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*CORRESPONDENCE Ana Laura Monserrat a.l.monserrat@gmail.com; analauramonserrat@campus.enerc.gob.ar

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Reflection-AI: artificial intelligence as a redefining force for expressive filmmaking in film schools

Ana Laura Monserrat^{1,2}* and Nahuel Matias Srnec^{1,2}

¹Department of Cinematography, Escuela Nacional de Experimentación y Realización Cinematográfica, Buenos Aires, Argentina, ²University Film and Video Association, Colorado Springs, CO, United States

Artificial Intelligence (AI) is reshaping film education, prompting critical reflection on its role in creative learning and artistic innovation. This study investigates Al's potential to contribute to a new wave of expressive cinema by examining how students engage with AI tools in educational settings. Combining a classroom-based experiment with three surveys across different learning contexts, we analyze students' creative responses and ethical concerns. Results reveal a consistent ambivalence: while text-based AI tools were perceived as helpful, visual AI outputs were often described as inauthentic, overly polished, or hegemonic. Notably, many students who voiced concerns about Al's impact on creativity also acknowledged its potential to enhance artistic work. These contradictions point to an ongoing negotiation between enthusiasm and resistance. Drawing on this data, we discuss the pedagogical implications of integrating AI into filmmaking education and propose a framework that distinguishes between technical and artistic processes. We argue that AI can support cinematic expressiveness if integrated critically, preserving space for experimentation, failure, and personal voice. Ultimately, the classroom emerges as a key site for shaping how AI will influence the future of avant-garde cinema.

KEYWORDS

artificial intelligence, film education, expressive filmmaking, creative learning, digital cinema, film pedagogy, generative AI, pedagogical innovation

1 Introduction

Cinema and technology have always been intrinsically connected, with technological advances often triggering a resurgence of expressive cinema outside or in opposition to the mainstream industry — commonly known as "avant-garde" cinema (Aumont and Marie, 2006, p.216; Marie, 2012, p.9). For instance, after World War II, the agility of shooting with 16 mm cameras, compared to the heavier 35 mm equipment, facilitated diverse forms of experimentation, such as those seen in the *Nouvelle Vague*.

What was striking about the *Nouvelle Vague* was its portrayal of a reality that felt "out there" — the camera could physically seek it out. This reflective pursuit was enabled by the camera's ability to get closer to the subject (Marie, 2012). Lower production costs allowed stories to emerge without the approval of large studios, so previously untold stories and narrative forms found their way to the screen (Vilaró, 2016).

A similar situation arose in 1995 with the *Dogma 95* movement. The rise of digital post-production technologies in Hollywood prompted them to advocate for a return to "natural" filmmaking — less technology, not more. Yet technology, ironically, enabled the movement's rise: while they aimed to use 35 mm film, production complexities led them

to break their own rules (Hjört, 2003, p.39), and the magnetic tape became a pivotal factor in enabling this vanguard cinematic movement (Chaudhuri, 2005).

In the 21st century, the advent of digital cinema brought a radical shift in filmmaking practices, drastically improving image quality compared to videotape. Digital technology fundamentally converts analog information into binary data derived from photoelectric capture, but the ability to capture images and process digital data has reached levels unimaginable two decades ago. Currently, while digital filmmaking rarely reduces costs, it offers unparalleled versatility in the captured material. However, what artistic movements have emerged alongside this technological transformation?

Defining the cinematic movements of the past two decades is challenging, given the exponential growth of distribution platforms via the internet. Among the most notable movements are *Slow Cinema* (Flanagan, 2008), *Mumblecore* (Debruge, 2008), *New French Extremity* (Quandt, 2011), *Kino Movement* (Conway, 2008), and *Community Cinema* (Rodriguez, 2001). The latter particularly benefited from digital technology, allowing higher-quality productions with limited budgets. Yet, unlike past technological breakthroughs, we cannot establish a causal link between digital filmmaking and any of these movements.

As digital workflows became standard, film schools adapted their curricula to accommodate both the technical and narrative possibilities these technologies enabled. The integration of digital tools into educational environments has long influenced creative practices and pedagogical approaches. Within this context, artificial intelligence (AI) emerges as a new inflection point in digital cinema technology. Its growing presence in editing tools, image generation, script analysis, and audiovisual production raises pressing questions about its role in cinematic creation and, consequently, in film education (Brako and Mensah, 2023; Yang et al., 2023).

This raises a central question: can AI play the kind of transformative role that previous technological innovations — such as the 16 mm camera or videotape — have held in the history of cinema? We argue that this question can only be answered from within the pedagogical space. It is in the classroom that emerging filmmakers begin to define their artistic identities and ethical positions.

Farinacci (2024), in her comprehensive framework for AI Audiovisual Literacy (AIAL), argues for a critical rethinking of how students engage with cinematic language in an era increasingly shaped by generative technologies. Rather than treating AI merely as a technical instrument, she emphasizes the importance of incorporating its epistemological and aesthetic dimensions into the curriculum — an approach that aligns with a broader shift toward critical digital media literacy.

For us as educators, the question of AI's potential is not merely theoretical — it carries direct implications for film education (Leonard, 2021). The integration of AI into production and distribution processes forces us to rethink what we teach and how we teach it. What critical and creative skills should take priority in a world increasingly shaped by AI?

This article investigates whether AI, as a disruptive tool in the film industry, could catalyze a new wave of expressive filmmaking, particularly within film schools. In line with the Beijing Consensus on Artificial Intelligence and Education (UNESCO, 2019, articles 14 and 15), we sought to explore the impact of AI on film education through classroom experiences and student surveys across different disciplines. Specifically, we examine how AI is perceived and adopted in film education and evaluate its potential to inspire a new *avant-garde*.

2 Exploring Al's impact on film education: classroom experiments and student perceptions

2.1 Classroom experiences: exploring Al's role in creative learning

2.1.1 Methodology

At the National School of Film Experimentation and Production in Argentina, within a curriculum based on a constructivist approach, we conducted an exploratory classroom project throughout 2024.

The activity involved ten second-year students from a higher education cinematography program, in three stages through three classes. The project unfolded following Feigenbaum (2021) "generative failure" pedagogy. To reduce anxiety, students were reassured in every stage that only submission was required, and the quality of the final product wasn't being evaluated.

In the first stage, students were asked to select a film excerpt that fascinated them because of the way the camera was used. The clip should consist of just one shot of up to one minute in length, from any format or style. Two weeks later, the class focused on analyzing key variables such as focalization, narrator presence, camera involvement in the action, framing, camera movement, subject in focus, depth of field, lens types, filters, and camera positioning relative to the action. We analyzed each clip brought by the students, helping them to realize which technical characteristics were generating the artistic effects that they found interesting in each piece.

The second stage required students to write a half-page, handwritten proposal for a hypothetical original scene inspired by their selected excerpt, using the analyzed variables. In the third stage, students had to expand their aesthetic proposal by making a presentation of 6 to 8 slides, explaining the technical equipment they would use and the images they would like to create, using any AI tools available to assist their process — both for text and imagery.

2.1.2 Results

All three stages of the assignment presented challenges for the students. The first stage triggered anxiety for half of the participants, despite being presented as an exploratory activity. As expected, the selected excerpts varied widely in aesthetic style, narrative, and format.

When asked to create an original proposal inspired by their chosen excerpt, students again expressed uncertainty and fear of misunderstanding the task. We encouraged them to trust their creativity, focusing on expressing what the selected clip evoked in them.

The third stage sparked a surprising level of dissatisfaction among students. Despite their familiarity with generative AI tools and the fact that many post-production programs they already used include AI, two students voiced ethical objections, arguing that using AI made the work feel "inauthentic".

On submission day, students were asked to evaluate whether AI proved helpful in creating their aesthetic proposals. The unanimous response was that free AI tools for image generation (available at the time of the project, June 2024) were more of an obstacle than a helpful resource. However, text-based generative AI tools were widely seen as useful.

Most students admitted that they had previously used generative AI for text-based tasks, mainly ChatGPT (OpenAI, 2024a), and found it useful. However, they felt that both ChatGPT (OpenAI, 2024a) and DALL-E (OpenAI, 2024b)—the image generation tools available to them at the time—produced results that were "too polished" or "overly hegemonic" in their visual representation. One student mentioned that,

on another occasion, she had used Midjourney (2024) and obtained better results, but could not afford to pay for it this time.

When asked about the time spent on the third stage, nine out of ten students said they spent between 30 min and two hours on it — a significant contrast to the less than 30 min they usually dedicate to aesthetic proposals. All agreed they would have completed the work faster without using AI.

2.2 Student surveys: perceptions of AI in film education

2.2.1 Methodology

Following the classroom experience, we conducted three anonymous surveys across different student groups specializing in audiovisual tools. Each survey targeted a different educational context to gather broader perspectives on AI's role in film education.

Survey 1: A pilot survey conducted with 19 students from two different schools — one group studying Cinematography and the other in Audiovisual Production. Date: June 2024.

Survey 2: Targeting 104 students enrolled in a non-formal course on editing with *DaVinci Resolve* software. Date: July 2024.

Survey 3: Targeting 40 participants of a *DaVinci Resolve* VFX course — a similar student profile to the second survey. Date: February 2025.

2.2.2 Results

The pilot survey showed a majority of respondents were women, attending tertiary-level programs in Argentina. Most respondents had not used AI in their projects but expressed interest in learning more.

A recurring concern was the potential loss of human creativity due to AI. Many saw AI as a support tool that could complement, but not replace, creativity. Ethical concerns appeared frequently. One student notably stated that AI "is not just technology; it's political, as it operates within a hegemonic system that accepts or rejects cultural elements".

6

19

25

Based on this initial survey, we refined the questions for Surveys 2 and 3.

In Survey 2 the percentage of respondents who had used AI tools increased to 41.9%. By Survey 3 (six months later), this number surged to 72.5%. Both surveys showed a majority of respondents were Hispanic men.

Most of the respondents in both surveys believed AI should be integrated into film school curricula.

In Survey 2, most mentioned ethical concerns included "overreliance on technology," "copyright issues," and "loss of human creativity" — in that order of frequency. Interestingly, 16 respondents who actively use AI still listed the loss of creativity as a major ethical concern, evidencing the same tension ongoing in the classroom experience. Moreover, 29 of the respondents that declared "loss of human creativity" concern also declared that AI may contribute to the film productions creativity.

In Survey 3, the primary ethical concerns remained "over-reliance on technology" and "copyright issues," but this time "job loss due to AI replacement" rose to third place — surpassing the loss of creativity concern. Those most concerned about job loss were respondents who had not used AI (Table 1).

Out of the 14 respondents who identified the loss of creativity as a major issue, an impressive 13 also stated that AI could enhance creativity in filmmaking — a contradiction that echoes similar findings from Survey 2.

3 Discussion: rethinking film education amidst AI disruption

3.1 Results interpretation: unpacking the creative and ethical contradictions

The classroom exercise and subsequent surveys provided a rich perspective on how students perceive and engage with AI in the

TABLE 1 Results from Survey 2 (conducted in July 2024, *n* = 104) and Survey 3 (conducted in February 2025, *n* = 40) on ethical concerns and the role of AI in creativity within filmmaking.

N: 104	Survey 2º (07/2024) Ethical concerns					
					Can Al improve creativity in film?	
	Technology dependence	Authorship issues	Loss of jobs	Loss of creativity	No	Yes
Didn't use AI	37	38	5	26	9	52
Uses AI	30	27	5	16	6	38
	67	65	10	42	15	90
N: 40	Survey 3º (02/2025)					
	Ethical concerns				Can Al improve creativity in film?	
	Technology dependence	Authorship issues	Loss of jobs	Loss of creativity	No	Yes

Bold numbers indicate subtotals.

Didn't use AI

Uses AI

7

28

35

8

13

21

4

10

14

4

0

4

4

20

24

context of film education. These findings revealed both emotional tensions and intellectual contradictions that are critical to understanding how AI might reshape creative learning.

3.1.1 Classroom analysis: how AI impacts student creativity

The difficulty students experienced in handling an open-ended, uncertain task is consistent with Feigenbaum (2021). Nevertheless, the fact that some students felt overwhelmed, especially in the final stage involving AI tools, underscores a key pedagogical challenge: AI technology, while marketed as a "creative assistant," may paradoxically amplify performance anxiety when learners lack confidence in their own creative abilities.

The recurring anxiety generated by creative classroom work can be understood within the framework of the "paradigms of failure" described by Barr and Tagg (1995). These authors distinguish between institutions that prioritize learning outcomes and those focused primarily on instructional delivery. The dissonance is clear in this case.

The activity analyzed was designed within a learning paradigm, where students were informed that participation, not success, was the goal — and that mistakes would not be penalized. One possible explanation for why it generated anxiety among students is that they have been conditioned to perceive failure as inherently negative. Nevertheless, we believe the use of "wise interventions," as defined by Feigenbaum (2021), proved effective. These interventions helped foster increased student confidence, greater engagement during the tasks, and high participation in the final stage of the activity.

Another observation that emerged is the students' perception of time and effort. We were surprised by how little time they believed was necessary for a task like this. The idea that 30 min is sufficient for creating an aesthetic proposal reflects a cultural shift toward immediacy — likely accelerated by digital culture and pandemic confinement. This highlights the need to incorporate persistence and dedication into higher education curricula. If creative work requires sustained effort, embraces mistakes, and sees failure as part of the learning process, then AI serves as an assistant — enhancing student work rather than replacing it.

3.1.2 Survey analysis: student perceptions of Al's disruptive influence

The surveys reveal a clear tension among film post production students: they recognize the technical and creative advantages AI offers but remain uneasy about its ethical and cultural consequences.

The leading concerns suggest that integrating AI into film school curricula should address both technical training and ethical discussions about authorship and creative ownership. Also, the rise in "job loss" concerns between Surveys 2 and 3 likely reflects both the rapid expansion of AI tools and the specific nature of the VFX course — an area where automation increasingly replaces manual labor.

What stands out most is the contradiction among students who use AI yet fear losing creativity. This duality reflects an evolving, unresolved ethical stance, demanding further exploration in both educational and professional contexts.

3.2 Al as a catalyst for artistic movements

One of the central questions we explore in this study is whether AI could give rise to a revolutionary new artistic movement or whether it will remain a tool that optimizes production processes without influencing content. It is essential to recall that the cinematic movements we have discussed — *Nouvelle Vague* and *Dogma 95* — emerged from specific socio-historical contexts. Technology played a role as an enabler, a tool that allowed pre-existing, gestating discourses to materialize (Marie, 2012, p.10; Chaudhuri, 2005). Therefore, to envision a new artistic revolution driven by AI, we must first assume an underlying hypothesis: that a generational expressive discourse is already forming and merely awaits the right technological medium to emerge.

Expressive cinema can be thought of as one that reveals an external reality (classical expressiveness), explores an internal reality (romantic expressiveness), or provokes a strong emotional state in the viewer (a more modern interpretation of expressive cinema) (Aumont and Marie, 2006, p.89). If AI-generated content, as several survey respondents noted, reflects a hegemonic model, it cannot contribute to expressive cinema in the classical sense of revealing an external reality. Thus, the possibility of AI birthing a revolutionary artistic movement seems unlikely. However, in the romantic sense of expressiveness, AI holds potential worth exploring. Just as *Nouvelle Vague* sought to capture external reality with portable cameras, AI could enable filmmakers to explore and represent inner worlds — the subconscious — ushering in a modern form of surrealism.

In this regard, Pavlik and Pavlik (2024) found that AI-generated images attempting surrealism often lack genuine evocations of the unconscious. This highlights a critical insight: the symbolic, emotional charge must originate from the creator — AI can assist, but it cannot invent meaning. To achieve this, the user must imagine the desired work beforehand, guiding the algorithm not with metaphors but with a concrete, symbolically rich description. For example, instead of asking for "a surreal vase with flowers," the user might request "a vase where the flowers melt into distorted human forms".

On the other hand, AI's disruptive presence might provoke a counter-movement — one that advocates for more naturalistic cinema, akin to *Dogma 95*'s rebellion against Hollywood's digital excesses. In our classroom experience, the students' initial rejection of AI-generated images suggests this is a plausible scenario. However, the same students' acceptance of AI for text generation reveals a more ambivalent, evolving relationship with these tools — an indication that AI's artistic role is still being negotiated by emerging filmmakers.

3.3 Integrating AI into film education

There is an extensive body of literature analyzing the opportunities and challenges that AI presents for film education (Brako and Mensah, 2023; Farinacci, 2024; Ke, 2023; Selwyn, 2024; Yang et al., 2023). Building on this, we aim to contribute our perspective by highlighting the urge that educational institutions focus on creating the necessary didactic conditions for teachers to develop, experiment with, and implement new strategies. These strategies should aim not only to improve the technical quality of audiovisual products but also to amplify original voices (Selwyn, 2024). To achieve this, we believe it is essential to focus on two key areas:

3.3.1 Redefining content: categorizing Al's influence on artistic and technical processes

Aiming to respond to Farinacci's (2024) question — "What tasks can we delegate to AI and which ones should remain under human control?" — in the context of our search for a potential new wave of expressive cinema, we present a classification of teaching content, identifying where AI can serve as a valuable tool and where it might become an obstacle to learning and expressivity: (i) Artistic Concepts, (ii) Technical Concepts, (iii) Artistic Processes and (iv) Technical Processes.

In the case of both technical and artistic concepts, AI typically remains neutral. Its impact does not significantly alter students' theoretical understanding, as these concepts are rooted in fundamental principles that transcend specific tools.

The situation is different in technical and artistic processes: AI's impact varies depending on the nature of the task. For technical repetitive or mechanical processes AI can significantly speed up the workflow, allowing students to focus on more creative or complex aspects of production. However, certain technical tasks require hands-on practice for students to internalize key concepts, for example, measuring light with a photometer. In these cases, AI should complement practical learning after students have acquired the necessary skills.

When it comes to artistic processes, AI integration requires even greater caution (Ke, 2023). It's crucial that students engage directly with materials and techniques, confront creative challenges, and learn to manage frustration throughout the process (Feigenbaum, 2021). AI can be helpful in advanced stages but must not shortcut the early, exploratory phases — the messy, imperfect stages where students experiment, make mistakes, and ultimately discover their artistic identity.

3.3.2 Redefining classroom strategies: adapting pedagogy to foster critical AI engagement

Following Selwyn's (2024) call to "slow down, scale back, and recalibrate current discussions around AI and education," we reflected on the ambiguous effects of AI in our own experience. As a first step, we consider it crucial to identify and distinguish productive uses of AI from those that hinder the development of students' creative capacities and integrative skills (Ke, 2023). For example (we write in italic the words used by students):

- When AI shortens the artistic exploration phase by generating fully formed products too early, students may miss the opportunity to develop their own creative ideas especially when those products are *hegemonic* in nature.
- When AI automates decision-making processes such as selecting shot composition or stylistic choices — students are deprived of opportunities to make mistakes, reflect, and refine their artistic voice.
- When AI generates *polished-looking* outputs too quickly, students may perceive the results as *inauthentic*, bypassing the iterative, often chaotic work that fuels genuine artistic growth.

Clearly, this topic demands further pedagogical research — particularly to understand how different types of AI influence student creativity, problem-solving, and critical reflection throughout the various stages of the filmmaking process. Yet while academic reflection takes time, technological change is advancing rapidly (Yang et al., 2023). How, then, can we ensure that these paradigm shifts benefit pedagogy rather than undermine it?

We argue that embracing AI in education need not compromise the core principles of artistic learning — as long as we remain committed to two essential pedagogical values: (i) dedicating time to each stage of the creative process, and (ii) embracing failure — repeatedly — and helping students manage the frustration that inevitably accompanies creative growth. This includes producing "messy drafts," crossing out ideas, starting over, and ultimately owning their mistakes as integral parts of their personal artistic development.

We find particularly helpful the concept of "powerful teaching," introduced by Mariana Maggio, a prominent scholar in the field of education and technology. She defines it as a pedagogy that stays connected to the current state of the discipline as well as to the social, institutional, and personal realities of students (Maggio, 2012, p.55):

"To conceive of teaching in present time means to think of it in relation to the present of society, the discipline, the institution, the specific group, and the reality of each student's life. This requires, no more and no less, that we engage with the present in every proposal, every class session, and every assessment".

This type of teaching, which Maggio calls powerful, is not diminished in the least by the presence of AI. However, it does require that educators continually update their knowledge and remain aware of technological developments within their field-because disciplinary knowledge is inherently perishable and constantly evolving. And this brings us to a more tangible — though equally complex — challenge: institutions must provide adequate support for educators to meet these demands. The political and social realities of each country - and each institution determine the didactic conditions available. Therefore, achieving this level of teacher adaptation, as highlighted by the Beijing Consensus on AI and Education (UNESCO, 2019, article 13) requires institutional support. This responsibility largely falls on institutional leadership to ensure educators have access to ongoing professional development, time and resources to experiment with AI tools. Without this support, AI's role in education risks becoming unequal - accelerating the divide between resource-rich and resource-poor institutions.

4 Conclusion

Can we, as educators, guide AI to become a tool that fosters cinematic expressiveness?

The answer is yes — but only if AI is selectively integrated into curricula, enhancing learning where appropriate while preserving hands-on exploration in artistic processes.

Our classroom experiment and survey results reveal is not just a snapshot of student attitudes toward AI, but the deeper cultural and emotional negotiations at play when a new technology enters the creative classroom. These tensions are not peripheral; they are foundational. The ambivalence students express — their simultaneous pull toward and push against AI — mirrors the broader question explored in this article: can AI contribute to a new wave of expressive cinema?

The integration of AI into film education, therefore, is not merely a technical or instructional challenge — it is a space of aesthetic formation and ideological contestation.

For AI to become a catalyst for expressive cinema, students must be encouraged to interrogate its outputs, resist its generic tendencies, and appropriate it critically to serve their own artistic visions. Likewise, pedagogical frameworks must support this critical engagement — not only by teaching how AI works, but by creating environments where its use can be emotionally and intellectually meaningful.

Redefining educational content should focus on hands-on, process-based learning — especially in artistic and foundational technical practices. AI should act as a complementary tool, never as a replacement for the stages of exploration, failure, and revision that are essential to expressive filmmaking.

In this sense, the future of *avant-garde* cinema is already emerging — in the classroom, in the friction between students and AI, and in

the pedagogical strategies that allow this friction to become generative rather than paralyzing.

Educational institutions then, must actively shape the conditions under which AI can contribute to cinematic expression. This includes supporting teachers, updating curricula, and fostering "powerful teaching" (Maggio, 2012) — an approach rooted in technological awareness and responsiveness to students' lived realities.

Ultimately, empowering students to navigate AI critically and creatively will be essential not only for mastering new tools, but for ensuring that cinema continues to evolve in meaningfully disruptive ways.

Data availability statement

The raw data supporting the conclusions of this article will be made available by the authors, without undue reservation.

Ethics statement

Ethical approval was not required for the studies involving humans because the study involved anonymous surveys of adult participants who voluntarily participated after being informed about the purpose of the research and the identity of the researchers. The studies were conducted in accordance with the local legislation and institutional requirements. The participants provided their written informed consent to participate in this study.

Author contributions

AM: Project administration, Data curation, Formal analysis, Methodology, Investigation, Writing – review & editing, Conceptualization, Writing – original draft, Supervision. NS: Resources, Conceptualization, Writing – review & editing, Supervision, Writing – original draft.

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Conflict of interest

The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

Generative AI statement

The author(s) declare that no Gen AI was used in the creation of this manuscript.

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