Jefferson Sim Poh Thong[1], **Irene Chang Hui Chung**[2]

[1]*Academic Quality and Innovation, University of Southampton Malaysia, Malaysia*
[2]*Sunway Business School, Sunway University, Sunway City, Malaysia*

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Jefferson Sim   Irene Chang

SieQA 2024
Navigating the Future
Advancing Quality Assurance in an AI-Driven Educational Landscape

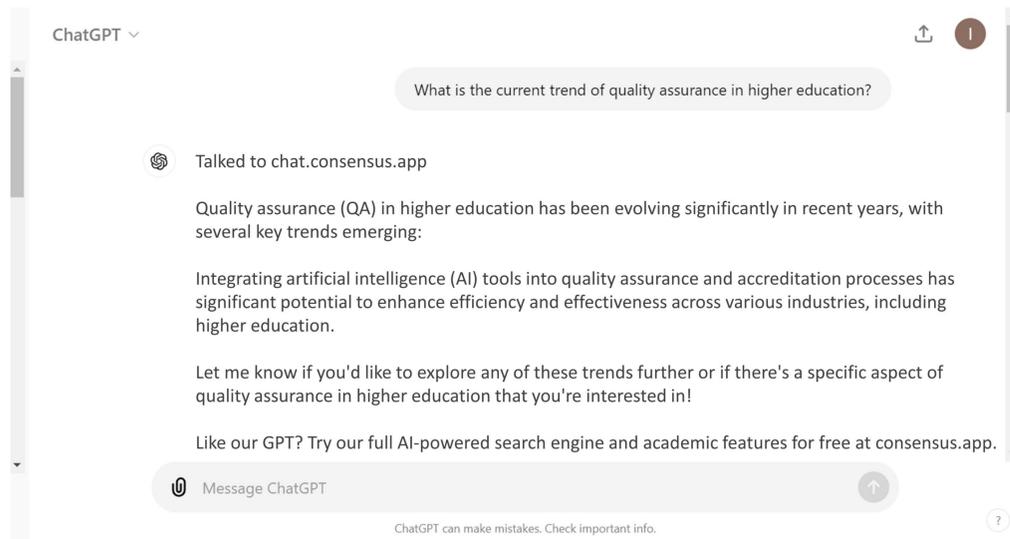# AI vs QA: AI Tools for Quality Assurance and Accreditation

Abstract

This paper reviews the integration of AI tools in quality assurance and accreditation in higher education, highlighting their potential to improve efficiency, particularly in accreditation preparation. Despite their benefits, AI adoption remains low due to data security concerns. The study discusses AI's role in ABET and AACSB accreditation, the development of a fuzzy inference system for evaluating institutional quality and the use of expert systems to enhance reliability. It emphasizes the need for secure AI systems to overcome adoption barriers and unlock AI's full potential in improving quality standards in higher education. Most research focuses on European institutions.

Introduction

Hey Siri! Hey Alexa!

Sounds familiar? We are so used to having our AI assistants in our daily lives. With the rapid advancement of technology, are we expecting another assistant in our work as QA personnel?

ChatGPT ∨

What is the current trend of quality assurance in higher education?

Talked to chat.consensus.app

Quality assurance (QA) in higher education has been evolving significantly in recent years, with several key trends emerging:

Integrating artificial intelligence (AI) tools into quality assurance and accreditation processes has significant potential to enhance efficiency and effectiveness across various industries, including higher education.

Let me know if you'd like to explore any of these trends further or if there's a specific aspect of quality assurance in higher education that you're interested in!

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Message ChatGPT

ChatGPT can make mistakes. Check important info.

Method

- The review included scholarly papers published between 2017 and 2023.
- To identify relevant studies, the following keywords were used: "artificial intelligence (AI)", "quality assurance", "accreditation processes", and "higher education".
- The search was conducted in Google Scholar. From the initial pool of articles, a total of 9 papers were selected.

Results & Discussions

Benefits

Automated Data Analysis and Reporting

- **Data-Driven Insights**: AI can analyze large datasets, including student performance, course evaluations, and institutional metrics, to identify trends, gaps, and areas for improvement. This allows for more informed decision-making in QA processes.
- **Real-Time Monitoring**: AI tools can provide real-time analysis and reporting on key quality indicators, enabling institutions to respond more quickly to issues and improve educational outcomes.

Enhancing Accreditation Processes

- **Streamlining Accreditation**: AI can automate the gathering and analysis of data required for accreditation, making the process more efficient. This includes compiling reports, tracking compliance with standards, and identifying areas that need improvement.
- **Continuous Quality Improvement**: AI can support continuous quality improvement by identifying patterns and trends that suggest areas for ongoing development, rather than waiting for periodic accreditation reviews.

Decision Support for Quality Assurance Committees

- **AI-Assisted Decision Making**: AI can assist QA committees by providing data-driven insights, identifying potential areas of concern, and suggesting evidence-based actions to improve quality.
- **Scenario Analysis**: AI can model various scenarios and their potential impacts on quality, helping institutions plan for the future and make strategic decisions.

Challenges

Human Oversight

- While AI can support QA processes, human oversight is crucial to ensure that AI-driven decisions align with the institution's values and mission. AI's role in preparing for ABET and AACSB accreditation, noting the limited adoption of these tools despite their proven benefits. While AI-based tools could improve quality assurance, their use remains low.

Ethical Concerns

- AI systems must be designed and used in ways that respect student privacy, data security, and fairness.
- the importance of addressing data security concerns to facilitate broader AI adoption.

Conclusion

While AI technologies offer substantial benefits for accreditation and quality assurance, their adoption is hindered by data security issues. Future research should focus on developing secure AI systems and promoting their use in the higher education industry. By overcoming these barriers, the full potential of AI in ensuring and enhancing quality standards can be realised.

Acknowledgement

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