

# **REOPENING EDUCATIONAL DIALOGUE? GENERATIVE AI, DESIGN EXPERIMENTS, AND THE RECONFIGURATION OF COMMUNICATIVE SPACE IN HIGHER EDUCATION**

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## **1. Research Overview**

This paper examines whether generative AI can help reopen communicative spaces that have narrowed in modern higher education. Through dialogic AI and humanoid lecture design experiments, it explores the reconfiguration of communicative space in education and whether human-machine communication may contribute to new communicative publics and renewed human purposes of higher education.

## **2. Purpose**

Contemporary higher education faces a paradox. While universities have expanded access, digitised learning, and intensified assessment, opportunities for dialogue about the substance of learning itself have often narrowed. Educational communication is increasingly mediated through certification, evaluation, and scalable delivery, constraining dialogic and communicative possibilities.

This paper asks whether generative AI may not only intensify these tendencies but also, paradoxically, help reopen communicative possibilities constrained in modern higher education. Rather than approaching AI primarily as instructional technology, the study examines generative AI as a lens through which tensions in educational modernity become newly visible.

Two experimental implementations developed in university online education are examined as two modalities for reconfiguring educational communicative space. The first is a dialogic AI tool embedded in humanities and bioethics MOOCs, designed to support questioning, interpretive exploration, and reflective dialogue, often difficult to sustain in conventional higher education. Rather than functioning as an answer engine, the tool was designed as a dialogic companion and critical interlocutor.

The second is a humanoid AI lecturer prototype developed in response to the routinization of lecture communication. Using avatar embodiment, cloned voice, and motion-based design, the experiment explores whether AI can help rethink the lecture as a form of communicative engagement. Drawing on scholarship on educational communication, relationality, pedagogic recontextualization, and human-machine relations, the paper asks whether AI may help reopen educational dialogue and create new communicative spaces in higher education.

The study also situates these experiments within broader questions of how universities may integrate generative AI into emerging media-mix strategies across multiple educational functions.

## **3. Methods**

This study is conceived primarily as a conceptual and design-based inquiry, informed by preliminary empirical materials rather than as an outcome evaluation. Two exploratory AI implementations are examined as comparative sociotechnical cases.

- i) AI as a dialogic companion

A conversational system combining retrieval-augmented generation, thematic query expansion, and prompt routing supports questioning, interpretive dialogue, and poetic rewriting. Its design privileges dialogue over assessment and reflective engagement over answer optimisation.

ii) AI as a communicative lecturer

A humanoid lecturer prototype explores whether AI-generated embodiment, cloned voice, and dynamic visual design may reconfigure lecture communication beyond routine transmission. Materials include design artefacts, prototype development processes, learner-facing interaction and lecture design, exploratory formative feedback from collaborators and learners, preliminary learner reflection data associated with the dialogic AI implementation, and comparative sociotechnical analysis of the prototype as an experimental educational form. Methodologically, the study combines design-based research and educational sociology, treating experimentation as a means of investigating how communicative space in higher education may be reorganised through human-machine assemblages.

#### **4. Results & Discussion**

Preliminary insights drawn from prototype design analysis, exploratory participant feedback, and initial learner reflections suggest that generative AI introduces not only risks of communicative reduction but possibilities for reopening educational communication. First, the experiments illuminate how constraints on educational communication often lie not simply in technology itself but in institutional forms: assessment-centred learning, diminished dialogic opportunity, routinised lecture formats, and restricted access to intellectual exchange. Second, the dialogic AI tool suggests that AI may function less as a surrogate instructor than as a companion or critical interlocutor, lowering barriers to participation and opening spaces for reflection and dialogue. Third, the humanoid lecturer experiment suggests that AI may prompt reconsideration of the lecture as a performance, invitation, and intellectual encounter, while raising questions about teaching presence and mediated embodiment.

Taken together, the cases suggest that generative AI may contribute not only to automation but to the possible reconstitution of communicative public spaces in which learners engage knowledge dialogically beyond traditional institutional constraints. If modern higher education has often narrowed education toward credentialing, scale, and transmission, AI may paradoxically reopen questions about whether neglected dimensions of cultivation, embodiment, and human formation can be reimagined rather than lost. From this perspective, the significance of AI lies not primarily in substitution, but in whether human-machine communication can help recover dialogic vitality and communicative responsiveness marginalized by educational modernity. At stake is whether AI may contribute not simply to educational innovation, but to reopening higher education as a site of dialogue and intellectual encounter. This raises broader questions about critical and dialogic literacies needed to sustain human agency within AI-mediated educational settings.