
International Journal of Creative Multimedia

Resonance and Alienation in GenAI-Mediated Learning: A New Media Teacher Education Course Case Study

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Abstract

The rise of generative artificial intelligence (GenAI) in creative practice and education raises urgent questions about agency, authenticity, and ethics. This article reports on a study of a New Media teacher education course, where ten pre-service teachers engaged with GenAI tools for class assignments, including music platforms, text-to-image generators, voice cloning, and large language models (LLMs). Drawing on student reflections, instructor's autoethnographic observations, and recorded classroom discussion, the study highlights the ambivalent nature of AI-mediated creativity: moments of empowerment and curiosity often coexisted with concerns about authenticity, authorship, and data privacy. Interpreted through Rosa's theory of resonance and its extensions in postdigital pedagogy, these experiences reveal both resonant and alienating dynamics in learning. The analysis is further situated alongside technology acceptance models (e.g., TAM, UTAUT), which highlight how perceptions of usefulness, ease, and trust shape adoption and meaning-making. While context-specific, the findings offer analytically generalisable insights for designing AI-supported learning environments that preserve creative struggle, foreground ethical reflection, and foster resonant engagement.

Keywords Generative artificial intelligence (GenAI); Resonance theory; Agency; Postdigital education; Digital pedagogy, Multimedia

Received: 2 July 2025, **Accepted:** 31 July 2026, **Published:** 30 September 2026

Introduction

Generative artificial intelligence (GenAI) is rapidly reshaping creative practices in education, enabling users to produce text, images, music, and multimedia content with unprecedented ease and speed (Belkina et al., 2025; Stracke et al., 2024; Zhou & Lee, 2024; Dwivedi et al., 2023; Teubner et al., 2023). Although these tools open new avenues for expression, they also unsettle traditional notions of agency, authorship, and creative responsibility, and their broader educational and philosophical implications remain undertheorised (Floridi, 2023; Jackson et al., 2025). Peters et al. (2024) cite concerns that GenAI may 'accelerate its own progress,' leading to transformative changes in education and creativity that outpace institutions' ability to respond. In this rapidly shifting landscape, educators face a critical challenge: integrating GenAI in ways that support, rather than supplant, learners' creative agency. This study investigates these challenges by examining student experiences in a New Media teacher education course, where pre-service teachers engaged hands-on with GenAI tools to create media projects. Although students expressed enthusiasm about the creative affordances of these technologies, they simultaneously raised concerns about authenticity, authorship, and ethical boundaries. This ambivalence reflects broader tensions in current research, which warns that as GenAI becomes more deeply embedded in education, the quality and depth of learning may be at risk, raising urgent pedagogical and philosophical questions about human agency and creativity in the age of GenAI (Bauer et al., 2025; Bozkurt, 2025; Anderson & Rainie, 2018). Bozkurt et al. (2024) note that GenAI attracts strikingly varied metaphors: "copilot" (Fox et al., 2025), "external brain" (Yan et al., 2024), and even "weapon of mass destruction" (Maas, 2023). For them, this range reveals not only technical ambiguity but also deep emotional and ethical uncertainties, calling for a collective pedagogical responsibility to position GenAI critically within the educational ecosystem.

The present study situates GenAI not as an external tool but as an embedded part of learners' sociotechnical environments. It builds on the emerging notion of postdigital resonance (see Wilde et al., 2024), which extends Rosa's (2019) framework to account for the complexities of human-technology relations in hyper-saturated learning spaces. The study asks: How does GenAI-mediated creative practice influence students' sense of agency and creativity? To conceptualise these dynamics, this study draws on Rosa's (2019) theory of resonance, which frames meaningful learning as a dialogic relationship between self and world, dynamic, affective, and mutually transformative. Resonance is contrasted with alienation, a condition in which learners experience disconnection, loss of agency, or instrumental detachment. The sudden influx of GenAI tools into creative pedagogy offers a crucial context for exploring this tension: Can students form resonant relationships with algorithmic systems (White, 2025), or do such tools risk displacing the very struggles that make learning meaningful? Beyond resonance and postdigital perspectives, adoption frameworks such as the Technology Acceptance Model (TAM) (Davis, 1989; Mailizar et al., 2021), and the Unified Theory of Acceptance

and Use of Technology (UTAUT) (Venkatesh et al., 2012) provide a complementary lens for understanding how students engage with AI. These models highlight how perceptions of usefulness, ease of use, and social norms influence technology adoption. Recent studies on AI-based academic support show that perceived usefulness, satisfaction, and pedagogical fit strongly shape students' willingness to integrate GenAI into their learning, while ease of use can sometimes correlate with more superficial engagement (Lijie et al., 2025; Yusoff et al., 2025; Dahri et al., 2024; Low et al., 2025; Yusoff et al., 2024). Incorporating these insights alongside resonance theory underscores that successful GenAI integration must align both with students' affective engagement and with broader adoption patterns that support agency and trust.

While this study reports on a focused case study ($n = 10$) within a teacher education seminar at a German university, it follows Yin's (1994; 2010) principle of analytical rather than statistical generalisation, proposing that the patterns observed here may be transferable to similar educational contexts and worthy of further comparative study across cultures and disciplines. Drawing on student reflections and the instructor-researcher's autoethnographic insights, the analysis traces how moments of empowerment coexist with hesitation or disengagement, and how ethical dilemmas influence learners' participation. The article proceeds by outlining its theoretical framework, which integrates resonance theory (Rosa, 2019), the Resonant Learning (RL) framework (White & Wilde, 2024), and postdigital research (Jandrić et al., 2018). It then presents the qualitative methodology and key findings. The conclusion reflects on the implications for designing resonant, ethically informed approaches to creative pedagogy with GenAI.

The New Media Course

This study is situated within the *Neue Medien* course offered as part of a music teacher education program at a German university. The course introduced pre-service teachers to a range of AI-based creative technologies, including generative music platforms, voice cloning systems, and blockchain-enabled tools such as metaverse platforms and NFT art generators. These tools were embedded within a critical pedagogical framework that emphasised both creative experimentation and reflection on the aesthetic, ethical, and technical dimensions of generative algorithms. The pedagogical objectives were twofold: (1) to enable future educators to engage hands-on with emerging technologies relevant to contemporary media practice, and (2) to cultivate critical awareness of the sociotechnical implications of these tools. Students undertook projects such as generating media content (images, text, and music) with AI, remixing audio through AI-driven stem extraction, and creating digital artworks. These artefacts were shared and discussed in classroom settings, fostering peer dialogue and critical reflection (Figure 1).



Figure 1. Project-sharing Session in the *Neue Medien* course. Students Present and Discuss their AI-assisted Creative Work, Engaging Peers in Dialogue on Artistic Choices, Technical Challenges and Ethical Considerations
(Photo by White, 2024)

Throughout the course, students encountered both technical challenges and ethical dilemmas, revealing the complex interplay between creativity, technology, and reflective practice. From a technology acceptance perspective, their participation was shaped by factors such as perceived usefulness and ease of use (Lijie et al., 2025), satisfaction (Yusoff et al., 2025), and perceived pedagogical fit (Dahri et al., 2024). For some students, ease of use created a sense of empowerment, while for others, it diminished their sense of meaning by removing the challenge that fosters deeper connection with the work (Spence et al., 2025). These ambivalent reactions underscore findings from broader research showing that motivation and engagement are not simply functions of tool availability but depend on alignment between technological affordances, learner expectations, and ethical comfort (Low et al., 2025; Yusoff et al., 2024).

Adopting a postdigital perspective enables a more nuanced interpretation of these experiences, one in which digital technologies are not external additions but integral to the fabric of educational, cultural, and social life. As Jandrić et al. (2018) observe, “we are increasingly no longer in a world where digital technology and media is separate... to a ‘natural’ human and social life.” From this standpoint, GenAI-mediated creativity is not merely a technical affordance; it is a pedagogically and culturally embedded phenomenon that must be understood in relational and contextual terms (Ivcevic & Grandinetti, 2024). The course was thus designed not only to teach tool proficiency but also to foster critical reflection on platform politics, data privacy, and intellectual property, issues that students themselves frequently raised during discussions and that became sites of ethical decision-making.

Theoretical Framework

Resonance and Alienation

Rosa's (2019) sociology of world relations provides a theoretical foundation for understanding meaningful learning relationships in an age of acceleration. Rosa (2019: 174) defines resonance as 'a kind of relationship to the world, formed through affect and emotion, intrinsic interest, and perceived self-efficacy, in which subject and world are mutually affected and transformed.' A resonant experience is one where a student (subject) and the creative task or medium (world) respond to each other in a dialogic way where the student feels inspired or moved and, in turn, actively responds, leading to a change in both the learner and their creative output or understanding. Rosa (2019: 174) emphasises that 'resonance is not an echo, but a responsive relationship' requiring both sides to maintain their own voice. There is an element of unpredictability and vulnerability in resonance: one cannot fully control it. The opposite of resonance is alienation, a state in which the student feels disconnected or unheard by the world, resulting in what Rosa (after Jaeggi) calls '*a relation of relationlessness*' (Rosa, 2019: 27). Alienated experiences are characterised by silence or purely instrumental interactions devoid of emotional or transformative impact. For instance, if a learner engages with a GenAI tool in a purely utilitarian way (pressing a button for an output with no personal investment or meaningful engagement), the experience might remain unfulfilling and constitute a form of alienation.

Rosa's framework includes three primary 'axes of resonance' along which individuals achieve meaningful connection: the social axis (resonance with other people, e.g. in collaboration or dialogue), the material axis (resonance with things or activities, e.g. musical instruments, creative practices), and the existential axis (resonance with something bigger or transcendent, e.g. art, nature, or existential beliefs) (Rosa, 2019). In educational creative practice, all three are relevant: a student might find social resonance in sharing AI-assisted art with peers, material resonance in the act of music-making with a new tool, or existential resonance in connecting the activity to a sense of artistic purpose. Recently, Rosa has also discussed a fourth axis of resonance, the *self* axis, referring to a person's relationship to their own self and body. This axis may relate to learners' internal sense of authenticity or comfort with GenAI-mediated work.

Rosa's theory foregrounds both the affordances and risks inherent in GenAI-mediated creativity. On one hand, GenAI tools might extend the material axis of resonance, since they are new 'things' or mediums through which students can engage with music, art, and media. If a student feels a piece of AI-generated music 'calls' to them in some way and they respond by engaging deeper, refining or remixing it, that could be a resonant interaction. On the other hand, GenAI can also introduce alienating dynamics if it makes the creative process too opaque, depersonalised or controlled. Rosa (2019) notes that an overly controlled or predictable environment can 'mute' the world's voice and kill resonance:

‘[...] the modern regime of dynamic stabilisation is in many ways intrinsically bound up with a culturally institutionalised relationship to the world that involves the manifest risk of allowing relations to the world to fall ‘mute.’ In educational terms, if using GenAI becomes a push-button exercise to get a pre-fabricated result, students may feel little personal connection, and the experience might devolve into alienation, as GenAI does all the ‘speaking’ while the student’s voice is diminished.

Resonant Learning and Second-Order Resonance

Building on Rosa’s theory of resonance, White and Wilde (2024) developed the Resonant Learning (RL) framework to adapt these concepts for educational contexts. By integrating Rosa’s relational ontology with Wallas’s (1926/2018) four-stage model of the creative process, the RL framework offers a model for designing learning environments that foster sustained creative inquiry. Central to this model is the cultivation of ‘resonant learning spaces’ (White & Wilde, 2024), settings in which learners engage in hands-on, exploratory, and affectively rich creative activity, particularly within technology saturated or postdigital environments. In such contexts, digital tools are not simply instruments for production, but catalysts for transformation, enabling learners to develop competencies for reflective and future-oriented pedagogy (see Wilde & White, 2025).

Rosa and Rüpke’s (2024) concept of *second-order resonance* (also referred to as dispositional resonance) describes a cultivated openness or readiness to relate to the world in a resonant way, even when immediate resonance is absent. It reflects a learner’s attunement to potential moments of connection and transformation, particularly in complex or uncertain conditions, such as those mediated by GenAI technologies. Within the RL framework, reflective practice plays a central role in fostering this disposition: reflection not only consolidates learning but also supports the emergence of second-order resonance by helping learners interpret and reframe their experiences. In this study, students’ written reflections became a key site for this process, as they articulated what felt meaningful, challenging, or ethically ambiguous about working with intelligent systems. Through this reflective engagement, students moved beyond the initial creative act toward deeper forms of meaning-making and critical awareness.

Postdigital Theory and ‘Postdigital Resonance’

As this study is situated within a technology rich educational environment, it is essential to draw on postdigital theory. The term *postdigital* does not imply a departure from digital technologies but rather acknowledges the deep entwinement with everyday life, where distinctions between the digital and analog have become increasingly blurred (Jandrić et al., 2018: 893). From this perspective, digital media are no longer seen as external tools but as an embedded part of the sociomaterial fabric of learning. As

Jandrić et al. (2023: 7) argue, digital infrastructures have become a 'common good,' necessitating pedagogies that are critically reflective rather than merely additive.

The postdigital perspective recognises that students operate within a media-saturated ecosystem defined by connectivity, datafication, and algorithmic interaction. Their creative engagements with GenAI are thus entangled with broader social, technical, and identity-based dimensions. These experiences may resonate or fail to resonate across multiple layers of their lived reality, from classroom discourse to platform dynamics and personal expression. Wilde et al. (2024) extend Rosa's theory through the concept of *postdigital resonance*, questioning how traditional axes of resonance (social, material, existential) apply in increasingly digitalised contexts. They propose that a distinct postdigital axis may be necessary to capture the nuances of interactions between humans and intelligent systems. Wilde et al. (2024) clarify a postdigital axis as human-AI-platform relationality characterised by (a) algorithmic responsiveness, (b) platform governance (policies, terms of service (ToS), data pipelines), and (c) socio-economic logics (monetisation, labour displacement). Unlike Rosa's canonical social, material, or existential axes of resonance, platform relations are co-determined by opaque algorithms, recommendation systems, and data policies. Resonance in these contexts depends not only on affective engagement but also on trust in how data are handled, transparency of system logic, and fairness of platform governance.

Rosa (2019) warns that digitally mediated interactions often risk becoming superficial or fleeting, lacking the depth and transformative potential of genuine resonance. This caution is particularly relevant when evaluating GenAI in education, where immediacy and automation can simulate engagement without fostering meaningful connection. From this perspective, GenAI tools are not neutral intermediaries but actors within platform economies. Their affordances are shaped by design choices, monetisation models, and intellectual property regimes that can either enable or constrain resonance. When platforms are perceived as trustworthy, empowering, and respectful of user agency, students may experience deeper engagement. Conversely, when platforms are seen as extractive, intrusive, or overly opaque, resonance may collapse into skepticism or refusal to participate.

Technology Acceptance

To bridge qualitative insights with technology adoption research, this study draws on TAM (perceived usefulness/ease of use) and UTAUT (norms, control, intention). Recent studies in higher education show nuanced patterns relevant to this study's findings: perceived usefulness and satisfaction predict use, but ease of use can correlate with shallow engagement (Lijie et al., 2025), while performance/effort expectancy, credibility, and pedagogical fit influence adoption (Dahri et al., 2024; Yusoff et al., 2025; Yusoff et al., 2024). These models help explain why students may feel empowered

(usefulness/satisfaction) yet simultaneously unsettled by issues of credibility, authenticity, and ethical costs.

Integrating these perspectives into the resonance framework allows for a richer interpretation of student experiences. Moments of empowerment may reflect high perceived usefulness and satisfaction, while moments of disconnection may correspond to low trust, ethical misalignment, or perceived loss of authorship. Together, these frameworks provide a cohesive theoretical structure for interpreting the qualitative data.

Methodology

Context

This study was conducted as part of the *Neue Medien* (New Media) course at a German university. The course was delivered as an intensive block seminar during the Winter 2024/25 semester and enrolled ten students ($n = 10$), all of whom were training to become secondary school teachers. The course introduced students to emerging GenAI tools for creative media production, emphasising hands-on experimentation supported by critical reflection. Participants engaged in a range of GenAI-mediated creative tasks. The diversity of tools was intentional, designed to expose students to AI's affordances across both audio and visual domains.

Data Collection

Data were collected from three primary sources. First, each participant submitted an individual written reflection (500–800 words) at the conclusion of the course. These reflections addressed creative breakthroughs, challenges, and perceived ethical or pedagogical implications of using GenAI tools. Second, the instructor maintained an autoethnographic journal documenting each session. This record included structured observational notes, pedagogical decisions, and reflexive commentary on classroom interactions. Third, one intensive block seminar session was audio- and video-recorded, capturing real-time classroom dialogue and group discussions.

These data sources enabled methodological triangulation (Flick, 2018), allowing for cross-validation of findings and richer contextual interpretation. Student reflections provided insight into individual meaning-making and ethical reasoning, while the journal and recordings captured interactional and affective dynamics of the classroom environment. Together, these sources offered a comprehensive basis for thematic analysis.

Ethical Considerations

Identities of the students have been anonymised and any potentially identifying details (e.g. project titles) were omitted from quotations. Given the dual role of teacher-as-researcher (La Velle, 2024), care was taken to assure students that their course grades were not affected by anything they wrote in the reflections; they were encouraged to be candid about positive or negative experiences. One notable ethical issue encountered during the course itself was privacy and data protection. Some students decided not to use certain GenAI services (like voice cloning or cloud-based music generation) because those required uploading personal data (their voice recordings or creative inputs) to an external platform. This choice itself became part of their reflection on ethics. In analysing and reporting such instances, the researcher considered the implications: students' *non-use* of a tool is as significant as their use, reflecting a form of agency and ethical stance.

Analytic Approach

The theoretical concepts of resonance and alienation (Rosa, 2019) were intentionally not discussed during the course nor included in the reflection prompts, in order to avoid preconditioning students' interpretations or framing their experiences through prescriptive theoretical lenses.

The qualitative data (student reflections, the instructor's journal entries, and the video transcript) were analysed using a thematic analysis approach. Following Braun and Clarke's (2022) methodology for reflexive thematic analysis, I first engaged in repeated reading of all texts to become familiar with the content. Initial codes were then developed manually by annotating the data, marking segments with descriptive codes such as 'excitement,' 'discomfort,' 'GenAI as co-creator,' 'technical frustration,' or 'authenticity.'

After coding, related concepts were clustered into potential themes. Topics such as not feeling comfortable cloning one's own voice, feeling uncertain about data and references to platform terms of service (ToS) were grouped under a tentative theme of 'Ethics.' Codes concerning the creative potential of GenAI or feeling inspired were grouped as 'Creative Affordances.' Through iterative review and discussion, I engaged in reflexive memo-writing and also discussed preliminary themes with a peer colleague for peer debriefing, a final set of themes was developed. The criteria for a theme was the presence of a coherent pattern that was significant across multiple participants or multiple instances in the data. Given the small number of participants, some themes reflect patterns shared across most students, while others draw on particularly vivid accounts from two or three individuals that are analytically significant. This approach follows Yin's (1994; 2010) notion of analytic generalisation in case-oriented research, where individual cases can yield theoretically meaningful insights beyond their immediate context.

The reflexive stance of teacher-as-researcher (La Velle, 2024) was central to the analytic process. This dual role provided insider knowledge of course dynamics but also introduced potential bias due to personal investment in the course's success. To mitigate this, reflexivity was practiced through systematic journaling after each session, documenting emotional reactions to students' reflections (e.g., pride, concern) and critically interrogating how these responses might shape coding decisions. The analysis intentionally preserved tensions and contradictions within student accounts, avoiding premature resolution into a single narrative. Two accounts that could not be interpreted within the resonance framework are reported as divergent cases in Section 5.5 rather than assimilated to the four themes. Resonance theory subsequently served as an interpretive framework: once themes were developed inductively from the data, they were examined in relation to resonance and alienation, as well as broader technology acceptance frameworks.

Findings

The findings revealed a diverse range of student experiences when engaging with GenAI-mediated creative tools. Many students reported moments of awe, surprise, inspiration, and perceived creative empowerment, while also expressing lack of control or discomfort. The reflections also highlighted ethical concerns, such as issues of authorship, originality, and data privacy. All student reflections were originally written in German and subsequently translated into English by the instructor-researcher. To maintain transparency and acknowledge the interpretive nature of translation, direct student quotes are presented in italics throughout the findings, rather than in quotation marks.

Theme One: Creative Empowerment and Increased Sense of Agency

Several students described moments of genuine excitement and creative potential when using particular GenAI tools. These instances reflect resonant experiences in which students felt a heightened sense of creative agency. One student described an AI-generated composition as *a truly post-romantic piano piece... infused with operatic drama*, expressing both surprise and appreciation for the stylistic coherence of the output. This suggests that the student perceived the GenAI tool as more than just a passive generator; rather, the process involved a dynamic exchange in which the student's ideas were shaped and extended by the AI's response. In terms of resonance theory, this illustrates activation along the material axis, where the student's relationship to the GenAI tool becomes emotionally and creatively charged. The student was not only affected by the AI-generated output but also responded by interpreting, naming, and evaluating it, thereby enacting a two-way relationship. Another student similarly expressed a sense of empowerment, reflecting that AI-based music platforms *make it possible to achieve professional results in a short time, greatly simplifying complex processes like arrangement, mixing, and effects*. Here, the student highlights how GenAI can extend technical capacity, enabling forms of creative participation that may otherwise have been inaccessible. This affordance is especially

meaningful for novices and for those without formal production training. These accounts align with perceived usefulness and performance expectancy in adoption models, where perceived gains (quality, speed) strengthen intention to use and feelings of agency (cf. Lijie et al., 2025; Yusoff et al., 2025).

From an autoethnographic standpoint, I observed that several students characterised GenAI outputs as 'starting material,' viewing generated content not as finished products but as raw resources for further creative development. This observation indicates that students perceived a meaningful degree of control and creative self-efficacy, positioning GenAI as a co-collaborator rather than a replacement in their creative process. This framing implied not passive consumption but a collaborative process in which the student actively shaped the outcome. I further observed that students at times appeared to be in 'disbelief' and 'awestruck' at the quality of the result, an emotion that seemed to reflect the kind of unpredictability central to resonant experiences. At other times, students embraced the algorithmic unpredictability of the tools as a stimulus for their own imaginative input. I described these moments in my notes as 'resonant peaks,' moments in which students appeared to experience flow and joy in the act of creating with GenAI. However, resonance, as Rosa argues, cannot be engineered; it requires not only openness to being affected but also a genuine, unpredictable response from the 'world', in this case the creative task or medium itself. Without this element of reciprocity, what results may be compliance or engagement on the surface level, and not a transformative, dialogic encounter that characterises true resonance. All ten students described GenAI tools as ultimately holding the potential to positively shape their creative work and learning. In my reflections however, I noted a recurring observation: GenAI tools often relieved students of higher-order technical tasks. This raised concerns about learning and long-term skill development. If too many steps are automated, students miss opportunities to practice foundational techniques and develop the deeper problem-solving skills that come from working through challenges.

Theme Two: Disconnection and Authenticity Concerns

Alongside the perceived moments of resonance, students also articulated feelings of detachment or passiveness, primarily revolving around the authenticity of GenAI outputs and their own role in the creative process. This theme captures moments of alienation, where the interaction with GenAI felt hollow or dehumanised. For instance, a student stated, *the vocals generated directly by Boomy were technically clean [...] but sounded artificial and emotionless. This perfection reminded me of productions that often lack the 'human' element.* Concerns about 'soulless' outputs map onto credibility/trust constraints; even when perceived usefulness is high, diminished authenticity can blunt intention to use (Dahri et al., 2024; Low et al., 2025). Despite having technically created a musical composition with GenAI assistance, the student experienced a lack of personal resonance: the work was completed, yet it did not carry the expected emotional weight or personal imprint. This could be

interpreted as the student's existential axis of resonance failing to engage: the deeper connection to art or meaning did not activate because the student perceived the GenAI's contribution as inauthentic. Another student critiqued the broader cultural implications of AI-generated content, and questioned whether the accessibility of GenAI could lead to a devaluation of human skill and creativity in general, *AI tools are highly relevant to music production and consumption, as they allow virtually anyone (without music theory knowledge) to compose finished pieces with lyrics [...]. This could decrease appreciation for artists and their popularity.* The use of phrases like 'virtually anyone' and 'without music theory knowledge' suggests a rupture in the perceived value of creative labour. This quote highlights a form of alienation from the creative process itself, a detachment in which the student is physically involved (typing prompts) but psychologically distanced from the outcome. Rather than experiencing the mutual transformation that is central to resonance, the student sensed that the GenAI acted independently, leaving them as a passive observer. In resonance terms, the relational exchange between self and world failed to activate, resulting instead in detachment, doubt, and unease.

In my journal, I noted how some students' discomfort seemed to stem not from technical or ethical concerns but from the oversimplification of the creative process itself, through 'dumbed-down' interaction with GenAI. Interestingly, I wrote that the lack of struggle was perceived as a 'lost element of authenticity.' This made me realise that, for many learners, meaning comes from the effort and challenge of making something, and sometimes even from the frustration. When GenAI produces a complete output too quickly or too perfectly, the experience can feel empty. From a resonance perspective, I reflected that an entirely 'smooth' interaction may actually become alienating if it removes the student's active grappling with the material. This observation led me to consider how easily GenAI can create a sense of disembodiment or disownership in creative tasks. The work is there, but the student does not quite feel it is *theirs*. In my notes, I connected this to broader debates around GenAI and authorship, whether AI-generated art lacks a human touch, voice, or vision, and whether the human becomes a passive curator of algorithmic output. What struck me most was how these abstract cultural concerns were not merely theoretical in our class; they emerged as *real, emotional tensions* in students' reflections and discussions.

Theme Three: Ethical and Privacy Dilemma

Across the cohort, ethical concerns emerged as a significant theme. These dilemmas often shaped how, and whether, students engaged with particular GenAI tools. For some, discomfort around privacy and authorship led to conscious decisions to avoid certain functionalities, such as voice cloning or claiming AI-generated songs under one's own name. These decisions reflected more than mere technical preference; they reveal how moral concerns mediated the potential for resonance or alienation.

One student critiqued the ethics of releasing AI-generated music under false authorship, noting that *some AI platforms allow users to publish generated songs under their own name*, which they found deeply problematic. They further observed that such systems are *trained on pre-existing published music*, raising concerns about uncredited borrowing and alteration of original works. For students, decisions about whether to use or reject these tools became active moments of ethical engagement. Rather than avoiding certain technologies arbitrarily, they articulated their choices as expressions of personal integrity and responsibility. These acts of boundary-setting can be understood as resonant moments in which students aligned their participation with their evolving moral frameworks. In this way, ethical dilemmas did not halt learning but instead opened new dimensions for reflection and growth.

In my journal, I noted that privacy and platform ownership surfaced as unexpectedly powerful triggers for discomfort. During a class discussion, a student shared that they had checked the ToS for a GenAI art generator and were *alarmed that the platform claimed rights to any image I created*. Privacy and ToS worries function as 'perceived risk' within adoption frameworks, moderating the relationship between usefulness/ease and actual uptake (Yusoff et al., 2024; Low et al., 2025). This moment stood out to me, it captured how a sense of creative excitement could be instantly dampened by ethical unease. I wrote that what initially felt like a moment of digital empowerment quickly shifted into suspicion. 'Free' GenAI tools, students realised, often carry hidden costs: loss of control over their data and over their intellectual property. This introduced a layer of complexity to what was otherwise a playful, creative experience. For some students, this discovery broke the flow of engagement; the tool no longer felt like a neutral partner in creation, but part of a corporate apparatus they did not fully trust. This aligned with a broader pattern I observed: when students sensed that the tools operated within exploitative or opaque systems, their willingness to engage diminished. I came to understand that resonance is not only an emotional or aesthetic phenomenon; it also has a moral axis. In a postdigital educational space, trust becomes a prerequisite for resonance. When that trust falters, particularly around issues of ownership or data, what could have been a rich learning encounter turns into a moment of alienation. Yet, I also found these tensions to be pedagogically valuable. In their written reflections, students consistently expressed that these ethical questions should not be sidelined, but rather brought to the foreground of media education. It reminded me that resonance does not always mean ease or comfort, rather it emerges from wrestling with difficult truths.

Theme Four: Learning Process and Technical Frustration

A final theme was the often unpredictable learning curve and technical hurdles involved in working with certain GenAI tools. These challenges significantly shaped the students' creative process. In my journal, I described some of these early difficulties as 'wrestling with a black box'. The interface

appeared user-friendly, but hidden constraints and rigid parameters often made the tools feel unintuitive. One student highlighted this frustration in working with prompting, explaining that *it was difficult for me to condense my concrete ideas into so few words and had to reduce my requirements and details for the piece to a minimum*. This comment reveals a common struggle: the tension between complex creative vision and the limited prompt-based input systems that govern most GenAI tools. For this student, the friction between imagination and technical constraint made the process feel reductive.

Another student noted the difficulty of working within platform constraints, *a challenge lies in precisely summarising those vague ideas in a few words, as even small changes in wording can drastically alter the output*. This emphasises how seemingly simple tools could demand unexpected cognitive effort, turning experimentation into an iterative and sometimes frustrating negotiation with the machine's logic. Yet across the dataset, this frustration was not static. Several students described moments of eventual adaptation, even creative satisfaction, after navigating those early limitations. As one noted, *the creation process takes very little time and is easy to complete*. These examples suggest that when students succeeded in learning the tools, whether through experimentation, support, or unpredictability, resonance could emerge. However, as Lijie et al. (2025) explain, early friction reflects effort expectancy (ease of use); for some, quick wins sustain engagement, while others report reduced connection when automation removes the challenge that deepens involvement.

This theme illustrates more than just technical challenges, it captures the dynamic shifts between alienation and resonance throughout the learning process. According to White and Wilde's (2024) RL framework, meaningful learning is not inherently linear or effortless; instead, it often involves cycles of challenge, reflection, and renewed engagement. In the context of this course, the GenAI platforms acted both as obstacles and catalysts, at times frustrating, at other times enabling breakthrough moments. These tensions shaped a learning experience that required students to exercise resilience, adaptability, and critical thinking, particularly in navigating tools that promised to simplify creativity but often introduced new forms of complexity.

Divergent Reflections: Beyond the Resonance and Alienation Binary

The four themes that are discussed above distribute student experience between *resonance* and *alienation*. Two student reflections, discussed below, fall outside this binary distinction.

One student approached GenAI as a future teacher evaluating a classroom resource. Having created an instrumental piece with AI from a short written prompt, the student reflected on questions of pedagogical value: acknowledging that pupils could create a song according to their own ideas *without much effort or time*; that AI might support or even extend their individual musical interests; that *music*

lessons do not always allow a large window for creative projects, since the tightly structured curriculum has to be adhered to; and that the platform is free, and therefore ideal for school. The reflection went on to consider how AI outputs might be carried into other AI tools and developed even further, or used for a school event such as a student concert. The student reflection concluded that the AI tools offer several advantages for musical work in school.

Notably, this account reveals no discomfort, no anxiety regarding authorship, and no perception of loss. The only first-person aesthetic remark pertains to the selection between two generated variants: *I chose the first draft since it captured my style better*. This instance reflects a process of selection rather than relational engagement. Resonance was not absent; rather, it was never at issue. Furthermore, the account does not align with Rosa's concept of alienation, which presupposes a subject oriented toward a relation that subsequently falls silent. In this case, the student's orientation was directed toward the institutional purpose rather than the medium.

Another reflection responded to GenAI as an object of analysis. This student began by noting that *until now I have always refused to use artificial intelligence as an aid when stuck*, having previously consulted such systems only for specific musicological questions. This reflection was also the only one in the cohort submitted in handwriting (Figure 2). It is worth noting, that the postdigital condition the course examined is characterised precisely by such entanglements of the analog and the digital rather than by their separation (Jandrić et al., 2018: 893). A student reflection written and submitted by hand, on the subject of AI generated music, is itself an instance of that entanglement.

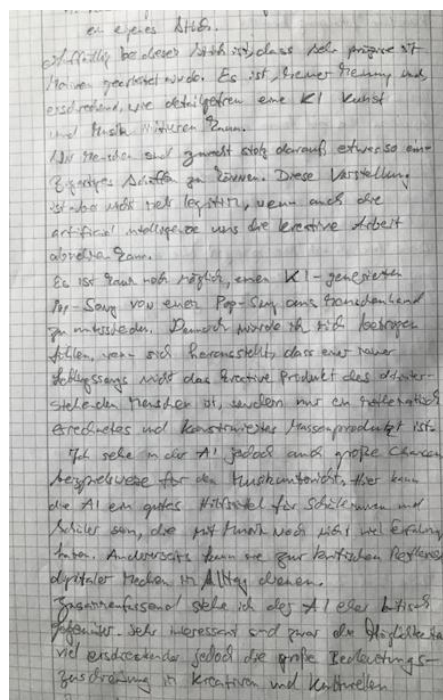


Figure 2. Excerpt from a Student's Handwritten Reflection in the *Neue Medien* Course on GenAI (Photo by White, 2024)

The student's engagement with GenAI in the course can be viewed as experimental rather than for creative purposes. The student asked the system to compose a piano piece in the style of Richard Wagner and found the result stylistically convincing, as discussed in Section 5.1. The student concluded that it is unsettling how accurately *AI can imitate art and music*, and remained *critical of AI*. This case complicates the interpretation in Section 5.1, where the student's appreciation was seen as activation along the material axis. While this interpretation applies to the initial surprise, it does not capture the full reflection, where surprise signals a perceived threat and prompts analysis rather than engagement. Maintaining this discrepancy aligns with the analytic approach outlined in Section 4.4. It also highlights an important limitation: in a study guided by a specific theory, there is a real risk of imposing that theory on every participant, and this reflection made that risk apparent.

These two cases suggest that *resonance* and *alienation* describe the quality of a relation once a subject is already oriented towards the world in a given way. They account less well for stances in which that relation is still not well established. Acceptance models capture part of what occurs in the first case, where a judgement of usefulness and pedagogical fit was formed on institutional rather than personal grounds (cf. Dahri et al., 2024). This supports the argument in Section 3.4 that the two bodies of theory answer different questions, and it indicates that a fuller account of GenAI-mediated learning includes relations that are neither resonant nor alienating but in constant negotiation.

Summary of the Themes

Across themes, social influence (peer discussion/showcases) shaped norms around acceptable use, while facilitating conditions (instructor support, safe-to-try tasks) lowered perceived risk. Both patterns are consistent with TPB/UTAUT pathways. These dynamics clarify why empowerment and hesitation coexisted. The four themes and their dual resonance/alienation facets are summarised in Table 1. Each theme is not wholly one or the other; rather, within each lies a spectrum of student experiences. The table summarises accounts that fall on this spectrum; as Section 5.5 indicates, not all accounts do. Together, these themes aim to show a comprehensive picture of GenAI-mediated creativity in the course, where transformative engagement and estrangement were both present in the learning journey.

Table 1. *Resonant and Alienating* experiences with AI

	Resonant Experiences (Engagement/Agency)	Alienating Experiences (Disconnection/Lack of Agency)
Creative Empowerment and Increased Sense of Agency	Students described GenAI as expanding their creative ideas, leading to feelings of authorship and satisfaction. One student felt GenAI composition was infused with operatic drama, highlighting co-creativity. Another noted GenAI allowed them to express musical ideas without needing deep theory knowledge.	Students questioned whether outputs were 'really theirs' when effort was minimal. One reflected on the absence of creative struggle, making success feel superficial. Doubts about authorship led to reduced investment in the creative task.
Disconnection and Authenticity	A few students found emotional resonance through intentional title changes or thematic alignment (e.g., renaming 'Fusion' to 'Human and Machine'), this	Students described AI-generated music as technically perfect but 'emotionless'. One noted the GenAI product lacked a 'human element', making

	personalisation reintroduced meaning and identity into the work.	them feel like a curator rather than a creator, which produced emotional distance from their own work.
Ethical and Privacy Dilemmas	Students felt empowered by ethical decisions, for example refusing voice cloning in order to align with personal values. Critical discussions on data and ownership fostered engagement and peer resonance. Students expressed intellectual curiosity around AI's societal role.	Students distrusted platforms due to vague or intrusive terms (e.g., platform claims rights to user-generated content). Voice cloning evoked discomfort around privacy and identity. Alienation stemmed from ethical unease and distrust in corporate motives.
Learning Process and Tech Frustration	As students engaged in troubleshooting, revising prompts, and seeking peer support, these challenges became opportunities for growth. The act of refining prompts evolved into a nuanced skill that required strategic thinking and creative foresight. This process contributed to a sense of self-efficacy and digital agency, transforming moments of struggle into resonant learning experiences.	Initial GenAI interactions with more advanced tools were marked by steep learning curves. One student noted the system ignored key/mood prompts, producing mismatched outputs. Technical crashes or unclear interfaces led to frustration, breaking creative flow and causing disconnection. Likewise, over-simplification of creative work (e.g. limited prompts, style constraints) made the process less engaging/rewarding.

These findings illustrate that AI-mediated creative education is not uniformly positive or negative, but a complex landscape where meaningful resonance and alienation can occur in parallel. A student might feel deeply inspired in one moment and distinctly detached in the next. These qualitative insights aim to provide more nuanced discussion on how educators can be attuned to the resonant aspects and mitigate alienating factors when integrating GenAI into the classroom.

Discussion

Understanding the 'Postdigital Axis' of Resonance in GenAI-mediated Learning

Recent scholarship underscores the importance of contextualising GenAI within broader postdigital dynamics (Rapanta et al., 2025; Wilde et al., 2024). In GenAI-mediated classrooms, the *object of relation* is not just an instrument but an algorithmic platform whose parameters (model, data, policy, interface) co-shape the experience. Resonance is thus negotiated through: (1) algorithmic responsiveness (surprise, co-creation), (2) governance (consent, intellectual property (IP), transparency), and (3) economy (extractive design). Pedagogically, educators can design tasks that (a) expose model constraints, (b) cultivate critical interrogation of ToS and data provenance, and (c) scaffold iteration so students 'answer back' to the machine rather than accept default outputs.

Linking to TAM/UTAUT

The findings triangulate with acceptance studies: perceived usefulness and satisfaction tend to predict engagement (Yusoff et al., 2025), yet when ease of use reduces productive difficulty, perceived depth may drop (Lijie et al., 2025). Social influence and perceived behavioural control/facilitating conditions (TPB/UTAUT) also shaped practice: institutional signals and peer discourse legitimised or problematised GenAI use (Dahri et al., 2024; Yusoff et al., 2024). Integrating acceptance constructs with resonance clarifies why tools that are “easy” can still feel distancing: usefulness may activate the material axis (new creative affordances), while excessive ease lowers the friction that often underpins

dialogic engagement. Social influence maps to the social axis (peer/instructor responsiveness); facilitating conditions create the situational scaffolds in which resonance can emerge; and credibility/trust/perceived risk (e.g., ToS, data/IP) operate as thresholds for resonance within the postdigital axis (platform governance). In short, TAM/UTAUT help explain *intention and uptake*, while resonance accounts for the *quality* of the learner-world relation. This shows how adoption without authenticity may still yield alienation.

Platform Politics and Structural Conditions

Students' mistrust maps onto broader critiques of surveillance capitalism (Stockman & Nottingham, 2022) and the datafication of education (Jarke & Breiter, 2019). Structural conditions such as training-data opacity, platform intellectual property claims on user-generated content, and biometric risks in voice cloning are not peripheral ethical side-notes; they constitute the conditions of possibility for resonance. When learners suspect exploitative data practices or hidden commercial motives, the 'voice' of the world (in Rosa's sense) can fall silent, leading to alienation. From a pedagogical standpoint, these dynamics call for critical platform literacy as part of GenAI education (Rapanta et al., 2025). Courses could not only teach tool proficiency but also include platform audits that examine terms of service, trace data flows, and question who benefits from creative labour. Practices such as local processing where feasible, clear attribution protocols, and consent-aware publishing can help restore a sense of creative sovereignty. Embedding these practices transforms structural critique into an opportunity for resonant engagement: students move from passive users to informed co-authors, capable of negotiating the sociotechnical and ethical terrain of GenAI creativity.

Limitations of the Study

Like any focused qualitative study, this research has its limits. With just ten participants from a specific cultural and educational context, this study seeks to illuminate situated experiences that can inform future pedagogical research. The dual role of the researcher as both instructor and analyst introduces a layer of subjectivity, however, this proximity also offers valuable insight into the classroom dynamics. Additionally, the two divergent accounts within a cohort of ten cannot indicate how widely such stances are distributed, which strengthens the case for the comparative work proposed in Section 7. Despite these constraints, the study points toward promising directions for applying resonance theory to the complex emotional and ethical terrain of GenAI-supported learning.

Conclusion

GenAI can enable dialogic, responsive creative learning when students exercise authorship, curiosity, and ethical judgment. Through the lens of resonance theory (Rosa, 2019), meaningful learning emerged where students shaped, questioned, and *answered* machine outputs. Alienation surfaced when processes

felt opaque, automated, or disembodied. Authenticity proved pivotal, especially individual voice and authorship. Trust in platforms proved foundational, linking pedagogy to political economy. The study positions these results as analytically generalisable (Yin, 1994; 2010) and invites comparative research across disciplines and cultures. Future work should (1) longitudinally track how critical thinking dispositions develop and students' relationships with GenAI evolve over time, (2) compare platform designs and on-device workflows for privacy-preserving creativity, and (3) integrate *acceptance* with *resonance* metrics (usefulness, satisfaction, credibility plus resonance indices) to design for both *adoption* and *meaning*. Thoughtfully integrated, GenAI holds the capacity to become more than a tool to automate tasks: it can become a medium for resonance, supporting creative encounters that are not only novel, but also ethically grounded, emotionally rich, and genuinely *human*.

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Acknowledgment

I would like to thank the students for their thoughtful reflections and engaged participation throughout the seminar. Their insights were invaluable to the development of this study.

Funding Information

This research was supported by the Deutsche Forschungsgemeinschaft (DFG), and the Austrian Science Fund (FWF).

AI and LLM Disclosure (Limited Use)

The author confirms that the intellectual content of this article, including its research design, data collection, writing, analysis, interpretation, and argument, is entirely their own. AI powered tools such as Grammarly, DeepL, and Microsoft Word were used for editing, including improvements to the grammar and phrasing of the manuscript. Microsoft Word's transcription function, accessed through the Dictate option, was used to produce initial transcriptions during the data collection and preparation process.

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