

The effect factors of Artificial Intelligence on academic quality: a proposed model

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Abstract

Academic quality and artificial intelligence are two terms that are frequently used today due to their importance to companies and various educational institutions. Given how important these two concepts are, it has become necessary to bring them together in order to accelerate research on them in light of how quickly different models of artificial intelligence are being used in our modern world, as this paper will highlight. Besides proposing a model for the impact of artificial intelligence on academic quality, it also highlights the importance of educational institutions that use artificial intelligence in the field of academic quality.

Keywords: *academic quality, artificial intelligence, educational institutions, artificial intelligence model of academic quality.*

1. Introduction

The information and communication revolution, together with its cutting-edge and renewable uses, has had an impact on global trends.

As most administrative institutions transitioned from traditional administrations to modern administrations characterized by the use of modern technology, by employing and benefiting from artificial intelligence techniques, radical changes increased the speed of communication and improved its performance. As a result, many smart technologies emerged that contributed to increase efficacy in the field of academic quality.

Based on the concept of excellence in higher education, the issue of educational quality arises. To address this issue, every technical and scientific advancement that helps raise educational outputs has been used, with artificial intelligence applications playing a key role in strengthening the connection between the quality of higher education and labor market demands, Highest standards of quality and commercial demands.

On the basis of the introduction of artificial intelligence into the educational system in the People's Republic of China and other nations, there is an urgent need for the integration of current technology(Cong, 2022)

At the Saudi Electronic University, a method of statistical analysis was developed to determine the most prevalent elements impacting student performance, and then to apply artificial neural networks (ANNs) to forecast student success (SEU). Studying (in person or online), the proportion of live lectures attended, midterm exam results, and the percentage of assessments completed can all be used to gauge a student's success. The findings demonstrated that the four elements are in charge of determining academic success (Nawaf et al., 2022).

According to research (Mehrnaz et al., 2018), the obligation of instructors to impart knowledge should be reevaluated.

Take use of information technology or artificial intelligence solutions.

It was a chance to adopt AI in teaching and learning, and higher education institutions may foresee the opportunities and difficulties that may arise. These solutions offer chances for teaching and learning while promoting learning, which can help to preserve the integrity of higher education's core principles and objectives.

It's important to emphasize the new role that teachers play in the new learning that pupils are acquiring, and to insist on.

2. Artificial Intelligence

Artificial intelligence is the term used to describe programs or gadgets that execute tasks by mimicking human intellect and then develops over time based on the data they gather. There are several ways that artificial intelligence appears. A few instances:

Artificial intelligence is used by chat bots to comprehend client difficulties more quickly and offer more effective solutions.

It helps enhance scheduling by analyzing important information from a vast collection of text data.

On the basis of consumers' watching patterns, recommendation engines can provide automatic TV program suggestions.

AI is less about a particular shape or function and more about the capacity to understand more clearly and evaluate data. Although AI often depicts the world being taken over by highly effective, human-like robots, this is not how it is meant to work. It seeks to significantly increase human potential and contributions. It is therefore a highly valued commercial asset.

3. Academic Quality

In order to assure that the required quality will be attained, regardless of how the criteria for this quality are established, quality assurance is the process of identifying processes and procedures that are used at the proper and suitable time.

It is also known as a way to make sure that the academic standards deduced from the concerned party's message have been defined and attained in accordance with the corresponding standards, whether they be national or international, and that the level of quality of learning, research, and community participation opportunities is appropriate and meets the expectations of the various categories of beneficiaries from these bodies.

Quality has drawn significant attention in the majority of the world's nations as one of the fundamental foundations of a successful management model that attempts to stay up with and try to adapt to local and global developments.

This variable-academic quality- can be measured through the following sub-variables:

3.1 Academic programs

Definition of an academic program: In this sense, an academic program is a specific and planned sequence of courses that, when finished, results in the granting of the academic degree connected with the program (Bachelor, Master, PhD).

And academic programs in general serve as a person's entryway to the labor market. Given that we are currently living in an artificial intelligence era, it is necessary to link academic programs in AI without reserving this for academic programs with an emphasis on information technology because AI is now present in many fields. Integrating AI into most Academy programs, improves the effectiveness and quality of the workforce.

It suggests reexamining how teaching and learning theories are incorporated into AI-supported online learning, utilizing cutting-edge AI methods to gather and evaluate real-time process data, and doing more empirical research to examine the effects of AI applications on online higher education(Fan , Luyi ,2022)

3.2 Academic Staff

There Academic staff A person who works in higher education or scientific research is renowned for the positions that they have held, The majority of academics work as faculty members (such as professors) in colleges, universities, research institutions, and study centers. Some of these academics may also have research jobs.

Because of their significant influence on the academic program and the material they provide to their students throughout the educational process, the academic staff is regarded as one of the most crucial factors impacting academic excellence. They must be knowledgeable about the numerous academic degrees and levels of artificial intelligence applications.

A study (Teguh and Bulent, 2020) examined the impact of working conditions on the quality of education. In a summary, this study reveals that work status in academic institutes is a factor that affects the quality of education to a great extent. The more specific results of this study indicate that Teachers and principals are the main control factors in the institute and are responsible for providing education to students. If working conditions are not positive, these are the keys that staff becomes distressed and this distress translates into deterioration in the quality of education. If it was Healthy working conditions, increased employee retention and improved employability. The potential applications of artificial intelligence in teaching are promising. The development of artificial intelligence must always put students and teachers first if it is to have an impact on education (Muhammad and Emre, 2022).

3.3 Administrative staff

One of the components of senior management in every educational institution is the management personnel. The management and administrative personnel of the educational institution assist the head of the institution in leading it. Depending on the nature of the educational institution, advisors in various disciplines may contribute to these fundamental components. Each of them must be capable of making the right choice at the right moment within the framework of the action plan for the educational institution. The Board of Trustees, which oversees the administrative staff and defines the overall direction of the organization through the university president, is at the top of the hierarchy.

The staff's responsibility is to carry out the tasks of the educational institution successfully and in harmony.

Given its significance, we must integrate artificial intelligence applications into its choices and operations. By doing so, the educational institution will become a smart model and a unique smart environment that encourages academic and distinctive quality.

3.4 Students

A person who enrolls in classes at a university, one of its branches, or a similar institution is said to be a student there. Most often, this person has finished his coursework from levels of education beneath that of his institution. The student aspires to get one of the following academic degrees: BA, MA, PhD, etc.

The student. The person who wants information and makes an effort to acquire it is the student. The place where one acquires information, etc., is referred to as a "university."

The student is the most crucial component of the educational process since it is through him that the value and efficacy of the academic programs are demonstrated in the outputs that appear on

his experiences obtained from the programs he was given. The student's outputs are what are used to gauge academic quality.

4. proposed model

The following model- figure (1)- was proposed through the researchers examination and extrapolation of scientific studies that dealt with the subject of the research by following the method of library research and access to scientific references, Specialized scientific books and articles published in peer-reviewed scientific journals, Various periodicals, scientific conferences, theses, previous studies and research Related to the research topic and related to the topic of the paper.

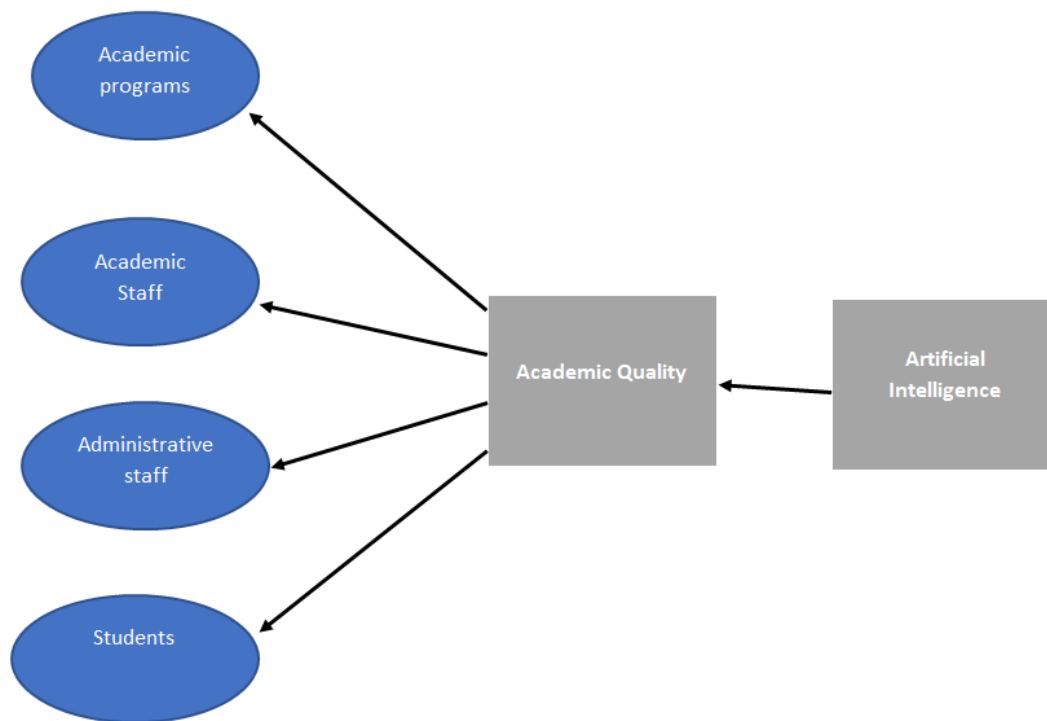


Figure 1. Overview of a proposed Model

5. Conclusion

artificial intelligences in addition to serving as a source of excellence in higher education institutions, artificial intelligence's significance is demonstrated by what it accomplishes in terms of academic quality. When used by organizations to attract, nurture, and retain talented students,

these applications help them meet their objectives as well as those of current and future higher education institutions.

As it works to identify students' areas of creativity and strength and educational institutions that have students and academic staff with talents that have a good reputation and are a focus of attraction and an incubating environment for creativity and excellence, artificial intelligence in education is an important way to spread the culture of learning and development as a means to achieve competitive advantage.

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