Fear of the Unknown: The Non-Biological Intelligence

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Abstract:

The present study explores the views and perspectives of both students and educators primarily within West Bengal, India, pertaining to the enigmatic growing technology of Artificial Intelligence (AI), a non-biological intelligence, and its future integration into the landscape of education, via an online survey during April-May 2025. It is found that the pupils, predominantly of university level and a few of middle school level, are enthusiastic about the use of AI in the teaching-learning domain, though they lack certitude about the efficacy of its output or efficiency of its functioning. The teaching practitioners, on the other hand, evince a certain wariness about the human-made non-biological intelligence intruding into the field of education. Majority of them are worried about the students' erosion of intellectual health and their taking recourse to unethical use of AI tools in their academic activities. More than 50% of teachers hold that pre-AI era pupils were comparatively more creative and thoughtful. In spite of this, more than 55% of the educators surveyed are optimistic of the benefit of both the teachers and the taught as a result of the integration of this ubiquitous technology into education. The researcher suggests that the teachers must overcome the 'fear of the unknown' syndrome and familiarize themselves with the AI thoroughly for a smooth integration of the latest technology into the field of education, benefiting the teachers and the pupils alike, thereby enriching the education sector in the long run.

Keywords: Artificial Intelligence, education, integration, non-biological intelligence

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1. Introduction

The human mind is naturally ever inquisitive. Its beauty lies in its tendency to explore far and wide, experiment, investigate, unearth, discover, innovate and invent. Every new invention brings with it fear and scepticism. And if the invention has to vie with the human brain, an enigmatic organ itself, apprehension prevails in various quarters, especially in the sphere of education that entails myriads of young minds. Yes, it is Artificial Intelligence or---more popularly---AI, the term being coined by John McCarthy in 1956 at Dartmouth, USA (https://home.dartmouth.edu/about/artificial-intelligence-ai-coined-dartmouth).

This competitor of the human brain is a human-made non-biological intelligence armed with neural networks and human-like processing, analytical and decision-making capabilities. The world is taken aback by the advent of this hungry data-devouring technology and its subsequent rapid progress into diverse fields including health, education, business and so on. In the words of Mehrotra, D. (2025, p. 137): 'From the introduction of the Turing test to the celebrated release of OpenAI, historical milestones in AI have permanently changed consumer lifestyles and business operations.' Now we have ChatGPT from OpenAI, Aravind Srinivas's Perplexity AI, Microsoft Copilot, Google Gemini, Meta AI and so on. AI, the growing technology, has become a ubiquitous

phenomenon presently. Even the 2024 Nobel Prize in Physics went to John Hopkins and Geoffrey Hinton for their work on AI. From Yuval Noah Harari to Bill Gates to Pope Leo XIV, AI is on everyone's lips. Realizing the salience of this technology, All India Council for Technical Education (AICTE) has declared 2025 as the 'Year of Artificial Intelligence' with the aim to develop the required skills among the students for an AI-driven world (https://education.economictimes.indiatimes.com/news/higher-education/aicte-forms-committee-to-embed-ai-across-academic-courses/120305439).

 The amazing feature of this non-biological intelligence is that with algorithms and data, any system equipped with it keeps improving its performance with time (Mehrotra, D., 2025, p. 137). However, its working mechanism and the way it keeps bettering its functioning ---are quite esoteric and beyond most people's comprehension. Dario Amodei, the CEO of Anthropic, one of world's most premier AI labs, can be quoted in this context: 'This lack of understanding is essentially unprecedented in the history of technology' (https://futurism.com/anthropic-ceo-admits-ai-ignorance).

History shows that AI is a 20th century phenomenon with its ripples felt in the 21st century, especially after the tech research company OpenAI launched the free chatbot called ChatGPT in November 2022. The academics found it appalling that the students across the world were using the ChatGPT primarily to generate full scape essays and articles for their assignments with the consequence that several premier institutions of the English-speaking regions from U.S.A. to U.K. to Australia began banning ChatGPT and OpenAI at the start of 2023. They found that thinking ability, critical analysis and problem-solving capacity of the learners were at stake.

The ChatGPT from OpenAI is equipped with the ability to, in the words of Heaven, W.D. (2023), 'answer questions and generate slick, well-structured blocks of text several thousand words long on almost any topic it is asked about, from string theory to Shakespeare.' Heaven further remarks: 'Each essay it produces is unique, even when it is given the same prompt again, and its authorship is (practically) impossible to spot. It looked as if ChatGPT would undermine the way we test what students have learned, a cornerstone of education.'

Proscribing AI from the landscape of education is practically impossible and holds no good. Teachers should not dodge the latest technology but confront it. The educators ought not to conceive it as a threat. They ought to exploit the chatbots like ChatGPT and its varied latest versions with human-like cognitive abilities----to think, learn, analyze, resolve problems and make decisions. It is, indeed, a wiser option without a doubt as teachers must control the technology. The other way round is potentially an unhealthy alternative. Integrating the AI tools into the teaching-learning arena, guiding the pupils to use the tools ethically and not just treating them as mere essay and summary generating devices sound judicious and pragmatic.

2.   An investigation conducted

To obtain a picture pertaining to AI in education, I embarked on a research study during April-May 2025. The following are the details of the research methodology.

Research method: An online cross-sectional survey via Google form

Population: . Student Population-Students of school level and tertiary level of education across India

                    . Teacher Population- Teaching practitioners of school level and tertiary level of education across India

Sample: 114 students (mainly from the Education Department, Rabindra Bharati University, Centre for Distance and Online Education. Kolkata, and a few middle-school level pupils of a renowned private school in Kolkata, India)

70 teaching practitioners of schools, colleges and universities of mainly West Bengal, and one each from Benaras Hindu University and Pondicherry University, India

**Sampling method**: Convenient and snowball sampling methods

Tools: Two separate questionnaires each comprising ten questions, one for the students and the other for the teaching practitioners
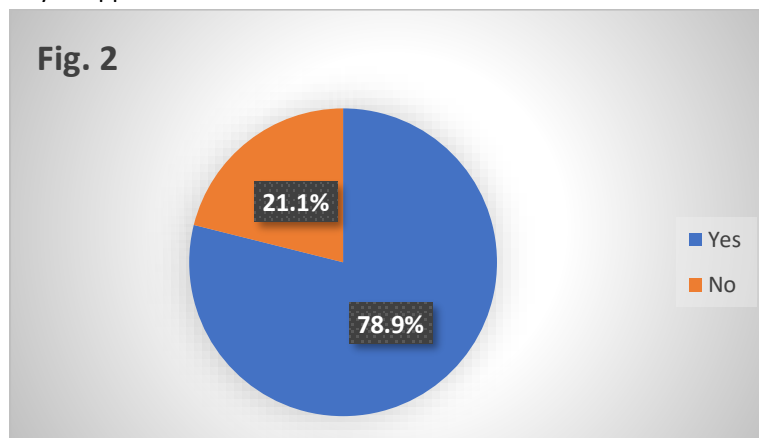
3.   Findings

(Questions 1-10 are from the students' questionnaire while questions 11-20 are from the teachers' questionnaire)

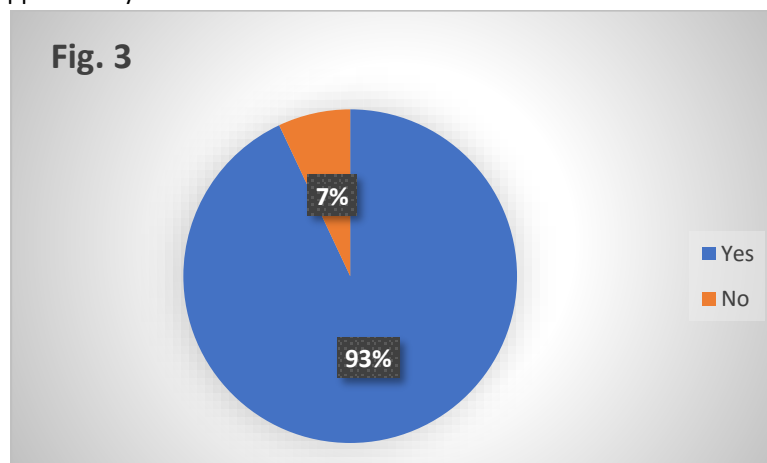**The following is the summary of the pupils' responses**:

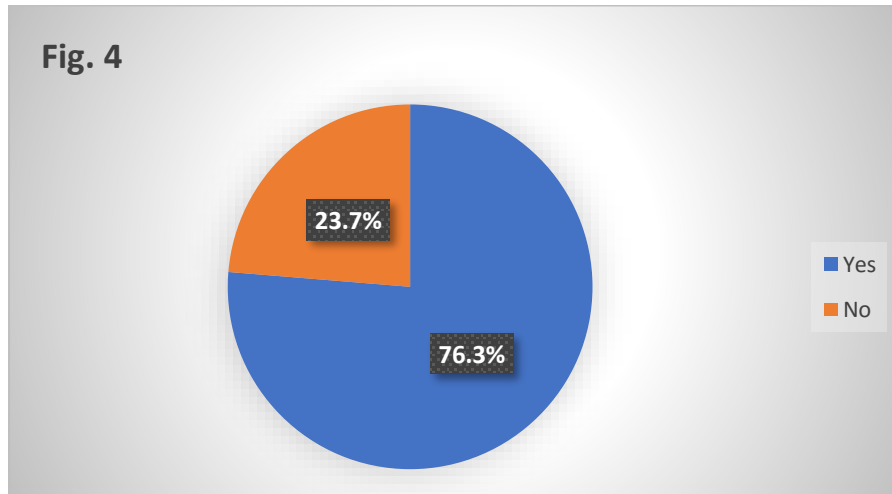1)   Do you think that with the coming of AI apps, teachers can teach more effectively by using them?
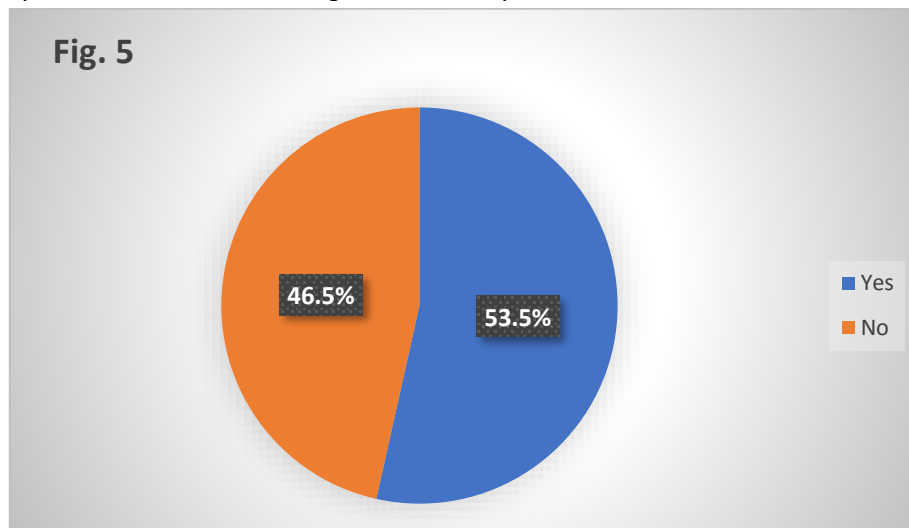
Fig.1
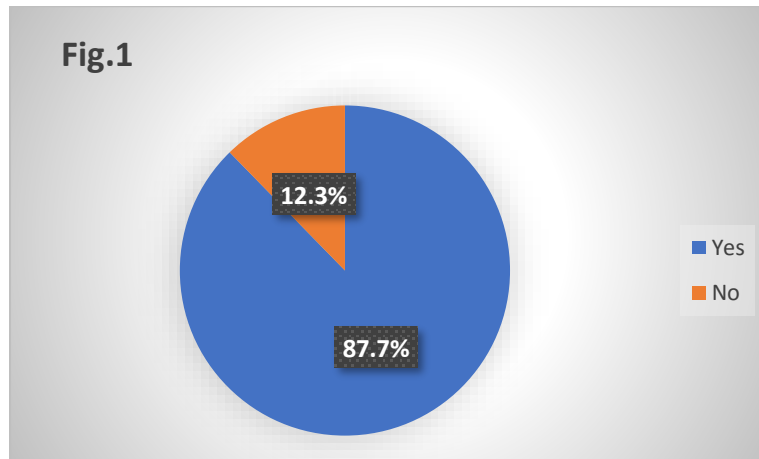
2)   Do you use any AI app?

Fig. 2
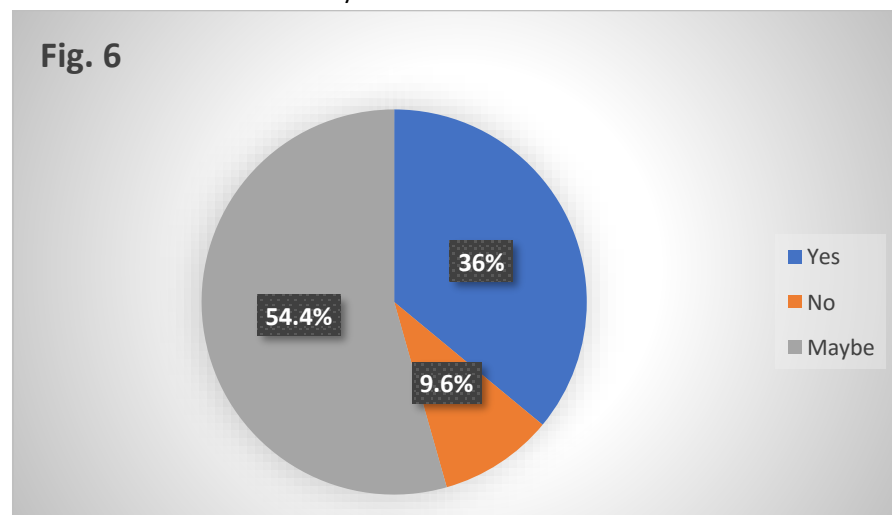

3)   Do these apps actually make work easier?

Fig. 3

4)   Have you tried asking AI to translate any article/work for academic purposes?

Fig. 4

23.7%

76.3%

Yes
No

5)   Have you asked AI to write full length answers for you?

Fig. 5

46.5%

53.5%

Yes
No

6)   Does AI do the above tasks efficiently?

Fig. 6

36%

54.4%

9.6%
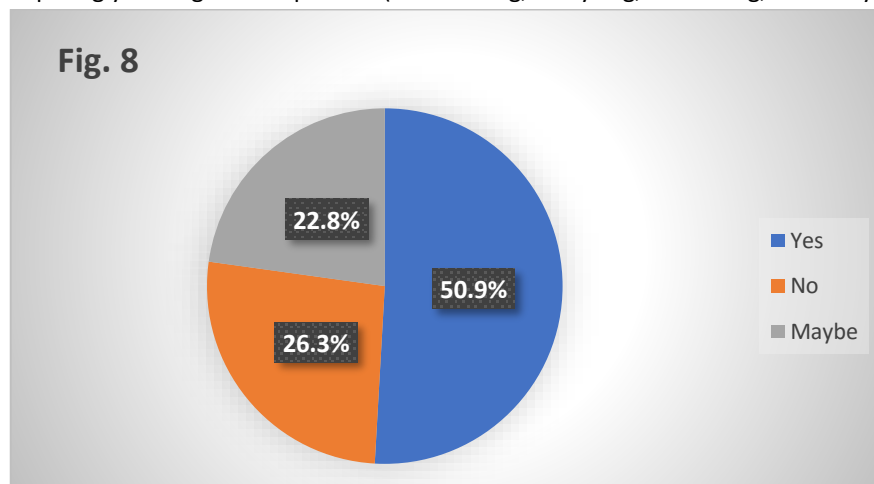
Yes
No
Maybe

7) Do you think, in asking AI to do these tasks, you are actually making yourself and your brain lazy and unproductive?

Fig. 7

- Yes — 37.7%
- No — 29.8%
- Maybe — 32.5%
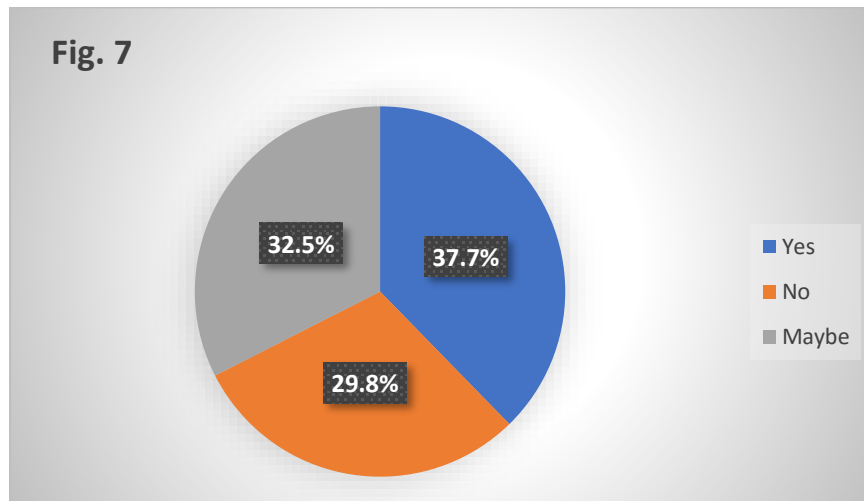
8) Is it hampering your cognitive capacities (like thinking, analyzing, evaluating, creativity etc.)?

Fig. 8

- Yes — 50.9%
- No — 26.3%
- Maybe — 22.8%

9) Do you agree that students in the pre-AI era produced more quality and creative work?
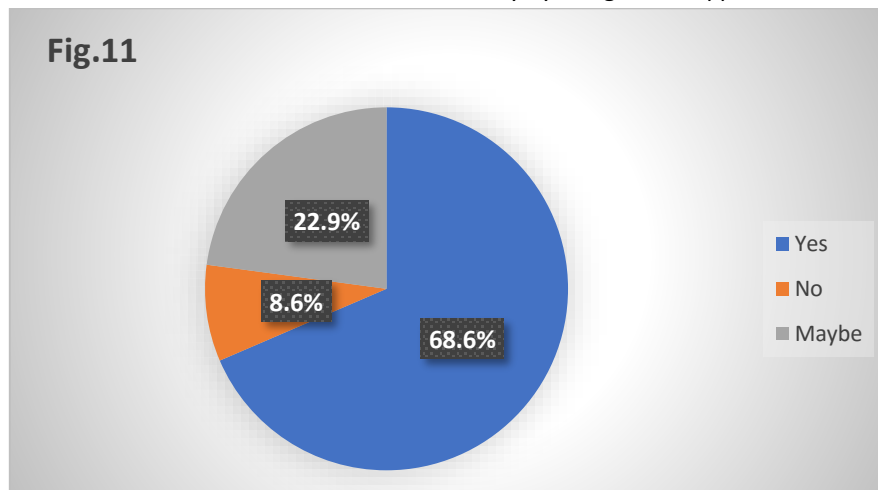
Fig. 9

- Agree — 50%
- Disagree — 12.3%
- Neutral — 37.7%
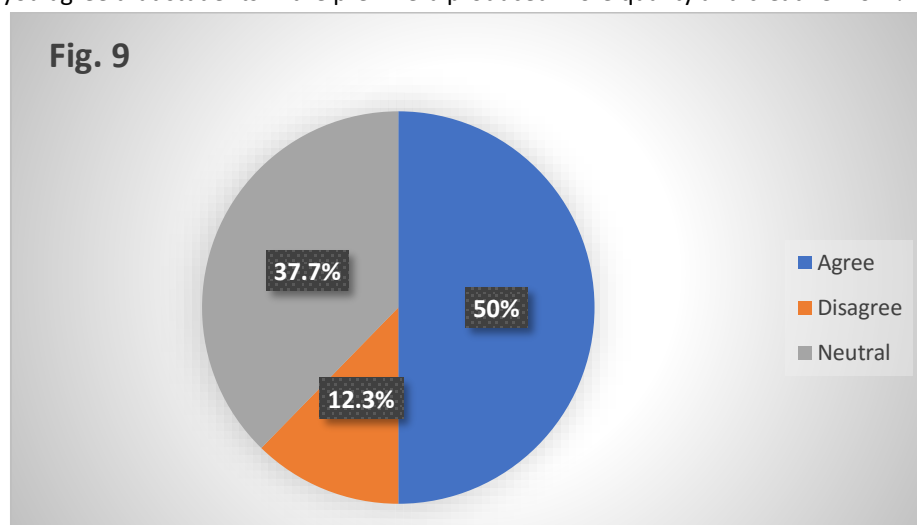
10) Do you think AI in the classroom will make students less sincere in their academic activities and less eager to do in-depth study?
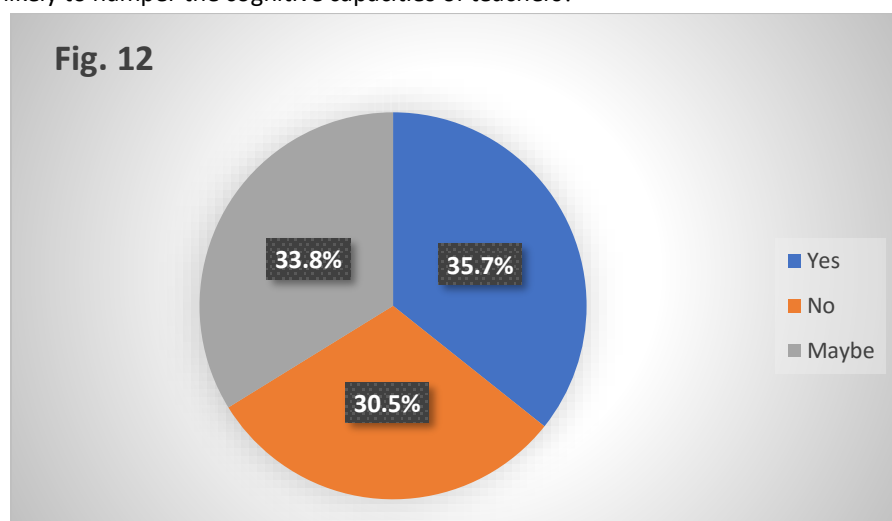
Fig. 10

Yes 36%
No 28%
Maybe 36%
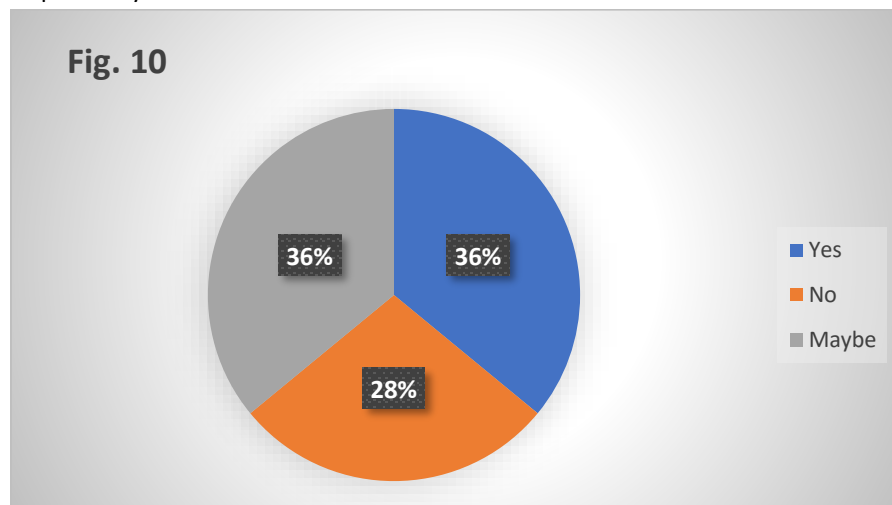
The summary of the teachers' responses is as follows:

11) Do you think that teachers can teach more effectively by using the AI apps?

Fig.11

Yes 68.6%
No 8.6%
Maybe 22.9%

12) Is AI likely to hamper the cognitive capacities of teachers?

Fig. 12

Yes 35.7%
No 30.5%
Maybe 33.8%

13) Will AI apps make students lazy and superficial learners?

Fig. 13

Yes — 51.4%
No — 21.4%
Maybe — 27.1%
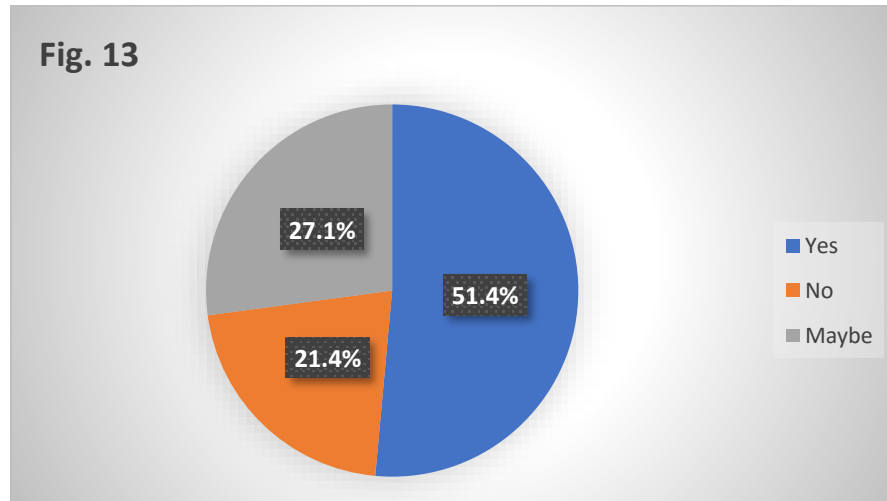
14) Do you think that the students of the pre-AI Era were more creative and thoughtful than those of the present AI era?

Fig. 14

Yes — 58.6%
No — 27.1%
Maybe — 14.3%
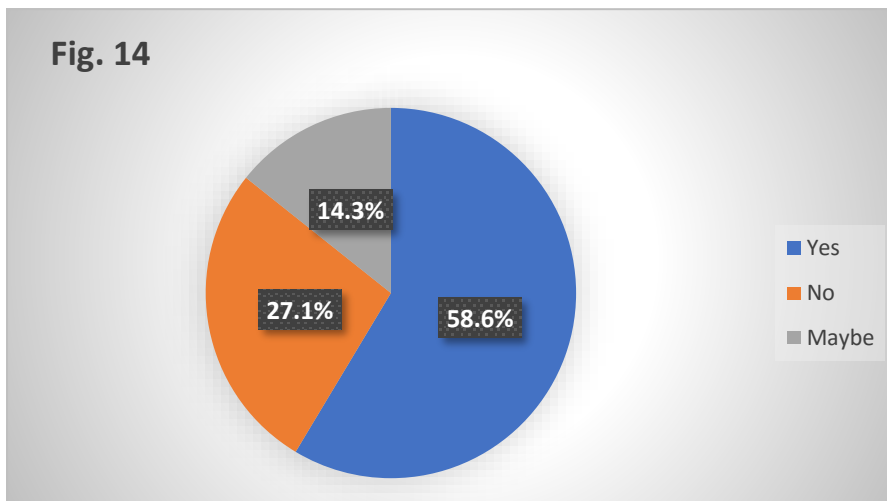
15) Will you encourage your students to make use of AI apps while preparing their assignments?

Fig. 15

Yes — 38.6%
No — 44.3%
Maybe — 17.1%
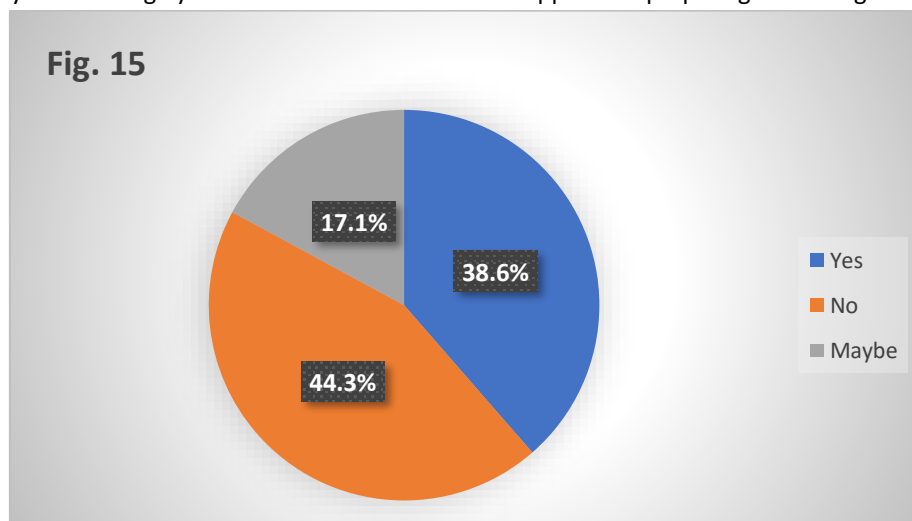
16) Is it possible to keep AI out of the teaching-learning domain?

Fig. 16

- 37.1% (Yes)
- 62.9% (No)

17) How would you advise your pupils to use the AI apps for their academic activities?
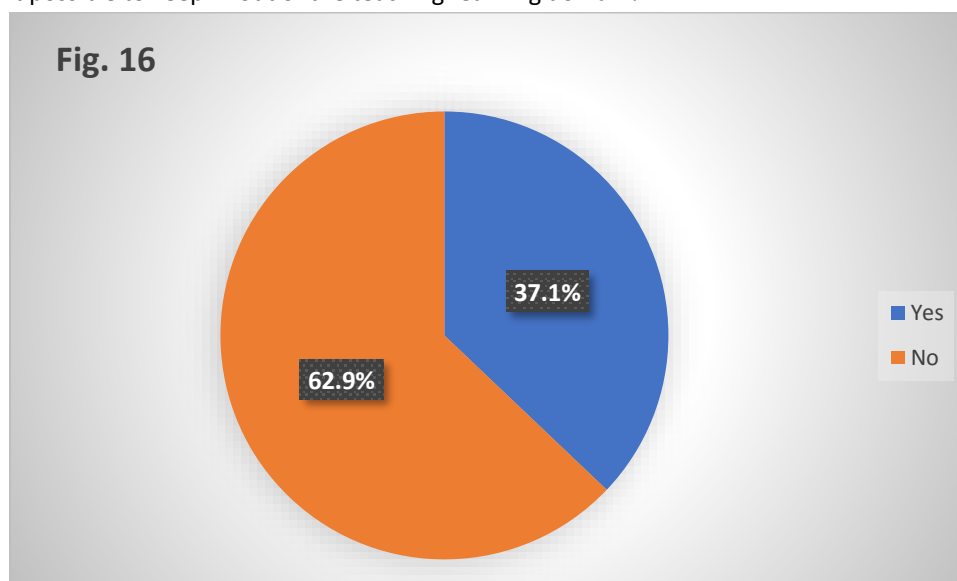   (**Below are some selected responses**)

• Use limited AI apps for academic purpose.

• For information pupils should follow AI. But before using, the data should be checked or verified by the student and teacher

• When there are no printed materials available, then use AI apps.

• The help of AI apps may be taken, if at all necessary, but students should fist use their own intellect

• To use for creative ideas

• Students may take help from AI but not for all aspects because this is reducing the thought process of students.

• AI use only for specific purpose and command based

• Until access to digital gadgets and internet connectivity is ensured to all learners, AI should not be prompted in teaching learning domain

• Students should use AI with their own thought process.

• AI is not important for students.

• Pupils should use AI for unavoidable situation only.

• I would advise my pupils to use AI apps as supportive tools to enhance their learning—not as replacements for critical thinking or personal effort. They can use AI for: Clarifying difficult concepts, generating ideas for projects and assignments, practicing problem-solving or quizzes, improving writing skills through grammar and style suggestions, conducting research and summarizing information. However, they must be guided to use AI ethically—avoiding plagiarism, verifying information from reliable sources, and always thinking independently.

• AI apps should be used supplementary to learning.

• They can use AI for the basic structure of an essay, research paper etc, search for keywords, but they cannot rely only on AI tools.

• The AI apps should be used under the guidance and strict monitoring of the teachers.

• Students can use AI apps for gaining information, an outline for proposed studies and may be a summary of what they want.

• They may use AI tools for preparing study materials, but the data, conveyed by AI, must be verified by students using any other source

• AI may help to formulate the structure of their academic presentations.

- They may use by maintaining ethical consideration.
- AI apps are to be used by pupils to be smart.
- They may take help from AI in forming a structure of the assignment or synopsis. Also, AI provides them the names of the books and articles when they tell them their area of research. So, in that way, AI saves a lot of time.
- I think AI should be a part of the teaching process. In the learning process the students must engage in their cognitive faculties. I will advise students to use it only when they need to understand a summary of a concept, albeit by checking facts and errors.
- They should make a limited use of AI, and read books and research papers to get at the actual knowledge base of any topic.
- We should be accepting AI technology. It can save administrative and operating task so that teachers may focusing more on their teaching methodology.
- They can learn from AI how to write an answer from multiple perspectives. They can also explore various questions they have in mind.
- Since it is very interesting and creative for the pupils, I encourage them to use it more and more
- The basics of academic exposure should be done by the students themselves with their own cognitive capabilities; the rest of the decorative purposes may be served by the AI. They should utilise AI, not be used to it.
- Yes, pupils can use it judiciously to acquire information but they should not rely on AI fully. Creativity must be given preferences
- They may use it as teaching learning materials. No need to take it as bounden.
- Thet can use the AI technology to some extent for incognizable topics.
- Use AI for problem solving
- The learners can use AI apps for data collection. But shouldn't use it massively.
- AI can be used in many aspects, not only students' curriculum but also in their extracurricular activities, students should keep open their formative and cognitive domain in many vast ways so that not only one issue or subject only came in the context of AI but also creativity and vast knowledge in that one subject be supported by AI.
- Use AI as co-pilot.
- By limiting over-reliance on AI technology
- Use it as an example
- Students will get audio visual aids from AI tools to help them to understand a subject, which will interest them much more than rote learning.
- Human Creative thinking is the best option. AI should be kept out of teaching-learning domain.
- Don't just copy the available materials. keep yourself better by using own thoughts along with the AI provided materials.
- AI apps can be used but to a very minimal extent for example in lesson planning and taking assessments. Apps such as Canva maybe used for preparing PPTs and other tasks. However, AI should not be included to a massive extent as it may hamper the originality, creativity and quality of both the student and the teacher. Further, usage of AI has the risk of harming intellectual discourse and freedom as the power of surveillance may increase with increasing use of AI.
- AI increases creativity and can improve educational performance if used appropriately. Students should not blindly rely on AI to reduce their work load. All information should be checked and verified before using. Content should be checked and only a certain percentage should be AI generated, as decided by experts.
- I would advise students to use AI apps as supportive tools to enhance their learning, not to replace their own thinking or effort. They should use these apps to explore ideas, clarify difficult concepts, improve their writing, and practice problem-solving. It's important to verify AI-generated content, think critically, and always do their own work independently.
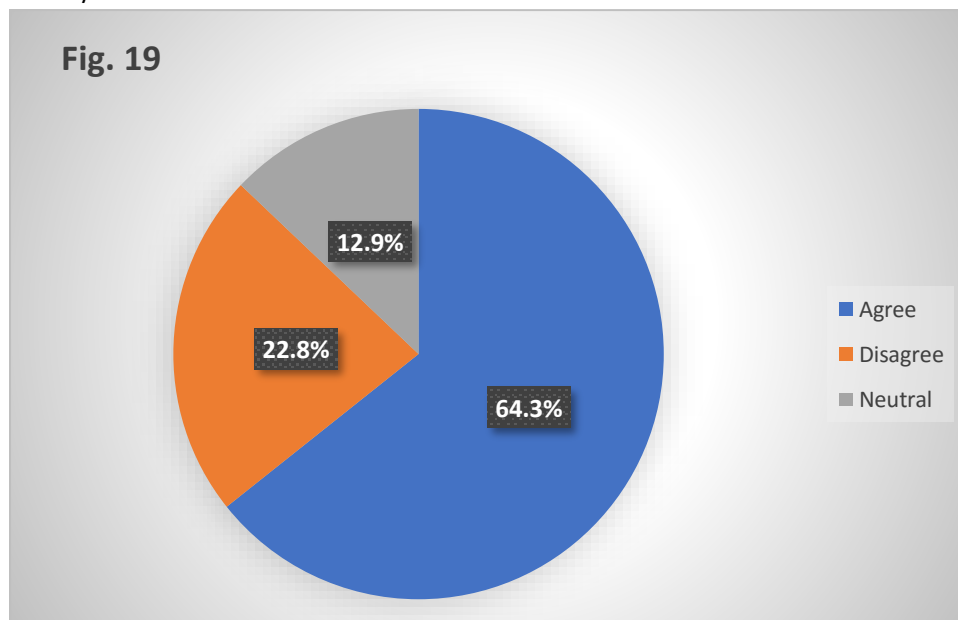
- I wouldn't advice my students to use the AI apps for their academic activities.
- Students should know about unknown topics using AI. The learners will get idea about the topic. They can add your own creativity just by getting idea about the topic.
- Let AI assist, and not dictate the learners.

18) Do you think that in the present AI era, it is really difficult to get original and creative responses from students?

19)

Fig.18

■	Yes
■	No
■	Maybe

- 50% Yes
- 27.1% No
- 22.9% Maybe
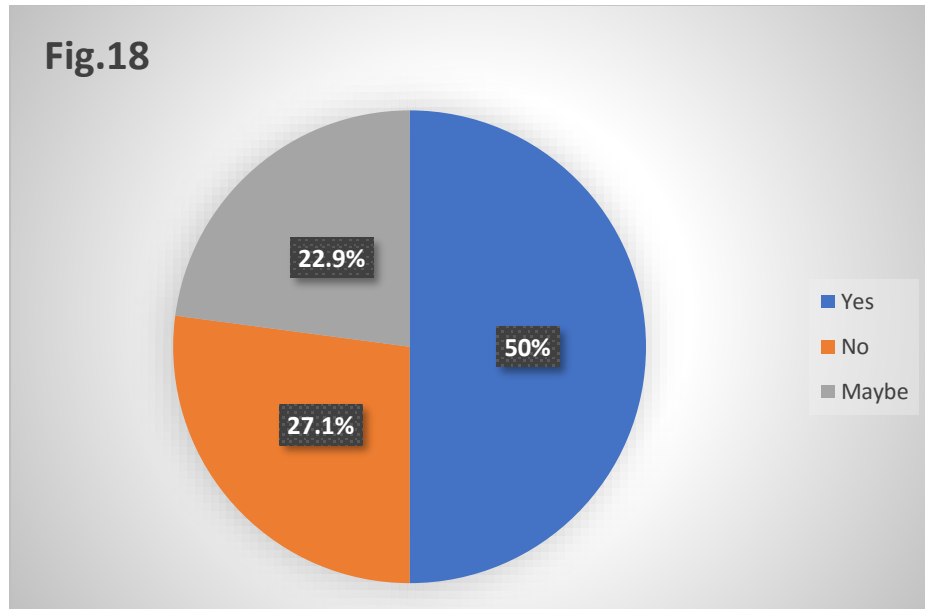
20) Is AI likely to enhance fraudulent activities in academia?

Fig. 19

■	Agree
■	Disagree
■	Neutral

- 64.3% Agree
- 22.8% Disagree
- 12.9% Neutral

21)   Are you hopeful that AI integrating into education in future will be beneficial for both the teachers and the taught?

Fig. 20

- Yes — 55.7%
- No — 10%
- Maybe — 34.3%
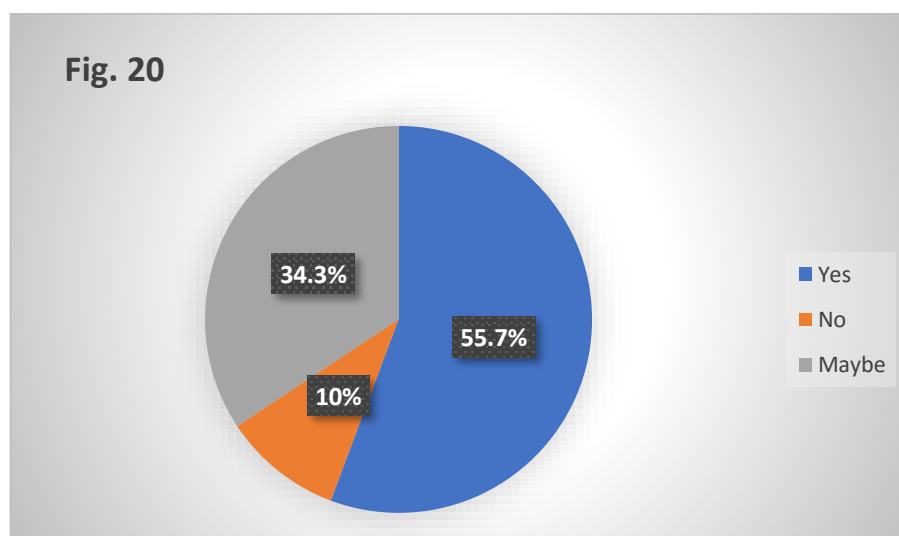
4.   Discussion

The responses of the pupils show 87.7% of them (Fig.1) think that teachers can teach more effectively using the AI apps, one even pointing out that these apps are like a 'secret weapon for teachers. They make lessons more fun, interactive and easier to understand. Plus, teachers can use them to save time.' A major chunk of the learners (78.9% in Fig.2) uses AI apps and 93% of them (Fig. 3) express that these apps actually make work easier. 76.3% of the pupils (Fig. 4) have tried asking AI to translate an article/work for academic purposes while 53.5% of them (Fig. 5) have asked AI to write full-length answers. It is worth noting from Fig. 6 that despite their close acquaintance with AI, only 36% of them are certain that AI does the above tasks efficiently; majority (54%) are unsure of its efficiency, which reveals that that majority of the learners fail to evaluate the performance of AI. Interestingly, 37.7% of them (Fig. 7) think that they are making themselves and their brain lazy and unproductive by taking recourse to AI for academic activities with 32.5% unsure while 29.8% do not think so. Again, quite interestingly, 50.9% of the students (Fig. 8) agree that seeking academic aid from AI is hampering their cognitive capacities; only 26.3% do no think so while 22.8% are unsure. In Fig. 9, 50% pupils concur that students of the pre-AI era produced more quality and creative work with 37.7% remaining neutral, 12.3% do not think so. In other words, 50% advocate that pre-AI pupils were more qualitative and creative individuals. Finally, in Fig. 10, 36% students think that using AI in the classroom will make them less sincere in their academic activities and less eager for in-depth study with the other 36% uncertain of it and only 28% do not harbour such an opinion.

As far as the teachers' responses are concerned, only 68.6% (Fig.11) think that educators can teach more effectively using the AI apps in contrast to the whopping 87.7% of the pupils (Fig. 1) who opine that AI apps can really aid in teaching effectively. 35..7% of the teaching practitioners (Fig. 12) hold that AI is likely to hamper the cognitive capacities of teachers while 30.5% do not endorse such an opinion with 30% uncertain. A teacher voices out that 'excessive dependence on AI may hamper the cognitive ability', still another says that 'to some extent it is likely to hamper'. 51.4 % of the teachers (Fig. 13) are apprehensive that AI apps will make students lazy and superficial learners. Only 21.4% do not endorse such an opinion with 27.1% are unsure. In Fig. 14, majority of the teachers (58.6%) agree that the pre-AI era students were more creative and thoughtful than those of the present AI era. Again, it is worth noting that only 38.6% of the teaching practitioners (Fig. 15) have said that they will encourage their students to make use of AI apps while preparing their assignments with 44.3% are against it and 17.1% are not quite sure of it. However, majority of the teachers (62.9% in Fig. 16)) think that it is not possible to keep AI out of the teaching-learning domain.

Among these teachers, many expressed their varied views regarding how they would advise their pupils to use the AI apps for their academic activities. One of them pointed out: 'I would advise my pupils to use AI apps as

supportive tools to enhance their learning—not as replacements for critical thinking or personal effort. They can use AI for: clarifying difficult concepts, generating ideas for projects and assignments, practising problem-solving or quizzes, improving writing skills through grammar and style suggestions, conducting research and summarizing information. However, they must be guided to use AI ethically—avoiding plagiarism, verifying information from reliable sources, and always thinking independently.' Another respondee expresses: 'They can use AI for the basic structure of an essay, research paper etc, search for keywords, but they cannot rely only on AI tools.' A notable response reveals: 'AI increases creativity and can improve educational performance if used appropriately. Students should not blindly rely on AI to reduce their work load. All information should be checked and verified before using. Content should be checked and only a certain percentage should be AI generated, as decided by experts.' Another worth-noting response says: 'AI apps can be used but to a very minimal extent, for example in lesson planning and taking assessments. Apps such as Canva maybe used for preparing PPTs and other tasks. However, AI should not be included to a massive extent as it may hamper the originality, creativity and quality of both the student and the teacher. Further, usage of AI has the risk of harming intellectual discourse and freedom as the power of surveillance may increase with increasing use of AI.' (For more responses in this context, refer to the responses against Q.17.)

In Fig.18, 50%of the educators think that in the present AI era, it is really difficult to get original and creative responses from students with 27.1% of them do not think so while the rest 22.9% are uncertain. However, 64.3% of the educators (Fig. 19) are apprehensive that AI is likely to enhance fraudulent activities in academia. Despite this, a note of optimism can be observed from the responses of the teaching practitioners, for 55.7% of them (Fig. 20) are hopeful that integration of AI into education in future will be beneficial for both the teachers and the taught.

5. Conclusion

The pupils are really enthusiastic about the application of AI in the academia for various obvious reasons, chief among them being reduction of their work load (assignments) and getting assistance with unfamiliar topics in the wink of an eye, anytime, anywhere with an internet connection. But they also look forward to the teachers using AI during classroom transaction to make teaching-learning engaging and interesting. Comparatively, teachers sound cautious and wary about AI entering the landscape of education. They are worried about the quality of the students, their independent thinking, analytical and problem-solving abilities, creativity—all the higher and complex cognitive capacities as per Bloom's (original and revised) Taxonomy. Since majority of the educators have opined that it is hardly possible to keep AI at bay, teachers must equip themselves with this growing esoteric technology so that they can keep it under control. Several teachers, if not all, across the globe are taking the assistance of AI for a quick grasp of the unfamiliar topics that that they have to deliver in class. Also, many teachers are relieved of the non-academic administrative tasks. Thanks to AI, much 'wasteful thinking' is replaced by the necessary academic thinking. Realising the effectiveness of the technology and using it judiciously and ethically for fruitful classroom transaction is the need of the hour.

 Instead of assigning summarizations and essays for pupils to write, define or explain concepts, they should be engaged in assignments that demand critical thinking and problem-solving skills by taking help of ChatGPT, GPT-4 and other chatbots of their choice. The students may be instructed to figure out the flaws in the answers generated by the chatbots or compare their answers with those given by the AI tools. In other words, the higher order cognitive abilities of the learners ought to be evaluated. The mode of evaluation is to be modified and upgraded. The teachers can think of varied means and activities to engage the students meaningfully. The 'human element' must never go absent from the classroom milieu altogether. Effective learning reinforced by AI and the chatbots and, most importantly, the human teachers should be the order of the day. Verifying the contents generated before utilizing them is something the pupils must learn. Again, understanding AI limitations is necessary because the latest AI tools, especially those offering free services (like the free version of ChatGPT) may lack updates on recent events or specific knowledge areas and likely to generate erroneous or fabricated information, often referred to as "hallucinations". So, users should be cautious of the current versions of many

AI tools when attempting to obtain information especially on current topics (https://gsis.ac.in/integrating-ai-in-education-a-guide-for-educators/).

As far as the fraudulent activities and the unfair means adopted by the learners are concerned, the teachers can actually make out whether students are submitting AI generated essays and compositions. Software for such detection may turn out to be inconsistent. Thus, human intervention is preferable. Compositions and write-ups by generative AI tools like ChatGPT have been found to be free of grammatical errors and laden with shared knowledge and factual information but, unlike human essays, they are flat, insipid, unengaging, lacking in rhetorical devices and less appealing to the readers (Hyland, K., 2025). According to Hyland, no algorithms can replace the thinking power of the human brain and, to quote him, 'For now, at least, truly engaging academic writing remains a human art. ...Until AI can genuinely anticipate and address the human on the other side of the page, the most persuasive arguments will still come from people, not machines' (https://studyfinds.org/chatgpt-human-essay-writing/). The recent study by Hyland also confirms that higher-order thinking skills are still the forte of the human brain only. The educators must endeavour to familiarize themselves with the AI thoroughly for a smooth integration of the latest technology into the field of education, benefiting the teachers and the taught alike. The 'fear of the unknown' syndrome must be shed off for the benefit of education in the long run. That AI is not a threat to the well-being of the students and their intellectual curiosity, if taught to use it ethically and judiciously, must be understood. Tagore may be quoted here: 'Don't limit your child to your own learning, for he was born in another time.' Such a thought, indeed, will pave the way for a seamless blending before long.

6.   References

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