DOTE 6635: Artificial Intelligence for Business Research (Spring 2026)

What's Next in DOTE 6635?

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Session	Date	Topic	Key Words
1	1.06	AI/ML in a Nutshell	Course Intro, Prediction in Biz Research, ML Model Evaluations
2	1.13	Intro to DL	DL Intro, Neural Nets, DL Computations
3	1.20	RL (I)	Tabular MDP, Bellman Equation
4	1.27	RL (II)	Model-free Prediction & Control, Monte Carlo, Temporal Difference
5	2.03	RL (III)	Value-based DRL, DQN, AlphaGo
6	2.10	RL (IV)	Policy-based DRL, Policy Gradient, PPO, A3C
7	2.24	RL (V)	Off-Policy Evaluation, Off-Policy Learning
8	3.3	RL (VI)	RLHF, RL with Verifiable Reward, LLM Reasoning, GRPO
9	3.10	Agentic AI (I)	Building LLM Agents, ReAct, ToT, MCP
10	3.17	Agentic AI (II)	Agent Training, Tool Use, Planning, Coding Agent
11	3.24	Agentic AI (III)	Agent Evaluation, Benchmarks
12	3.31	Agentic AI (IV)	Multi-Agent Systems, Agentic Simulations
13	4.14	Agentic AI (V)	Business Applications of Agentic AI
13+	2027	Season 4	More to come...

Note Scribing

- Please sign up here: https://docs.google.com/spreadsheets/d/1YIwCR-X8VVLTv-OfGr7DqZJF6YIll-JE3SGI1q7JEus/edit?gid=1567564712#gid=1567564712
- Please make sure every week has some scribers.
- I have prepared some AI-generated notes for your reference: https://github.com/rphilipzhang/AI-PhD-S26/tree/main/Notes/AI-Generated
- If multiple groups sign up to scribe the notes together for one week, please coordinate to prepare one Overleaf project.
- If one topic (i.e., 1 slides deck) is covered by multiple groups of different weeks, please coordinate to prepare one Overleaf project.
- Overleaf template can be found here: https://www.overleaf.com/read/bmfygjgsyzrr#a72daa

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Session	Date	Paper
1	Jan/6	No Presentation
2	Jan/13	No Presentation
3	Jan/20	Peng, T., Gui, G., Merlau, D. J., Fan, G. J., Sliman, M. B., Brucks, M., ... & Toubia, O. (2025). A mega-study of digital twins reveals strengths, weaknesses and opportunities for further improvement. arXiv preprint arXiv:2509.19088.
4	Jan/27	Ludwig, J., Mullainathan, S., & Rambachan, A. (2025). Large language models: An applied econometric framework (No. w33344). National Bureau of Economic Research.
5	Feb/3	de Kok, T. (2025). ChatGPT for textual analysis? How to use generative LLMs in accounting research. Management Science.
6	Feb/10	Reisenbichler, M., Reutterer, T., & Schweidel, D. A. (2025). Applying large language models to sponsored search advertising. Marketing Science.
7	Feb/24	Burnap, Alex , John R. Hauser, Artem Timoshenko (2023) Product Aesthetic Design: A Machine Learning Augmentation. Marketing Science 42(6):1029-1056.
8	Mar/3	Ye, Z., Yoganarasimhan, H., & Zheng, Y. (2025). Lola: Llm-assisted online learning algorithm for content experiments. Marketing Science.
9	Mar/10	Liu, X. (2023). Dynamic coupon targeting using batch deep reinforcement learning: An application to livestream shopping. Marketing Science, 42(4), 637-658.
10	Mar/17	Chenyu Huang, Zhengyang Tang, Shixi Hu, Ruoqing Jiang, Xin Zheng, Dongdong Ge, Benyou Wang, Zizhuo Wang (2025) ORLM: A Customizable Framework in Training Large Models for Automated Optimization Modeling. Operations Research 73(6):2986-3009.
11	Mar/24	Manning, B. S., & Horton, J. J. (2025). General social agents. arXiv preprint arXiv:2508.17407.
12	Mar/31	Song, Y., & Sun, T. (2024). Ensemble experiments to optimize interventions along the customer journey: A reinforcement learning approach. Management Science, 70(8), 5115-5130.
13	Apr/14	Yang, Y., Zhang, Y., Wu, M., Zhang, K., Zhang, Y., Yu, H., ... & Wang, B. (2025). TwinMarket: A Scalable Behavioral and Social Simulation for Financial Markets. arXiv preprint arXiv:2502.01506.

Replication Project

- Please sign up here: https://docs.google.com/spreadsheets/d/1YIwCR-X8VVLTv-OfGr7DqZJF6YIll-JE3SGI1q7JEus/edit?usp=sharing
- Please make sure every project has some replicators.
- Each group should create a GitHub repo and write a technical blog.
- If multiple groups sign up to replicate one project, please coordinate to present in one week.
- Every group should prepare a 20-min video for your replication project.

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Scribed Note and Replication Project

- See this spreadsheet for the confirmed schedule: https://docs.google.com/spreadsheets/d/1YIwCR-X8VVLTv-OfGr7DqZJF6YIll-JE3SGI1q7JEus/edit?usp=sharing
- Scribed notes are due **2 weeks from the lecture**.
- Please directly send the link to your scribed note to Philip via philipzhang@cuhk.edu.hk. Do NOT publicize it for now.
- GitHub repo, technical blog, and video are **2 weeks from the presentation** and should be **open-sourced**.
  - Put your code, data, slides deck, technical blog and the link to your video in the GitHub repo.
- Please also share the GitHub and video links here: https://docs.google.com/spreadsheets/d/1YIwCR-X8VVLTv-OfGr7DqZJF6YIll-JE3SGI1q7JEus/edit?gid=422252848#gid=422252848

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