

Between Efficiency and Erosion: The Impact of Generative AI on Academic Professional Identity and Student Flourishing in Higher Education

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Abstract

The rapid integration of generative artificial intelligence (GenAI or AI) into higher education has precipitated an Efficiency-Erosion Paradox, characterised by a significant tension between immediate operational gains and the potential long-term erosion of academic flourishing. This study explores this tension through the dual perspectives of staff and students at a university in the UK. Adopting a Students as Partners approach, the research utilised semi-structured interviews with fifteen participants (eight staff, seven students) to investigate how GenAI influences professional identity, wellbeing, and academic norms. The findings reveal a complex landscape where the pursuit of efficiency is countered by three primary tensions: the Digital Surveillance Paradox, the rejection of automated assessment, and the emergence of a Mastery Gap. First, applying Self-Determination Theory, findings show that a Digital Surveillance Paradox thwarts student autonomy, as automated detection creates systemic technostress and erodes the trust required for flourishing. Second, there is a distinct boundary regarding automated assessment, with both staff and students rejecting machine-led marking as a fundamental threat to the human-to-human relatedness essential for pedagogical flourishing. Third, the current state of institutional limbo encourages a reliance on approximate knowledge, creating a Mastery Gap where students bypass deep cognitive engagement in favour of algorithmic shortcuts, leading to the perceived devaluation of academic credentials. This study proposes that universities consider a transition toward Relational Governance, a co-created model of technology integration that restores trust and protects the reciprocal trust and human validation essential to the academic relationship.

Keywords

Generative artificial intelligence (GenAI), Higher education, Professional identity, Self-Determination Theory, Student flourishing, Students as Partners

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Introduction

The rapid and unprecedented integration of generative artificial intelligence (GenAI) into higher education has precipitated a complex crisis of professional identity and well-being, challenging the foundational human elements of teaching and learning (Bannister et al., 2023; Suprobo et al., 2025). While GenAI tools like ChatGPT are championed for their potential to enhance productivity and personalise learning (Suprobo et al., 2025; Xia et al., 2025), this efficiency narrative often obscures significant psychological and pedagogical risks, including the erosion of critical thinking and the potential displacement of human interaction (Al-Shabandar et al., 2024; B. Li et al., 2025). This technological disruption has given rise to technostress, a state of anxiety and overload stemming from the pressure to constantly adapt to complex, opaque systems, which threatens to diminish academic satisfaction and foster digital isolation among both students and educators (Kohnke et al., 2024; Zhang & Tong, 2025). As educators grapple with the unsettling of their professional roles and the fear of substitutability, students simultaneously face the blurring of authorial identity and the cognitive strain of navigating an academic landscape where the boundaries of authentic work are increasingly opaque (Berente et al., 2021; Brynjolfsson & Mitchell, 2017).

Compounding these challenges is a distinct governance gap, where institutional policies have failed to keep pace with the proliferation of these technologies, leaving educators and students to navigate ethical ambiguities and academic integrity concerns without adequate support frameworks (Duah & McGivern, 2024; Rodríguez-Ortiz et al., 2025). Furthermore, existing research is predominantly top-down, often neglecting the voice gap regarding the lived experiences of learners who must negotiate their developing identities and motivation within these AI-mediated environments (Duah & McGivern, 2024; Pappa et al., 2020). Consequently, there is a critical need for co-created research that utilises a Students as Partners (Healey & Healey, 2019) lens to explore how GenAI affects the basic psychological needs of autonomy, competence, and relatedness, thereby ensuring that technological integration enhances rather than undermines the human connection at the heart of education (B. Li et al., 2025; Y. Li & Chiu, 2025).

The significance of this study lies in its multi-layered contribution to the theoretical, methodological, and practical discourse surrounding digital transformation in higher education. Theoretically, this research utilises Self-Determination Theory (SDT) (Chiu, 2024; Ryan & Deci, 2020) to examine how technological integration impacts the psychological conditions required for flourishing. SDT is a macro-theory of human motivation that evaluates environments based on their capacity to satisfy three universal psychological needs: autonomy (the experience of agency), competence (the sense of mastery), and relatedness (the feeling of social connection). By applying this framework, the study moves beyond technical evaluation to examine whether the current mode of GenAI integration supports or hinders the fundamental human elements of teaching and learning. This theoretical approach allows for a sophisticated analysis of how efficiency-led models may systematically impact student motivation and professional identity, providing a necessary counter-narrative to purely operational accounts of digital transformation.

Methodologically, this study addresses a documented voice gap by adopting a Students as Partners (SaP) framework. This voice gap is identified by Korchak et al. (2025) in a systematic

review of the literature, where they report that explorations of how university students utilise GenAI “still remain absent” (Korchak et al., 2025, p. 41), creating a need for a “holistic understanding” (Korchak et al., 2025, p. 40) of the student experience. This sentiment is mirrored by Bobula (2024) and Chan and Hu (2023, p. 14), who state that “[b]y understanding how students perceive generative AI technologies, educators and policymakers can better understand how best to integrate these technologies into higher education to enhance teaching and learning outcomes”.

By positioning students as co-researchers rather than passive subjects, the research captures a democratic and authentic perspective on the lived experience of technological disruption. This approach is particularly significant in the context of the Digital Surveillance Paradox, where institutional reliance on fallible detection software creates a climate of technostress and stifles student autonomy. As Kohnke et al. (2024) report, the rapid pace of AI adoption often outstrips educators’ pedagogical knowledge, leading to professional insecurity. This study contributes a partnership-led methodology to mitigate such techno-complexity and restore trust.

Practically, the study offers a timely resolution to the state of institutional limbo currently facing global universities. By identifying human-led assessment as a vital line in the sand for both staff and students, the findings provide a clear criterion for preserving professional identity and the social need for relatedness. This search for humanness in professional identity, as observed by B. Li et al. (2025), is framed here not as a rejection of technology, but as a requirement for maintaining the relational trust that underpins higher education. Ultimately, the study advocates for a transition toward Relational Governance, proposing that the SaP approach is the essential mechanism for co-creating the academic norms required for a flourishing AI-mediated future.

These gaps are addressed through the following research questions.

- (1) How do the perceived gains in academic and operational efficiency afforded by Generative AI interact with the psychological wellbeing and flourishing of staff and students?
- (2) To what extent does the prospect of AI-automated assessment (marking) represent a line in the sand for the preservation of professional identity among staff and the perceived value of degrees among students?
- (3) How does the current state of institutional limbo and vague policy guidance contribute to the emergence of technostress and a perceived erosion of academic norms?

Answering these questions is vital for balancing GenAI’s efficiency with the risks of technostress and digital isolation (Wang et al., 2020). It addresses threats to professional identity by delineating the necessary human element in assessment (Dubois du Bellay & Canariov, 2023). Furthermore, it guides institutions in resolving policy ambiguity (Bannister et al., 2023), ensuring frameworks that protect well-being and academic authenticity amidst rapid technological disruption (Batista et al., 2024).

This paper is structured as follows. First, an overview of relevant literature is provided. Following this, the approach to collecting and analysing data is outlined and the findings are presented. Finally, we discuss the contributions to theory and practice made by this article, identify limitations of the research, and propose opportunities for future projects.

Literature Review

This study utilises Self-Determination Theory (SDT) as the theoretical lens to evaluate the impact of generative AI on academic flourishing (Chiu, 2024; Ryan & Deci, 2020). SDT is a macro-theory

of human motivation that identifies three basic psychological needs as universal requirements for psychological growth, integrity, and well-being: autonomy, competence, and relatedness. Autonomy refers to the need for individuals to experience their behaviour as volitional and self-endorsed; competence is the need to feel effective and experience mastery within one's environment; and relatedness involves the need to feel connected to and valued by others. According to SDT, when these needs are supported, individuals experience high-quality, autonomous motivation. Conversely, when these needs are thwarted or frustrated, often through excessive control or social isolation, it leads to diminished engagement and psychological distress. In this study, SDT provides a robust diagnostic lens to evaluate how the automation of academic tasks impacts the psychological foundations of the educator-learner relationship.

The Efficiency Narrative and the Functional Competence Gap

The prevailing efficiency narrative in higher education frequently identifies GenAI as a “transformative force” capable of providing instant and individualised learning environments (Korchak et al., 2025, p. 3). Scholarly discourse, notably by Chiu (2024, p. 2403), asserts that GenAI tools can satisfy a student's perceived competence, the subjective experience of being effective, by acting as a tailored coach during the “performance phase” of learning. However, a conceptual distinction must be made between this immediate psychological satisfaction and actual cognitive mastery. While the former relates to the ease of task completion, the latter requires the deep internalisation of expertise that can be bypassed when tools prioritise efficiency over “desirable difficulties” (Reihanian et al., 2025, p. 13).

This functional utility is supported by the meta-analytical findings of Xia et al. (2025), which show that GenAI has a strong positive effect on learning outcomes, particularly in lower-order cognitive tasks such as remembering and understanding within Bloom's Taxonomy. However, this reliance on algorithmic support risks creating a Mastery Gap, recognised by Al-Shabandar et al. (2024) and referred to by Korchak et al. (2025, p. 38) as a “gap between more and less competent learners”. By facilitating task completion without deep cognitive engagement, GenAI may allow students to bypass the “intellectual development that comes from grappling with ideas” (Duah & McGivern, 2024, pp. 7–8), essential for higher-order critical evaluation and authentic expertise (Rudolph et al., 2024; Xia et al., 2025).

The Digital Surveillance Paradox and the Erosion of Autonomy

The rapid integration of GenAI has precipitated a Digital Surveillance Paradox, where institutional attempts to safeguard academic integrity through fallible detection software (Liang et al., 2023) create systemic technostress rather than pedagogical security. Kohnke et al. (2024, p. 308) theoretically ground this climate of detection anxiety in their identification of “techno-complexity” and “techno-uncertainty” as primary stressors that emerge when technological adoption outstrips the development of clear ethical boundaries and pedagogical knowledge. From an SDT perspective (Ryan & Deci, 2020), this pervasive monitoring erodes the fundamental need for autonomy, shifting the student's “Perceived Locus of Causality” (Turban et al., 2007, p. 2376) from internal (intrinsic engagement) to external (avoiding algorithmic flags). According to SDT, this shift from autonomous to controlled motivation is a primary driver of technostress (Sprengers & Fong, 2025). As Duah and McGivern (2024) argue, the resulting blurring of authorial identity and academic norms necessitates a transition away from top-down surveillance toward clear, co-created usage policies to resolve the current state of institutional limbo.

The Identity Crisis and Professional Relatedness

The delegation of evaluative judgment to AI systems destabilises established professional identities and frustrates the interpersonal relatedness foundational to the educator-student bond (Finze, 2024; X. Li, 2025; Ryan & Deci, 2020). Finze (2024) theoretically frames this tension as a risk of substitutive decision-making, where the offloading of evaluative judgements to AI systems unsettles the educator's professional sense of self and diminishes their perceived value in the pedagogical process. This shift is detrimental to the social fabric of the academy. As B. Li et al. (2025) observe, educators are increasingly 'in search of humanness,' asserting that professional identity is anchored in the human-centric validation of a student's longitudinal intellectual journey. Algorithmic mediation of the assessment loop severs the social bond of belonging, i.e., the SDT need for relatedness (X. Li, 2025; Rudolph et al., 2024).

Addressing the Gap

While there is a rapidly growing body of research on the technical benefits of GenAI, the lived experiences and perspectives of students and staff are still largely ignored. Existing research often fails to address how the state of institutional limbo, characterised by vague policies and reactive surveillance (Han et al., 2022), actively erodes the psychological needs essential for academic flourishing. By involving learners as co-architects of AI usage boundaries, institutions can restore the autonomy and relatedness currently under threat. This approach directly addresses the GenAI Paradox identified by Rudolph et al. (2024), prioritising human agency and ethical reciprocity as the central mechanisms for authentic pedagogical flourishing.

Method

Research Design: A Students as Partners Approach

This study employed a qualitative research design situated within a SaP framework (Healey & Healey, 2019; Healey et al., 2014). This approach ensures that the student voice is central to the project's development, rather than treating students merely as subjects of research. Two Student Ambassadors, one from the Faculty of Business and Law and one from the Faculty of Applied Sciences, were recruited and trained in collaborative research methodologies. These ambassadors jointly defined the project's aims and played a primary role in the implementation and direction of the research.

Participants and Recruitment

The study utilised purposive sampling to recruit 15 participants from a university in the UK. Recruitment was led by the Student Ambassadors using a purposive sampling strategy designed to capture a broad cross-section of the university community. To mitigate potential selection bias, participants were recruited through formal institutional pathways, such as faculty-wide mailing lists and student union forums, rather than personal networks. The Ambassadors targeted staff across various levels of seniority and students from diverse disciplines, including Law, Applied Sciences, and Business, to ensure the findings reflected a range of pedagogical and professional contexts.

The final sample consisted of eight academic staff members and seven students (see Table 1).

Table 1. Interviewees

ID	Interviewee
P1	Staff
P2	Staff
P3	Staff
P4	Staff
P5	Staff
P6	Student
P7	Student
P8	Student
P9	Student
P10	Staff
P11	Student
P12	Student
P13	Student
P14	Staff
P15	Staff

Instruments

The primary data collection instrument was a semi-structured interview guide developed collaboratively by the research team and the Student Ambassadors. The guide focused on participants' personal experiences with GenAI (e.g., ChatGPT, Grammarly, and Copilot), their perceptions of its impact on academic wellbeing and professional identity, and their views on institutional governance.

Procedures

The project received full ethical approval from the institutional ethics committee in accordance with the requirements for good practice research. All interviews were conducted in person and on campus to facilitate open, natural dialogue. Each interview lasted approximately 30 minutes. This duration was considered appropriate for the focused, semi-structured nature of the enquiry, which prioritised specific psychological responses to GenAI tools (e.g., technostress and identity threat) rather than expansive biographical narratives. Interviews were recorded and transcribed verbatim. The subsequent 'cleaning' for thematic clarity was strictly limited to the removal of non-lexical fillers (e.g., 'um', 'ah') and disfluencies to enhance readability while ensuring the participants' substantive meaning and emotional nuances remained unaltered.

Data Analysis

The qualitative data were processed using a hybrid approach to thematic analysis, combining inductive coding with a deductive framework based on SDT. This involved a two-phase process with clearly defined coder roles to ensure rigour. In the inductive phase, Student Ambassadors followed the initial steps of thematic analysis described by Braun and Clarke (2006)—familiarisation and open coding—to ensure the learner perspective remained the primary driver of the findings. This captured emergent issue-based tensions, such as “surveillance anxiety” and “automated marking”, without premature theoretical imposition. To ensure thematic validity and reflexivity, the research team engaged in weekly peer-debriefing sessions. During these meetings, emergent themes were

challenged and refined against the raw data to mitigate individual researcher bias and ensure a robust consensus between staff and student perspectives.

In the deductive phase, senior academic leads facilitated the mapping of emergent codes to the SDT constructs of autonomy, competence, and relatedness. This secondary axial coding moved beyond descriptive categories to evaluate how GenAI integration supports or thwarts psychological needs. Crucially, the analytical strategy distinguished between need satisfaction (e.g., feeling competent through AI assistance) and skill internalisation (actual mastery). This allowed the researchers to interpret the “Mastery Gap” not merely as a lack of skill, but as a tension where technology provides a proxy for competence while simultaneously eroding the cognitive engagement necessary for genuine expertise.

Table 2. Categories and Themes

Categories	Sample Codes	SDT Alignment (Deductive Lens)
Academic Integrity & Assessment Policy	Opposition to AI marking (11) Unreliability of AI detectors (11) Devaluation of the degree (7) Return to in-person exams (5) Ambiguity of guidelines (3)	Autonomy: Thwarted by external control/surveillance
Pedagogy & Learning Strategy	Erosion of critical thinking (9) Hallucinations & fake references (8) Assessment redesign: Critique the AI (5)	Relatedness: Erosion of the human social bond
Usage Habits & Practical Applications	Ideation & Structuring (11) Spelling Punctuation and Grammar tools (6) Summarising & Revision (4)	Competence: Superficial vs. deep mastery
Ethics & Equity	Digital poverty & access costs (4) International student bias (4)	

Findings

The analysis of the interview data revealed four primary themes that underpin the Efficiency-Erosion Paradox: (1) Academic Integrity and Assessment Policy; (2) Pedagogy and Learning Strategy; (3) Usage Habits and Practical Applications; and (4) Ethics and Equity (see Table 2). The following sections detail these findings, drawing on the perspectives of both staff and student participants.

Usage Habits and Practical Applications: The Efficiency Narrative

The data reveal that the integration of GenAI into the academic environment is primarily driven by a collective pursuit of operational and pedagogical efficiency. This section addresses RQ1 by investigating how these perceived productivity gains interact with the psychological flourishing of the university community, specifically through the lens of need satisfaction.

Among academic staff, GenAI is predominantly valued as a high-performance cognitive assistant that facilitates more efficient research and administrative workflows. One senior academic staff member (P14, Staff) characterised these tools as an “easy gateway to knowledge,” noting that

specialised platforms like ScholarAI and Jenni AI can “pull up papers that you, maybe, didn’t pull up yourself”. This utility was corroborated by Participant 1 (Staff), who viewed the technology as an “unstoppable” tool already embedded within daily life through common digital platforms. From a SDT perspective, this operational efficiency directly supports the basic psychological need for competence, as it enables educators to master increasingly complex information landscapes with greater speed and precision.

Students similarly identified that GenAI provides a level of customisation and flexibility that traditional learning methods often lack, though their usage habits differed based on their levels of digital literacy. Participant 12 (Student) highlighted how AI-integrated study platforms have had a “really positive impact” on revision because “you couldn’t really be flexible with the answers [previously],” framing the technology as a form of “assistance” rather than a replacement for effort. In contrast, other students adopted a more functional approach, with Participant 8 (Student) using ChatGPT as a “simplified version of Google” to ask “random questions and get the answers”. For these learners, the ability to tailor their academic engagement according to personal learning styles goes some way toward satisfying their need for autonomy, fostering a sense of agency and intrinsic motivation (Ryan & Deci, 2020).

However, the findings suggest that this efficiency narrative is not without psychological cost. While staff and students celebrate the time saved on administrative and revision tasks, there is a clear distinction between using AI for operational ideation and structuring and using it for generative content creation. Participants noted that these tools provide functional competence but also create a new cognitive reliance. This creates an Efficiency-Erosion Paradox: the initial gains in productivity are undermined by a climate of surveillance and a persistent anxiety regarding the authenticity of academic work, a tension that is explored in detail in the following section.

Academic Integrity and Assessment Policy: Surveillance and Identity

While GenAI offers significant operational benefits, its integration has concurrently fostered a Digital Surveillance Paradox, where tools designed to protect academic integrity generate profound technostress and emotional distress. This section addresses RQ3 by examining how the current climate of detection and institutional ambiguity creates a grey area that compromises the psychological needs of the academic community.

From the educator’s perspective, the reliance on fallible detection software has introduced a layer of suspicion that damages the relational fabric of teaching, forcing staff into the unwelcome role of algorithmic investigators. One experienced educator (P15, Staff) highlighted the friction caused by this surveillance environment, noting that “the likes of AI and the detection of it, I think, is a major issue... it’s a very grey area... for the student, it causes stress because you’re then having to be questioned and for the staff because that’s something that we don’t want to do”. This was further critiqued by Participant 1 (Staff), who observed that detectors merely predict pattern matching and are fundamentally “fallible,” leading to a climate where original work is frequently flagged incorrectly. The stress of AI detection potentially compromises the connection between educators and students. By replacing trust with suspicion, the educator-learner bond may be strained, which participants perceived as a threat to pedagogical flourishing.

For students, this paradox manifests as an acute form of technostress characterised by a constant anxiety of detection, where the pressure to prove one’s humanness to a machine overshadows the learning process itself. One student (P7, Student) vividly described the post-submission experience as a “weird limbo period”. This emotional toll was echoed by Participant 9 (Student), who admitted

that even as an honest student, the technology was “freaking me out” because “someone could catch me in a lie any day of the week... it’s making people so reliant and they can’t critically think anymore”. This state of limbo, a direct consequence of the vague policy guidance queried in RQ3, severely undermines student autonomy. Instead of engaging in learning for intrinsic growth, students find their motivation controlled by the external pressure of avoiding a false algorithmic flag, leading to the digital isolation and cognitive strain observed across the cohort.

This erosion of trust in the academic process and the subsequent threat to student wellbeing leads naturally to a defensive stance regarding the validation of academic work. As surveillance becomes increasingly unreliable, both staff and students appear to seek refuge in the one area of the educational loop they believe must remain exclusively human: the assessment process.

AI Marking and Professional Identity: Protecting Relatedness and Expertise

A profound and near-unanimous consensus emerged among participants regarding the line in the sand for GenAI integration, the automation of the assessment process. Both staff and students viewed AI-led marking not merely as a technical shift, but as a fundamental threat to the human identity of higher education. This section addresses RQ2 by examining how the preservation of a human-in-the-loop is essential for satisfying the psychological need for relatedness and maintaining professional integrity.

Academic staff framed the act of marking as a core professional duty that requires a level of contextual and longitudinal understanding that GenAI fundamentally lacks. One senior educator (P15, Staff) argued that using AI for grading would be a “disservice” to students, asserting: “Marking needs to come from an academic who has an understanding of the work... because a chatbot doesn’t know the three years’ worth of information that the student has gained”. This sentiment was echoed by P2 (Staff), who noted that automated grading removes the “personality” and “connection” from the process, leaving students feeling “dismissed”. From an SDT perspective, these findings suggest that AI-led marking acts as a significant “need-frustration” mechanism (Ryan & Deci, 2020, p. 4): by severing the personal connection and ignoring the student’s unique growth over time, it devalues the educator’s expertise and erodes the relatedness necessary for a flourishing pedagogical environment.

Students shared this resistance, framing the issue through a lens of reciprocity and ethical fairness. There was a strong sense that the challenges of creating authentic academic work must be met with an equal human effort during evaluation to maintain the value of the degree. Participant 11 (Student) expressed a feeling of being “unfairly disadvantaged” by automated assessment, stating: “The markers should be just as strict with how they use it [as students]... they should sit and read all my hard work, please”. This was further contextualised by P6 (Student) as a failure of the institutional contract, noting that “We spend nine grand a year to get our work marked... if they are cutting corners themselves and not actually marking authentically... it’s literally like they are not fulfilling their job requirement”. This highlights that, for students, relatedness in assessment is a requirement for intrinsic motivation (Xia et al., 2022); when the assessment loop is automated, the humanness of the degree is lost, and the student’s effort feels unrecognised and purely transactional.

The collective insistence on human-to-human validation suggests that while GenAI is accepted as a consultant for ideation, its use as a judge of academic value is perceived as a direct erosion of professional and student identity. This leads to the final thematic tension: how the current state of institutional limbo and the lack of clear boundaries further complicate the development of academic mastery and trust.

Pedagogy & Learning Strategy: The Struggle for Mastery

The findings indicate that the lack of clear institutional boundaries has created a state of institutional limbo, where the pursuit of operational efficiency risks eroding the psychological foundation of academic mastery. This section addresses RQ1 and RQ3 by exploring how the transition to AI-mediated learning impacts the development of genuine expertise and the internalisation of core skills, which are fundamental to student well-being.

Academic staff expressed significant concern that the capacity of GenAI to produce sophisticated text allows students to bypass the essential “intellectual development that comes from grappling with ideas” (Duah & McGivern, 2024, pp. 7–8). One educator (P15, Staff) observed that by relying on AI, students are “bypassing the learning outcomes of understanding the process, to discussing it, to theorise... They’re losing that by using AI”. This concern was further conceptualised by P2 (Staff) as a shift towards “approximate knowledge”, where individuals become comfortable with surface-level understanding, noting that the technology “is going to provide even more of a crutch for people that already don’t want to try”. From an SDT perspective, this circumvention of the learning process creates a tension between perceived competence—the student’s immediate sense of effectiveness when utilising AI—and actual cognitive mastery, defined here as the independent internalisation of knowledge. While GenAI tools may satisfy the psychological need for competence by lowering barriers to task completion, they simultaneously thwart the development of mastery by removing the intellectual “grappling” required for deep learning. This creates a mechanism of “Proxy Competence”. In this state, the technology provides the psychological satisfaction of the need for competence through successful task completion, while simultaneously bypassing the “desirable difficulties” required for skill internalisation. This mechanism explains the paradox: the more “efficient” the student becomes at using the tool, the less “competent” they become as an independent learner, leading to the Mastery Gap observed in the findings. This distinction is critical. The technology offers a proxy for competence while appearing to diminish the deep cognitive engagement that participants associated with authentic academic mastery.

The threat to mastery is seen as a long-term risk to the value of higher education, particularly if students graduate without the cognitive stamina required for critical analysis. P3 (Staff) reinforced this, stating that institutions must keep “an eye on that critical set of core skills, because we don’t want students to be graduating without that set of core skills around critical thinking and analytics”. This direct threat to core skills addresses RQ1 regarding well-being, as the satisfaction of the need for competence, feeling capable and effective, is a primary driver of academic motivation and personal growth (Ryan & Deci, 2020; Shi & Zhang, 2025). When this need is negated by a reliance on algorithmic shortcuts, the resulting Mastery Gap contributes to a diminished sense of achievement and purpose.

Students mirrored these concerns, pointing to a sense of institutional limbo where vague guidelines devalue their academic effort and the ultimate credibility of their credentials. Participant 6 (Student) criticised the current university guidance as “quite vague,” explaining that this ambiguity “makes a degree less credible, because you can get anything on a sheet of paper that says you’ve got a high grade without putting the work in”. This sentiment was echoed by P11 (Student), who felt a sense of frustration when witnessing peers using AI to “work smarter, not harder,” arguing that “they’ve not actually gained the knowledge, which we’ve had to do from sitting and reading papers”. In relation to RQ3, these responses highlight that institutional ambiguity doesn’t just create technical confusion but actively diminishes the needs for competence and autonomy (Ryan & Deci,

2020), as students struggle to maintain a sense of agency in an environment that appears to reward algorithmic output over original intellectual labour.

The findings across all four themes suggest that while GenAI provides a powerful efficiency narrative, it simultaneously initiates an erosion of the psychological needs required for flourishing. For both staff and students, the Mastery Gap represents the final cost of the GenAI paradox: a university experience that is faster and more efficient, but potentially less meaningful and cognitively transformative. To resolve this state of limbo and restore academic trust, the data point towards a requirement for Relational Governance and a transition toward a SaP approach.

Discussion

The primary contribution of this study lies in its theorisation of the Efficiency–Erosion Paradox. Unlike a traditional trade-off, where a loss in one area is compensated by a gain in another, this paradox is defined by a self-undermining mechanism: the very tools employed to enhance operational efficiency (e.g., rapid ideation and automated marking) act as catalysts for the erosion of the psychological needs essential for flourishing. Within this framework, efficiency is not merely a benefit but a need-thwarting agent that replaces intrinsic autonomy with algorithmic reliance and substitutes relational validation with transactional output. As detailed in the findings regarding the efficiency narrative, both staff and students perceive tools like ChatGPT as an “easy gateway to knowledge” (P14, Staff) that satisfies the immediate psychological need for competence through instant, personalised feedback. This perception aligns with the “individualised learning environment[s]” described by Chiu (2024, p. 2401), who notes that such tools can effectively support the performance phase of learning. However, this functional satisfaction is frequently superficial, as suggested by Xia et al. (2025). While GenAI supports lower-order cognitive tasks within Bloom’s Taxonomy, it simultaneously creates a Mastery Gap. In this gap, the “approximate knowledge” identified by participants (P2, Staff) acts as a cognitive bypass for deep learning. By allowing learners to navigate around desirable difficulties, the efficiency gains queried in RQ1 risk a systematic devaluation of higher education credentials, a core tension in the ‘Chatbot Mania’ and broader ‘GenAI Paradox’ identified by Rudolph et al. (2024). Ultimately, these findings suggest that efficiency-led models are insufficient because they prioritise speed over the psychological need satisfaction (autonomy and competence) required for authentic intellectual flourishing (Ryan & Deci, 2020). Beyond the efficiency narrative, the integration of GenAI has precipitated a Digital Surveillance Paradox, where institutional reliance on detection software to safeguard academic integrity generates systemic technostress rather than trust. As established in the findings, this climate manifests as a “weird limbo period” for students (P7) characterised by acute anxiety over algorithmic validation. For staff, the pressure to act as algorithmic investigators “hinders” the pedagogical process and damages the relational fabric of teaching (P15). This empirical evidence of detection anxiety aligns with the observations of Duah and McGivern (2024), who argue that GenAI has blurred traditional notions of authorial identity and academic norms, leaving both students and educators in a state of ethical confusion due to a lack of clear institutional usage policies. Furthermore, the rapid adoption of these tools often outstrips the development of educators’ technological pedagogical content knowledge, leading to the heightened techno-complexity and professional insecurity identified by Kohnke et al. (2024).

When analysed through the lens of Self-Determination Theory, this pervasive surveillance actively compromises the basic psychological need for autonomy (Ryan & Deci, 2020). The constant

monitoring shifts student motivation from autonomous engagement (learning for self-growth) toward controlled motivation, where the primary objective is to avoid a false algorithmic flag. This shift is detrimental to well-being. As Duah and McGivern (2024) note, students' perceptions of being monitored create a significant psychological strain that reduces their psychological safety and hinders their willingness to use GenAI as a genuine learning aid. Addressing RQ3, these findings suggest that the more an institution relies on top-down surveillance to resolve the GenAI paradox (Rudolph et al., 2024), the more it undermines the autonomy and trust required for students to flourish in an AI-mediated environment.

The findings of this study further illustrate that the line in the sand for GenAI integration is drawn at the point of assessment, where the automation of marking is perceived as a fundamental threat to both professional identity and the psychological need for relatedness. The findings establish that staff members, like P15, view automated marking as a profound "disservice" to the learner, specifically because an algorithm lacks the longitudinal context required to understand "the three years' worth of information that the student has gained". This defensive stance regarding the human-in-the-loop is mirrored in the work of B. Li et al. (2025), who found that educators are actively in search of humanness as GenAI disrupts their ability to fulfil core identity functions and unsettles their professional sense of self. This highlights that the assessment loop is not a mere administrative task to be optimised, but a primary vehicle for the unique, human-centric validation of a student's unique intellectual voice.

From an SDT perspective (Ryan & Deci, 2020), the collective resistance to AI-led marking serves as a protective measure for the pillar of relatedness, which acts as the social glue of the academic community. The data suggest that relatedness is built on a foundation of reciprocity. Students like P11 remain motivated to produce authentic work only if they believe their "hard work" is met with a matching human effort in evaluation. When this loop is automated, the resulting "need frustration" (Ryan & Deci, 2020, p. 4) leads to the feelings of being "dismissed" reported by P2. This erosion of relational trust is a significant risk of the GenAI Paradox. As identified by Finze (2024), the substitution of human judgement with substitutive decision-making systems represents an existential threat to professional role identity.

The boundary conditions of the Efficiency-Erosion Paradox are most clearly visible within the assessment loop. The paradox remains dormant when GenAI is used for low-stakes administrative ideation. However, it reaches a 'critical threshold' in high-stakes evaluative contexts, where the automation of marking triggers 'Relational Severance', a state where the lack of human reciprocity devalues the student's effort and the educator's professional identity. Consequently, human-led assessment is not just a preference but a structural boundary required to prevent the paradox from collapsing the relational trust that underpins the academic contract.

Addressing RQ2, these findings suggest that preserving human assessment represents a significant proposition for maintaining the humanness of the institution against the perceived erosion of academic norms.

The final resolution of the Efficiency-Erosion Paradox identified in this study lies not in more sophisticated surveillance or stricter banning policies, but in a fundamental transition toward Relational Governance. As established by the findings, the current state of institutional limbo and vague policy guidance has left students (P6) feeling that their credentials are being devalued and staff (P2) feeling that deep learning is being bypassed. To resolve this, this study proposes a SaP framework (Healey et al., 2014) as the primary vehicle for co-creating the academic norms of the AI era. This aligns with the call from Rudolph et al. (2024), who argue that the GenAI Paradox can

only be addressed by moving away from top-down, reactive governance toward collaborative models that prioritise human agency and ethical reflexivity. Furthermore, as Lyanda et al. (2024, p. 327) suggest, “promoting active involvement from educators and learners” in the design of feedback and assessment loops is essential for making technology-mediated learning both “helpful and doable” for the modern student.

Analysed through the lens of SDT, the transition to Relational Governance serves to restore the basic psychological needs that are currently being eroded by efficiency-led models. By involving students in the co-creation of AI usage boundaries, institutions can satisfy the need for autonomy, transforming controlled motivation (avoiding detectors) back into autonomous motivation (engaging with the tool for growth). Moreover, collaborative exercises, such as those suggested by P6 (Student), where students compare their own writing with AI-enhanced versions, can rebuild a sense of competence by proving that their independent critical thinking is “actually really good and it’s growing”. This relational approach ensures that GenAI enhances rather than undermines the human connection at the heart of the qualitative tradition. Ultimately, by adopting an SaP-led governance model, universities can move beyond the limbo of technological disruption and foster a culture of authentic academic flourishing where human expertise remains the central judge of value.

Conclusion

This research successfully met its primary objective of exploring the tension between technological efficiency and pedagogical erosion by identifying how generative AI integration undermines the basic psychological needs of autonomy, competence, and relatedness within the university ecosystem. It explored the complex interplay between GenAI and academic flourishing through the dual perspectives of staff and students, situated within a unique student-led research partnership.

By interpreting the findings through the lens of SDT, this research has elaborated on the Efficiency-Erosion Paradox, demonstrating that while GenAI offers significant operational gains, its current mode of integration frequently compromises the basic psychological needs essential for long-term flourishing. The results reveal that the gains in productivity celebrated in the efficiency narrative are currently overshadowed by a Digital Surveillance Paradox, which generates profound technostress and stifles student autonomy. This climate of detection anxiety mirrors the broader ‘GenAI Paradox’ identified by Rudolph et al. (2024), where the technology’s promise of productivity is pitted against the potential erosion of academic integrity and professional norms.

Crucially, the near-unanimous resistance to automated assessment identifies human-led marking as a fundamental line in the sand for the preservation of professional identity and the relatedness necessary for a flourishing pedagogical environment. This reflects the ‘search for humanness’ observed by B. Li et al. (2025), suggesting that the assessment loop is a primary vehicle for the human-centric validation of a student’s intellectual growth. This rejection underscores the concept of relational reciprocity. As P11 noted, the motivation to produce “hard work” is fundamentally tied to the knowledge that a human educator is meeting that effort with an equivalent level of critical attention. Without this reciprocal human engagement, the assessment loop is reduced to a transactional exchange that fails to satisfy the psychological need for relatedness (Ryan & Deci, 2020). Furthermore, the prevailing state of institutional limbo has been shown to encourage a reliance on approximate knowledge, creating a Mastery Gap that risks devaluing both student effort and the credibility of higher education credentials. These findings suggest that current efficiency-led

institutional models are insufficient, as they fail to address the erosion of the self-regulatory processes essential for authentic intellectual flourishing.

Limitations and Future Research

Several limitations should be considered when interpreting these findings. As a qualitative study involving fifteen participants at a single UK institution, the results offer deep contextual nuance rather than broad generalisability. Furthermore, the rapid pace of GenAI development means that these perspectives represent a specific snapshot in time, captured during an era of significant regulatory and ethical uncertainty.

Future research should address these limitations through longitudinal interventions to assess how the Mastery Gap and reliance on approximate knowledge impact student intellectual development and competence over a full three-year degree cycle. Additionally, there is a significant opportunity for comparative research across different international contexts and disciplines to determine if the professional identity threats identified here are universal or context-dependent. Most importantly, subsequent studies should evaluate the effectiveness of the SaP model in co-creating specific institutional policies to resolve the current state of institutional limbo identified by both students and staff.

Final Recommendations

The findings offer the proposition that universities move beyond a narrow focus on operational efficiency and top-down surveillance. To support academic trust and the professional identities of educators, it is suggested that institutions explore a transition toward Relational Governance. Furthermore, institutional policies must explicitly address the Mastery Gap by designing assessments that require deep cognitive engagement, moving beyond the production of approximate knowledge and toward the demonstration of critical, human-led synthesis. While the preservation of human-led assessment is a vital line in the sand for protecting professional identity, there is a significant risk that this remains a mere sticking plaster if the broader pedagogical journey remains alienating.

To truly resolve the Efficiency-Erosion Paradox, institutions must resist the temptation to allow the university machine to absorb AI-driven efficiencies solely for the purpose of reducing human input. Instead, these operational gains should be strategically reinvested into forging more meaningful, longitudinal pedagogical relationships. This requires a fundamental redesign of Higher Education toward an iterative relational model. In this framework, learning is not an isolated lead-up to a final human-judged event, but a continuously scaffolded process. Interactions between tutors, students, and AI tools are integrated throughout modules, creating a feedback loop that both supports and demands the critical engagement necessary to bridge the Mastery Gap.

By moving assessment from a terminal gatekeeping function to a continuous, human-centric dialogue, universities can ensure that the need for relatedness is satisfied throughout the entire learning lifecycle, rather than just at its conclusion. By adopting an SaP-led model that prioritises human-in-the-loop assessment and co-created usage boundaries, universities can ensure that technological integration supports, rather than undermines, the human connection and critical mastery at the heart of the academic tradition.

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Author Contributions

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Kerry Gibbins: Conceptualisation, Methodology, Writing—Reviewing and Editing, Investigation.

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