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Media and Digital Literacy: A Speculative Study on the Significant role of ICT and Digital tools in English Language Teaching

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Abstract: Swami Vivekananda once said, 'We want that education, by which character is formed, strength of mind is increased, intellect is expanded and by which one can stand on one's on feet,' that will eventually cause about 'the manifestation of perfection already in man'. Therefore, Education should be the foundation of creative growth and productive energy that will lead the humans toward excellence. Roughly, with the initiation of searching through world wide web or www since 1980s, the creative literary world has witnessed a massive change through its connectivity with the larger and peripheral world which was quite unimaginable with realistic cognizance. The previous educational system which existed in the colonial era, the chief productive role of it was to create translating clerks. Even, much after Independence, there was dismissive outlook on using computers and digitally activated machines for official and educational spheres as it might reduce the number of employees increasing unemployment, depression and destitution amidst a large number of populations. Eventually, there was no escape. In today's world, beginning from Education to medicines, scientific researches to liberal arts and humanities, Govt. and private sectors to common entrepreneurs- everything is controlled digitally. English is the most accepted official language in the larger parts of India, therefore, apart from knowledge and expertise in vernacular language; fluency and proficiency in English, both orally and in written form, has become the urgent need of the hour. Classroom teaching has gone through a massive change due to the sudden outbreak of Covid-19 since the beginning of 2020 in India; where the offline system shifted to online platforms with several benefits and challenges that carried on almost for two whole years in different parts of India. Taking cue from that incident, this paper, therefore will discuss the important roles of AI, the most celebrated digital tool that can cause about phenomenal change in teaching learning process with a miraculous pace.

Keywords: Artificial intelligence, digital wave, hacking, multimedia, plagiarism etc.

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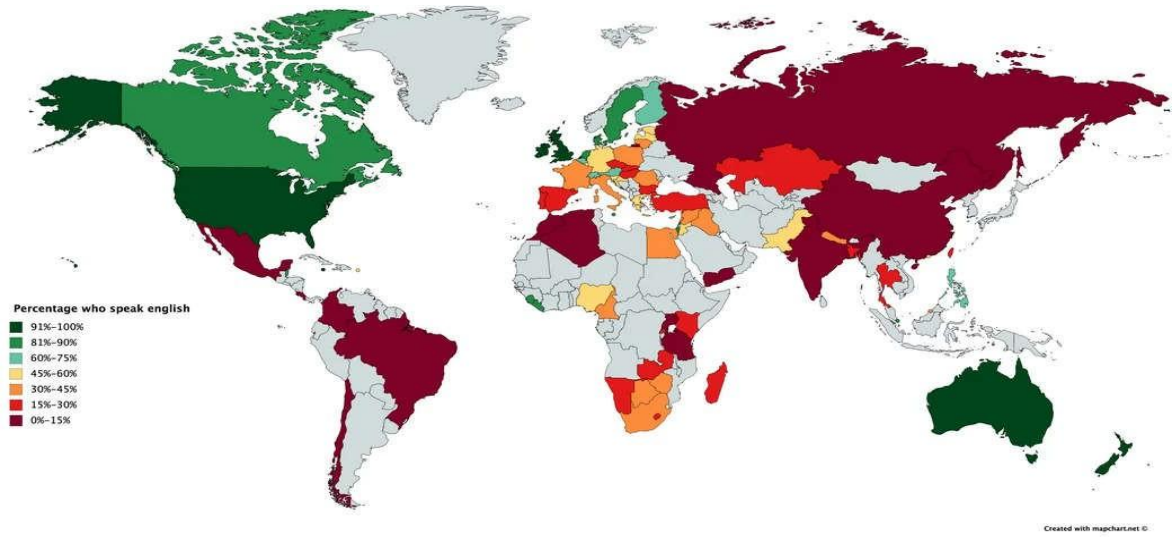
- **Introducing English in India: The Historical scenario in Miniature:**

The introduction of English in India was initiated in the first place, not as a literature but as a language of communication of the British traders who eventually turned to be the rulers of the undivided India. The British East India company primarily considered this land as a repository of vast resources that can be lucrative enough for trading, marketing and settling colony to gain a large number of socio-economic benefits. After the fall of Siraj in the battle of Plassey (20th June, 1757), with Lord Clive was appointed as the Governor of Bengal and secured 'Dewani' in 1765 regarding the collection of revenue from Bengal, the supremacy of the British raj proved to be having a stronger hold. To trade more, they needed English translator type machines, or to be more specific, English-speaking clerks belonging to native India, whose knowledge and role will be limited to clerical positions only. Therefore, Macaulay, in 1835, in his 'Minutes' declares that:

> We must at present do our best to form a class who may be interpreters between us and the millions whom we govern, a class of persons Indian in blood and colour, but English in tastes, in opinions, in morals and in intellect. To that class we may leave it to refine the vernacular dialects of the country, to enrich those dialects with terms of science borrowed from the Western nomenclature, and to render them by degrees fit vehicles for conveying knowledge to the great mass of the population.

As a consequence of this 'Minute' along with the active efforts of Raja Rammohan Roy and Warren Hastings, English started growing as the 'lingua franca' all over the country. In 1857, Universities for higher education in English was established in Kolkata, Mumbai and Chennai; and in Decca in 1920. Indian University Act was passed in 1904 to implement a few training programs for academic and administrative purposes; whereas it played an important role in Indian freedom fighting movement by being the language of political resurgence. Even after the departure of the British rulers, English keeps on being the language of the courtroom and official sectors, and eventually becomes the most effective global language connecting us to the developed and developing countries of the other continents. In the twentieth century, with the boom of IT industry with huge development in science and technology, English has got a royal attribute as it also becomes the connecting language for the economists and business class people contributing in income tax and GDP. Wikipedia says, 'According to the 2011 Census, 129 million Indians (10.6%) spoke English. 259,678 (0.02%) Indians spoke English as their first language. It concluded that approximately 83 million Indians (6.8%) reported English as

their second language, and 46 million (3.8%) reported it as their third language, making English the second-most spoken language in India' (https://en.wikipedia.org/wiki/Indian_English)



Percentage of people who speak English by country, Source: Google image

From the above picture we can see, English is used as a language of speaking, writing and communication almost worldwide. Among the projected world population of 8,019,876,189 (Google report: Jan. 1, 2024), more than 1.5 billion people worldwide use English language either as their first or second language for communication. The increasing demand to transform the microcosmic earth into the miniscule cosy comfort of the drawing room with the connectivity of internet and digital tools, media and channels, satellite and smart gadgets makes us more dependent on this language.

- **Media and digital tools applied in Education:**

To talk about Multimedia and its generic use of pedagogy, Prof. Meghna Kambley has said:

> What Is Multimedia? Multimedia is a melody sung in harmony with multi-channel and multimodal bits of knowledge and creation…Multimedia facilitates mastering basic skills of a student by means of drill and practice. It helps in problem solving by means of learning by doing, understanding abstract concepts, provide enhanced access for teachers and students in remote locations, facilitate individualized and cooperative learning, helps in management and administration of classroom activities and learning content, and simulate real life problem handling environments. Multimedia Technology is used and experimented by various educational institutions of all levels all over the world in their own designed mode.

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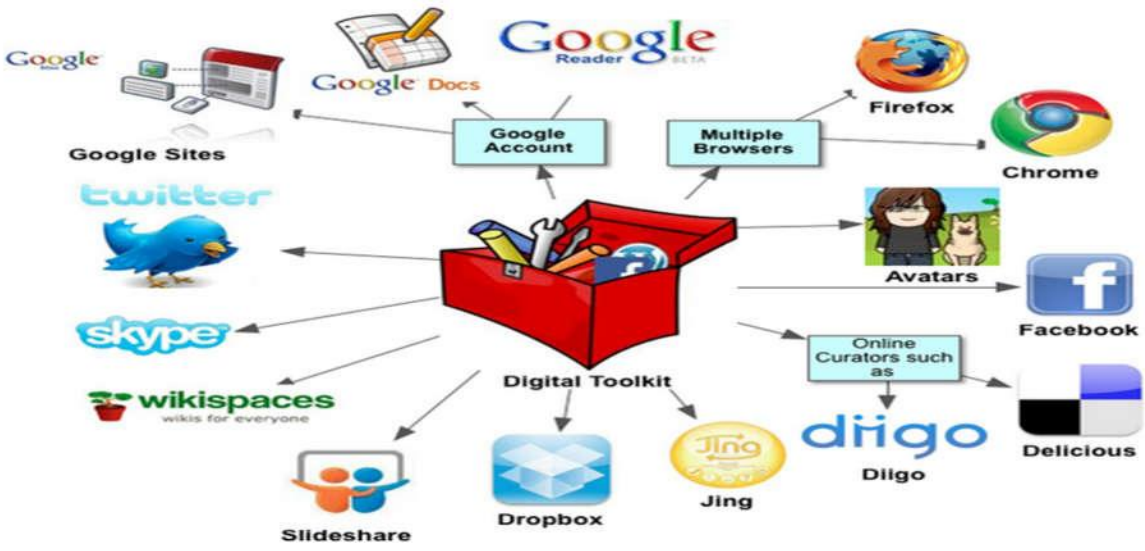
In the contemporary age of digital media and electronic tools, orthodox system of classroom education has gone through a massive change. E-books, email, chat, video conference call, access to online libraries, smartboard, simulations, slideshows in form of PPT and live streaming of video lectures in the platforms like Zoom, Google Meet, Microsoft Teams, Seesaw, Webex and many others, have changed the conventional two-way exchanges of the teaching learning method. Usefulness of smart gadgets like mobile phone, tablet or computer can hardly be denied during the Pandemic and the post Pandemic period where the online system had to reign over the traditional methods to sustain teaching learning process in various part of this country.



Some digital tools used every day. Source: Google image

Now a days, the role of the teacher as facilitator or educator has decreased a lot because students have got the free access of the vast repository of knowledge of their specific need through various journal articles available on internet. Traditionally, it was quite difficult to bestow knowledge to all the advanced and slow learners in class simultaneously; whereas digital tools have not only made the compression easy but as the save time it caters to holistic and heuristic achievement.

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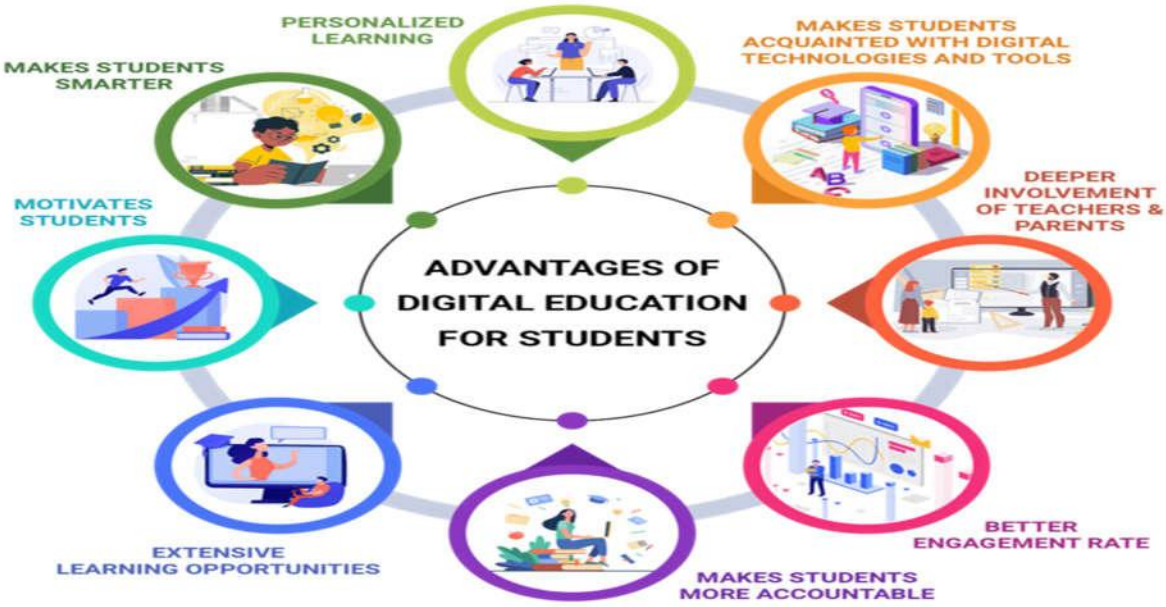

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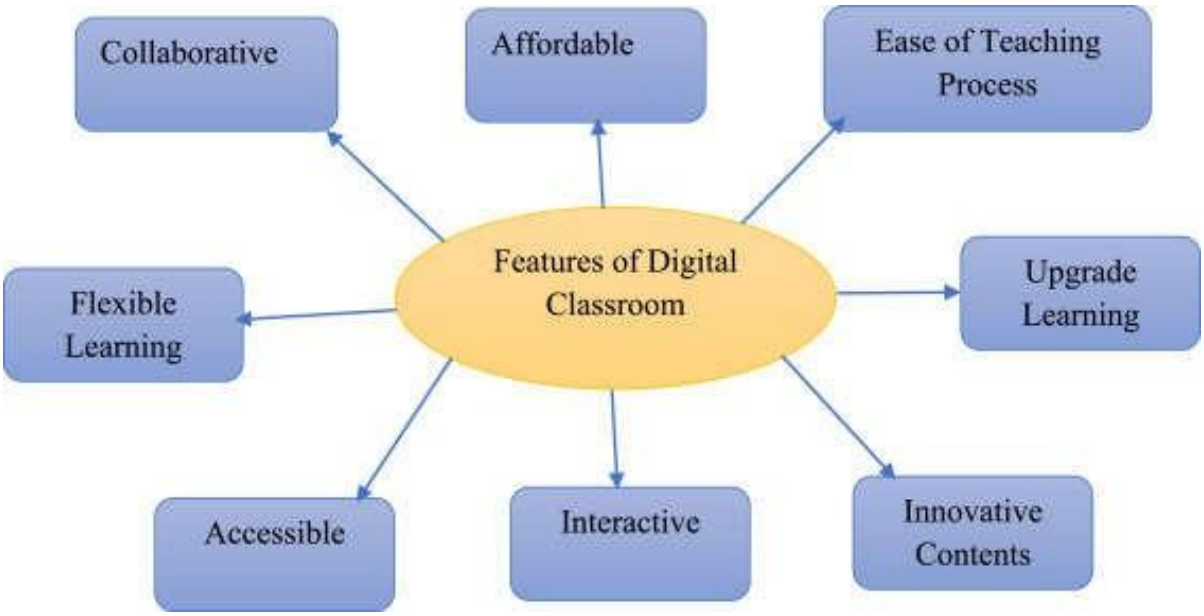
To use a common example in the English classroom, using fat voluminous dictionary has been already replaced with typing any word on internet and getting answer withing less that a second along with the details of its synonyms, antonyms and usage in diverse situations. Even the social media platforms like Facebook, You Tube, Instagram, Twitter, Vimeo are very much used to exhibit the creative achievements of people from different countries, voicing arguments and protesting against the unlawful cases and create media literacy. But at the same time, there can be found blind attraction towards controversial contents that makes the youth ignore their studies, or deviating from their actual path by getting addicted to digital media. Yet, there are certain tools like Edmodo (that facilitates collaborate learning material preparation), Socrative (used for making educational games or exercises), Projeqt (used for creating multimedia presentations or slides), cK-12(for books and materials), ClassDojo (for improving behavioral pattern of the learners), Animoto (for creating animation and videos), Quizlet (a study tool that helps to create quiz and study materials), Nearpod (in interactive platform that gives real time data of students' progress) and Kahoot (for preparing questionnaire) have extremely helped the students and the teachers to make their analysis contented and admissible. MOOCS or Massive Open Online Courses offers a unique, versatile platform where free online courses are available for, teachers, students, educators and trainees to learn new skills for the advancement of career and wholistic learning through e-learning modes. Some other tools like Google drive, that works as storing the data downloaded from different websites, Padlet, that is more likely work as a virtual bulletin board for sharing information and resources, and Duolingo, that is

extremely helpful for learning different language with proper accent, tone and intonation deserve high attributes from both the teaching learning faculties of the country.

- **ICT enabled digital classroom and its impact on English Language Learners:**

Traditional classroom which used to be polarized under the provinciality of the teacher as an administrator lecturing through chalk-talk method, has been replaced when students' centric learning became the primary motto of Mudaliar Commission, 1952-53. This became more practical with the introduction of Kothari Commission (1964-66) that primarily was concerned about the technological advancement in education with an aspiration towards literacy for all grouping between ages 6 to 14. This technological advancement took further upliftment with various changes and amendments in NPE 1986, POA 1992 and Knowledge Commission 2005 and NEP 2020. Application of English as a foreign language to recommendation of English as the target language in various parts of India owes a lot to the tools and techniques of ICT. ICT enabled classroom has not only expanded the accessibility and affordability of materials but also provide uniform, organized and personalized materials according to the needs of the students.



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Digital tools in ICT like Learning Management Systems (LMS) not only tracks the progress of the students but also help to run a personalized and customized course content for the learners. Quiz and language games enhances vocabulary, increases fluency and accuracy of pronunciation through Speechling, Forvo and Pronunciation Pro. Learning from different

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hemisphere can collaborate through Microsoft Teams, Trello and the simulation of VR and AR can give a more enhanced feel of sensitization. Online libraries like BBC learning English, British Council learn English, TED Talks and many others offer them numerous sources and they can also correct themselves with Grammerly, Ginger and ProWritingAid before final submission to the teacher. The use of Google classroom has now a days become part and parcel of the contemporary teaching learning process where the teachers upload study materials, share video lectures and Power Point Presentations, give assignments and projects and also grade them adequately by making this process more engaging and effective. According to a report in 2020, *The Hindu* says, over 80 percent of students in India depends on mobile phones and different apps for learning rather than using textbooks; though a 2019-2020 report says that only 22.3 percent of schools have internet connections in India and more than 60 percent of schools in our country does not even have a computer to run. Herein lies the drive for private schooling with higher fees and better infrastructure.

Source: Google image

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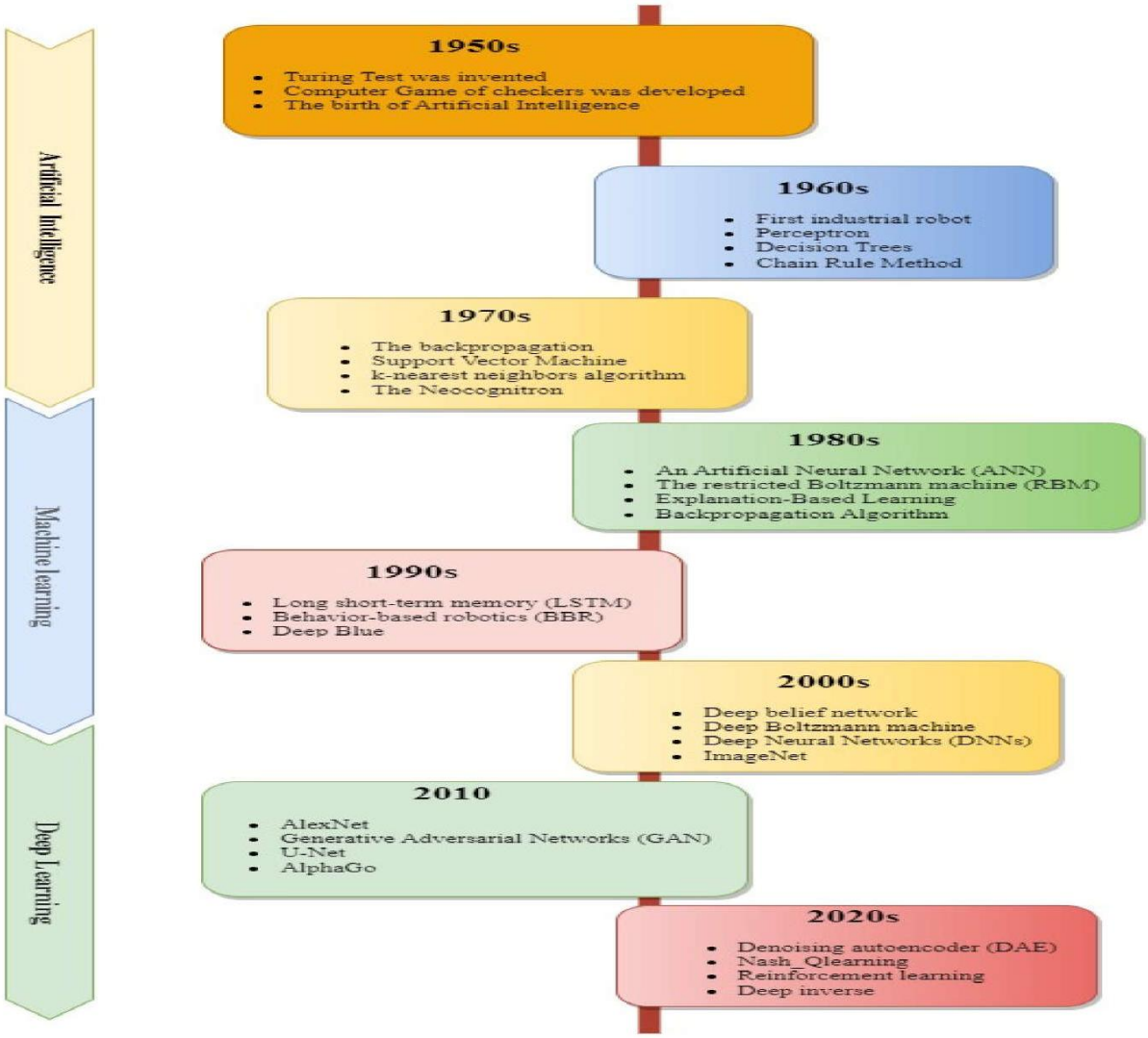
- **Literature and Artificial Intelligence: Hopes and possibilities:**

Artificial Intelligence, though sounds new, but has a history of origination thousands of years back. AI is a part in Computer Science than can create, perform and replicate human skills and problem-solving techniques. This specialty called 'automation' comes from 400BCE word 'automaton' suggesting 'working with one's free will'; that referred to a pigeon created mechanically by one of the friends of the renowned philosopher Plato. Literature first witnessed the application of AI in a 1921 play written by Czech playwright Karel Čapek who first time in his play *Rossum's Universal Robots* presented the idea of machines with human-like intelligence. Inspired by the sensational advocations, Japanese professor Makoto Nishimura has successfully made the first robot, Japanese in origin, named 'Gakutensoku'.



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AI has officially been introduced in a workshop at Dartmouth in 1955 where John McCarthy coined the term that received huge popularity. 1940s to 1960s were the era of inception; in

1949, a computer scientist and programmer Edmund Callis Berkley has published a book *Giant Brains, or Machines that Think* which for the first time took into consideration the similarities of human brains along with the newly modelled computers with advanced programming. Arthur Samuel coined the term 'machine learning' in one of his research papers explaining that the computer can run better and replace the human admin. In 1959, Oliver Selfridge published *Pandemonium: A Paradigm for Learning*, which introduced a model capable of deftly redefining itself by finding patterns and similarities in objects. In 1966, a revolution in communicative technology arrives when 'Eliza', a computer program capable of engaging interactive conversation with human like emotions was created by Joseph Weizenbaum. In 1989, another revolution happened when, Christopher Watkins developed 'Q-learning', a 'model-free reinforcement algorithm' and Axcelis released 'Evolver', the first ever commercial genetic algorithm software package for individual and personal computers. Later on, in 2006, with the birth of 'deep learning', Psychologist and computer scientist Geoffrey Hinton, has given us the idea about algorithms that can recognise and interpret different types of objects, snaps, signs and text characters in pictures, reels and videos in a computer. With the help of Machine Learning and Deep Learning, a teacher can customise new course recommendation based on the students' need and familiarity, modify curriculum, focus on the weak areas and give them access to virtual assistances for heuristic analysis. A teacher using machine learning can evaluate and track students' behaviour following Linear Regression, Logistic Regression, Classification, Decision Trees, Random Forest, Support Vector Machine, Graphical Models and so on. With the help of machine learning assessment and evaluation of students' progress have also become easier. Keeping smart Attendance by AIndraLabs that can capture live attendance and verify the presence and absence in real time scenario, grouping and grading students' answer through Gradescope, formulating and generating results of quiz and reasoning by Knowledge Engine and many more smart applications using ML has brought rapid changes in education. Deep Learning on the other hand, sets a pattern for understanding human cognitive behaviour and learning acquisition. Deep Learning, which is based on the notion of ANN (Artificial Neural Network) can solve wide range of classification and regression problems. The expansion of data driven learning for all models and development of more accurate learning algorithms, it continues learning and more complex classification enabled simultaneously with equal proficiency, biometrics and pure digital image processing. In the field of Natural language-processing, including voice translation, machine translation, computer semantic comprehension Deep learning is used. Chat GPT is a DL based NLP technique that enables a machine to respond and interact in human language. It uses a lot of

data to build a deep leaning transforming model that can apply and utilise those data in real time scenario. Apart from English as the primary language, the algorithms can make responses to be happened in French, German, Russian, Japanese and many other languages though this is just the beginning of its application in Technology, Science and different branches of Humanities.

- **Conclusion: The Future of ICT: Problems, hacks and hazards:**

We, therefore, undoubtedly state that, technology expands limitless opportunities for enrichment and creativity, and the rapid advancement of ICT in the field of English language, literature and segments of communication are catering to the wholesome growth and development of new skills in the teaching learning process. But we know that benefits and disadvantages go hand in hand. Thus, in spite of developing a number of skills in communication, vocabulary, articulation, elocution and rapid writing, the tools of ICT and AI are somehow leading the future generation to negativity and depression. Despite having lots of study materials and e-notes, students are now more inclined towards cheating. A report says, more than 80 percent of the Indians stopped reading even a single book through a year, and it is also found that this new generation spend 12-15 hours online in Facebook, Twitter, Instagram or You Tube, but lack motivation to go through their textbooks. Though so many online library, digital databases, courses, training, podcasts are available, but a large number of students engage themselves in games and online gambling that ultimately led their disasters. Research work too is at stake because of the increasing tending of plagiarism, intellectual theft and unethical hacking where published or quoted ideas are reused without acknowledging the source. The tools of AI are much more complex and innovative than human imagination; therefore, most of times, it gets difficult for the teachers to find similarity, relevant and plagiarised content in a research article published worldwide. The future of AI leads to human-machine collaboration where it seems that machines will perform better than humans. In the fields like healthcare, war, scientific inventions and creative corroboration, AI will make a revolutionary change, but at the same time it will threat the need of human agencies. Sectors like Bank, tele-calling, rapid automated Clerical services, driving and menial labour, AI will replace them all with proactive machines. A huge number of populations will lose employment due the rapid surcharge of AI and Deep learning tools. But at the same time, we must not forget about the higher possibilities that can be created through the augmented human skills with AI that can help with environmental sustainability monitoring deforestation, wildlife habitats, and illegal poaching activities, climate change, policy reframing and addressing global concerns.

We therefore, need to ensure that the pursuit of AI should be limited and responsible in alignment with the betterment of the future generations, enriching society, promoting a breathable and equitable future for the next generations.

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