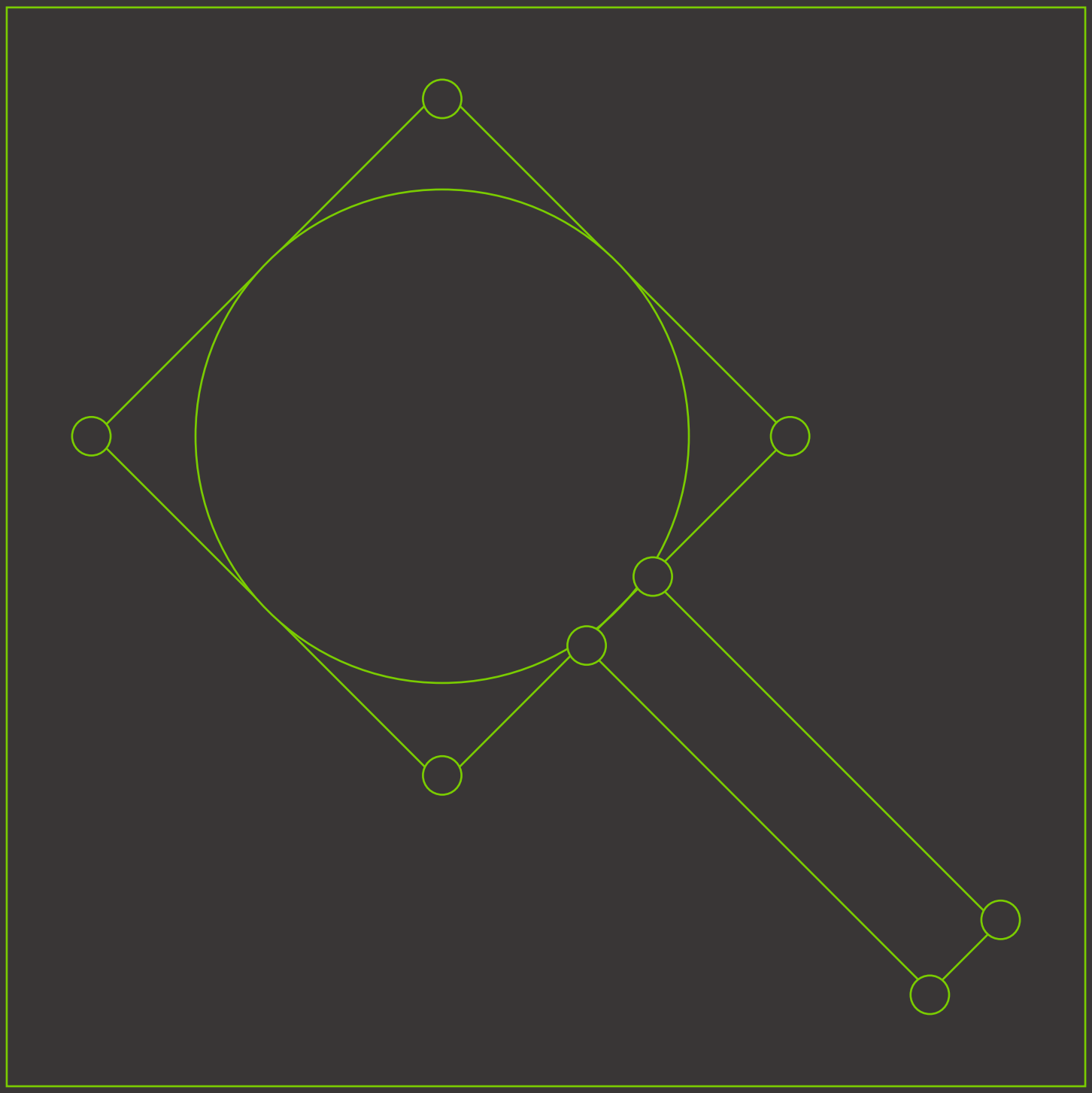
AI in Business Education Spotlight Series

AI in Business Education

IMD

Graduate Management Admission Council™



GMAC's AI in Business Education case study series spotlights the integration of artificial intelligence in graduate management education, focusing on curriculum development, administrative processes, and strategic applications.

Based in Lausanne, Switzerland, IMD is one of the world's most prestigious business schools, consistently ranked highly for its executive education and MBA programs. With additional hubs in Singapore and Shenzhen, China, the school prides itself on real world learning as an interface where academia meets practice with a strong focus on impact. Nowhere is this more relevant than in the current development of generative AI tools and application to the business world.

In keeping with its tradition of innovation and leading by example, IMD has committed to investing in the development and integration of AI tools. The institution has sought to identify and take advantage of AI's potential benefits to teaching, learning, and administration, while at the same time developing a framework, building a technical support team, observing the many legal and ethical implications, and gaining the buy-in of the whole institution.

While IMD's approach to integrating AI into their business and curriculum has been comprehensive, this case study focuses on the context, conception, and scaling of their "Expert-AI" assistant.

A summary of success

The Context:

An institutional strategy for the use of AI focused on pedagogical innovation that enables personalized, highly interactive, and deeply engaging learning in order to have a transformative impact on individuals, organizations, and society.

The Innovation:

A unique IMD "Expert-AI" large language model that allows participants to access and interact with a program-specific AI assistant trained not just on the full course content but also transcripts of classroom discussion, articles authored by faculty instructors, and thousands of entries in the IMD research article database.

Strategy and planning

Before diving straight into the development of any specific AI tool or application, the school first established a cross-institutional steering committee designed to align the development of the new technology across the institution. The committee was mandated to:

- Take the lead in ensuring the successful integration and ethical use of AI
- Review and approve project proposals for AI-enabled learning applications
- Prioritize and focus the various AI workstreams
- Ensure transparency of communication with faculty and staff

The second step was to introduce a set of 10 guiding principles for the development of AI related technologies. These principles provide guidance on over-arching topics such as ethics, transparency, inclusion, and sustainability, but also pragmatic statements on the institution's commitment to ensuring data protection and security while pioneering new technology.

The committee then developed a clear institutional strategy and purpose for the use of AI at IMD, including the following Learning Innovation Mission statement:

"Pedagogical innovation that enables personalised, highly interactive, and deeply engaging learning in order to have a transformative impact on individuals, organisations and society"

This focus on personalized and highly interactive learning led IMD to apply generative AI directly to the learning experience by developing a groundbreaking and unique IMD "Expert-AI," allowing participants to access and interact with a program-specific AI assistant trained not just on the full course content but also transcripts of classroom discussion, articles authored by faculty instructors, and with access to thousands of articles in "I for IMD," the IMD research article database. After a successful trial with their flagship Orchestrating Winning Performance (OWP) executive education program, IMD is now rolling out generative AI tools to the MBA and EMBA programs.

"I believe that this investment in technology is absolutely going to pay off because it really contributes to the learning process. In the future, rather than having to refer to binders and individual lecture notes, students and alumni will be able to access to an interactive companion tool during and after their studies. They will have access to a lifelong learning tool which will continue to improve with each year of use."

Omar Toulan, MBA Dean and Professor of Strategy and International Management

Framing the project

Imagine yourself as a seasoned business executive embarking on an enriching journey through an intensive, one-week, executive education program. Throughout the program, you have absorbed a plethora of insights from professors and guest speakers and exchanged valuable experiences with your peers, all while receiving support from dedicated coaches and program managers. As the program draws to a close, you find yourself quickly re-immersed in the demands of your daily responsibilities, only to realize that there are many questions unanswered, many discussion possibilities that could have been followed. If only there were a way now to still pose these questions to the experts at IMD on demand while still relevant.

This scenario demonstrates the inherent limitations of traditional educational settings: the constraints imposed by time and lack of personalization of experience for participants and lecturers alike. Enter the era of GenAI, where the team at IMD recognized the opportunity to empower participants with the ability to ask questions, tap into IMD's vast thought leadership, get answers, and enter into detailed discussions in their own language long after the program concludes.

AI implementation

The pilot project was designed to be fast and focused. The initial expert GPT for IMD's signature Orchestrating Winning Performance Program (OWP) was built in just six weeks, combining OpenAI's ChatGPT 4 with IMD's own corpus. The tool was trained on information from sessions within the weeklong executive education programme along with previously uploaded supporting documents selected by faculty. This provided enough depth of content to enable participants to interact and explore the program content in greater detail outside of class.

After iterating and learning from their experience in the OWP program / MBA and EMBA programs, IMD scaled their AI facility to the larger, more complex MBA and EMBA programmes. At the same time, IMD shifted their focus from general purpose AI (ChatGPT) to an "IMD Expert AI."

"What we are doing with AI is more than just a tool to bring to class. AI is far more disruptive. We used to expect people to accumulate knowledge and frameworks. As AI is increasingly able to perform these tasks, we are asking students to empower their learning journey and integrate the different elements while at the same time understanding how AI works, what its limitations are, and how they can bring it to their own companies."

Vanina Farber, EMBA Dean and
elea Professor of Social Innovation

As AI is increasingly able to compile knowledge and, to a certain extent, even fill frameworks, it is even more important for students to understand the value of context, moral dilemmas, and the use of judgment.

Challenges and solutions

1. Build or buy

IMD took a pragmatic approach to the question of buying “off-the-shelf” solutions or investing in development. Where available, commercial offerings were considered and integrated. However, in some cases a strategic advantage existed in developing a bespoke solution, which was preferable despite being an expensive and resource-intensive undertaking. By building an internal center of AI excellence at IMD, security and privacy of systems and data were made a priority by ensuring that they were protected against cyber threats and unauthorized access. Crucially, they are also technology-agnostic, allowing for flexibility in the future and lack of dependency on individual suppliers.

2. Environmental impact

GenAI consumes large amounts of electricity and water, and IMD is committed to ensuring their impact is minimized so that AI innovations can be delivered in the most sustainable way. By focusing on smaller models designed to complete specific tasks, IMD aims to be as efficient and sustainable as possible.

3. GDPR compliance

The AI Engine Room at IMD has all the tooling necessary to ensure GDPR compliance (something that ChatGPTs and other publicly available Large Language Models (LLMs) do not have). For example, every class session transcript has personally identifiable information about participants removed before it is uploaded to the AI Engine Room. In addition, no information about class participants is ever sent to or saved in large language models.

4.
Student onboarding

By embracing GenAI into the learning environment, it was also essential to onboard and educate participants in the ethical use of AI within an academic setting. An ethical code, essentially a list of “dos and don’ts” for interacting with AI generated content, was introduced to students. This clearly deals with topics such as plagiarism and copyright, while promoting correct citation, research, and AI collaboration.

5.
Staff upskilling

The steering committee emphasized empowering human growth and wellness rather than replacing humans. To foster collaboration and knowledge exchange, as well as general uptake of new tools, IMD initiated a multiphase training program to demystify the technology and empower the whole workforce.

6.
Biases and hallucinations

Ensuring the ethical and responsible development of GenAI is seen as crucial. The latest version of IMD’s tool cites sources of answers to allow for full transparency, with links to articles or information used to create the AI response and a feedback box for students to report issues. In addition, the tool integrates a number of adapters into the AI conversation pipeline to help it to be ethical and responsible. However, the team acknowledge that current GenAI technologies require some work still to address inherent biases and reduce the potential for hallucinations.

Key lessons from the IMD team

1.
Gain strategic alignment from the start.

To avoid the mushrooming of decentralized experiments across the organization, begin by setting up governance and key principles that will help set priorities and guide investments.

2.
Begin with a clear strategy and purpose.

Identify where AI can help you add the most value externally and internally. Start by identifying your pain points and biggest problems and pinpointing how AI could help you unlock these limitations.

3.
Be agile, starting with small pilots to test and learn.

Select projects with limited scope that you can implement quickly and then iterate, iterate, iterate. When evaluating internal projects, start with a focused, simple project with an already optimized process. This will help you be as precise as possible in the process-mapping, ensuring your AI performs with a high level of accuracy.

4.
Don’t forget to scale.

Once the AI has proven successful in tackling a specific problem, it’s important to figure out how to scale it across the organization to have the most impact and generate the biggest value.

The future of AI at IMD

IMD's two initial pilot projects were both focused on identifying a sweet spot in the learning experience, finding an opportunity to be both highly personalized and highly interactive. From a learning innovation standpoint, IMD is boldly exploring other areas where GenAI brings new forms of interactivity and personalization that extend well beyond in-class learning. However, the future of AI within the institution lies as much in business processes as in the program. An upcoming project, for example, focuses on the finance department automating cash collection bookings — a daily, repetitive process of matching funds received with invoices issued. Now, a digital colleague has been trained and introduced to the team, helping accountants with routine tasks so that they can focus on more complex and valuable work.

Whether in the classroom or infrastructure, education is a sector that has been primed for disruption — and has been for a very long time. What we are about to see is a new wave of AI capabilities pushing that disruption even further with a focus on hyper-personalization of the learning journey. IMD envisages a future with more interactivity, less passive learning modes, and life-long interactive learning on demand.

"GenAI is opening up new possibilities in education, particularly for personalization. It is amazing to see the diversity of questions that are asked, which in a traditional education setting, there simply wouldn't be the time for this degree of inquiry. In the not too distant future, we will be able to provide more games-based interactivity, allowing students more opportunities to practice the concepts being taught in classes. And most importantly, and what excites us the most at IMD, is our students and participants can continue to engage with us well beyond their degree or program."

Sarah Toms, Chief Learning Innovation Officer

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Authored by Oliver Matthews.
Editors – Nalisha Patel and Andrew Walker