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A Study of Artificial Intelligence
With Special Reference of Digital India

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Introduction

Digitalization is the most trending technology these days, it's playing an influential role in the transformation of every sector. The government has started various initiatives to spread digitalize in India like digital; India campaign to provide service to their citizens in electronically mode for improve hooked up the digital infrastructure. India also increase internet service to transform the digital economy. In 2019 around 627 mn internet user benefit of this initiative. Artificial intelligence is one amongst these sectors in India which has many numbers of start-ups besides India is emerging because the hub for 'Digital Skills'' – Digital Innovation Hub.AI is emerging new factors of production, augmenting new factors of production. In recent times, the various sector has been attracting investments from global giants. It is simply the big pool of STEM talent, a solid foundation for the IT sector which is backed by economic support.

Ai in India Present Situation

- India ranked 3rd AI focused hub among the G 20 countries.
- AI is boost India growth rate by 1.3% point by 2035.
- Spends $1.6 bn annually on training workforce & employing 3.9 mn people

Statement of Problem

Digital business has hastened the internet in artificial intelligence. AI has a probable impact in their business and competitive outlook. The overall condition of the country in terms of digitization and technical instructive has not achieved its full potential. Most processes are still not digitized, and if they are, it is less ta appropriate, the demographic dividend, however, can be used to the advantage of the country and digitization of processed.

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Objectives of the Study

- To know the present scenario of AI in India
- To analyse various aspects of artificial intelligence and to reveal the necessity of adapting to make the digital economy.
- To study the focus area of AI innervations to promote digitalization in India.
- To study the government has built the AI task force to create strategies and advancement in various sectors.

Research Methodology

This paper is a descriptive in nature. The data collected from various government website, press release, articles and author books.

Significance of the Study

To study the advancement of IT moving towards the digital economy therefore in an advantageous position for quicker adoption of AI. Innovation Programs like digital India improve the various sector strategies and revolutionize through AI techniques. Without AI, digital India mission can't be achievable because its helping to collecting huge amount of data analysis, decision making and smart strategies for entrepreneur.

Limitation of the Study

This study covers only a few sector's adoptions of AI technology.

Scope of the Study

There is a long road ahead for AI technology in India. In the various field to applied AI technology will remain promising. There is vast opportunity for science students, engineers, etc in this area. Various short-term training programs are also offered by the top companies in the world.

Roadmap for AI by GOI

On 24th August 2017, A task force on AI for economic transformation was formed, inter-ministerial national AI mission perform as an agency of India which coordinating AI related activities. NITI aayog created a policy framework to created and develop the ecosystem for AI. MEIT Constituted four committee covering all aspects of AI:

- Committee on platform and data on AI.
- Committee on leveraging AI for identify national mission in key sector.
- Committee on mapping technology capacity, key policy, skilling, reskilling & R&D.

Agriculture

India has around 30 million farmers who own smart phones, which is expected to grow 3 times by 2020 and 315milion rural Indians will be using the internet by 2020[1]. Through digitalisation farming service can influence 70 million farmers in 2020,

adding USD (billion to farmers' incomes. these are not futuristic scenarios, in 2016, approximately 50 Indian agricultural, technology-based startups (Ag Tech) raise USD313 million.[2]

Ai can help achieve this vision by controlling to critical areas like:

- **Crop Selection**- AI-based solutions are ideal for crop selection as they take complex parameters like sol type, monsoon dates, availability and affordability of ideas, etc. useful to forecast crop price with help of the past data.

- **Crop Monitoring**- using techniques like IoT, drones, satellite imaging, etc, authentic data can be collected from the field, monitored and analysed by AI-based applications to identify the right solutions.

Healthcare

Healthcare is one in every of the foremost dynamic, yet challenging, sectors in India, and is predicted to grow to USD280 billion by 2020, at a CAGR of upwards to 16%, from the present-$ 6billionYet, it faces majors' challenges of quality, accessibility. and affordability [3]alargesection of the population:

- Shortage of qualified healthcare professional and services like qualified doctors, nurses, technicians, and infrastructure: As evidence in 0.76 doctors and 2.09 nurses per 1000 populations (as compared to WHO recommendations of 1 doctor and 2.5 nurses per 1000 population respectively) and 1.3 hospitals bed per 1000 population as compared to WHO counselled 3.5 hospital bed per 1000 population.[4]

- Non- uniform accessibility to healthcare across the country with physical access continuing to be the foremost barrier to both preventive and curative health services, and obtrusive between rural and urban.

    Application of AI in healthcare can help address issues of hight barriers to access to healthcare facilities, particularly in a rural area which can help:

  - Creating electronic health repositories with sufficient high-quality annotated healthcare data repositories with sufficient high- quality annotates health data or machine learning applications

  - Creating a national-scale clinical decision support system to enable better management of routine clinical decision by less-skilled provides

  - Creation self- learning systems in digital fields like radiology, pathology, and genomics, to enhance the long run of healthcare

Education & Skilling

In India, Education has faced several challenge like outdated pedagogies, lack of teaching resources, unequal access of education opportunity, expensive material and huge fees etc.

AI-based teaching addresses a lot of issues faced in classrooms like:

- Multi-grade and multi-level classrooms.
- Absence of interactive pedagogy and limited remedial instruction.
- Lacking of any policy or steps for drop outs students
- Large teacher vacancies due to uneven destruction across locations.
- Professional development courses /training doesn't cater to real needs and has poor coverage.
- Low adoption of existing technologies.

Through the AI application education can be implemented the following ways:

- Adjective learning tools for customized learning.
- Collaborating and inventive tutoring systems.
- Predictive tools to inform pre- emotive action for students predicted to drop out of school.
- Mechanical Rationalisation of Teacher.
- Customized professional development course access anytime at anywhere.

Environment

Pollution like Air pollution, water pollution, sanitation, etc are measure all contributors to environmental degradation and measure the first use of widespread disease impacting the sustenance in India:

- AI helps to control the pollution level of smoke, effluentsa solid waste released into the air, soil and water.
- Automatic technology of measure and forecast depletion of non-renewable natural resources, green land,and endangered species.
- Prediction of meteorological events such s cyclones, floods and natural disasters due to climate or other anthropogenic changes.

Smart Cities and Infrastructure

There has been constantly urbanization of people in India. while the share of the population living in city areas was envisioned to be 31% in 2011[5], recent research on satellite fact that is figure is close 45% today, and predicted to rise to 60% by 2050[6].

Smart cities attempt to address the challenges of urbanization through the development of feature based on IT solution, some of which are listed below:

- Amendment of urban planning.
- Advancement delivery of citizen services.
- Enhance public protection.

Some cases of AI that can augment the feature of smart city are given below:

- Smart parks and public facilities.
- Smart homes with advance technology.

- AI driven service delivery.
- Use of AI in proving effective solutions in crowd management in recent times has been in vogue and given expected results averting city-scale challenges like Ganpati Utsav, Dassera, etc.

Smart Mobility and Transportation

In India, both passenger and freight traffic are carried through roads and railways. As of 2007–08, roads and railways accounted for nearly 87% of total freight traffic within the country and almost 90% of total traffic as od modes of transport shall continue unless there are major shifts within the policy initiatives in the area.[7]

The Indian transportation sector faces several issues:

- Traffic block and road accidents.
- A Large number of traffic deaths.
- Inadequacy of public transportation facilities.
- Assisted vehicle technologies
- A Requirement for sustainable transportation
- Efficiencies in the design of green field infrastructure
  The following Applications of AI on the mobility front beyond autonomous cares:
- AI will facilitate increase safely and hauling efficiency through intelligent platooning, whereby trucks form platoons giving drivers the liberty to rest while the platoon keeps moving.
- AI, real-time dynamic call on traffic flows such as lane monitory and allocation right way to public transport vehicles like toll price, parking charges. etc.
- AI monitoring trains time and schedule, announcement, platform, tracks, etc.
- AI can help optimist parking, likely by minimizing vehicle down line and maximizing during the time. With the occurrence of electric vehicles.

National Security

National security requires that technology-based force multipliers be developed, some areas where AI-based systems could be usefully deployed are:

- Autonomous surveillance and combat systems
- Adaptive communication systems
- AI-based cyber-attack mitigation and counter-attack systems

Suggestions

- AI boost the development of sustainable solution at an appropriate price point for sectors which include health, education and d agriculture.
- Private sector and educational institution need to investment to get mor job opportunity and improve the infrastructure with amenities.

- Incentive wise creation of job in all fields that could constitute the new service industry.
- Creation of an open platform for learning and skilled program like MOOC'S.
- Enabling environment to be created for all sectors in the value chain.

Conclusion

We have to exceedingly collaborate domain and any framework geared towards promoting AI. It must be regulated accordingly, to make broadband affordable to Indian people and build digital economy need to integration of technology and to get the fruit of digital India initiative there should be efficient inter-governmental coordination and active participation of all the citizens then we will be able to convert the dream of digitalization economic with smart citizens. The contribution of AI in country is necessary to make digitally empowerment in the field of technology.

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