STATE OF THE ART REVIEW

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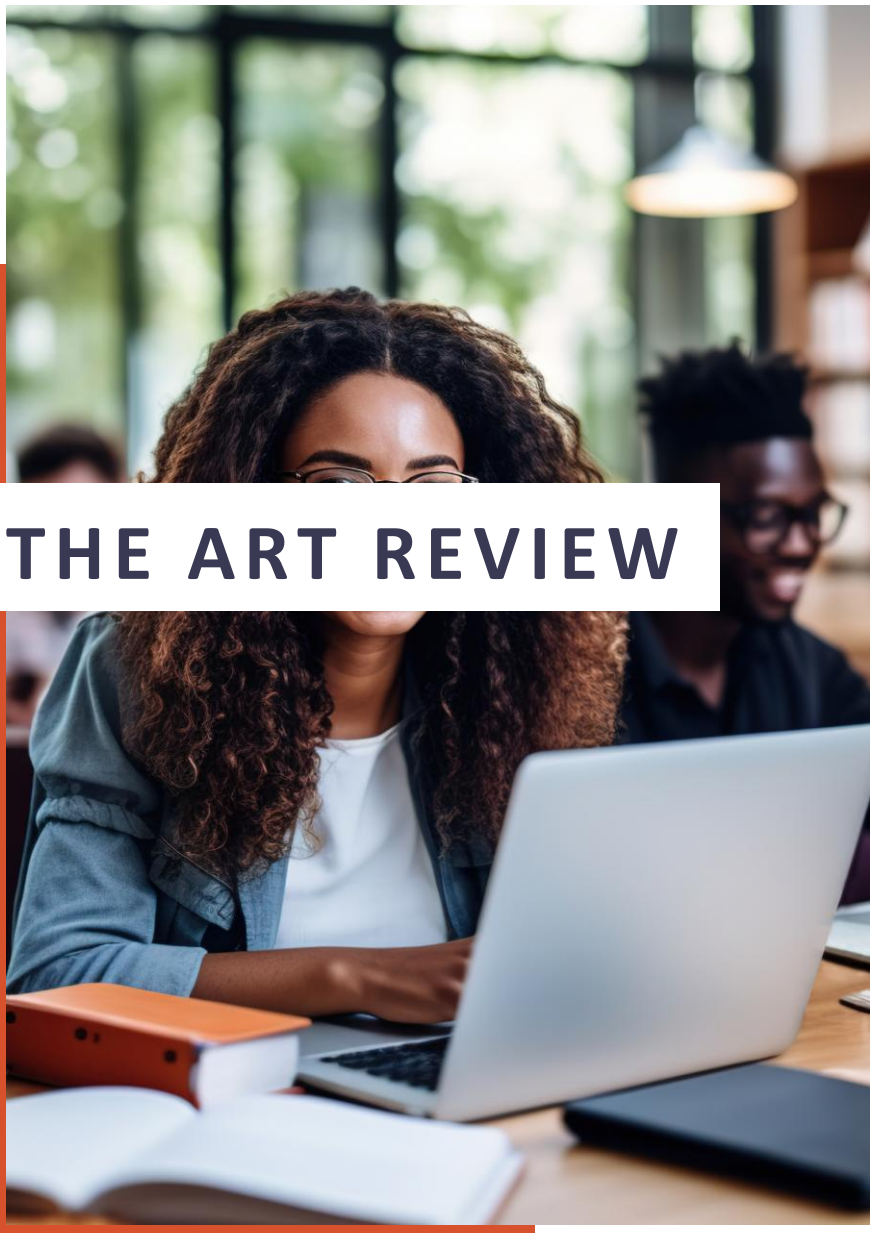


STATE OF THE ART REVIEW

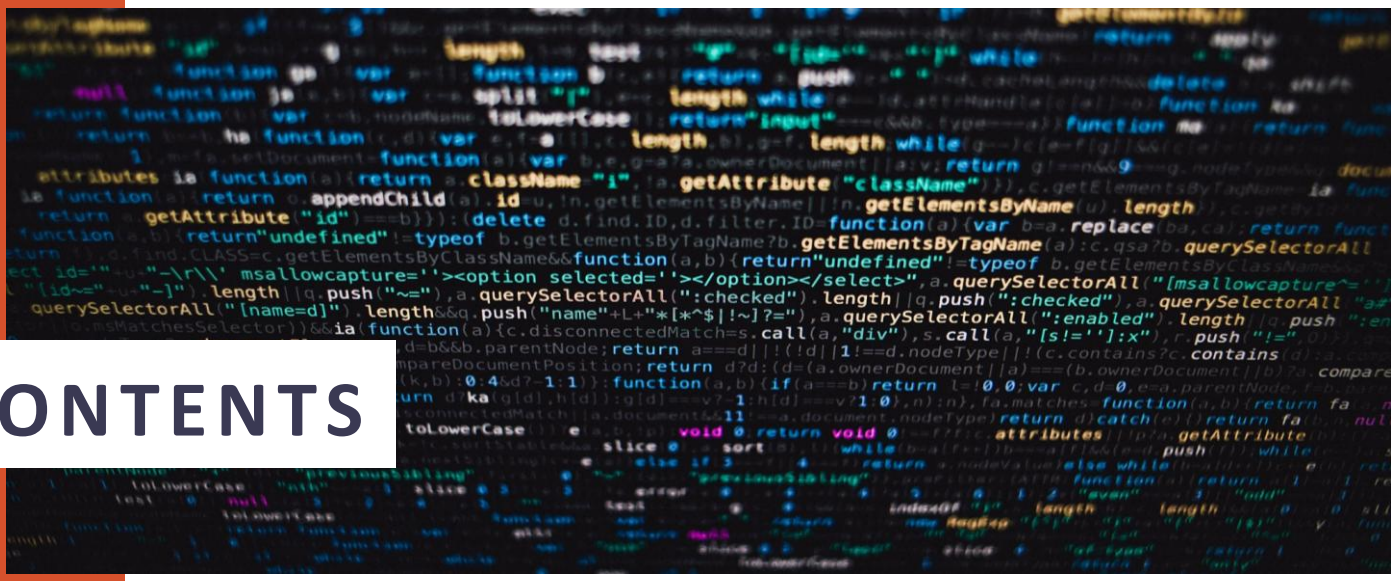
This document presents a summary of the **State of the Art Review**, a foundational component of the AI Leaders project. It aims to explore the current understanding and teaching of applied and ethical Artificial Intelligence (AI) in business and management education. By examining how AI is taught and applied across institutions, this review highlights both opportunities and challenges in integrating AI into academic and professional training.

The review seeks to address critical questions such as:

- How can educators effectively teach the applied and ethical aspects of AI to future business leaders?
- What are the current gaps in knowledge, skills, and motivation among educators in this field?
- How can practical tools and case studies support educators in embedding AI in their courses?

Through a synthesis of online research, focus groups, and expert consultations, this condensed version outlines the key findings and recommendations for fostering responsible AI education that aligns with European values and ethical guidelines.

This summary serves as a resource for educators and stakeholders, providing insights to help navigate the complexities of teaching AI in a rapidly evolving business landscape while ensuring students are equipped with both the technical expertise and ethical awareness required for the future.



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01

INTRODUCTION

METHODOLOGY FOR ACADEMIC JUSTIFICATION

Data Collection and Analysis Criteria

To develop the academic justification, bibliometric and content analyses procedures were used to select and examine published articles focusing on Ethical AI within the context of business and management education. The table summarizes the data collection criteria used for developing the state-of-the art report.

Query - Search words (Title, Abstract, Keywords)	("Artificial Intelligence" OR "AI") AND ("Ethic*" OR "Responsible") AND ("Business" OR "Management" OR "Economics" OR "Accounting" OR "Finance" OR "Operations Management" OR "Information Systems" OR "Entrepreneurship" OR "International Business" OR "Business Law" OR "Strategic Management" OR "Human Resource*" OR "Corporate Social Responsibility" OR "CSR") AND ("Education" OR "Teach*" OR "Training" OR "Traine*" OR "Schooling" OR "Instruction*")
Time-Horizon	All available at development date (17/June 2024)
Database	Web of Science
Research limitations, Document type	Articles, Early Access, English

creating circular communities

A LITTLE PROGRESS EACH DAY ADDS UP TO BIG RESULTS

The conclusions of the analysis can be divided into the following areas:

1. AI Applications in Business and Management Education

2. Ethical Implications in AI-Driven Education

3. Challenges and Opportunities in Adoption

02

ANALYSIS

AI APPLICATIONS IN BUSINESS AND MANAGEMENT EDUCATION

Generative AI tools, such as ChatGPT, play an important role in business education by enabling scenario-based learning and adopting analytical and evaluative skills. These tools provide support for personalized feedback, adaptive learning, and assessment. For example, ChatGPT can improve students' lower-order cognitive skills, such as comprehension and application, while its efficacy in fostering higher-order abilities like creative problem-solving remains less straightforward.

Generative AI can support experiential learning by creating realistic simulations and scenarios. These tools facilitate reflective thinking and hands-on activities while addressing real-world business challenges. This approach can be e.g. used in logistics education, where AI-based simulators help students develop strategic management skills and make data-driven decisions.

Adoption of AI tools often hinges on recognition of their role as facilitators rather than content experts. Students, especially digital natives, expect educators to integrate technology effectively. However, the introduction of AI tools like ChatGPT has also prompted greater scrutiny of traditional teaching methods, urging educators to innovate their pedagogical approaches

ETHICAL IMPLICATIONS IN AI-DRIVEN EDUCATION

The widespread use of AI tools in education raises concerns about data privacy, algorithmic bias, and academic dishonesty. Transparent and explainable AI systems are essential for maintaining fairness and avoiding discrimination in educational assessments.

Generative AI introduces challenges in maintaining academic integrity. Tools designed to detect AI-generated content demonstrate high accuracy, yet they require ethical implementation to avoid stigmatization. Institutions should develop a culture of academic honesty as well as technological safeguards.

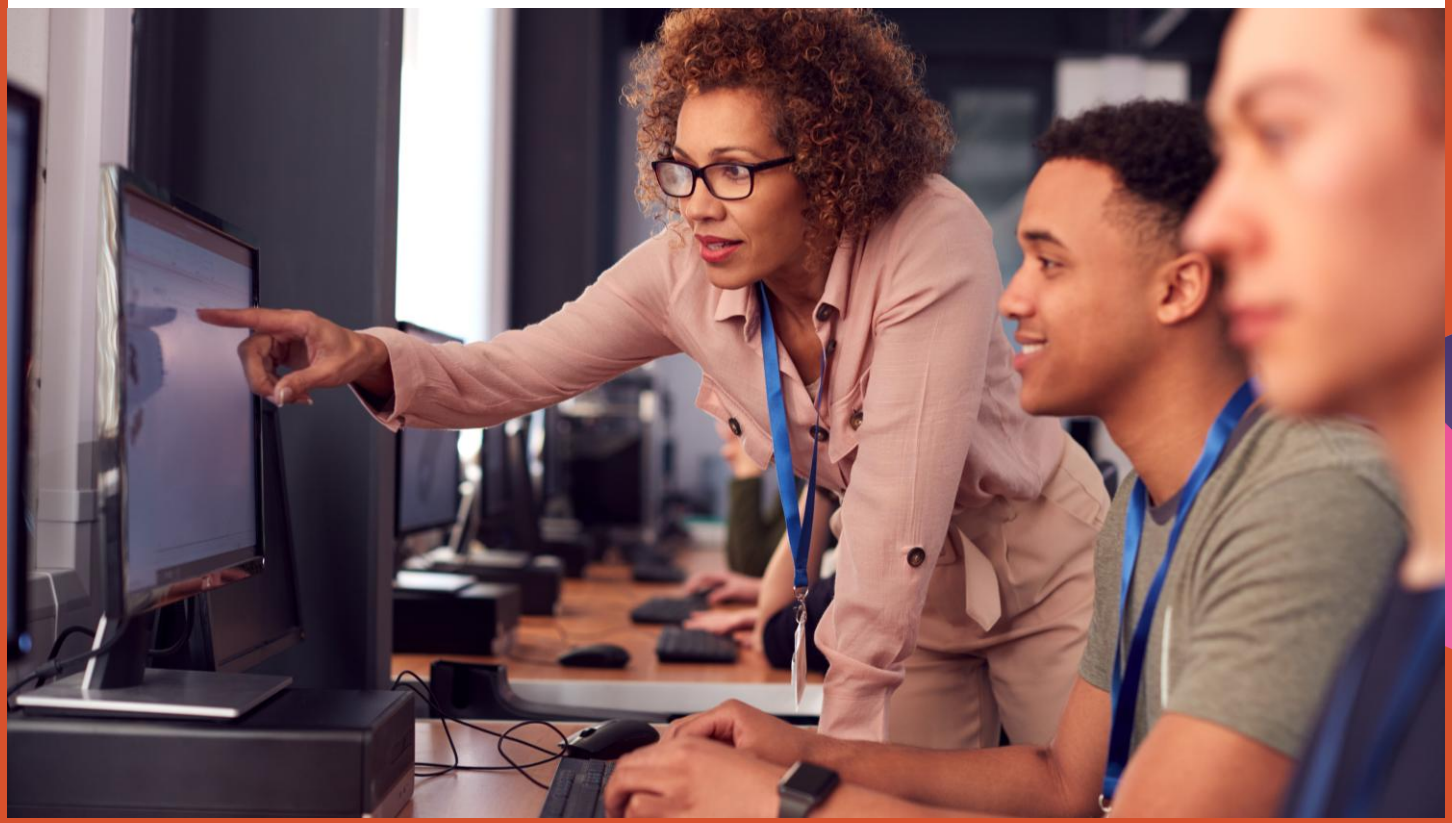
The ethical considerations on adopting AI in education is also important when addressing the balance between human and AI decision-making. Excessive reliance on automated systems may undermine students' autonomy, critical thinking, and ability to take risks.

CHALLENGES AND OPPORTUNITIES IN ADOPTION

Resistance to use AI among educators is often a result of a lack of support, training, and evidence of long-term benefits. Institutions must prioritize professional development, offering workshops on ethical AI usage and creating inclusive policies that encourage innovation.

Research indicates gaps in interdisciplinary and ethical training within AI education. Business schools and engineering programs need to align their curricula with labour market demands, emphasizing technical, ethical, and regulatory competencies.

Factors such as perceived usefulness, efficiency, and organizational support significantly influence the adoption of AI tools in higher education. Institutions must provide robust infrastructure and encourage behavioural intentions among stakeholders to ensure successful implementation.



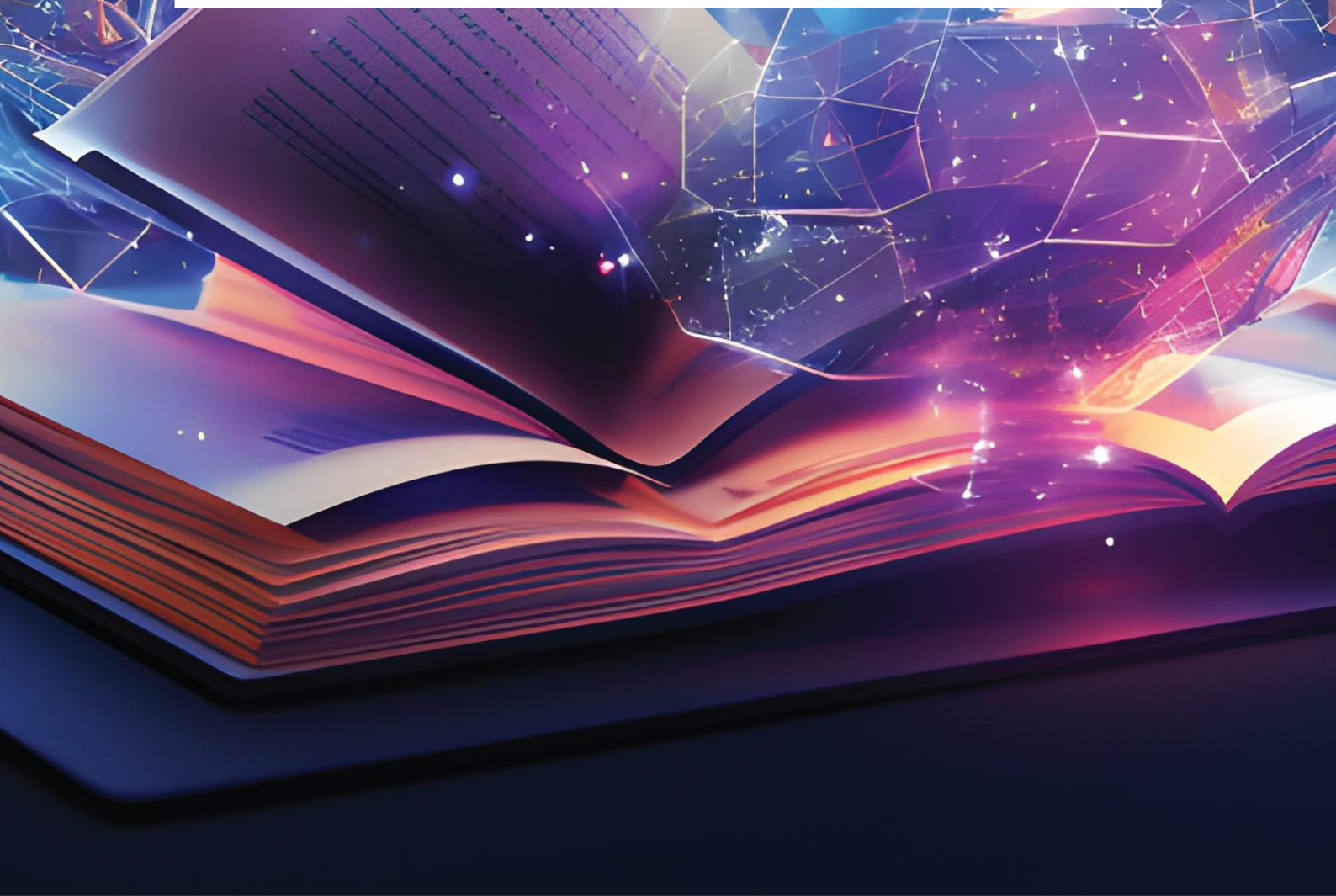
03

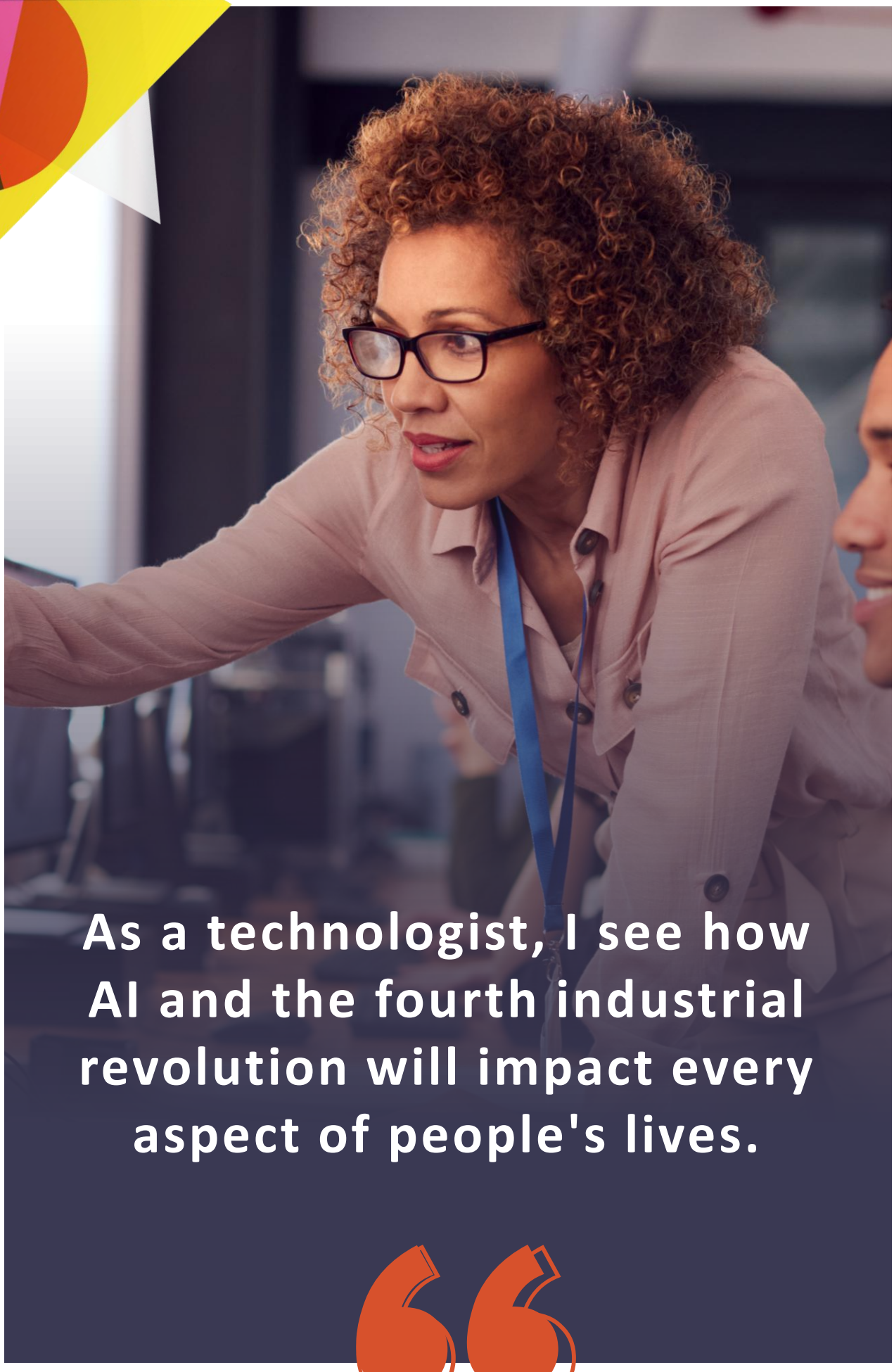
CONCLUSION

CONCLUSION

Of this State of the Art Review

The current understanding of AI in business and management education underscores its transformative potential, particularly in enhancing learning outcomes and addressing real-world challenges. However, the ethical implications, including privacy, bias, and academic integrity, demand careful consideration. Institutional support, interdisciplinary collaboration, and robust ethical frameworks are crucial for maximizing the benefits of AI while mitigating risks. As education transitions into an AI-driven era, fostering adaptability, critical thinking, and ethical awareness will remain central to preparing future business leaders.





As a technologist, I see how AI and the fourth industrial revolution will impact every aspect of people's lives.

04

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