ADOPTION OF GPT-AI TECHNOLOGIES IN HIGHER EDUCATION

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GPT (Generative Pre-trained Transformer) AI is a groundbreaking technology that has revolutionized natural language processing and generation. Developed by OpenAI, GPT leverages deep learning algorithms and large-scale training datasets to understand and generate human-like text. With its impressive ability to comprehend and produce coherent and contextually relevant content, GPT AI has found applications in various fields, including chatbots, content creation, language translation, and more. As an advanced language model, GPT AI continues to push the boundaries of what is possible in artificial intelligence and reshape the way we interact with technology.

Problematic statement

The problem. : The rapid development of Generative Pre-trained Transformer (GPT) artificial intelligence (AI) technology has a great impact on the education of IT students in universities. (GPT) AI gives students hands-on experience with cutting-edge technology and the opportunity to work on real-life projects, however it also brings challenges and potential downsides.

Integrating (GPT) AI into the curriculum alone may not be enough to equip students with the skills they need to succeed in the rapidly evolving technology field. There is a risk that IT students will be overwhelmed by the sheer volume of information and have a hard time keeping up with the pace of technological advancement.

Additionally, the use of (GPT) AI in education can also raise ethical concerns, especially around issues such as privacy, data security, and algorithmic bias. IT students should be equipped with knowledge and understanding of the ethical implications of (GPT) AI technology in order to make responsible and informed decisions about its use.

Research question:

What is the influence of (GPT) AI technology on IT students in higher education?.

Research hypotheses:

- Students who perceive fewer problems with using technology in higher education are more likely to adopt technology.

- Students who recognize the usefulness of technology in higher education are more likely to adopt technology.

- The adoption of IA GPT in higher education practice influences the educational level of students.

Target Population:

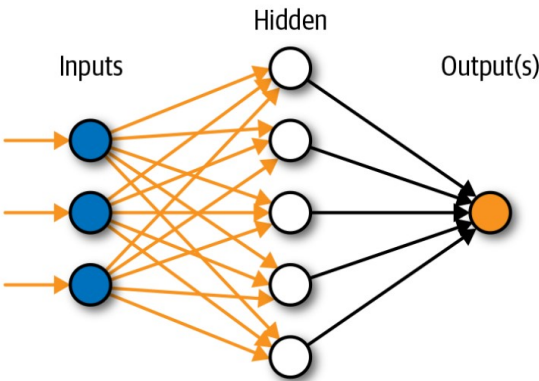***Higher education ENSA students..***

Fig. 1. Artificial Neural Network

sampling plan:

A. sampling method. stratified sampling (equal or representative).
We choose the **equal sampling** plan.

B. minimum sample size:. 68 (34 Females AND 34 Males)
Confidence = 95%
Margin of error = 5%

Understanding the Choice of Population Size, Confidence Level, and Margin Error

It is essential to make sure that the findings of any research or study are both accurate and true to the community under study. In order to accomplish this, statistical significance is crucial. To strike the correct balance between accuracy and practicality, care must be taken while deciding on study characteristics including population size, confidence level, and margin error. In this post, we explore the rationale for choosing a population size of 296 people, a level of confidence of 95%, and a margin of error of 5%.

Population Size:. In statistical analysis, the population size is a crucial consideration. In general, a higher population size gives a more complete picture of the entire group under study. However, it is frequently unfeasible, expensive, and time-consuming to undertake research on the entire population. As a result, it is common for researchers to choose a smaller sample from the population, which is preferably a random and objective selection.

In our instance, a population size of 296 was selected to strike a balance between the demand for accuracy and the need to be practical and controllable given the available resources.

Confidence Level:. Based on the sample data, the confidence level is the probability that the true population parameter falls within a given range. In plainer terms, it gauges how confident we are in the veracity of our conclusions. The most popular confidence level is 95%, which indicates that if we were to repeat the study 100 times, we would anticipate that 95 of those studies would have the calculated interval contain the true population parameter. In order to provide a respectable level of certainty without being unduly risky or conservative, a 95% confidence level finds a compromise between specificity and generalizability.

Margin Error:. The allowed degree of difference between the calculated sample statistic and the real population parameter is set by margin error, also known as sampling error. It indicates the most difference we can accept and still believe the results to be accurate. The true population value's likely range is shown by the margin error, which is stated as a percentage. With a 5% margin of error, the estimated sample statistic can differ from the true population value by up to 5%. This margin of error maintains a fair level of precision while allowing for some fluctuation in the data.

Conclusion:. A balance between accuracy, feasibility, and practicality led to the choice of a population size of 296 people (first year of engineering cycle), a 95% confidence level, and a 5% margin of error. The population size picked allowed for a reasonable sample while yet attempting to correctly represent the greater population. A 95% confidence level finds a balance between specificity and generalizability and offers a respectable degree of assurance. Additionally, a margin error of 5% permits some variation in the data, guaranteeing that the results can be interpreted realistically. Researchers can acquire trustworthy and significant results that advance our understanding of the population under investigation by carefully taking into account these percentages.

data dictionary

DATA	Qualitative OR Quantitative	TYPE	Description
AGE	Quantitative	NUMERIC	CONTROL
GENRE	Qualitative	ALPHABETIC	CONTROL
FILLIERE	Quantitative	ALPHABETIC	CONTROL
ITEM ADOPTION	Qualitative	ALPHABETIC	EXPLICATING
ITEM UTILITY	Qualitative	ALPHABETIC	CONTROL
ITEM UTILISATION	Qualitative	ALPHABETIC	CONTROL
ITEM INTENTION OF USE	Qualitative	ALPHABETIC	CONTROL
ITEM FACTOR	Qualitative	ALPHABETIC	TO EXPLAIN

Technology Acceptance Model

The Technology Acceptance Model (TAM) is a theoretical framework that provides a structure for understanding and predicting the intentions of users adopting and using technology. Since it was first introduced by Fred Davis in 1986, it has become one of the most widely used models for studying technology acceptance and usage behavior.

TAM posits that two main factors, perceived usefulness and perceived ease of use, play an important role in users' decision
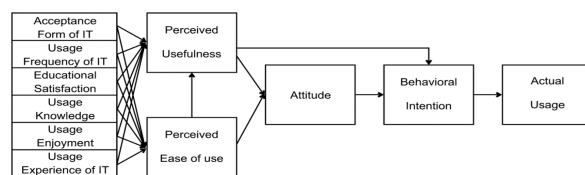

Fig. 2. Technology Acceptance Model

to adopt technology. Perceived usefulness refers to the extent to which an individual believes that using technology will improve their work performance and overall life. Perceived ease of use refers to the degree to which an individual believes the technology is easy to use.TAM suggests that these two factors can lead to an overall positive attitude towards technology.

External variables:

External variables such as social influence are important factors in determining this attitude. When these things (TAM) are in place, people have attitudes and Intention to use artificial intelligence. However, the perception may change depending on the situation. Predisposition to technology, image, experience, spontaneity, quality of output, Expected Performance, Expected Effort, Social Impact, Age, Gender.

Perceived usefulness :

Perceived usefulness is defined as the degree to which a person believes that Using the system improves performance. Perceived benefits depend on many factors.

- Relationship with research.
- Learning outcomes.
- Integration with other sources.
- Personal preference.

1. Perceived usability of use:

Perceived usability refers to how much people believe in its use. Artificial intelligence made easy It depends on several factors:

- Student background and past experience with AI
- AI tool design and user interface
- Compatibility of AI with existing systems and processes

Conclusion

Out of three hypotheses tested, two were accepted while one was rejected.

The first hypothesis stated that there is a relationship between the perception of problems associated with the use of GPT-IA technology and its adoption by students. Our statistical analysis showed a significant relationship between these variables, with a p-value of 0.0003088, which is less than the significance threshold of 0.05. Therefore, we can conclude that students who perceive fewer problems with the use of GPT-IA technology are more likely to adopt it.

The second hypothesis aimed to determine whether there is a relationship between the recognition of the usefulness of GPT-IA technology and its adoption by students. However, our results did not show a significant relationship between these variables, with a p-value of 0.4639, which is higher than the significance threshold of 0.05. Hence, we cannot conclude that the recognition of the usefulness of GPT-IA technology influences its adoption by students.

Lastly, the third hypothesis examined the relationship between the adoption of GPT-IA in teaching practice and the students' level of education. Our analysis revealed a significant relationship between these variables, with a p-value of 0.007185, which is less than the significance threshold of 0.05. This indicates that students with a higher level of education tend to adopt GPT-IA more in their teaching practice.

In conclusion, our findings suggest that the perception of problems associated with the use of GPT-IA technology and the students' level of education are important factors influencing their adoption of this technology in teaching practice. However, the recognition of its usefulness does not seem to play a significant role in adoption. These conclusions highlight the importance of raising awareness among students about the benefits of GPT-IA technology while addressing potential problems, in order to foster a broader and informed adoption of this technology in education.

et al.

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