**INTRODUCTION**

**Artificial intelligence (AI),** which was once only found in science fiction, has astonishingly infused into our daily lives. AI has revolutionised how we interact with technology and changed entire industries. Applications range from self-driving cars and voice-activated assistants to personalised recommendations and predictive analytics. The importance of comprehending the complexities and implications of AI has increased due to its enormous potential to influence our future. Building intelligent machines that can carry out tasks that typically require human intelligence is the goal of artificial intelligence (AI), a broad field of computer science. Advancements in machine learning and deep  learning, in particular, are causing a paradigm shift in almost every sector of the tech industry, despite the fact that AI is an interdisciplinary science with multiple approaches.

 One of the notable AI technologies is a chatbot, a computer program that uses artificial intelligence (AI) and natural language processing (NLP) to understand customer questions and automate responses to them, simulating human conversation. chatbots can help users find the information they need by responding to their questions and requests via text, audio, or both, without the need for human intervention**.** as a result of widespread familiarity with Generative Pre-Training Transformer applications. The most popular application is OpenAI's ChatGPT, which has become synonymous with AI in the minds of most consumers due to its widespread fascination. However, it only represents a small portion of how AI technology is being used today.

**Era’s of artificial intelligence**

1. **Artificial Intelligence (AI) Era (1950s-1990s)::**

* This era laid the foundation of AI as a field of study
* The emphasis was on symbolic AI, which involved representing knowledge and resolving issues through the application of logic and rules.
* Early AI systems heavily leaned on rule-based programming and expert systems.
* Key developments during this era include the creation of expert systems like MYCIN and SHRDLU.

1. **Machine Learning (ML) Era (1990s-2010s):**

* Approaches that are statistical and data-driven have become more prevalent in the ML era.
* Machine learning algorithms allowed systems to automatically learn patterns and make predictions based on data
* ML techniques have been used successfully in a variety of domains, including speech recognition, image classification, and data mining..

1. **Deep Learning (DL) Era (2010s-present)**

* DL embodies the current era and has had a transformative impact on AI research and applications.
* It has resulted in significant advances in computer vision, natural language processing, and speech recognition.
* Significant improvements in fields like image recognition, language translation, and autonomous driving have been made possible by DL.

**Framework of Artificial Intelligence**

The intelligent agent framework defines the structure and components of an AI system, describing how it perceives its environment, reasons about available information, makes decisions, and acts. It incorporates AI principles and methodologies to create self-aware and goal-oriented systems. It can also be described as a software entity that conducts operations in the place of users or programs after sensing the environment. It provides a structured approach for designing and implementing AI systems that exhibit intelligent behaviour.

The AI structure consists of three main parts: architecture, agent function, and agent program.

1. **Architecture**: This refers to machinery or devices that consist of actuators and sensors. The intelligent agent executes on this machinery.
2. **Agent function**: This function maps actions from a particular perceptual sequence. A history of what the intelligent agent has perceived is referred to as a percept sequence.
3. **Agent program:** This is an agent function implementation or execution. The agent function is created by running the agent program on the physical architecture.

**SUMMARY**

This research paper explores the function of chatbots in the Philippine education system and their potential IT (information technology) advantages. The paper begins with an overview of artificial intelligence (AI) and its various eras, emphasising the developments in machine learning and deep learning. The paper emphasizes the significance of chatbots in education, including data collection, assistance for students, and support for teachers and administrators. Additionally, it highlights how chatbots can improve student engagement, offer immediate assistance, personalize learning experiences, and streamline administrative tasks. The study finds that chatbot technology has a great deal of potential to transform Philippine education. To fully utilize the benefits of AI chatbots, it is advised to invest in training programs, integrate chatbots into instructional channels, prioritize data security, and work with the IT industry.