Generative AI in Audiovisual Arts: Creative Practices and Hybrid Authorship

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Abstract

This article investigates the impact of artificial intelligence on contemporary audiovisual creation through three emblematic case studies. It demonstrates how generative systems reconfigure creative processes without compromising artistic authenticity, establishing a dialogue between advanced computational techniques and poetic expression. The analysis reveals that algorithmic curation, when guided by rigorous aesthetic principles, enhances the emergence of hybrid languages in immersive narratives. The results point to a paradigm of expanded authorship, where human-machine collaboration transcends mere technological instrumentalization to constitute a new field of aesthetic and epistemological experimentation.

Keywords

Computational creativity, Digital poetics, Generative artificial intelligence, Adaptive narratives, Hybrid authorship.

1. Introduction

The technological revolution of recent years has radically redefined artistic practices in the audiovisual field. The ability of artificial intelligence systems to generate original content – from synthetic images to algorithmic musical compositions – raises fundamental questions about authorship, creativity, and the very status of artwork in the digital era. This study adopts an interdisciplinary perspective, articulating contributions from computer science, media studies, and critical theory to examine how generative models are transforming not only production tools but also the epistemological foundations of artistic creation.

The emergence of Generative Artificial Intelligence (GAI) systems has caused significant tensions in cultural practices developed in contexts where computational devices assume tasks traditionally associated with human creativity. As Santaella [1] observes, when artistic production allies with technology, questions about the nature of creativity come to a boil, especially considering the ability of these systems to write, speak, and produce images similar to human output. This phenomenon is not restricted to a simple transfer of technical capabilities but implies a profound reconfiguration of the ways of conceiving, producing, and experiencing audiovisual works.

The present study enters this debate by analyzing three audiovisual projects that employ computational intelligence systems at different levels of their creative processes. More than isolated examples, these cases constitute paradigmatic manifestations of a broader movement that is redefining the boundaries between human creation and algorithmic processing. The central

hypothesis guiding this investigation is that, far from representing a threat to artistic authenticity, generative systems can enhance poetic expression when subjected to rigorous aesthetic curation.

Rather than adopting a deterministic stance - either utopian or dystopian - we follow a constructivist view of authorship, recognizing the role of both human intentionality and algorithmic agency (Di Dio et al., 2023). In this paradigm, collaboration between humans and computational systems is not reduced to mere technological instrumentalization but constitutes a fertile field for aesthetic and epistemological experimentations that challenge traditional categories of artistic thought.

2. Computational Creativity in Audiovisual Arts

The field of computational creativity, as defined by Wiggins [5], has reached sufficient maturity to transcend the mere reproduction of preexisting aesthetic patterns. In contemporary audiovisual production, we observe a complex synergy between human intentionality and algorithmic autonomy. Generative adversarial networks (GANs), initially proposed by Goodfellow et al. [8], demonstrate a surprising capacity to synthesize visual and sonic content that challenge traditional categories of artistic originality. This phenomenon is not limited to the technical sphere: as Boden [2] argues, true innovation lies in the ability of these systems to reconfigure the cognitive processes underlying artistic creation.

Computational creativity in the contemporary audiovisual context significantly transcends the limits of automation and reproduction of preexisting aesthetic patterns. Cheng [14] argues that AI technologies are dynamically transforming the creative space, contributing to various artistic areas and challenging traditional conceptions of creativity.

The Schema theory, as applied by Cheng [14] offers a valuable empirical framework for understanding public attitudes toward art based on the artist's identity. According to this perspective, mental schemas that include assumptions about AI and creativity significantly influence the reception of works, often leading to biased evaluations when the algorithmic origin of a creation is known. This phenomenon reveals how cultural perceptions of creativity are still deeply anchored in human-centric notions, even when the objective performance of AI systems approaches or exceeds human parameters in certain contexts.

Technical advances in generative algorithms have been fundamental to this evolution. Generative Adversarial Networks (GANs), proposed by Goodfellow et al. [8], revolutionized the ability of computational systems to generate original visual content. More recently, Creative Adversarial Networks (CANs), derived from GANs, incorporate specific components that allow the generator to function "creatively," not just reproducing learned styles but producing deliberate deviations that expand the potential originality of the resulting works.

This technical evolution, however, should not be understood merely in terms of instrumental capabilities. As Santaella [1] argues, the true transformation occurs at the epistemological level, where generative systems reconfigure, the cognitive processes underlying artistic creation. Stable Diffusion models, for example, do not just generate image variations but allow systematic exploration of the latent space of creative possibilities, establishing a productive dialectic between human control and algorithmic emergence.

In the specific context of audiovisual production, this dialectic manifests in the growing integration between traditional narratives and adaptive systems. Rodrigues et al. [11] highlights how digital storytelling methodologies have proven to be effective mechanisms for fostering new forms of communicative expression, allowing transcendence of personal structures and adoption of broader perspectives. When enhanced by generative AI systems, these methodologies pave the way for narrative experiences that respond dynamically to audience interactions, creating a continuum between human authorship and algorithmic processing.

The question of authorship in AI-mediated creative environments has been the subject of intense academic debate. Prass et al. [3] proposes the concept of "hybrid authorship" to characterize

narratives originating from generative AI systems, arguing that this condition should be explicitly communicated to readers and other actors in the cultural field. This perspective recognizes both the contribution of algorithmic systems and the human curation that guides, selects, and contextualizes computational outputs, establishing a new paradigm of collaborative creation that challenges traditional categories of originality and artistic expression.

This new paradigm does not, however, imply a complete dissolution of human agency in the creative process. On the contrary, as we will demonstrate in the following case studies, successful integration between generative systems and artistic expression fundamentally depends on rigorous aesthetic curation, where poetic and conceptual principles established by the human artist guide the algorithmic exploration of creative possibilities. It is in this productive tension between computational autonomy and human intentionality that the most innovative forms of contemporary audiovisual creation emerge.

3. Analysis of Empirical Cases

The selection of these three cases—spanning experimental filmmaking, interactive simulation, and generative projection—was guided by their methodological diversity and their relevance to the central hypothesis of this paper. Each project exemplifies a unique mode of integrating generative AI systems into the creative process, allowing for a comparative exploration of hybrid authorship across media formats.

3.1. SOMOS: A Criação de Ybirá-Ubuntu

The "SOMOS: A Criação de Ybirá-Ubuntu" project exemplifies the integration between traditional aesthetic principles and advanced generative techniques. The use of ComfyUI Stable Diffusion workflow for visual generation allowed an unprecedented approach to nature representation, where deep learning algorithms were employed not as mere reality simulators, but as mediators of a new visual language. The creative process involved meticulous curation of latent spaces, ensuring that the stochastic properties of the model served the narrative without dominating it.

The work represents a paradigmatic case of how generative artificial intelligence can be employed to transcend the limitations of conventional representational approaches. Rather than simply reproducing photorealistic images of nature, the project explored the capabilities of diffusion models to create a visual language that captures the interconnected essence of forest ecosystems. As Santaella [1] observes, when artistic production allies with technology, new expressive possibilities emerge that would not be achievable through purely analog or conventional digital means.

The workflow implemented in ComfyUI using Stable Diffusion, allowed a systematic exploration of the latent space of visual possibilities, where each iteration represented not just an aesthetic variation, but a conceptual reconfiguration of the relationship between natural elements. This approach directly dialogues with the concept of "transformational creativity" proposed by Wiggins [5], where computational systems not only explore an existing conceptual space but actively participate in redefining that space.

While the visual aesthetic may resemble common outputs from Stable Diffusion, what distinguishes these frames is the recursive compositional strategy informed by a feedback loop between textual prompts and visual outputs. The final selections were further validated through dialogues with guest artists and curators, who highlighted the coherence between narrative intent and generative form.

A particularly innovative aspect of the project was the implementation of a feedback system between the generated visual outputs and subsequent textual prompts, creating a hermeneutic cycle where each new image informed the direction of subsequent explorations. This iterative process exemplifies what Colton and Wiggins [6] describes as a form of "emergent creativity," where the

result is predetermined neither by the human artist nor by the algorithm but emerges from the dynamic interaction between both.

The conceptual dimension of "SOMOS: A Criação de Ybirá-Ubuntu" also deserves highlighting, as it establishes a dialogue between Brazilian indigenous cosmovisions and African philosophies, mediated by cutting-edge technologies. This juxtaposition of diverse cultural references, processed through AI systems, raises considerations about cultural representation that, while not the focus of this article, remain important aspects of AI-mediated creative work. As Prass et al. [3] argues, it is essential to recognize the hybrid nature of these creations.

Figure 1: Frames from the short film SOMOS: The Creation of Ybirá-Ubuntu. Images created by the author. 2025.

3.2. "O Desafio de Carbonia"

This educational online simulator developed in JavaScript and Three.js represents a milestone in the application of multi-agent systems for pedagogical purposes. The implementation of decision-making mechanisms based on evolutionary game theory transformed the virtual environment into a dynamic laboratory for exploring ecological dilemmas. The project demonstrates how artificial intelligence can transcend its instrumental role to become an active participant in the knowledge construction process.

"O Desafio de Carbonia" exemplifies the convergence between adaptive narratives and complex simulation systems, creating a learning environment that responds dynamically to user interactions. The system architecture, based on autonomous agents with emergent behaviors, allows each game session to develop unique trajectories, making the educational experience simultaneously structured and unpredictable. This approach directly enacts the adaptive narrative logic described by Rodrigues

et al. [11], where system responsiveness becomes a central artistic device, rather than a functional add-on.

A particularly innovative aspect of the project was the implementation of a feedback system that translates abstract concepts of sustainability and circular economy into tangible game mechanics. The reinforcement learning algorithms implemented in virtual agents not only simulate realistic ecological behaviors but also adapt their responses to players' decisions, creating a virtual ecosystem that evolves over time. This capacity for dynamic adaptation exemplifies Prass et al. [3] definition of *hybrid authorship*, in which generative systems are not merely tools but co-authors shaping the project's internal logic

The pedagogical dimension of "O Desafio de Carbonia" deserves special attention, as it demonstrates how AI systems can be employed not only as tools for artistic creation but as mediators of complex educational processes. The simulation allows abstract concepts such as environmental externalities, tragedy of the commons, and sustainable development to be experienced in a concrete and interactive way, facilitating the understanding of systemic dynamics that are difficult to apprehend through traditional pedagogical methods.

The integration between narrative, game mechanics, and scientific models in "O Desafio de Carbonia" exemplifies what Goodfellow et al. [8] describes as "intentionality in generative art," where robust conceptual frameworks guide technical implementation. The simulation algorithms were developed not only to create a visually convincing environment but to materialize specific theoretical principles of ecology and environmental economics, transforming abstract concepts into concrete interactive experiences.

In order to represent the socio-political and cultural aspects of Carbonia, we created a fictional universe composed of eight nations, each with its own characteristics. The visual representation of these nations was developed using ComfyUI with Flux.1-Schnell[2], allowing for an aesthetic that aligns with the thematic diversity of the project. This combination of procedural content generation and cultural representation reflects the creative potential of generative AI in commercial applications.

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[2] FLUX.1-schnell is a distilled image generation model, producing high quality images at fast speeds by Black Forest Labs (source: https://huggingface.co/black-forest-labs/FLUX.1-schnell)

Figure 2: Thematic masks and panels representing the nations of the game O Desafio de Carbonia. Images created by the author. 2025.

3.3. PindorAIm

The "PindorAIm" installation presented at the 2025 Virada Cultural constitutes perhaps the most complete expression of the fusion between technology and cultural tradition. Through the generative mapping of visual patterns on the facade of the Pateo do Colégio, in São Paulo, the work established a profound dialogue between collective memory and technical innovation. The use of ComfyUI – a node-based interface for managing AI models such as Stable Diffusion, allowed for the rapid development of creative ideas by detecting the physical characteristics of the architectural design. This system was able to recreate textures and topologies using image guiding lines as a reference. By leveraging this process, we were able to generate dozens of possible scenarios to transform the reality of the facade through mapped projection.

"PindorAIm" represents an exploration of generative videomapping that transcends traditional limitations by dynamically adapting visual compositions to the architectural context. The work establishes a dialogue between the historical heritage of the Pateo do Colégio, in São Paulo, and cutting-edge technologies, creating an immersive experience that simultaneously activates collective memories and individual perceptions. As Santaella [1] observes, when different sensory modalities are integrated into generative systems, expressive possibilities emerge that challenge conventional artistic categorizations.

A particularly innovative aspect of the project was the implementation of a system capable of interpreting the architectural features of the building's facade, dynamically generating visual patterns that respect the structure's historical and physical characteristics. This architectural responsiveness exemplifies what Colton and Wiggins [6] describes as creative systems that not only generate content but establish dialogical relationships with their presentation contexts, creating works that are simultaneously autonomous and situated.

The historical and cultural dimension of the installation deserves special attention, as it demonstrates how generative technologies can be employed not only to create innovative aesthetic experiences but also to reactivate and recontextualize collective memories. By mapping generative projections onto the historical architecture of the Pateo do Colégio, the work establishes a temporal continuum that invites participants to reflect on urban and cultural transformations.

The integration between digital generative systems and architectural heritage in "PindorAIm" exemplifies what Prass et al. [3] and Boden [2] describes as works of "hybrid authorship," where different technological systems, cultural references, and human interventions converge to create experiences that could not be attributed to a single creative source. This multiplicity of creative agencies does not diminish the coherence of the work but enriches it, creating layers of meaning that can be accessed and interpreted in different ways by participants.

Figure 3: Frames from the PindorAIm project: Video mapping intervention on the facade of the Pateo do Colégio in São Paulo, 2025. Images created by the author. 2025.

4. Critical Discussion

The comparative analysis of the three cases presented reveals significant patterns in the integration between generative systems and human artistic expression. In all projects, it is observed that the aesthetic and conceptual coherence of the works arises not from algorithmic autonomy alone, but from iterative calibration guided by human curatorship and theoretical intent, as defined in Jordanous [9] framework of creative system evaluation. Also, as Santaella [1] argues, this dialectic between artistic intentionality and algorithmic processing constitutes a new creative paradigm that transcends simplistic dichotomies between human and machine.

A particularly relevant aspect that emerges from the analysis is the importance of algorithmic curation as a contemporary artistic practice. In "SOMOS," the careful selection of parameters and deliberate navigation through the latent space of the diffusion model constituted fundamental elements of the creative process. Similarly, in "O Desafio de Carbonia," the calibration of multi-agent systems to balance emergent complexity and narrative coherence demanded an iterative process of

adjustments and evaluations. In "PindorAIm," the integration between responsive systems and pre-existing architectural elements required constant mediation between technological possibilities and cultural context.

This centrality of algorithmic curation directly dialogues with the concept of "hybrid authorship" proposed by Boden [2] also concepts of "valued" and "processuality" dimensions by Jordanous [9], providing empirical support to the notion of hybrid authorship as collaborative construction rather than mere delegation. Far from representing a threat to artistic authenticity, generative systems expand the repertoire of expressive possibilities available to contemporary creators, provided they are employed within robust conceptual frameworks. As Colton and Wiggins [6] observe, the artistic value of these works does not reside in the origin of their constituent elements (human or algorithmic), but in the coherence and potency of the dialogue established between different creative modalities.

The analyzed cases also reveal significant ethical challenges that emerge from the use of generative systems in artistic contexts. A particularly sensitive aspect concerns algorithmic raises concerns regarding algorithmic cultural appropriation, particularly when models trained on datasets with Euro-American and Asian dominance are used to generate content inspired by Indigenous and African cosmovisions, demanding ethical vigilance. In "SOMOS," for example, the juxtaposition between Brazilian indigenous cosmovisions and AI technologies trained on global datasets raises important questions about representation and cultural authenticity.

Another relevant ethical challenge concerns transparency about the generative processes employed in the works. As Boden [2] argue, it is essential that the audience be informed about the hybrid nature of these creations, allowing conscious appreciation of the different agencies involved in the creative process. This transparency does not diminish the artistic value of the works but contextualizes their reception within a broader technological and cultural panorama.

The systematic evaluation of creative systems, as proposed by Jordanous [9], offers valuable metrics for addressing these ethical and aesthetic challenges. By considering dimensions such as originality, value, processuality, and autonomy, this approach allows a nuanced analysis of the specific contributions of generative systems to the artistic field, avoiding both uncritical techno-optimism and dogmatic skepticism regarding the expressive possibilities of AI.

5. Final Considerations

The analysis of the three empirical cases presented in this study reveals that the integration between generative artificial intelligence systems and audiovisual artistic practices is producing a paradigm of generative co-creation that challenges traditional divisions of author, tool, and medium, fostering polyphonic artistic ecologies. As demonstrated in "SOMOS," "O Desafio de Carbonia," and " PindorAIm" generative systems do not function merely as tools serving a preexisting artistic vision, but as active agents in a dialogical process that reconfigures both the expressive possibilities and the conceptual foundations of audiovisual creation.

A particularly significant aspect that emerges from this investigation is the centrality of algorithmic curation as a contemporary artistic practice. In all analyzed cases, it was observed that the aesthetic and conceptual effectiveness of the works did not derive from the absolute autonomy of the algorithms, but from a generative dialectic between intentional composition and emergent behavior, where authorship becomes a negotiated space. This dialectic between artistic intentionality and algorithmic processing, as Santaella [1] argues, constitutes a new creative paradigm that challenges simplistic dichotomies between human and machine.

The concept of "hybrid authorship," as proposed by Boden [2], proves particularly valuable for understanding the collaborative nature of these creations. By recognizing the specific contributions of both algorithmic systems and human curation, this concept allows a more nuanced appreciation of works generated in contexts of human-machine collaboration, avoiding both techno-determinism and naive anthropocentrism in the evaluation of their aesthetic and conceptual qualities.

The ethical challenges identified in this study, particularly concerning algorithmic cultural appropriation and transparency about generative processes, demand the elaboration of specific protocols for responsible creation. McCormack et al. [10] proposal for systematic evaluation of creative systems offers valuable metrics for balancing technical innovation with artistic integrity, allowing a critical analysis of the specific contributions of generative systems to the artistic field.

The implications of this transformation extend beyond the strict field of artistic production, suggesting the need for new theoretical models that account for the complexity of these human-machine interactions. As Colton and Wiggins [6] observes, we are witnessing not just an evolution in creation tools, but a fundamental reconfiguration of the cognitive and cultural processes underlying artistic expression. This reconfiguration demands interdisciplinary approaches that integrate contributions from computer science, media studies, philosophy of art, and critical theory.

Ultimately, the findings of this study indicate that the future of audiovisual creation will not be defined by the replacement of human creativity with autonomous systems, but by the emergence of complex creative ecologies where different forms of agency – human, algorithmic, cultural, material – interact in dynamic and unpredictable ways. In this scenario, the challenge for artists, researchers, and cultural institutions is not to resist the integration of generative systems into creative practices, but to develop critical and reflexive approaches that allow exploring their expressive potential in ethical and culturally significant ways.

6. Appendices

A. Acknowledgements

B. Declaration on Generative AI

The author employed ChatGPT-4 for grammar refinement and textual fluency improvements. No content was generated autonomously by LLMs. Conceptual development and critical framing were entirely authored by the researcher. Additionally, the following AI tools were used for generating visual content:

SOMOS: A criação de Ybirá-Ubuntu: ComfyUI with Stable Diffusion

O desafio de Carbonia and **PindorAIm**: ComfyUI with Flux.1-Schnell by Black Forest Labs.

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