

Lost in Translation? GenAI Promotion and Design Educators' Preparedness in Hong Kong Higher Education

Henry MA¹ & Yuanyi LIAO¹

¹ School of Design, The Hong Kong Polytechnic University, Hong Kong, China

Abstract

Generative Artificial Intelligence (GenAI) has rapidly become a strategic priority in higher education, with universities promoting its adoption to enhance innovation, efficiency, and assessment practices. This study explores how design educators in Hong Kong experience institutional GenAI promotion and how these experiences shape their willingness and perceived capability to integrate GenAI into studio teaching and assessment. Utilising the Theory of Planned Behaviour (TPB) as an analytical framework, the research conducted qualitative interviews with fifteen design educators across communication, product, interaction, media, and social design disciplines in Hong Kong higher education. Analysis through TPB constructs was followed by inductive identification of design-specific themes; cross-comparison revealed three integration patterns: *enthusiastic but under-supported adopters*, *compliance-driven integrators*, and *principled sceptics*. These patterns are distinguished by the relative strength and alignment of attitudes, norms, and perceived control. These findings can inform discipline-oriented policy and professional development.

Keywords: Generative AI (GenAI), Design Education, Theory of Planned Behaviour (TPB), Artificial Intelligence in Education (AIED), Artificial Intelligence (AI)

1. Introduction

The higher education sector increasingly frames GenAI as a strategic issue for innovation, efficiency, and rethinking assessment, with sector bodies calling for planned adoption in teaching and learning (Higher Education Authority, 2025; Association of Pacific Rim Universities, 2025). In Hong Kong, universities have organised GenAI resource hubs to help faculty stay informed about AI in education (HKUST Center for Education Innovation, 2023), while government guidelines have promoted AI adoption and recommended integrity measures such as prior approval for GenAI use in coursework and human review of AI-assisted grading (Legislative Council Secretariat, 2025; Hong Kong SAR Government, 2025). These developments create a policy environment that encourages educators to reconsider curriculum design amid shifting student learning practices.

The Theory of Planned Behaviour (TPB) conceptualises behaviour as shaped by attitudes, subjective norms, and perceived behavioural control (Ajzen, 1991). This study applied TPB to analyse how Hong Kong design educators interpret institutional promotion, peer and student norms, and their perceived ability to use GenAI for studio teaching and assessment. It addresses two research questions:

1. How do institutional norms and policies shape Hong Kong design educators' intentions to integrate GenAI?
2. How do attitudes, norms, and perceived behavioural control interact to produce distinct integration patterns?

Evidence on how studio-based design curricula within Asian higher education interpret GenAI promotion remains limited. This study contributes practical insights from design educators' first-hand perspectives across multiple design disciplines.

2. Methodology

A qualitative, interpretive research design was used. Participants were fifteen design educators working in Hong Kong higher education institutions, including communication, product, interaction, media, and social design disciplines. Data were collected through semi-structured interviews of approximately 45–60 minutes, conducted online or face-to-face. The interview protocol addressed four areas aligned with TPB:

1. Attitudes towards GenAI in design teaching;
2. Perceived institutional norms and policies;
3. Perceived peer and student norms; and
4. Perceived behavioural control.

Analysis followed a two-stage thematic process informed by TPB. First, transcripts were coded deductively using TPB constructs: attitudes (beliefs about GenAI's pedagogical outcomes), subjective norms (perceived expectations from institutions, peers, students, and industry), and perceived behavioural control (perceived ease of integrating GenAI, including access to tools, training, time, and assessment guidance). Second, within each TPB category, inductive coding identified design-specific themes such as process authenticity, aesthetic homogenisation, close reading, local contextual inquiry, and employment preparedness. These themes were synthesised by studying how attitude reactivity, normative pressures, and control barriers combined within each integration pattern. Each pattern represents a distinct combination of TPB constructs that clarifies why educators with similar attitudes may demonstrate differing behaviours.

3. Results and Discussion

3.1 Attitudes: Efficiency, Exploration, and Ambivalence

Interviewees generally valued GenAI for practical efficiency and visual exploration. Product and interaction design educators described using image-based GenAI to produce rapid design variations and prototypes. One product design educator mentioned that students with limited visualisation skills produced “phenomenal” outcomes using Vizcom, while an interaction design educator redesigned their entire UI workflow around GenAI, placing AI at the brainstorming and prototyping stages with human refinement in between. Educators also valued GenAI for lesson preparation, summarising readings, drafting assignment descriptions, and generating teaching materials.

However, strongly conflicting views emerged regarding the compatibility of GenAI with studio-based teaching methodology. Social design staff emphasised that contextual fieldwork and situated immersion—observing how individual street cleaners design their own tools, or understanding each elderly person’s unique circumstances—“simply cannot be generated by AI.” Communication and product design educators worried that premature reliance on GenAI bypasses drawing, iterative modelling, and critical judgement, leading to homogenised aesthetics. One educator observed that AI-generated outputs “all look the same,” while a media design educator said that students explicitly resisted AI-generated visuals, stating they “draw faster” and “draw better.” These findings align with broader concerns about preserving process authenticity and student effort in an era of generative AI (Sabzalieva et al., 2024).

3.2 Norms: Institutional Promotion, Peer Division, and Student Expectations

Interviewees described institutional GenAI promotion through several concrete channels: university-wide communications, teaching fund criteria requiring AI components, surveys tracking AI adoption, programme leader meeting agendas, and resource hubs such as the institutional AI Playground. One social design educator mentioned that “when applying for teaching funds, AI is a key requirement... it’s frequently on the agenda,” while another described university surveys creating “both pressure and a reminder.” However, educators consistently interpreted these initiatives as superficial or misaligned with design disciplines. An advertising educator described workshops as focused on “productivity stuff,” not discipline-specific application. A media design educator found institutional AI sessions “not suitable for our design education... very superficial.” A product design educator described available training like “learning software... I have not been particularly impressed.”

Peer norms were divided. One communication design educator described “two different schools of thought” among colleagues, one embracing AI, the other preferring manual craftsmanship. Industry norms created additional pressure: product design practitioners expect graduates to use AI for speed and experimentation, and media industry employers reportedly will not hire graduates unfamiliar with AI tools. Student responses were equally mixed; product design students enthusiastically adopted AI for visualisation, while media design students rejected AI imagery in personal projects, concerned about appearing “too AI.” Social design students selectively used GenAI for literature reviews and grammar but relied on human-led approaches for contextual projects. These findings suggest normative influences operate differentially across design disciplines, reflecting global patterns in which high-level institutional AI principles outpace what educators need to integrate GenAI into specific disciplinary contexts (Association of Pacific Rim Universities, 2025; Higher Education Authority, 2025).

3.3 Perceived Behavioural Control: Tools, Time, and Assessment

Perceived behavioural control emerged as the primary constraint on GenAI integration. Educators expressed uncertainty about which tools are reliable, with the rapidly expanding landscape creating decision fatigue. One media design educator indicated: “there are so many tools and limited time. How to choose which tool to use is a learning challenge for teachers.” An interaction design educator said subscribing to approximately five platforms simultaneously, spending at least one hour daily tracking developments while paying out of pocket. Time constraints were universal: a communication design educator had not implemented AI despite strong intentions because of “lack of time,” and a media design educator attributed limited adoption to having no time to learn what AI tools can do.

Assessment concerns further undermined perceived behavioural control. Educators pointed to inconsistent practices regarding GenAI disclosure requirements, criteria for evaluating AI-mediated visual work, and strategies for ensuring that close reading, analytical abilities, and manual craftsmanship are genuinely developed. One foundation-year educator required students to submit prompts with final work, while other disciplines had no such requirement. These challenges resonate with policy-oriented findings internationally, underscoring the need for clearer governance frameworks to support responsible GenAI adoption (Higher Education Authority, 2025; Sabzalieva et al., 2024).

3.4 Patterns of GenAI Integration

Through analysing attitudes, norms, and perceived behavioural control

within interviewees’ narratives—not merely coding each construct independently—cross-comparison revealed three indicative integration patterns. The analytic criterion for pattern assignment was the configuration of TPB constructs: the relative strength and alignment of attitude reactivity (positive, moderate, or cautious), normative pressures (institutional, peer, industry, student), and perceived control barriers. Educators were grouped into patterns based on which TPB constructs most strongly shaped their integration behaviour and whether constructs reinforced or contradicted one another.

Table 1: GenAI Integration Patterns

Pattern Label	Attitudes to GenAI	Key Norms	Perceived Behavioural Control	Classroom Practices
Enthusiastic but under supported	Positive; see GenAI as integral to future design practice and student employability	Perceive institutional encouragement and industry demand; some peer support	Low–moderate; lack design-specific training, pay out of pocket for tools, reply on case-by-case judgement	Experimenting with GenAI in visualisation, prototyping, or coding; developing custom workflows
Compliance-driven integrators	Moderately positive; views GenAI as a practical but not central to pedagogy	Sense institutional and industry expectations to incorporate AI; mixed student responses	Moderate; can use basic tools but uncertain about long-term implications and documentation practices	Integrate GenAI in limited ways (e.g., research support, mood boards, grading reference) primarily to align with expectations
Principled sceptics	Ambivalent or cautious; priorities process authenticity, local context, and deep reading/creation	Aware of institutional promotion but perceive misalignment with core disciplinary values	Variable; technically capable but restrict use to protect key learning processes	Delay or limit GenAI use, especially in foundational courses or tasks focused on fieldwork, close reading, or hand skills

These patterns show that educators with similar positive attitudes may behave differently when perceived control is low (enthusiastic adopters struggling with tool access) or when disciplinary norms conflict with institutional promotion (principled sceptics who are technically capable but deliberately restrict use). This finding indicates that interventions need to address attitudes, subjective norms, and perceived behavioural control together rather than focusing solely on promotion or tool availability.

4. Implications

Co-developing GenAI guidelines with design educators can translate high-level policy into contextualised principles applicable across stages of the design process, including norms for GenAI use in creative ideation and visual presentation, expectations for process documentation and prompt transparency, and criteria for evaluating AI-mediated outputs in critiques, portfolios, and work-based assessment. Such guidance addresses the gap this study identified between institutional promotion and disciplinary practice.

Institutions should move beyond generic AI literacy courses and support scenario-based training centred on authentic design briefs, as multiple educators described existing workshops as too superficial for studio application. This approach demonstrates how GenAI can scaffold experimentation, reflection, and ethical awareness without supplanting foundational skills or contextual inquiry.

The TPB-informed patterns identified in this study can help institutions recognise whether primary bottlenecks are attitudinal (e.g., concerns over homogenisation), normative (e.g., pressure to showcase AI amid unclear expectations), or related to perceived behavioural control (e.g., insufficient design-oriented training). Using these insights to shape discipline-oriented policies can support more context-sensitive GenAI adoption that respects disciplinary diversity and foregrounds pedagogy, fairness, and student agency.

Ethical Declaration Statement

The project has been approved by the human ethics approval of The Hong Kong Polytechnic University (Reference Number: HSEARS20251014001).

Declaration of Use of AI in the Writing Process

The authors used Perplexity during the preparation of this work to assist with language refinement. After utilising the tool, the authors thoroughly reviewed and edited the content as necessary and assumed full responsibility for the publication's content.

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