Of The Study:

The perennial debate over the harms or negative externalities of technology has yet again resurfaced because of advancement in technology of intelligent machines, i.e., AI. However this wave of debate is different from the past because of the degree of independence that AI technologies have as compared to computers, software or even internet. The real worry regarding these technologies is that the stress on intelligence solely instead of different characteristics of groups of people. Moreover, the that means of intelligence in AI is related to superlative memory, shrewd power, decision-making capability, high speeds of action, etc. that itself is restrictive.

Conclusion:

The success of the utilization of AI in Digitalization depends mostly on the attitude and motivation of the Government. The technology may be weaponries to tilt the balance of power between the people and therefore the state in favour of the state during a bid to erode elementary civil liberties like the proper to Privacy or the liberty of Speech and Expression or be controlled as a tool that corrects entrenched general difference and empowers the unnoticed. The numerous initiatives taken by the govt. for Digitalization is quite considerable. Its little question as on date we'd not have, hundred percent Digitalization however initiatives taken will definitely offer the results sooner or later. But sooner or later the dream of digitalization backup by AI is feasible with the involvement of everybody. There is not only the responsibility of Government it's additionally duty of each literate national to participate within the movement. The approach the govt. adopts is crucial for the longer term of AI in today's advanced and dynamical socio-economic state of affairs. During this progression of the procedure, controls that could moderate or dispense with the recognized dangers, as proper to the organizations tasks are given. The objective of the prescribed controls is to lessen the degree of hazard to the IT framework and its information to an adequate level.

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