GLOBAL SUMMER PROGRAMME 2026

COR-MGMT2238 DOING BUSINESS WITH ARTIFICIAL INTELLIGENCE

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COURSE DESCRIPTION

More and more business organizations are using A.I. technologies such as *predictive analytics*, *deep learning* or *sentiment / image analysis* to identify patterns and trends in vast reams of (big) data, allowing them to make 'smarter' decisions (e.g. about loss of customers or the necessary service inspection of equipment) and potentially to become more competitive in real-time. As A.I. technology is already surpassing human decision- making in certain instances, there is growing concern about 'uncontrolled A.I.' in business and society, incl. regulatory and ethical-legal challenges. Against this background, this new course aims to equip students with foundational, theoretical and practical knowledge about A.I. driven business applications in selected private and public sector organizations. Besides reconstructing the history of artificial intelligence from the 1960s to the current era (as well as a refresher about the basics of computer science algorithms such as audio and video compression algorithms), we will put emphasis on explaining the A.I. driven business models of several top international and local organizations. In order to appreciate the power of A.I. technology, we will take a closer look 'under the A.I. hood' to understand what makes machine learning, deep learning, neural networks and image analysis tick. Visits to A.I. powered business organizations engaged in customer service management, finance, marketing, supply chain management or manufacturing will be organised aimed at appreciating both the benefits and downside of A.I. Students graduating from this course will be equipped with critical competencies to solve real-world business problems using A.I. technology while simultaneously casting a critical eye on the morality and ethics of commercialising A.I.

LEARNING OBJECTIVES

By the end of this course, students will be able to:

- Analyze the rise, power, impact, upside and potential downside of artificial intelligence applications (A.I.) in business and society in general.
- Explain how private and public sector organizations engaged in customer service management, finance, marketing, supply chain management and manufacturing use machine learning, deep learning, neural networks, image analysis etc. to potentially become more competitive and 'effective' in real- time.
- Understand some of the 'OB' implications of artificial intelligence applications in business with regard to job polarization, organizational commitment, career progression and well-being

outcomes at organizational and individual levels.
- Appreciate the importance of integrating morality and ethics into A.I. powered business models aimed at solving real-world business problems.
- Know the difficulties to successfully control and 'switch-off' artificial intelligence once created and how to deal with this dilemma from an actionable business management point of view.

PRE-REQUISITES / REQUIREMENTS / MUTUALLY EXCLUSIVE COURSE(S)

NIL.

ASSESSMENT METHODS

The course approach is based on both analytical rigor and the practical utilisation of AI technologies and related concepts. During the course, a variety of teaching and learning techniques will be employed to enable students to think critically and imaginatively about the various implications of the topic. A high level of student participation is required both in the classroom and in the assignments. Students are required to read widely and to participate actively in projects, presentations, team discussions and in-class discussions. A key assumption is that knowledge is constructed by learners and not merely absorbed from textbooks and people with more experience.

Cumulative assessment (CA) constitutes 100% of the final grade, consisting of:

1. **Individual Assessments: 60% of total, consisting of**
   - Class Participation 15%
   - Term Paper 25%
   - MCQ Test 20%

2. **Group Assessment: 40% of total, consisting of**
   - Group Project 40%

INSTRUCTIONAL METHODS AND EXPECTATIONS

The course approach is based on both analytical rigor and the practical utilisation of AI technologies and related concepts. During the course, a variety of teaching and learning techniques will be employed to enable students to think critically and imaginatively about the various implications of the topic. A high level of student participation is required both in the classroom and in the assignments. Students are required to read widely and to participate actively in projects, presentations, team discussions and in-class discussions. A key assumption is that knowledge is constructed by learners and not merely absorbed from textbooks and people with more experience.

CONSULTATIONS

Project consultations hours with TM will be via appointment to be made via email.
Term paper consultations with KSN will be via email and/or during days when we have classes.

RECOMMENDED TEXT AND READINGS

[1] Kai-Fu Lee. (2018). AI Superpowers: China, Silicon Valley, and the New World Order. Boston: Houghton Mifflin Harcourt.

[2] Rose, D. (2020). Artificial Intelligence for Business. Pearson.
Note: this book is available in soft copy in eLearn. Look under “Content” > “Course Readings”.

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LESSON PLAN		
LESSONS	**TOPICS**	**REMARKS**
LESSON 1	**Introduction** • Course overview, learning objectives and deliverables • What is A.I.? • AI: Basic Concepts and Typical Applications • The Dark Side of AI • AI: Privacy Concerns and Governance Challenges • Trouble for Tech Platforms • 'Runaway' AI and AI Governance	Thomas
LESSON 2	**History of Artificial Intelligence (AI): 1960s to Now** • Historical overview of AI • AI Technology: Overview of AI, Machine Learning (ML) & Deep Learning (DL) & Examples • Applications of AI in business and society	Siew Ning
LESSON 3	**Part 1: AI Technology Introduction** • Pet Insurance Fraud and the Value of AI **Part 2: Business Model Innovation with AI: Towards 'Smart' Use Cases** • The business model canvas & biz model innovation explained • Computer science algorithms as biz levers	Thomas
LESSON 4	**Language and Vision Capability powered by AI** **Site Visit / Guest Speaker**	Thomas
LESSON 5	**What Makes AI Technology Tick?** • AI: What's the Difference between Machine Learning (ML) & Deep Learning? • Application Examples • Risks and unintended consequences	Siew Ning

LESSON 6	**AI Technology: Under the Hood of a Chatbot** • Introduction to Chatbots & Examples of chatbots used by companies • How do AI-propelled chatbots work? • How to maximize the effectiveness of ChatGPT • Hands-on: ChatGPT (ungraded homework)	Siew Ning
LESSON 7	**Case Studies: Manufacturing AI / Stitch Fix** • What is Manufacturing AI / Industry 4.0? • The Impact of Industry 4.0 on the Business Models of Local Manufacturing SMEs: Insights into an Ongoing Research Project • Case Study Stitch Fix	Thomas
LESSON 8	**Managing the Impact of AI on Organizations and People** • Impact of AI on future workplaces - Job polarization and career planning • Employee awareness, organizational commitment, and 'well-being' outcomes • Redesigning and optimizing organizations for greater adaptability and learning in preparation for technological disruption	Siew Ning
LESSON 9	**Perspectives on Ethics for AI** • Foundations of technology & ethics • The long-term future of artificial intelligence • Ethical issues in AI: Theory & Class Activity • Singularity and Asimov's Three Laws of Robotics • Can machines be taught morality to identify good and evil? • Ethical issues of commercialising A.I.	Siew Ning
LESSON 10	**AI: Impact on Society** • Potential of AI for solving complex issues vs. unintended BGS issues and consequences of AI: How can AI become more 'inclusive'? • Screening of a psycho-techno AI thriller film and discussion	Thomas
LESSON 11	**MCQ QUIZ**	Both
LESSON 12	**Group Project Presentations**	Thomas