Teaching Philosophy and EMI Statement

Pei-Chi Lo
pclo@mis.nsysu.edu.tw

Introduction

My teaching is guided by a practical goal: to help students turn computing and information concepts into usable reasoning. In Information Management education, technologies change quickly, but the ability to (1) build a clear mental model of how systems work, (2) evaluate methods with evidence, and (3) communicate decisions responsibly remains durable. I therefore design courses that repeatedly connect *concepts* to *methods*, *evidence*, and *communication*, so that students learn not only to use tools, but also to justify choices and critique outcomes.

Across undergraduate and graduate courses, I treat learning as an active process. Students practice identifying assumptions in systems, interpreting results, explaining trade-offs, and revising their reasoning when confronted with counterexamples. My role is not only to provide clear explanations, but also to build an environment where students can think visibly, collaborate meaningfully, and develop confidence through structured practice.

Teaching Philosophy

1. Learning through authentic production I design assignments that reflect real disciplinary work: reading and critiquing research, implementing core methods, and synthesizing ideas into coherent artifacts. For example, in my graduate-level Information Retrieval course, students complete a staged project (proposal, progress updates, and final deliverables) that requires them to articulate a research question, justify a method choice, and plan evaluation. This structure emphasizes the habit of making claims that are supported by method and evidence, which is central to both research and industry practice.

I also incorporate writing-intensive tasks that move beyond summary. In the paper critique assignment, students must identify strengths and weaknesses, argue with support, and write to explicit criteria for organization and clarity. This positions academic communication as a mode of thinking, not merely a reporting format.

2. Scaffolding complex skills with explicit structure In technical courses, students can struggle not because they lack ability, but because tasks are underspecified and cognitive load is high. I therefore use structured handouts, templates, and rubrics to make expectations visible and to reduce wasted effort on guessing what "good" looks like. Rubrics and section prompts function as scaffolds: they help students focus attention on concept mastery, reasoning quality, and disciplined presentation, while still leaving room for creativity and intellectual ownership.

3. Engineering interaction as a learning mechanism I treat interaction as a designed learning tool rather than a spontaneous classroom outcome. Research consistently shows that formal pedagogical training, particularly in interactive methods, substantially increases the likelihood

of student-centered practice. I build on this insight by using structured discussions and role-based activities. One example is an ethics debate on AI training and copyright, where students argue from assigned stakeholder perspectives. The activity encourages evidence-grounded reasoning, respectful disagreement, and meta-reflection on how technical innovation intersects with legal and social constraints.

4. Assessment for growth, fairness, and clarity Assessment should guide learning behaviors, not simply label performance. I use transparent criteria, staged deadlines, and feedback checkpoints to support iteration. In both undergraduate and graduate settings, I emphasize that quality is multi-dimensional: conceptual understanding, methodological rigor, and communication. This clarity supports fairness, especially in heterogeneous cohorts where students bring different backgrounds and confidence levels.

5. Responsible AI and academic integrity as professional norms Because students now work in an environment saturated with generative AI tools, I explicitly teach responsible use: what AI can support (e.g., clarification, language polishing, exploratory brainstorming) and what crosses academic integrity boundaries (e.g., uncredited outsourcing of core intellectual work). I frame integrity as part of professional credibility: a claim is only meaningful if its reasoning and evidence are traceable.

EMI Pedagogy Statement

My EMI pedagogy is anchored in a single principle: English should function as a medium for disciplinary thinking and collaboration, not as a barrier that filters who can participate. Transforming a disciplinary course into EMI is not simply about changing the language of instruction; it requires re-evaluating pedagogy toward a more learner-centered approach that reduces reliance on teacher-transmitted linguistic input. Many EMI students face a dual cognitive load: processing technical complexity while simultaneously managing language demands. My instructional design therefore focuses on reducing unnecessary linguistic friction while preserving intellectual rigor.

1. EMI as disciplinary apprenticeship In EMI courses, students learn the language practices of the field: defining concepts precisely, comparing approaches, interpreting empirical results, and critiquing limitations. I embed these practices into course tasks. For example, structured paper critiques and project proposals require students to use English for authentic disciplinary purposes—not generic conversation, but argumentation, evaluation, and synthesis in the style of academic and professional communication.

2. Input scaffolding without oversimplifying content To keep advanced content accessible, I chunk explanations, signal transitions clearly, and connect new terms to concrete examples. I design slides and handouts to support comprehension through consistent structure and terminology. For instance, when teaching neural information retrieval models, I introduce attention mechanisms by first grounding the concept in an intuitive analogy ("which words deserve more focus when interpreting a sentence?"), then progressively layering mathematical formalization.

When a concept is inherently complex, I support students by providing "entry points" (definitions, worked examples, and short summaries) rather than lowering the conceptual bar.

3. Output scaffolding and equitable participation A common EMI challenge is that students who understand content may hesitate to speak due to language anxiety, a phenomenon well-documented across diverse EMI contexts. I address this by engineering participation pathways that reduce risk: brief individual thinking time, small-group rehearsal, and structured prompts that help students articulate claims and reasoning. Role-based activities (such as AI ethics debate) shift attention away from perfect fluency and toward evidence and logic, making spoken interaction more equitable and academically meaningful.

4. Strategic use of L1 for comprehension support Current EMI scholarship increasingly recognizes that strategic, judicious use of students' first language can support comprehension without undermining English-medium goals. While I conduct instruction and materials primarily in English, I remain open to brief L1 clarifications for high-stakes terminology or when conceptual confusion would otherwise impede learning. This translanguaging stance reflects a pragmatic commitment to content mastery alongside language development.

5. Language-sensitive assessment aligned with learning goals In EMI, assessment should measure disciplinary learning rather than penalize language development. I therefore use rubrics that prioritize reasoning quality, organization, and evidence use, while treating language accuracy as supportive rather than dominant. Students may choose to write exam responses in Mandarin or English, ensuring that conceptual understanding is not obscured by language barriers. This protects content learning and encourages students to take intellectual risks in English without fear that minor language imperfections will overshadow substantive understanding.

6. Continuous EMI development and dissemination I continually refine my EMI practice through reflection and professional learning. I have been accepted to the MOE & Fulbright "EMI 英語授課專業支援團隊專案計畫" overseas professional training program and will attend the two-week training at UC San Diego in February 2026 (see Program Information). Following the training, I plan to further strengthen structured interaction routines, refine language-sensitive assessment design, and share effective EMI teaching strategies within my department and institution.

Concluding Remarks

My teaching philosophy and EMI pedagogy share the same foundation: students learn best when they are supported to do authentic disciplinary work with clear structure, meaningful interaction, and fair assessment. I aim to cultivate graduates who can learn new technologies independently, evaluate methods responsibly, and communicate with precision and integrity—skills that remain essential even as tools and platforms evolve.