**Presentation of the Chosen Technology**

**ARTIFICIAL INTELLIGENCE: USES AND FUNCTION**

A chatbot system uses conversational AI technology to imitate a conversation with a user using natural language through messaging apps, websites, mobile apps, or phone calls. It utilizes rule-based language applications to carry out live chat functions and respond to user interactions in real-time. A chatbot is frequently described as a cutting-edge and highly promising form of human-machine interaction. These digital helpers optimize the way individuals interact with services.

Recognized as an advanced and promising form of human-machine interaction, chatbots have significant potential in transforming the way individuals engage with educational services. They act as digital assistants that improve the overall educational experience by offering individualized help, responding to inquiries, providing advice, and making resources more accessible. These chatbot systems enhance communication between students, teachers, and educational institutions, enhancing learning results and facilitating more effective and convenient access to education.

**ARTIFICIAL INTELLIGENCE IN EDUCATION**

Renowned specialists such as Erik Brynjolfsson said that it is critical to shift our focus from imagining AI as a replacement for humans to researching novel ways AI may work alongside humans. This is especially important for educators in the Philippines, where the education system is now dealing with a slew of issues, including adequate infrastructure, a scarcity of resources, and a quickly rising population. We can tap into new possibilities by using artificial intelligence technology to boost the capacities of teachers and administrators, ultimately benefiting students, and contributing to a more robust and efficient education system in the Philippines.

* **Data Collection** - During enrollment procedures, chatbots gather student data and continuously update their profiles as more information becomes available. Utilizing chatbot technology makes the process of collecting and storing student information more convenient, eliminating the need for constant student involvement whenever updates are required. This streamlines administrative tasks for educational institutions, as they can access and utilize student details whenever necessary without repeatedly requesting the information from students.
* **Supporting Teachers and Administrators** - Artificial Intelligence (AI) has the potential to support and aid teachers and administrators by automating repetitive and normal work such as managing students’ records, scheduling, and monitoring students’ attendance. Allowing them to devote their time and energies to more important obligations. By utilizing AI-powered tools, educators can enhance communication efficiency among teachers, parents, and students. These systems enable real-time updates on school activities and students’ performance, allowing for smooth and prompt information sharing.
* **Supporting Students** - Engagement is crucial for effective learning, and it’s evident that modern students are more inclined towards social media and instant messaging platforms for communication, research, and seeking assistance with their assignments. Recognizing this trend, education chatbots capitalize on it to enhance the overall learning experience. Students necessitate support during and beyond their learning journey. AI bots have the capability to assist students during their enrollment procedures and furnish them with essential information regarding their courses, modules, and faculty members. For example, university chatbots serve as virtual campus guides, aiding students both prior to and after their arrival. They play a vital role in helping students navigate through various aspects of campus life.
* **Information Technology Industry** - AI chatbots can serve various uses and functions in education, in the context of the Philippines’ IT industry. By integrating AI chatbots into the Philippine education system, particularly within the information technology industry, institutions can enhance student experiences, streamline administrative processes, and provide targeted support to students pursuing IT programs. AI chatbots in Philippine education system can provide comprehensive information about IT programs, guide students through enrollment and registration processes, offer technical support, act as coding tutors, recommend relevant IT resources, provide project management assistance, share industry insights and trends, offer career guidance, facilitate online learning experiences, and analyze student data to generate valuable insights for optimizing IT programs.

**ARTIFICIAL INTELLIGENCE: IMPORTANCE AND BENEFITS**

**Importance**

Educational institutions have long struggled to accommodate students' various learning styles and preferences, frequently finding it difficult to strike a balance between the demands of parents, teachers, and students. Chatbots, however, have become a common application with the onset of digitalization and technical breakthroughs in many areas, including education. Chatbots are constantly improving in the education industry to improve learning opportunities and encourage higher levels of student participation. Chatbots help raise student attention and enhance overall learning outcomes by making education more dynamic and participative. AI chatbots have a significant role in the Philippine education system, providing enhanced student support, accessible learning for students with disabilities, 24/7 availability of assistance, personalized learning experiences, streamlined administrative processes, intelligent tutoring and support, data-driven insights for educators, cost-effectiveness, continuous improvement, and preparing students for the future by developing their skills in interacting with AI systems. These chatbots contribute to a more efficient and inclusive educational environment, fostering personalized learning and empowering both students and educators in the digital age.

**Benefits**

* **Enhances student engagement and communication.**
* Students’ primary source of knowledge these days is available online, and using applications that answer all of their questions is common and desirable.
* **Functions as an assistant for teachers in the classroom.**
* When we find a subject difficult to understand, we usually seek the assistance of a teacher. However, with a chatbot, all of the knowledge can be obtained without the presence of a teacher, owing to the usage of relevant study material available online.
* **Provides immediate help and support to students.**
* The virtual chat assistance is designed to do an excellent job of providing immediate answers to any student’s query. With this, students can also automate tasks like assignment submission, email replies, text messages, and feedback.
* **Serves as a medium for interactive and immersive learning experiences.**
* Using chatbots in educational applications to assist students has made learning fun and improved their experience.
* **Offers intelligent feedback to aid student progress.**
* The key to improvement in any learning process is feedback. It’s not just for students; the virtual chat tool can also be used for faculty evaluations. The entire feedback process can be made interesting using conversational forms and automated replies.
* **Provides comprehensive support to students’ educational needs.**
* Every student at some point looks out for additional courses online in order to understand the textbook or lecture concepts better.
* **Prepares students for a future of high-quality education.**
* AI Chatbots for education make learning more dynamic and lessen a student’s uncertainty about various study areas by providing the answers they need.
* **Facilitates assessments and evaluation processes.**
* All student responses can be automatically assessed and scored using artificial intelligence and machine learning. Teachers can totally utilize technology, filling students’ scorecards based on AI chatbot findings.
* **Proactively offers assistance and guidance to students.**
* In the education industry, chatbots can be properly tailored to provide answers to students even before they inquire.
* **Offers personalized virtual tutoring sessions.**
* Students and their study patterns can be given individual attention by AI chatbots. They can closely monitor students’ studying and information consumption patterns and, as a result, assist them in excelling in their fields.
* **Assists with administrative tasks and responsibilities.**
* Chatbots for the education sector can act as their administrative assistants. Rather than going to the office and waiting in long lines for responses, obtaining information via chatbots is a preferable choice.
* **Preparing for the future workforce**
* Especially students taking up courses in the information technology industry.