Reshaping Business Education with Hands-On Artificial Intelligence

Ana Freire suggests ways of integrating AI into the business school curriculum, giving students an understanding of its potential as well as its limitations

The future of business is being rapidly reshaped by artificial intelligence (AI) and big data, with the World Economic Forum's Future of Jobs Survey 2023 revealing that for companies of various scales, AI and big data are the pillars of corporate training and operational strategy for the coming years. The same report states that approximately 75% of the surveyed companies plan to adopt AI technologies, and this widespread adoption is predicted to lead to a significant churn, signaling a transformative period in the workforce.

This issue places an imperative on business schools, traditionally seen as important centres for advanced education: they must transition from their classic focus on business administration, accounting, and management to integrate cutting-edge technological education that aligns with industry demands.

The question then arises: how can these institutions prepare their students for a world where AI and big data are not just tools but the bedrock of business strategy?

Incorporating AI and big data into the educational landscape requires a multi-dimensional approach:

1. **Enriching current curricula with AI applications:** enhance existing or traditional programmes with specific AI courses tailored to real-world applications and case studies.
2. **Launching specialised programmes:** implement dedicated programmes in data analytics and artificial intelligence, which have increasingly featured in business schools during recent years.
3. **Creating networks and partnerships among business schools:** establish networks for business schools to ensure that, if one school lacks technological courses, it can partner with another that offers such content (even extracurricular), allowing students to acquire the necessary knowledge.

Let's focus on the first strategy, as it presents a practical pathway to immediate curriculum enhancement. Introducing AI through the case study method, especially in established programmes like MBAs, allows students to analyse real-world scenarios where AI solutions are implemented. This approach can demystify AI and reveal its tangible applications across different business functions such as marketing, logistics, and more. Time to be hands-on!

AI in practice: a deep dive into MBA and specialised Master's programmes

We will focus on four common programmes within business schools, discussing practical approaches to integrating AI education:

- **Master's programme related to Business Administration:** Introducing AI into an MBA curriculum should commence with a comprehensive overview of the field - its history, evolution, and current state. This foundational knowledge anchors the subsequent: more intricate exploration of AI systems like robotics, natural language processing, speech recognition, and machine learning. It's crucial for students to understand the breadth and depth of AI, recognising its potential to optimise processes and its implications for the future of work. Through case studies, students can learn to make informed decisions using AI-driven insights. Teaching how AI can aid in talent acquisition, employee retention, performance evaluation, and workforce planning can be an essential part of an MBA curriculum. Do not dismiss the opportunity to teach MBA students basic Python data analysis, not only fostering AI literacy, but allowing them to tap into the full potential of this programming language. This way, students will also be aware of the complexity behind these systems, and this might help when considering their use. Platforms like Kaggle can help to find manageable data sets for basic data analysis and visualisation.

- **Master's programme related to Marketing:** a deep dive into machine learning could demonstrate how AI facilitates more granular customer segmentation and predictive modeling, ultimately leading to more targeted and efficient marketing strategies. Here, practical application is key. Students should get their hands dirty with actual data sets, perhaps using Python, and engaging with Kaggle or GitHub to solve real business problems. Generative AI should also be presented in detail in these programmes, due to the high potential it offers, especially for content creation or personalised advertisement.
- **Master's programme related to Public Administrations:** the focus could shift to AI's societal impact, such as the perpetuation of bias and the essential practices for developing fair and equitable AI systems. If students learn the mechanics of how machine learning models are trained and evaluated, they will gain a clearer understanding of the origins of biased outcomes. Furthermore, computational techniques for bias detection and mitigation need to be explained so students are equipped with the necessary competencies to outline precise requirements for data scientists involved in developing AI applications within the public sector. Finally, these students need to struggle with case studies that expose the ethical and legal challenges posed by AI and learn to craft policies that mitigate these issues.
- **Master's programme related to Sustainability Management:** would approach AI from another angle, showcasing, for instance, how machine learning models can optimise supply chains for reduced carbon footprints and enhanced efficiency. This would not only involve understanding AI's capabilities but also its limitations, such as the inherent carbon footprint of the AI models in order to select the most suitable one depending on the case use. It's key to emphasise the importance of human oversight in deploying AI solutions for sustainable outcomes. The previously mentioned tools (Python and public data and code repositories) can also be useful in this context.

Across all programmes, the instruction must underscore the foundations and the ethical dimensions of AI. As future business leaders, students must learn to pursue AI ethics, ensuring they can lead the development and deployment of responsible and transparent AI systems. The curriculum should include robust discussions on privacy, accountability, and the societal impact of AI, preparing students to make decisions that honour both business objectives and ethical considerations.

> *Teaching AI in a business school environment presents several challenges that institutions must face*

In each instance, the objective is to move beyond the theoretical and into the realm of application. Business schools have the opportunity - and responsibility - to not only inform their students about AI but to immerse them in the technological, ethical, and practical realities of its use in the business world. This practical approach doesn't just teach students how to use AI, it challenges them to consider its broader implications, making them better prepared for the complex decision-making required in the business world.

However, teaching AI in a business school environment presents several challenges that institutions must face to provide effective education. AI education often needs smaller class sizes to effectively manage and address the individual technical challenges students may encounter, especially when dealing with complex software and coding issues. Unlike traditional masterclass formats that can accommodate larger groups, AI education frequently requires a more hands-on, tutorial-style approach. Business schools must find a balance between providing personalised attention to students' technical issues and the logistical constraints of maintaining smaller class sizes. This demand can put a strain on resources, as more faculty members or teaching assistants may be necessary. This leads to another big challenge: finding faculty with the necessary expertise in AI and its business applications, due to the high employment rates and competitive salaries offered in the tech industry. Besides, instructors not only need to understand AI technology but also how to apply it strategically within various business domains.

Business schools are key to creating multidisciplinary talent: individuals who are not only technologically astute but also aware of the scope and boundaries of current technological progress. By embedding a cross-disciplinary approach within their curricula, these institutions can ensure their graduates have a solid grasp of the possibilities that AI presents, as well as its limitations. This balanced understanding is essential for the next wave of leaders who will drive innovation while remaining conscientious of technology's realistic impacts.

About the Author

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