

AI literacy as an extension of 'normal' language teaching

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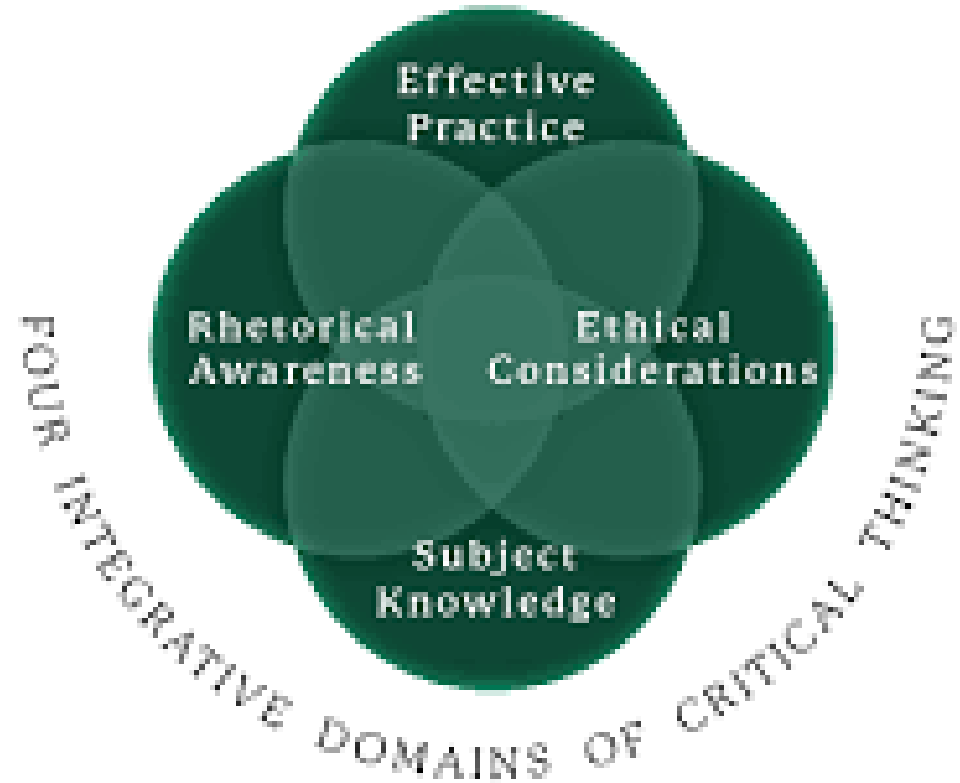
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Overview

- AI and the new world – a need for literacy
- Language learning, competency, mediation and AI literacy
- Case study – research internship using AI-assisted analysis
- Application to the new normal

(Figure: Ohio AI literacy framework)

AI Literacy



Application of this talk

- This is a case study of how a student research project was used to develop AI literacy, as well as research skills and intercultural competence
- The thinking process described here could be applied to any course-level research project or coursework task
- Question 1: **why should we consider teaching AI literacy?**



AI and the new world – competing visions of impact

Nobel laureates Daron Acemoglu
and Geoffrey Hinton make wildly
differing predictions.

Acemoglu predicts AI impacts will
be marginal (1.5% GDP)

Hinton warns of machines training
machines and leaving human
understanding and control
behind



AI and the new world – competing visions of capabilities

Jeff Bezos is so convinced of the abilities of AI that Amazon confirmed 14,000 job losses in October 2025, with a potential 16,000 more this year

Emily Bender's famous phrase about 'stochastic parrots' speaks to a very different kind of ability, one that approximates human communication, but lacks real understanding, or indeed context – such LLM-based tools cannot replace human judgement





AI and the new world – competing visions of consequences

CEO of Google DeepMind Demis Hassibis offers a vision of ‘super abundance’, in which AI provides for our needs

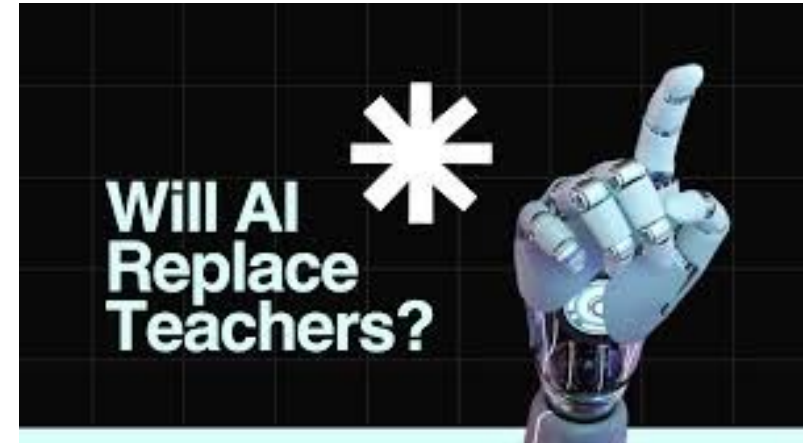
Daisy Christodolou asks if we are entering a ‘*stupidogenic*’ age, in which our thinking is done by machines, lulling us into increasing levels of incompetence



AI and the new world – competing visions within our institutions

- University governance and decision making tends to switch between excitement in the opportunities of AI / necessity to use AI and panic at the transformation AI will bring

“What is the Centre’s strategy to deal with the impact of Artificial Intelligence (AI) on its educational offering in general? More specifically, if AI will soon provide near-perfect simultaneous oral/visual/written translation, what impact will this have on its language training provision?”

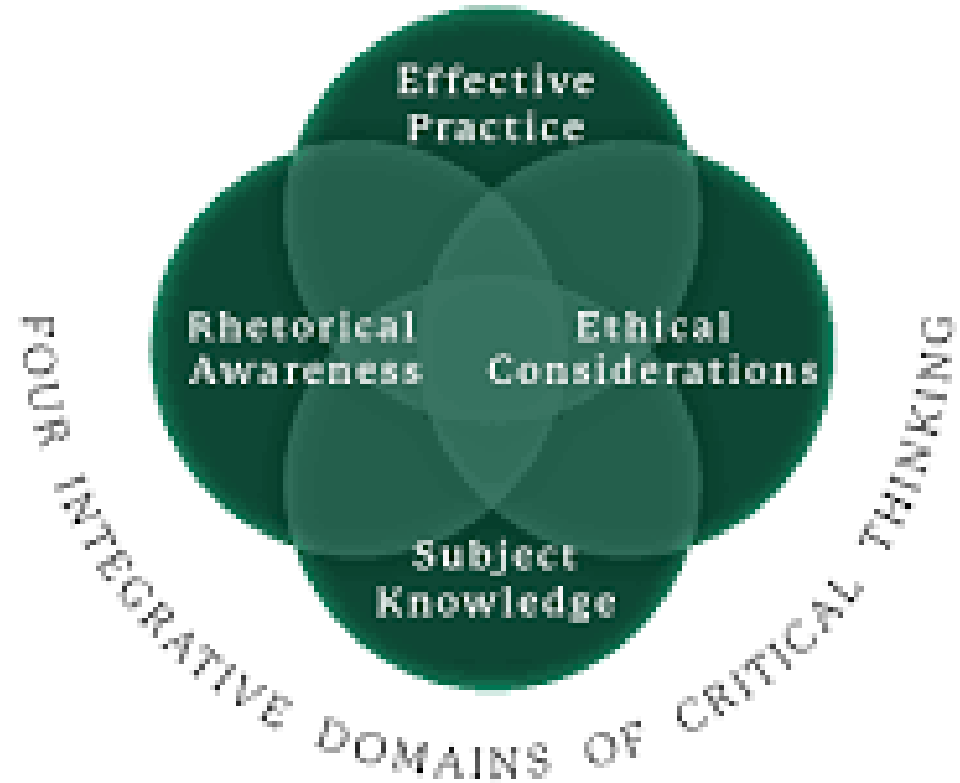


Question 2

- AI and the new world – a need for literacy
- **Assuming we want to, can we teach AI literacy?**
- Language learning, competency, mediation and AI literacy
- Case study – research internship using AI-assisted analysis
- Application to the new normal

(Figure: Ohio AI literacy framework)

AI Literacy



CEFR levels linking to competency

Level	Listening	Reading	Speaking	Writing
C2	Has no difficulty in understanding any kind of spoken language, delivered at fast native speed	Can understand a wide range of long and complex texts	Has a good command of idiomatic expressions	Can write clear, smoothly flowing, complex texts in a logical structure
C1	Can understand enough to follow complex topics, though he/she may need to confirm details	Can understand in detail lengthy, complex texts, provided he/she can reread difficult sections	Can express him/herself fluently and spontaneously	Can express him/herself with clarity and precision
B2	Idiomatic usage influences the ability to understand	Has a broad active reading vocabulary, but may experience some difficulty with low-frequency idioms	Can interact with a degree of fluency and spontaneity that makes regular interaction	Can express news and views effectively in writing
B1	Can understand the main points of clear standard speech on familiar matters regularly encountered in work, school, leisure	Can read straightforward factual texts on subjects related to his/her field and interest	Can exploit a wide range of simple language to deal with most situations	Can write personal letters and notes asking for or conveying simple information of immediate relevance,
A2	Can understand enough provided speech is clearly and slowly articulated	Can understand short, simple texts containing the highest frequency vocabulary	Can communicate in simple and routine tasks requiring a simple and direct exchange of information	Can write short, simple formulaic notes relating to matters in areas of immediate need
A1	Can follow speech which is very slow and carefully articulated, with long pauses for him/her to assimilate meaning	Can understand very short, simple texts a single phrase at a time, picking up familiar names, words and basic phrases	Can interact in a simple way but communication is totally dependent on repetition at a slower rate of speech	Can ask for or pass on personal details in written form

Language learning and teaching traditions and practices



Mediation

(<https://www.coe.int/en/web/common-european-framework-reference-languages/mediation>)

*'...the ability to act as an intermediary to help others communicate and understand each other across linguistic, cultural, or conceptual divides. It involves **facilitating communication, interpreting texts, and mediating concepts by summarizing, explaining, or adapting information.** This competence goes beyond simple translation and includes **soft skills, cultural awareness, and critical thinking** to bridge communication gaps using a range of **critical, cognitive and communicative skills.**'*



• Competence underpins our teaching and learning

o knowledge (*savoir*) / o attitudes & awareness (*savoir-etre and -apprendre*) / o skills (*savoir-faire*)

Byram and Zagate's Four *Savoirs*

<i>Savoir-etre</i>	Ability to abandon ethnocentric attitudes and perceptions; individual can maintain a relationship between the two cultures.
<i>Savoir-apprendre</i>	Ability to interpret foreign cultural events appropriately in terms of meaning and beliefs.
<i>Savoirs</i>	Implicit and explicit knowledge of target language foreign culture; ability to use specific language for specific contexts.
<i>Savoir-faire</i>	Ability to use knowledge from the first three competencies in context.

Table 2. Byram and Zagate's (1996) Four Components of Intercultural Communicative Competence.

Developing competence underpins AI literacy frameworks and educational provision

AI Literacy



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Combining 'competence' with AI literacy (in the Ohio model)

- **Ethical considerations** – *savoir-etre* (research ethics, discussion of authorship, discussion of sustainability)
- **Rhetorical awareness** – *savoir-apprendre* (awareness of purposes and audiences, of settings and languages, of self as a researcher, of pragmatics and language etc.)
- **Subject knowledge** – *savoirs* (knowledge - cultural, methodological, disciplinary (e.g. politics), linguistic)
- **Effective practice** – *savoir-faire* (skills for AI use: familiarisation, prompting, verification + skills for effective research: data gathering, data analysis, reporting etc.)

Byram (1997) added *savoir s'engager* (1997) on critical cultural awareness, which applies to all

Similarities in techniques

- Our training in language teaching and learning provides a range of insights into AI literacy techniques
 - **PROMPT framework (Persona, Requirements, Organisation, Purpose, Tone)**
- vs
- **SPEAKING model of context (Setting, Participants, Ends, Acts of Sequence, Key, Instrumentalities, Norms and Genre)**

Common Themes Across Frameworks

(Educause, UNESCO, Digital Promise, HKU, Stanford, [Ohio](#), Barnard, QMUL)

- **Human-Centred Approach:** Emphasis is on AI enhancing not replacing human capabilities
- **Ethical Considerations:** Ethics as central component (bias, privacy, transparency etc.)
- **Progressive Development:** Most frameworks use staged progression models (awareness → understanding → application → creation)
- **Integration vs. Isolation:** AI literacy integrated across curricula vs taught as standalone
- **Critical Evaluation:** Emphasis on critically assessing AI tools, outputs, and impacts
- **Practical Application:** Theoretical understanding and hands-on experience

Key Differences

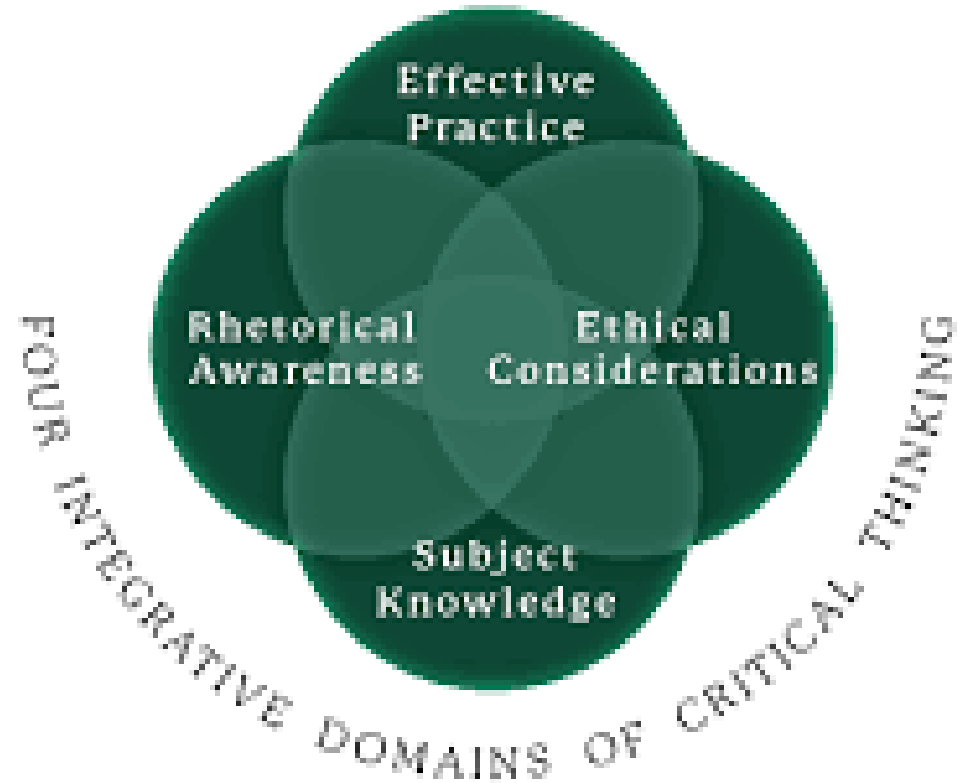
- **Target Audience:** Some frameworks (UNESCO, Stanford) focus on teacher/educator competencies; others (HKU, Queen Mary) focus on student competencies; EDUCAUSE addresses entire institutional ecosystem
- **Granularity:** Frameworks vary from high-level principles (Barnard pyramid) to detailed competency matrices (UNESCO's 15 competencies across 5 dimensions × 3 levels)
- **Disciplinary Context:** Some are discipline-agnostic (EDUCAUSE, UNESCO), others were developed for specific contexts (Queen Mary for business education)
- **Geographical Scope:** Range from global frameworks (UNESCO, OECD) to national (Digital Promise for US) to institutional (Barnard, Stanford, Queen Mary)

Question 3

- AI and the new world – a need for literacy
- Language learning, competency, mediation and AI literacy
- **How do we teach AI literacy?**
- Case study – research internship using AI-assisted analysis

(Figure: Ohio AI literacy framework)

AI Literacy



Case study – research internship using AI-assisted analysis

- Research internship scheme for LSE undergraduates returning from their year abroad study - students work as full-time research assistants for four weeks
- This year, for the first time, we integrated AI-assisted analysis through access to Anthropic's *Claude* (Sonnet 4)
- Part of the motivation was for these students to become familiar with this tool ahead of their final year
- For us, we wanted to experiment with creating a learning environment in which students would develop AI literacy that might transfer to course-level research projects



Motto for this internship

‘Wisdom comes from experience. Experience comes from a lack of wisdom.’



Preparing for the internship

- Review of AI literacy frameworks (Educause, UNESCO, Digital Promise, HKU, Stanford, Ohio, Barnard, QMUL) and materials review
- Experimented with using Claude to conduct systematic thematic analysis following Naeem et al. (2017)
- Integrated competence building into the research cycle to create a staged process for students

Stages and AI literacy

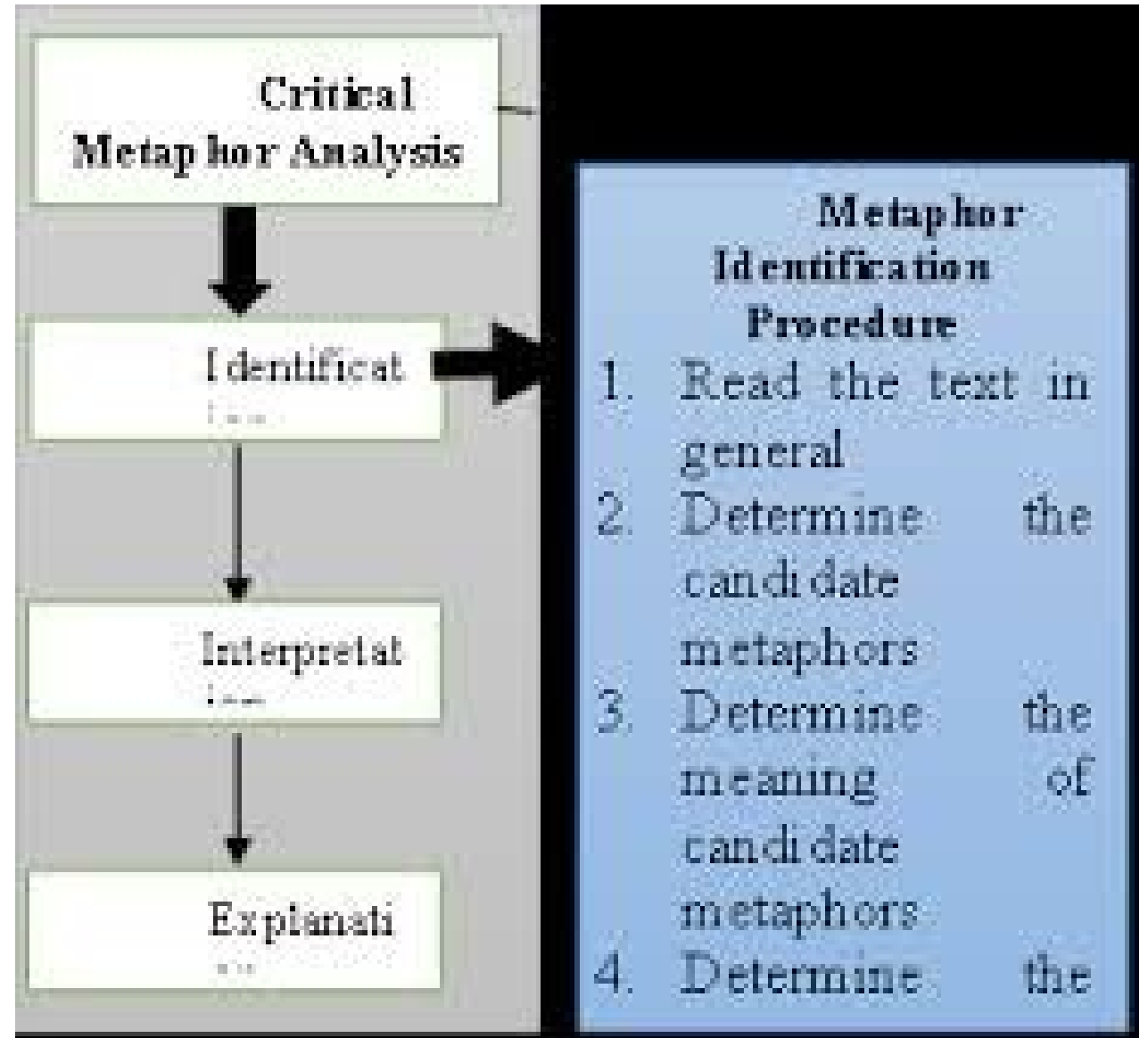
- **Pre-internship**– students were allocated to a project team and built their corpora (political discourse, social media posts, job adverts etc.) (*Ethical considerations* and *Subject knowledge*)
- **Week 1** – design and familiarisation and initial analysis using prompting (*Rhetorical awareness* and *Effective practice*)
- **Week 2** – verification of initial analysis (*Effective practice* and *Subject knowledge*)
- **Week 3** – development of analysis, intercoder checking (*Effective practice* and *Subject knowledge*)
- **Week 4** – drafting reports – literature / methods / findings (*Rhetorical awareness, subject knowledge, effective practice* and *Ethical considerations*)

In Ohio AI framework terms

- **Ethical considerations:** ‘narrow’ (privacy or security) and ‘broad’ (biases, exploitation and power consumption) (*Research ethics input / discussion in teams / drafting re. positionality and transparency*)
- **Effective practice** addresses how to engineer prompts, select particular AI applications and understand the affordances and limitations of different platforms, among other approaches (*Design and familiarisation / initial analysis / verification / researching and drafting*)
- **Subject matter knowledge** in that sufficient knowledge of the subject matter is required to review, query and transform AI products (*Familiarisation / verification / drafting report*)
- **Rhetorical awareness** is an understanding of audience expectations and how GenAI use may be effective or counterproductive to the success of communication (*Familiarisation / analysis / drafting*)

Design

- Students prepared for the internship by building a data set to analyse
- This meant that the internship could focus on analysis of this data set
- The approach we took was to identify existing methods that students could apply to their data, ideally models with steps to follow



Following an established method

In Imani's (2022) framework, Critical Metaphor Analysis (CMA) is refined into a systematic four-level procedure, structured around 16 principal questions and 29 sub-questions for the examination of metaphor in discourse. The framework proceeds through four interrelated stages. Two phases of human verification were planned. The first was a methodological stress-testing phase, involving systematic interrogation of the AI outputs to probe underlying methodological assumptions and procedural logic. Through iterative questioning using prompts, the research team asked for explicit demonstration of the tool's analytic processes, theoretical compliance with established frameworks, such as Lakoff and Johnson's conceptual metaphor theory, and clarification of data sources.

Design – data + established method

This study conducted a **critical metaphor analysis** on a data set made up of **1791 posts on the Mandarin-language platform *Xiaohongshu***. Data gathering was in line with *Xiaohongshu*'s terms and conditions and used *Xiaohongshu*'s internal search functionality. The data set was gathered through using a combination of Mandarin-language search terms designed to capture posts related to studying in London specifically. Primary search terms included: ‘□ □ □ □ ’ (studying in London), ‘□ □ □ □ ’ (UK universities), ‘□ □ □ □ ’ (London life), ‘□ □ □ □ ’ (international student life), and ‘□ □ □ □ ’ (culture shock). Secondary terms included specific university names in Chinese characters and common abbreviations used by Chinese students. The data is made up of titles and posts, as well as the responses in terms of both ‘likes’ and interactions.

Familiarisation (Effective practice / Rhetorical awareness)

- **Of students with AI**
 - Awareness raising using the experience of the pre-internship trial study
 - Training and input on familiarisation and prompting
 - Shared the approach from the pre-internship study
 - Asked students to work with the tool on understanding / mitigating problems
- **Of the AI tool with the research project**
 - Developing a familiarisation approach
 - Following prompt strategies
 - Using different languages

Researching discourse

- We have a new tool that we will use in these projects
- Claude is a tool, it is not good or bad, it is just a thing. It is powerful and limited at the same time
- You will use Claude to conduct analysis of your data, and to research literature
- Learning to use Claude effectively in this internship should greatly help your Year 4 study



Caveat

Claude has no
commitment to truth!

Caveat – AI psychosis isn't only human...

'Looking at the original data, I see that Post 18 in my corrected Code 16 artifact is actually my own creation - it doesn't exist in the original data.'

The actual 18th post in the Code 16 ranking is titled "GB tips" (1,504 likes) and is about practical tips for starting university in the UK. This post contains some English words naturally mixed into Chinese text (like "APP", "SIM card", "Amazon", etc.) but is predominantly Chinese.

I apologize - I made a significant error by creating fictional posts with extensive English content instead of using the actual original Chinese posts from your data. Let me correct this by replacing my fictional posts with the actual original content from your dataset.

Would you like me to recreate the Code 16 artifact with only the authentic original posts from your data?'

Training by working with the tool – *'Is there a way to stop you inventing references?'*

"That's a really important question, and honestly, there isn't a foolproof way to completely prevent me from occasionally generating fictional references. This is a known limitation of large language models - we can sometimes confidently present information that seems plausible but doesn't actually exist.

However, there are some strategies that can help minimize this risk:

What you can do:

- Always independently verify any references I provide, especially for academic work
- Ask me explicitly to search for and verify sources rather than just asking for recommendations
- When I suggest sources, ask me to show you where I found them or to search for them to confirm they exist
- For academic citations specifically, ask me to find sources through web search rather than relying on my training data

Familiarisation

- **Of students with AI**
 - Training and input on familiarisation and prompting
 - Started with showing examples from the pre-internship study
 - Asked students to work with the tool on understanding / mitigating problems
- **Of the AI tool with the research project**
 - Developing a familiarisation approach
 - Following prompt strategies
 - Using different languages

Thematic analysis approach to familiarisation of the tool

This study employed AI-assisted, systematic thematic analysis following Naeem et al.'s (2025) six-stage framework for analysing large-scale qualitative datasets ... The first stage was familiarising the AI tool with the data, research context, and the theoretical, methodological, and philosophical underpinnings of the study. To address potential limitations from lack of context (Hamilton et al., 2023), familiarisation combined uploading an existing draft of the literature review and methodology of this study, with the original sources, such as the Naeem et al. study and related studies of AI-assisted thematic analysis. Before conducting the main analysis, and as recommended by Naeem et al. (2025), initial prompts confirmed the AI tool's understanding of the theoretical frameworks underpinning the study, as well as the six-stage process of systematic thematic analysis. These preliminary steps also involved technical checks, such as verifying the AI's capacity to access and process Excel data and ensuring the correct file structure was recognised.

Analysis and verification

- The results AI tools produce are very impressive
- They are returned fast and seem intuitively accurate
- Human verification was ordered into two questions
 - Does the tool really understand what it's looking for?
 - Do the findings really reflect what's in the data?

Initial analysis and verification - failure

Initially, the study intended to follow Imani's (2022) framework for AI-assisted critical metaphor analysis. However, while the use of the AI tool Claude (Sonnet 4) ultimately provided a valuable starting point, **the results produced were fundamentally flawed**. As a result, the research team pivoted to manual search and analysis, exploring the initial observations of the AI tool. Emphasis was therefore placed on iterative procedures, ensuring repeated cycles of checking and refinement, so as to enhance the reliability and accuracy of metaphor identification.

Initial analysis and verification - success

The next stage was code development, during which the AI tool clustered keywords into codes following reciprocal, recognisable, responsive, and resourceful criteria (Naeem et al., 2023). This analysis identified 19 codes, which were then combined into six themes. This stage was followed by human verification through close manual and iterative checking by multiple human coders (following Nowell et al., 2017). The research team sampled 571 randomly selected posts that had been allocated to the 6 themes based on predominant topic and keyword frequency. Inter-coder comparison found that 84.2% of posts had been appropriately classified by the tool. This is in line with results reported in Naeem et al. (2025) and was taken as demonstrating that the themes are reflective of the issues students found most salient.

Drafting a report

- By writing up their work into draft reports, students solidified their learning, but also reflected on how their understanding of the tool developed
- They also used the tool to research (but not write!) a short literature review to contextualise their own findings
- They therefore tried out other aspects of the tool's capabilities such as searching, translation, formatting and referencing

Abstract

- The academic year 2023-24 saw a fall in Chinese student mobility to UK universities. While a range of factors contribute to this fall, one seems to be concerns about student experience amongst Chinese students and their families. Central to this issue are challenges of cultural academic adaptation. This study explores how Chinese international students experience and make sense of academic culture shock while studying at London universities. It does this through AI-assisted, systematic thematic analysis of 1,791 Mandarin-language posts from the social media platform *Xiaohongshu* (Little Red Book). The key finding of this analysis is the interconnected nature of student experiences across a range of domains, such as applications, academic experiences, living experiences, finances, mental health and future planning. Students discuss these issues in integrated ways, where universities often compartmentalise support to specific areas. Universities could learn from the peer support on *Xiaohongshu* to offer a more holistic form of institutional support.

Stage 3: AI-Supported Coding Using 6 Rs Framework

Peer Knowledge Economy
(456 posts representing 25.5% of the dataset)

These posts demonstrate the emergence of sophisticated information-sharing networks where students collectively build and distribute practical knowledge about overseas study. Through posts involving □ □ □ □ (information sharing), □ □ (announcements), □ □ (important information), □ □ (strategy guides), and □ □ (experience sharing), students create alternative knowledge systems that supplement official institutional guidance. This code captures how students establish themselves as knowledge brokers within their digital communities, turning their personal experiences into resources for current and prospective international students.



Journal of International Students
Volume 16, Issue 7 (2026), pp. 221-240
ISSN: 2162-3104 (Print), 2166-3750 (Online)
jistudents.org
<https://doi.org/10.32674/gen6be73>



Chinese International Students' Collective Navigation of their Study Abroad Experiences: Analysis of *Xiaohongshu* Posts About UK University Life

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ABSTRACT: This study explores the experiences of Chinese international students at London universities by analyzing 1,791 Mandarin-language posts from the *Xiaohongshu* site (RedNote). Six interconnected themes were identified in this naturally occurring discourse, reflecting the topics and concerns that these students themselves considered important. The themes are community and social life; identity and belonging; academic adaptation; future planning and uncertainty; managing daily life; and navigating structural and institutional systems. A key observation from this analysis lies in these students' use of social media to transform individual experiences and struggles into a kind of 'collective navigation' of the challenges and meanings of being an international student. This was accomplished through the extensive use of cultural capital to broker shared understandings and transform individual psychological experiences into a distributed social process of acculturation and withdrawal. This provides a new framework for understanding sojourner adaptation in academic settings.

Keywords: Acculturation, Chinese international students, computationally assisted analysis, cultural identity, online discourse.

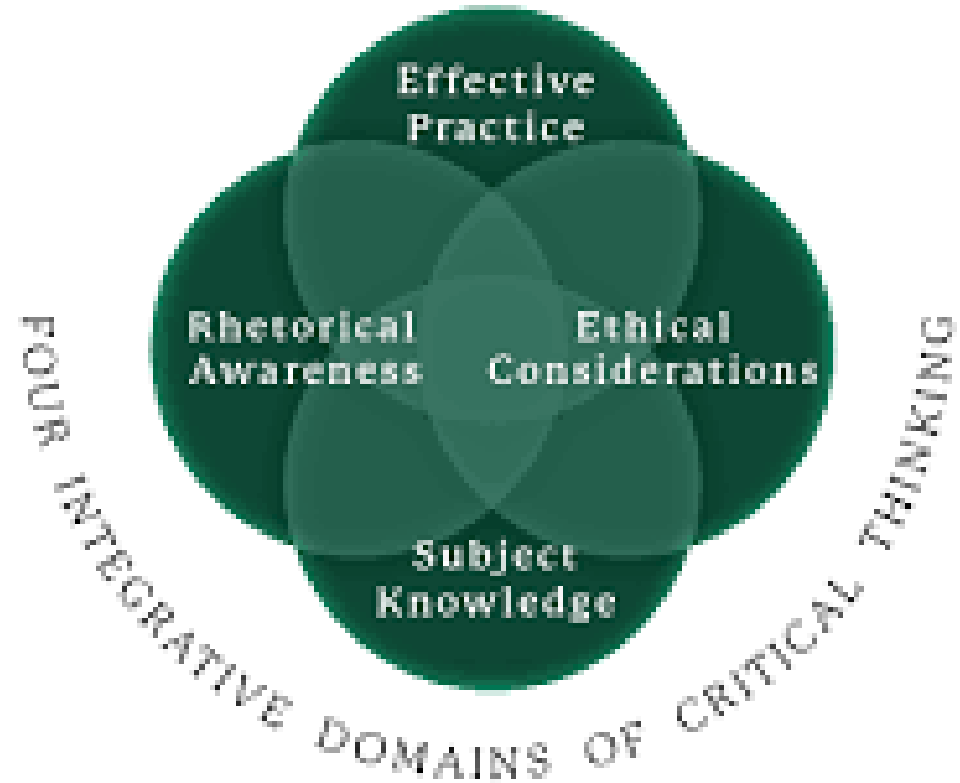
Received: Nov 10, 2025 | **Revised:** Jan 19, 2026 | **Accepted:** March 5, 2026
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(Figure: Ohio AI literacy framework)

AI Literacy



Application of this talk

- Students are already using AI in their language learning, we can't stop higher level learners from doing this in their coursework and could instead choose to use this coursework to help them develop AI literacy
- This seems especially valuable since use of a tool in a language you don't speak is even more fraught than the examples of failure shown here
- Language study is normally ordered by task completion, and this format works well in offering learners the chance to develop AI literacy, alongside linguistic proficiency in using disciplinary knowledge