

Building genAl Products and Business (genAl-PB)

Part I: Course information

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Course Overview

Interested in

- ✓ Learning about the latest trends in genAl?
- ✓ Understanding how genAl start-up founders and VCs think about building genAl companies?
- ✓ Learning about how large corporates develop genAl strategies and products?
- ✓ Understanding how to use LLMs for fast coding and prototype/software development?
 ✓ Learning about Al Alignment and prompt engineering?
 ✓ Discussing with industry leaders about genAl?

- ✓ Working with engineers (guests) during class on real genAl products and businesses?
- ✓ Pitching genAl ideas to VCs (also during class)?

This course focuses on "what is happening here and now" in business and start-ups in the emerging area of generative AI (such as Large Language Models - LLMs)

Course sessions will be delivered by faculty together with leading industry experts in the space: senior executives from digital native companies/start-ups, large consulting firms, traditional companies and VCs which have been investing in and developing generative AI products and businesses. Engineers guests will also join to work with the participants' on their course projects.

The course will be delivered using a combination of cases, exchanges with executives and investors, and discussions that cover issues ranging from hands on genAl tools, to identifying and planning the execution of use cases, identifying genAl business opportunities, managing risks, etc. The goal is to expose participants to a broad range of important current issues in the area of generative AI for business.

The course is relevant for anyone starting or interested in a job in business - digital natives or traditional ones - consulting, or in entrepreneurship in this space.



Course and learning objectives

Upon completing the course, you will, among others:

- Learn from experienced executives, entrepreneurs and investors how genAl is changing businesses and society today;
- Understand how genAl products are being developed;
- Gain insights on how investors/VCs think about genAl;
- Develop your skills in prompt engineering and LLM based software/product development;
- Understand risks and the potential social impact of genAl;
- Appreciate the management and leadership challenges to best leverage genAl in business;
- Gain a more holistic view of what this technology means for business, the economy, and society.

Specific course rules

In order to share and acquire knowledge and master skills together, please be prepared for class and arrive on time. In accordance with school policy if you arrive after class has started, please do not enter the classroom.

Please note that if you are absent for more than three sessions of a full credit course (or more than one session of a half credit course), you will automatically receive a failing grade. You cannot graduate with a failing record.

The general policies outlined in the MBA Code of Conduct (Academic norms) apply.

Learning resources

Mandatory learning resources (skim through readings)

S012.1_ genAl-PB _ "Chain-of-Thought Prompting Elicits Reasoning in Large Language Models", Google Research, January 2023 (<u>available online</u>)

S012.2_ genAl-PB _ "On the Opportunities and Risks of Foundation Models", Stanford University, July 2022 (browse - <u>available online</u>)

S012.3 genAl-PB "OpenAl research reports" (browse – available online)

S03.1 genAl-PB "BCG Insights on Generative AI - reports", Summer 2023

S03.2_ genAI-PB _"Navigating the Jagged Technological Frontier: Field Experimental Evidence of the Effects of AI on Knowledge Worker Productivity and Quality", September 2023 (available online)

S03.3_genAl-PB_"The economic potential of generative Al: The next productivity frontier", McKinsey report, June 2023 (available online)

S04.1_ genAI-PB _"Generative AI at Work", NBER Working Paper, April 2023 (<u>available online</u>)



S03.2_ genAl-PB _"The Impact of Generative AI on Hollywood and Entertainment", Sloan Management Review, June 2023 (<u>available online</u>)

S05.1_ genAl-PB _"The state of generative Al in 7 charts", CBinsights, August 2023 (available online)

S05.2_ genAl-PB _ "How to Build Great Data Products", HBR Digital, October 2018 (available online)

S06.1_ genAl-PB _"Navigating Trust and Safety in the world of Generative Al" – INSEAD Knowledge, July 2023 (available online)

S06.2_genAl-PB _"The Safe Assessments: An Inaugural Evaluation of Trust & Safety Best Practices", Digital Trust & Safety Partnership, July 2022 (available online)

S06.3_ genAl-PB _"Towards best practices in AGI safety and governance: A survey of expert opinion", May 2023 – also browse reports of the <u>Center for the Governance of AI</u>

S06.4_ genAl-PB _ "Challenges and Applications of Large Language Models", July 2023 (<u>available online</u>)

S06.5_ genAl-PB _ "Trust & Safety at OnlinePlat: Is Responsible Tech Good for Business?", INSEAD Case Study, November 2023

Q Grading Scheme

Grade components	Percentage
Group Work (per session and final)	50%
Individual Reflection Report	30%
Class Participation (10% lost for every missed session or for which nothing was posted before the session).	20%
Total	100%

Grading scheme explained.

Group Work

(20%) Each group will be required to prepare for the session questions before each session (submit before each session) and be ready to discuss their answers in class.

(30%) Each group will be required to prepare a product or business pitch deck and video-recorded presentation before session 7 to be assessed by a group of experienced VC partners and investors during session 7. Engineers guests will also join the groups.



Individual Reflection Report (due just after Session 7)

Participants are required to submit 8-10 key takeaways from the course (bullet point format). Participants will then also be required to provide feedback to the submitted takeaways of 5 other peers.

Meet the professor



Theos Evgeniou is a professor of Decision Sciences and Technology Management at INSEAD and director of the INSEAD Executive Education program on Transforming your Business with Al.

He has been working on Machine Learning and AI for the past 25 years, on areas ranging from AI innovations for business process optimization and improving decisions in Marketing and Finance, to AI regulation, as well as on new Machine Learning methods. His research has appeared in leading journals, such as in Science Magazine, Nature Machine Intelligence, Machine Learning, Lancet Digital Health, Journal of Machine Learning Research, Management Science, Marketing

Science, Harvard Business Review magazine, and others.

Professor Evgeniou has been a member of the OECD Network of Experts on AI, an advisor for the BCG Henderson Institute, an advisor for the World Economic Forum Academic Partner for Artificial Intelligence, and together with three INSEAD alums also a co-founder of Tremau, a B2B SaaS company whose mission is to build a digital world that is safe & beneficial for all. He gives talks and consults for a number of organizations in his areas of expertise. He has received four degrees from MIT, two BSc degrees simultaneously, one in Computer Science and one in Mathematics, as well as a Master and a PhD degree in Computer Science.

Part II: Session details

Sessions 01-02: Introduction to genAl and Large Language Models: Tools and Product Management (22 Nov)

Session Overview and Learning Materials

We will spend the first double-session on a deep dive on what genAl is, what happens under the hood, the history of natural language processing and LLMs, and example applications of genAl. We will also learn about prompt engineering, coding with the help of LLMs ("co-pilot"), setting up API calls to LLMs, and various genAI tools available to use.

We will then do a deep-dive into product management, covering both the basics for any product development and the specifics about AI and genAI products and services.

Executive Guests:

Session 1:

Olivier Mertens, Developer Audience Azure Open Al Service, Microsoft

Session 2:



- Raphael Leiteritz, Co-Founder of Peak Product, Former Google Exec, Product Management advisor, Angel Investor
- Karin Schoefegger, Director of Product Management, LatticeFlow

Read:

- "Chain-of-Thought Prompting Elicits Reasoning in Large Language Models", Google Research, January 2023 (browse)
- "On the Opportunities and Risks of Foundation Models", Stanford University, July 2022 (browse)
- OpenAl research reports (browse)

Session 03: Developing genAl Strategies and Products in Large Organizations (23 Nov)

Session Overview and Learning Materials

In this session we will discuss how companies across various industries are experimenting with genAl, already leverage it in their business processes, and develop genAl products and services. We will discuss new challenges as well as practices that emerge in the space of genAl and business, as well as potential future trends for large organizations.

Executive Guest:

Francois Candelon, Managing Director and Senior Partner at BCG, Global Director at BCG Henderson Institute

Read:

- "BCG Insights on Generative AI reports", Summer 2023
- "Navigating the Jagged Technological Frontier: Field Experimental Evidence of the Effects of AI on Knowledge Worker Productivity and Quality", September 2023
- "The economic potential of generative AI: The next productivity frontier", McKinsey report, June 2023

Session 04: GenAl, Business and Industry Transformation (30 Nov)



Session Overview and Learning Materials

In this session we will go back to our discussions about the transformative power of genAl for organizations and industries, drawing upon multiple examples across geographies, sectors, and company sizes and types.

Executive quest:

Sanjeevan Bala, Group Chief Data and Al Officer, iTV

Read:

"Generative AI at Work", NBER Working Paper, April 2023



"The Impact of Generative AI on Hollywood and Entertainment", Sloan Management Review, June 2023

Session 05: Building genAl Startups (04 Dec)



Session Overview and Learning Materials

In this session we will discuss examples of genAl startups, tools and practices for starting genAl products and businesses, business models and market opportunities for genAl, and also do a deep dive on a startup in this space with a founder guest.

Executive guests:

- Richard Rabbat, Co-Founder and CEO, Lighty AI
- Sami Shalabi, Co-Founder and CTO, Maven AGI

Read:

- "The state of generative AI in 7 charts", CBinsights, August 2023
- "How to Build Great Data Products", HBR Digital, October 2018.

Session 06: Trust & Safety, AGI, and possible Mega-Trends (05 Dec)



Session Overview and Learning Materials

In this session we will focus on potential risks from genAl, related regulations around the globe, and practices to setup trust & safety organizations to manage potential risks from these technologies. We will also discuss potential "AGI" trends.

Executive guests:

- Jeff Dunn, VP Trust, Safety and Support, Hinge
- Katherine Sessions, Assistant Director, Regulatory Policy and Strategy, Office of the eSafety Commissioner, Australia

Read:

- "Navigating Trust and Safety in the world of Generative Al" INSEAD Knowledge, July
- "The Safe Assessments: An Inaugural Evaluation of Trust & Safety Best Practices", Digital Trust & Safety Partnership, July 2022
- "Towards best practices in AGI safety and governance: A survey of expert opinion", May 2023 (browse) – also browse reports of the Center for the Governance of Al
- "Challenges and Applications of Large Language Models", July 2023 (browse)

Case study:

- "Trust & Safety at OnlinePlat: Is Responsible Tech Good for Business?", INSEAD Case Study, November 2023



Session 07: Pitching genAl Products and Business Plans to VCs (06 Dec)

Session Overview and Learning Materials

Finally, in the closing section all groups will pitch their genAl product or business idea to a panel of experienced VC partners.

Executive quests:

- Sarah Benhamou, Partner BGV
- Philipp Moehring, Partner TSIC
- Raphael Leiteritz, Angel Investor

Part III: Course Assignments

Sessions 01-02: Introduction to genAl and Large Language Models: Tools and Challenges 22) Nov)

Preparation **before** session 1:

- Study online tools for genAl, for example from sources such as OpenAl, Google, Microsoft, Facebook, Hugging Face and others.
- Setup an openAl account and download and install Anaconda and python ((further instructions will be sent before the first session)

Question to individually reflect **before** class (**no** submission required):

1. Not every feature is a product, and not every product is business. Think about what is the difference between the three. Then consider a genAl application and explain whether it is a product, a potential feature to some product, or can lead to a business

Session 03: Developing genAl Strategies and Products in Large Organizations (23 Nov)

Group questions (to submit **before** class):

- 1. Identify 2-3 innovative and value creation genAl business initiatives/applications used in large corporations
- 2. What do you believe are the top 3 biggest challenges large organizations face when it comes to innovating with or adopting genAl?
- 3. What do you believe are the skills and roles companies need to acquire or develop in order to best leverage genAl?

Session 04: GenAl, Business and Industry Transformation (30 Nov)

Group questions (to submit **before** class):

- How do you believe the media and entertainment industry may change due to genAl?
- What are the main "resistance" challenges you envision?
- How can a media company transform due to genAl?
- What about other industries/companies?

Moreover, each group should submit **before** class a first draft of 1 to 3 potential genAl products or business ideas. Key elements for each idea (draft bullet points for each):



- What is the problem you are solving? How important is it?
- Who are the potential clients and market/client segments?
- What are the technical challenges you envision?
- How would an MVP look like?

Session 05: Building genAl Startups (04 Dec)

Each group should submit their selected genAl product or business idea with the following key elements (1-pager + draft pitch presentation):

- What is the problem you are solving? How important is it?
- Who are the potential clients and market/client segments?
- How large is the market (or segments/markets)?
- What are the technical challenges you envision?
- How would an MVP look like?
- What is the key current or potential competition or alternative solutions your clients may use?
- What team would you need to get the product or business off-the-ground?

Plus any other elements you wish to add in preparation for your pitch in session 7

Session 06: Trust & Safety, AGI, and possible Mega-Trends 5) Dec)

Group case study questions (to submit before class):

- What internal incentives might exist that would discourage co-ordination between different departments of OnlinePlat to align?
- How can OnlinePlat prepare for new genAl risks and how should they setup their online trust & safety capabilities?
- What can companies learn from online platforms about managing risks due to technology like genAl or more broadly Al?

Session 07: Pitching genAl Products and Business Plans to VCs (06 Dec)

Group work (to submit before class):

Each group should submit:

- A 7-10 minutes video recording of their genAl product of business pitch
- A pitch deck of 7-10 slides covering the topics outlined in the assignment of session 5 as well as any other key information/data
- (optional) Link to a github repository (or other means) of a Jupyter notebook showing an initial version of how their product may work