Session 1

Navigating New LLM Frontiers
Opportunities, Risks and Ethical Working in the CNU and wider Chinese context

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Programme aims & participant expectations

Aims of Session 1

- Introduce the CNU Development Programme
- Share needs and expectations
- Encourage participants to voice their experiences of LLMs
- Review the LLM Paradox and its implications for the Programme
- Discuss the concept of 'layers of mediation' (e.g. training, guidelines and collective practices) - as a means of resolving the LLM paradox
- Discuss how might the layers of mediation be built in the Chinese context – to develop LLM's with progressive Chinese characteristics
- Prepare for Session 2.

Opportunity, risk and the praxis gap

- Speed of development – only three years since 2022 and ChatGPT 3.5.
- Spreading fast with multiple models, applications and agents.
- Speed of development compounds the LLM paradox of opportunity/risk.
- China has caught up to the US in LLM capability and may lead in LLM application – China is now a major source of LLM innovation.

BUT

- University dilemmas - academic integrity and intellectual over-reliance v. new efficiencies and frontiers of knowledge creation.
- The balances of 'defensive' and 'developmental' strategies – what are we trying to achieve?
- LLM theory and practice (praxis) gap – progressing beyond individual discovery
- The CNU LLM Development Programme - to bridge the gap, to build collective capacity as a step to using LLMs creatively and ethically in the Chinese context.

What brings us here? Needs & expectations

Small group working and reporting

- What is your biggest **hope** regarding LLMs in HE?

- What is your biggest **fear** regarding LLMs in HE?

- What are main things you wish to **achieve** in this Programme?

Programme aims

The Programme aims to combine research-based inputs/participant experience and establish on-going LLM development activity in CNU and the wider Chinese context.

- Explore the opportunities/risks of LLM use and importance of ethical working
- Understand how LLMs work and the importance of prompt, context and dispositional engineering
- Review recent research on applying LLMs to academic research
- Review recent research on applying LLMs to teaching in higher education
- Establish a political-economy-ecology analytical framework for the socialisation of GenAI
- Explore how to collaborate with LLMs in cognitive partnership working
- Develop a framework of university guidelines for ethical LLM partnership working
- Create personal LLM development plans and an institution-based community of practice.

The Programme thus functions as a 'recomposed problem space' where we take 'given problems' of GenAI and 'recompose' them into new developments and new challenges.

The CNU Development Programme

Session 1. **Navigating the LLM Frontier** – opportunities, risks and ethical working in the Chinese context

Session 2. **Demystifying LLMs** - The architecture of LLMs and how they work, with particular reference to Chinese LLMs.

Session 3. **Collaborative Critical Praxis** - the dialectic of the Human Intellect & Machine Intelligence

Session 4. **LLMs in Academic Research** – literatures, concept comparison, relational attribution

Session 5. **LLMs in Higher Education Teaching** – designing augmented curriculum & assessments

Session 6. **Political-Economy-Ecology** – critique, geopolitics and technological organic intellectuals, globally and in the Chinese context

Session 7. **Developing Ethical Guidelines** – reviewing best practice and developing CNU guidelines

Session 8. **Personal LLM Development Plans & Community of Practice** – ongoing activity to develop 'technological organic intellects' to aid Chinese innovation and progressive transitioning.

Opportunities & risks – the LLM Paradox

The LLM paradox – it's character and resolution in the Chinese context

- What do Rong *et al.* (2025) say about the LLM Paradox and how it arises?

- What are the key factors in the Chinese context that could affect relationship between opportunities and risks?

- Group discussion and feedback

Perceptions of LLM opportunities/risks

Working in small groups

Views about the main LLM opportunities and risks

Feedback

The LLM paradox – opportunities & risks

LLM Opportunity

Productivity & scale
(Fast content generation and synthesis)

Democratization of knowledge
(Wider access to complex information)

Automation of labour
(Efficient research assistance, coding, summarization)

Advanced research & analysis
(Rapid pattern finding in large datasets & concept comparisons)

Data aggregation & analysis
(Processing massive, diverse information)

Interface & accessibility
(Ease of use through natural language)

LLM Risk

Hallucination & inaccuracy
(Fabricated or non-verifiable outputs)

Bias amplification & inequity
(Perpetuation of biases from training data)

Intellectual property (IP) & authorship Crisis
(Challenges to originality and ownership and labour replacement

Over-reliance & critical thinking decay (Diminished independent analysis and specialized expertise)

Privacy leakage & data security vulnerabilities (Exposure of sensitive data through training or output)

Centralization of power & opaque governance (Control of core infrastructure by a few proprietary entities)

Layers of mediation to resolve the LLM paradox

1. **Agentic** layer - nurture 'technological intellectuals' to collaborate with the machine.

2. **Analytical** layer – develop analytical and research frameworks.

3. Institutional layer – create educative infrastructure of guidelines and programmes.

4. **Structural** layer – encourage democratic governance and ethical purpose at the institutional & systemic levels.

What are the key challenges in building these layers of mediation in the CNU and wider Chinese university context?

Preparation for Session 2

How LLMs work

- Please read the introductory E-Book and technical article to prepare for Session 2