Generative AI and the Political Economy of Digital Capitalism

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Course Description

This course explores the development and application of generative AI tools (such as ChatGPT, Stable Diffusion, and Bard) while critically engaging with their emergence within contemporary digital capitalism. Using the practical guide from Kulkarni et al. (2023) and theoretical readings from **Rikap** (2021) and **Lehdonvirta** (2022), students will gain both hands-on and analytical skills. We will investigate technical foundations and social, economic, and ethical implications across the global circuits of data extraction, platform control, and cloud infrastructure.

Required Textbook

- Kulkarni, A., Gudivada, D., Kulkarni, A., & Shivananda, A. (2023). *Applied Generative AI for Beginners*. Springer Nature. **(AGAI)**

Selected Readings

- **Rikap**, C. (2021). *Capitalism, Power and Innovation: Intellectual Monopoly Capitalism Uncovered*. Routledge. *(selected extracts)*
- **Lehdonvirta**, V. (2022). *Cloud Empires: How Digital Platforms Are Overtaking the State and How We Can Regain Control*. MIT Press. *(selected extracts)*
- Additional journal articles on AI governance, circuits of extraction, and IA ethics debates will be provided.

Assignments and Evaluation

- **Midterm Prompt Engineering Project (25%)**: Groups selected by an AI system based on class-defined parameters. Projects include a goal definition, prompt logic, rubric, and outputs.

- **Final Poster + Prompt Set (25%)**: Deliverable includes a reproducible prompt chain and a visual poster to be presented in a university-wide poster session.
- **Class Participation and Reading Responses (20%)**: Includes engagement in lectures, team formation discussions, two 1-page response papers, and feedback.
- **Take-Home Final Exam on AI Ethics (30%)**: Reflective analytical essay on ethical and governance issues of AI.

Collaborative Project Details

The midterm project focuses on prompt engineering, where teams design a generative AI system that performs a creative or practical task. Final deliverables must be replicable. For the final, students submit a poster and prompt package that any user could run independently. Posters will be presented during a university-wide poster session.

AI-Guided Group Formation Activity

During Weeks 1–2, 15 minutes per class will be used to design a survey defining how AI will assign groups. Class discussion will determine what personal attributes (e.g., skills, availability, interests) should be fed into the AI system and how to weigh them.

Academic Honesty and Use of AI

All work must be your own. You must not present any portion of another person's work — including AI-generated text — as your own. Generative AI tools raise concerns around plagiarism, hallucinated content and fabricated references. If you choose to use such tools to support your work, you must follow the principles articulated by Cheng et.al. (2025) for ethical AI-assisted academic writing:

1. **Transparency:** Clearly disclose any AI assistance in your submission.
2. **Critical review:** Edit AI-generated output to ensure accuracy, originality and alignment with your own ideas.
3. **Verification:** Confirm the validity of all facts, citations and references.
4. **Accountability:** You remain responsible for the final product, regardless of AI use.

Failure to adhere to these principles or to properly cite sources may constitute plagiarism and will result in a grade of **F** on the assignment or exam.

Accessibility and Accommodations

Students with disabilities or learning differences are encouraged to contact Disability Services and inform the instructor as early as possible to ensure appropriate accommodations are provided.

Make-up Policy

Permission to take a make-up exam must be obtained in advance and will be granted only for documented reasons (e.g., illness, family emergency). Travel plans or social obligations do not qualify.

Course Schedule Overview

Week	Topics and Assignments	Readings
1	Introduction to Generative AI	AGAI Ch. 1
2	Tokens, Transformers, and LLMs	AGAI Ch. 2
3	ChatGPT, Bard, Claude	AGAI Ch. 3
4	Diffusion Models: Images & Audio	AGAI Ch. 4
5	Prompt Engineering I + Group Discussion	AGAI Ch. 5
6	Prompt Engineering II + Finalize Teams	AGAI Ch. 6
7	Team Project Coaching	AGAI Ch. 7
8	Midterm Presentations	—
9	Platforms, Capital & Data	**Lehdonvirta** *(selected extracts)*
10	Intellectual Monopoly & Cloud Control	**Rikap** *(selected extracts)*
11	AI Labor & Extraction	**Rikap** *(selected extracts)*
12	Governance & Public Infrastructure	**Lehdonvirta** *(selected extracts)*
13	Poster Prep + Mock Demos	—
14	Poster Presentations (University Session)	—
15	AI Ethics & Take-Home Final Exam	**Rikap**, **Lehdonvirta** *(selected extracts)*