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Benefits and Challenges of Using Artificial Intelligence by Stakeholders in Higher Education

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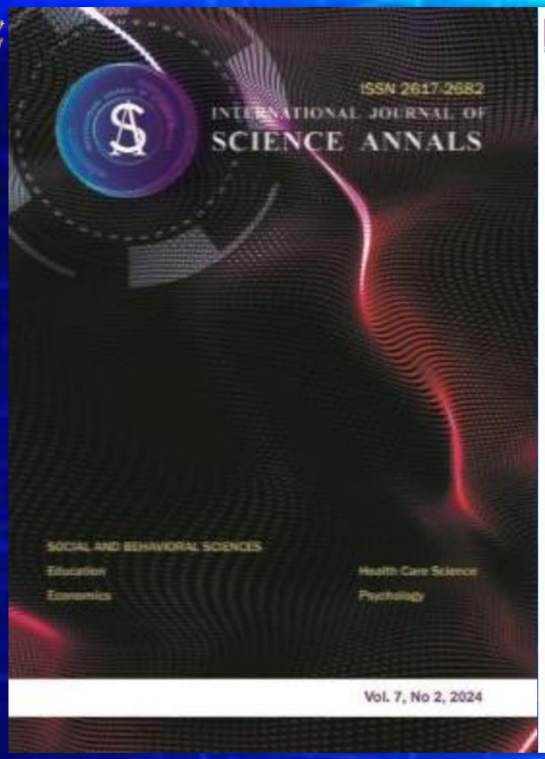


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Benefits and Challenges of Using Artificial Intelligence by Stakeholders in Higher Education

Author's Contribution:
A Study design;
B Data collection;
C Statistical analysis;
D Data interpretation;
E Manuscript preparation;
F Literature search;
G Funds collection

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Abstract

Background and Aim of Study: *The benefits and challenges of using artificial intelligence (AI) in higher education are discussed. This has been the subject of a great deal of discussion among the general public and in the academic periodicals.*
The aim of the study: to specify the benefits and challenges of using AI in academic university teaching based on a review of periodical research, and to develop a classification of directions for the use of artificial intelligence in higher education for interacting stakeholders.

Material and Methods: *The present study used a number of theoretical methods: analysis, synthesis, comparison, generalisation, systematisation to define the benefits and challenges of the use of AI by stakeholders; classification and modelling to develop a classification of directions for the use of AI in higher education.*

Results: *It highlights the key benefits and challenges of using AI in academic university teaching that stakeholders face. Classification of directions of AI use in higher education is developed. The following four criteria are highlighted: content of education; forms and methods of teaching; diagnosing of learning outcomes; administering of educational services.*

Conclusions: *AI offers exciting new prospects for its application in higher education, but there are also many concerns about its rapid development First and foremost, there are the issues of the ethical and legal implications of using AI in higher education. The results of the study are important for stakeholders involved in developing strategies for the use of AI in higher education. The need to increase digital literacy and prepare all higher education institutions for the intensive process of information technology development in the coming years is highlighted.*

Keywords: *artificial intelligence, higher education, benefits of artificial intelligence, challenges of artificial intelligence, stakeholders in higher education.*

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Research Methods

A number of theoretical methods were used in the present study:

1. To define the benefits and challenges of the use of artificial intelligence by stakeholders:

- analysis,
- synthesis,
- comparison,
- generalization,
- systematization.

2. To develop a classification of directions for the use of artificial intelligence in higher education:

- classification,
- modelling.

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Classifying the Directions of Implementing Artificial Intelligence in Higher Education

1. Content of Education.
2. Forms and Methods of Teaching.
3. Diagnosing of Learning Outcomes.
4. Administering of Educational Services.

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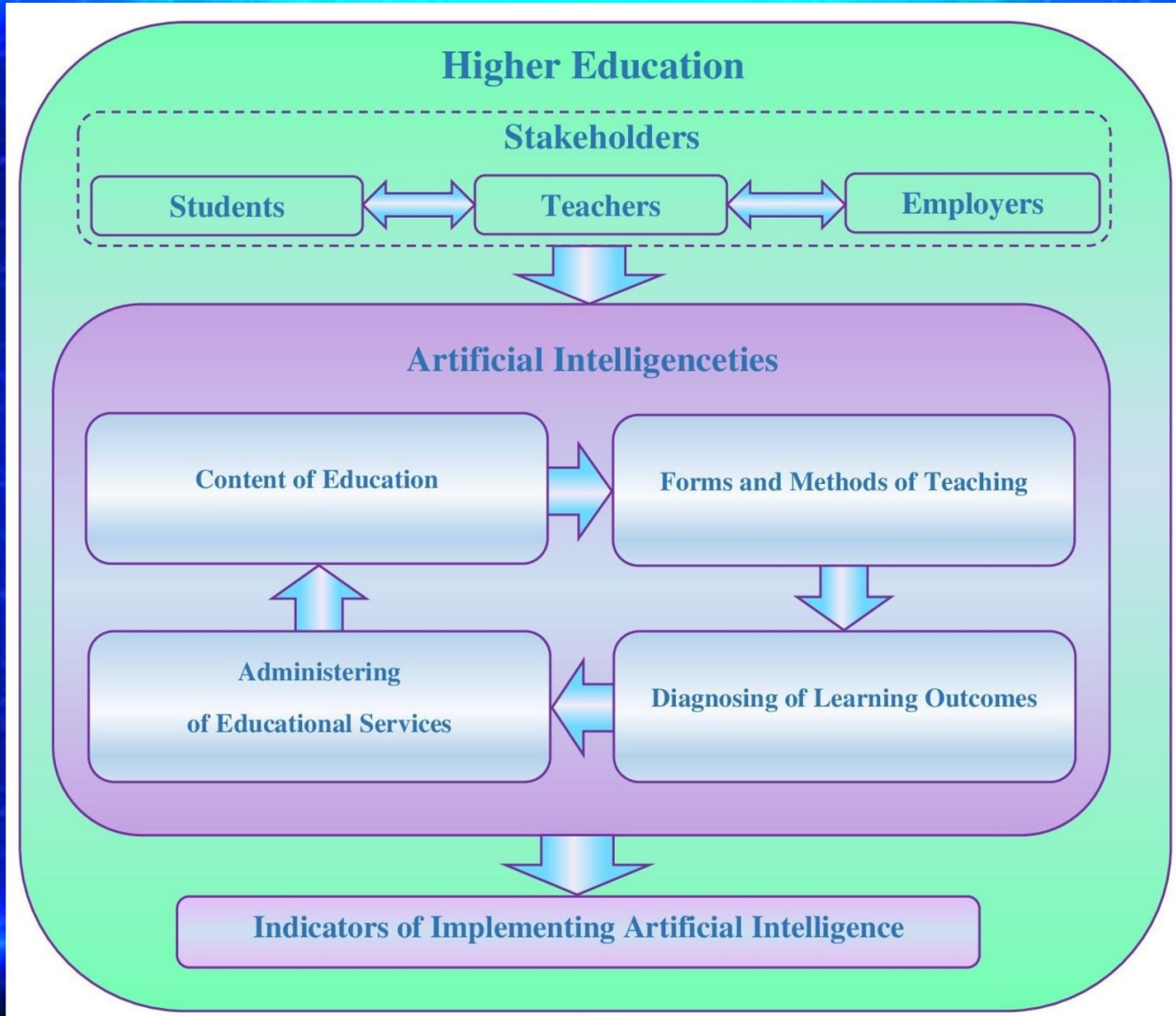

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Key Benefits of Using AI in Higher Education

1. Benefits for the content of education (analysing huge amounts of data and transforming it into educational content).
2. Benefits of forms and methods of teaching (use of innovative methods and technologies such as virtual and augmented reality; voice assistants; translation tools; chatbots).
3. Benefits of diagnosing learning outcomes (no bias, speed of information processing).
4. Benefits of administering educational services (raising academic standards and quality of education, optimising the planning of educational processes, cost-effectiveness).

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Significant Challenges Faced by Stakeholders in Using AI in Higher Education

1.Challenges for the content of education (creating incorrect information, biasing training data, relying on technology and not having equal access to AI tools).

2.Challenges of forms and methods of teaching (lack of human contact, students' lack of technological skills, lack of consideration for language and cultural differences of users, limited exposure of students to different points of view).

3.Challenges of diagnosing learning outcomes (biased scoring algorithms, risk of cheating, and no recourse).

4.Challenges of administering educational services (limited technical capacity and reliability, threats to privacy and security, ethical and legal implications).

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Conclusions

The application of AI in education is a relatively new phenomenon for researchers and practitioners. AI offers exciting new prospects for its use in higher education, but there are also many concerns about its rapid development.

Most researchers expressed concern about the ethical and legal implications of using AI in higher education. Increasingly, academics are calling for a consensus on the safe and responsible implementation of AI in education.

We believe that digital literacy and the readiness of all stakeholders in higher education for the intensive process of information technology development in the coming years is necessary.

If you are interested in partnering,
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