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As algorithms evolve from tools to protagonists, the traditional understanding of performance as an exchange between human actors and spectators is challenged. This shift calls for examining how algorithmic protagonists manifest and how agency is configured within complex performative environments. Our research brings theoretical and practical inquiry together and develops a systematic analytical mapping of both performance and performer through a set of questions addressing co-presence, spatial mediation, computational temporality, distributed action, and agency. In our artistic work *ENTITY*, an algorithmic protagonist becomes perceptible as a performative configuration rather than a simulated human. This investigation aims to contribute to an understanding of human–algorithm interaction in an era in which algorithmic systems shape our daily experiences and creative expressions.

1 Introduction

With the ever-increasing influence of algorithmic systems and their interweaving into our realities, understanding their characteristics and consequences becomes crucial. Such understanding must develop across diverse disciplines and forms of knowledge production, fostering not only scientific insight but also intuitive, emotional, and affective comprehension. Artistic practice can catalyse this form of inquiry. Incorporating diverse entities into artistic practice reflects the conditions of our evolving society. Algorithmic entities are especially complex, presenting an intriguing duality: they appear disembodied yet remain materially dependent, like spirits animating machines. Rather than resolving this tension, we examine how such systems manifest as algorithmic protagonists and how agency is configured across technical and human components.

Through theoretical analysis and our artistic work *ENTITY*, we develop a set of analytical questions for furthering understanding of algorithmic protagonists. Our questions address co-presence, spatial mediation, computational temporality, and distributed action. We explicitly aim to move away from anthropomorphizing algorithmic systems towards perceiving the algorithms as operative configurations within performative events.

While we strive for a context-independent understanding of performative algorithmic protagonists as agents, in this work, we stage algorithmic co-presence in a theatre context and explore how, between the system and an audience, computational processes reshape relational experience and how meaning emerges through interaction. Although we reject an understanding of algorithmic protagonists as human Dop-

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pelgangers, we envision that analysing this relationship might contribute to work that also reveals overlooked aspects of human behaviour. As Rokeby observes, presenting familiar actions through an unfamiliar lens can make visible what has become invisible through familiarity (Rokeby 2019).

Fig. 1. The algorithmic protagonist ENTITY with a human audience. ENTITY presents a stylized contemplation of algorithmic entanglements in the world. Within a mirrored, sensor-driven environment, ENTITY manifests as a distributed configuration of projections, sound, and language rather than as a humanoid figure. The work stages questions of co-presence, computational temporality, and agency.



2 Related Work

Our work builds on scholarship in performance theory, algorithmic performance, and theories of distributed agency while engaging our own artistic practices to foreground algorithmic protagonists.

Performance and Co-Presence: Theoretical debates on what constitutes theatre and performance provide an essential foundation for analysing algorithmic protagonists. Brook (1968) and Fischer-Lichte (2008) emphasize co-presence as a defining condition of performance, grounding theatrical events in embodied reciprocity between actors and spectators. The emergence of postdramatic theatre and performance art (Lehmann 2001) has already destabilized narrative centrality and expanded notions of human stage presence. Contemporary performance increasingly interrogates how agency, embodiment, and relationality are offered. Our work extends this trajectory by asking how co-presence and liveness are reconfigured when the protagonist is algorithmic rather than human.

Algorithmic Performance: Algorithmic performance has precedents that long predate digital computation. Mechanical artifacts and ritual automata, such as Memnon colossi in Thebes (c. 1350 BCE), whose northern statue reportedly emitted sounds through a heat-activated mechanism (Mayor 2018), and automated devices used in Egyptian and Greek temples to create supernatural effects (Frood 2003), illustrate early attempts to stage non-human agency as spectacle. In modern theatre, Annie Dorsen's notion of "algorithmic theater" (Dorsen 2012) explicitly proposes performance beyond human actors, foregrounding procedural generation and audience experience. Steve Dixon's analysis

of digital and posthuman performance (Dixon 2007) provides a comprehensive account of how technological mediation reshapes theatrical presence. Building on these contributions, our approach shifts attention from digital mediation broadly conceived to the algorithmic protagonist specifically. Rather than cataloguing technological effects, we propose analytical questions that examine how manifestation, temporality, and distributed agency are configured in algorithmic systems.

Agency and Distributed Actants: To analyse the performer beyond human embodiment, we draw on the famous Actor–Network Theory (ANT), which conceptualizes agency as distributed across heterogeneous networks of human and non-human actants (Latour 2005; Muniesa 2015). Agency, in this framework, is defined not by intention but by the capacity to produce differences (Alaimo 2017). Originally developed within science and technology studies, ANT has since informed analyses across media, organization, and creativity research (Blok et al. 2019; Bartels and Bencherki 2020; Williams 2020; Gutiérrez 2024). This perspective provides the methodological grounding for tracing how algorithmic systems, hardware infrastructures, spatial configurations, and spectators co-constitute performance.

Artistic Precedents of Algorithmic Protagonists: A growing body of artistic work centres on algorithmic or robotic entities. Rimini Protokoll's *Uncanny Valley* (Kaegi 2018) stages a humanoid robot recounting the life of a writer, destabilizing assumptions about authorship and authenticity. Hiroshi Ishiguro and Takashi Ikegami's *Alter* (Ishiguro and Ikegami 2017) explores robotic embodiment through sensor-driven motion, evoking quasi-biological agency. Jan Zuiderveld's *Conversations Beyond the Ordinary* (Zuiderveld 2024) examines AI-human dialogue, foregrounding interpretative ambiguity and projections of machine consciousness.

All of these works challenge human-centred models of performance by reconfiguring co-presence and redistributing agency. However, many remain oriented toward humanoid representation or conversational simulation. While we are also applying speech synthesis in our own artistic work, we strive to create an atmospheric and spatial manifestation, not a humanoid one. To further understand the difference, we articulate a set of analytical questions that foreground distributed mediation, computational temporality, and relational agency.

3 From Artistic Dimensions to Analytical Questions

Building on the debates outlined in Section 2, we shift from historical and theoretical positioning to methodological articulation. Rather than revisiting definitions of performance, we ask how algorithmic protagonists can be analytically described. To structure both the creation and analysis of such works, we propose a set of questions grounded in performance practice. These questions address performance and performer alike and, while necessarily designed by humans, we seek to

identify characteristics that exceed strictly human modes of presence and action.

3.1 Performance

The overarching question for analysing an algorithmic protagonist in performance is: How does the algorithmic protagonist manifest?

We approach this question through four interrelated sub-questions as analytical lenses. Co-presence examines how affective interconnectedness is established beyond physical embodiment. Space considers how performative environments extend beyond traditional stage boundaries through interactive and mediated configurations. Time addresses how algorithmic performance operates between determinacy and ephemerality. Action and interaction investigate how systems enact authentic algorithmic processes while simultaneously transforming audience participation.

Co-Presence Without Embodiment

Algorithms, as non-physical and often invisible structures, challenge the traditional notion of bodily co-presence by foregrounding affective interconnectedness among participants. These algorithmic entities, whether tangible (machines, robots), intangible (virtual systems, projections), or infrastructural and unseen (yet always grounded in physical hardware), shape performative events by modulating perception and interaction in real time. Co-presence thus shifts from direct physical encounter to a dynamic interplay of visible and invisible processes, where material form recedes, and relational responsiveness, temporal synchronicity, and perceptual feedback generated by algorithmic structures become the primary conditions of shared presence.

This leads to the analytical questions of how presence is staged, sensed, and experienced when embodiment is replaced or displaced by mediation?

Space as Performative Mediation

The presence of performer and spectator traditionally shapes a shared space, yet this space can extend far beyond the physical stage. It encompasses visual, acoustic, and atmospheric dimensions influenced by light and media technologies such as projections and sound. Since the 1960s, performance practices have increasingly dissolved the separation between performer and spectator. Immersive formats invite audiences to enter artistic environments and participate in the unfolding event, blurring the distinction between viewer and actor.

Algorithmic spaces further expand these possibilities by engaging audiences and other actants through interactive exchanges. Such spaces operate through algorithms that mediate between sensors and actuators, functioning as decision-making systems within medial environments. They respond to local stimuli such as motion, sound, temperature, or

haptic input, as well as to external data streams including social media, weather information, or remote sensor inputs. In this way, space itself becomes operative. Projections and screens extend performative environments by inserting mediated images into physical space, from static visuals to live data streams. Crucially, these images no longer need to represent an external reality. Screens conceal their own materiality and present their output as an immediate perceptual field that merges with the surrounding environment. Digital imagery thus shifts from a representational surface to a generative entity. Rather than depicting space, it actively produces it, transforming spatial perception into a dynamic and processual condition shaped by algorithmic operations. In performative contexts, such algorithmic spaces generate a distinctive atmosphere constituted by computational modulation across light, sound, image, and timing. As performers, they do not require a unified physical body, but their presence emerges through distributed mediation, enabling space itself to function as the protagonist.

This leads to the analytical questions of how algorithmic mediation reorganizes spatial relations between performer, spectator, and environment?

Computational Temporality

While mediatized performances blur the distinction between live representation and technical reproduction (Auslander 1999), algorithmic performances introduce a specific tension between determinacy and ephemerality. Pre-trained systems are grounded in prior data, fixed architectures, and defined parameter spaces. At the same time, their execution unfolds in real time, responding to inputs, probabilities, and environmental conditions. Temporal experience, therefore, emerges from the interaction between stored data and structures and live computational processes.

To generate a perception of unpredictability and singularity, algorithmic performances may incorporate stochastic operations, complex model dynamics, or real-time environmental interaction. Each output is conditioned by training data and system design, yet its concrete manifestation depends on specific prompts, sensor inputs, timing, and system states. The result is neither pure repetition nor unrestricted improvisation, but a structured openness in which variation is bounded yet non-identical. Temporal liveness in such systems does not arise from intention or conscious decision, but from ongoing computation under conditions of contingency. Liveness is thus reframed not as intentional presence, but as computational eventfulness.

This leads to the analytical questions of how liveness is produced and perceived, and how contingency and system architecture together generate the experience of a singular and unrepeatable moment?

Action and Interaction Beyond Simulation

Performative actions often strive to construct reality rather than to simulate it. They do not represent events but bring them into being. They are often self-referential, foregrounding the conditions of their own production. Algorithmic performance further decentres the human by recognizing non-human actors and material processes as agents. The concept of intra-action emphasizes that entities do not precede their relations but emerge through dynamic entanglements without predefined hierarchies (Barad 2007; Hickey-Moody 2020).

Within this perspective, algorithmic protagonists enact performance that exceeds mere imitation. Two modes are particularly salient. First, they may reveal their own operational logic through the event itself. Rather than adopting a fictional persona, the system exposes its computational structure, constraints, and generative mechanisms. In doing so, it performs its own condition of possibility. As Rokeby suggests, such systems operate as “a special sort of mirror” that renders human assumptions visible by contrast (Rokeby 2019). Here, action consists not in role-play but in the unfolding of an algorithmic process as an event. Second, algorithmic protagonists may approximate human capabilities through technical prostheses: cameras function as vision, microphones as hearing, speakers as voice, motors as movement, and language models as communication. Yet these functions are grounded in statistical inference, signal processing, and probabilistic computation. Their operations may exceed human sensory thresholds or temporal scales, producing outputs that resemble human faculties while remaining ontologically distinct. Action thus emerges from computational execution rather than intention.

Interactive performance further reconfigures agency. Spectators become participants who influence system states through visual, auditory, or haptic interfaces (Daniels 2008; Dixon 2007; Karray et al. 2008). The performance unfolds as a distributed assemblage in which algorithm, hardware, environment, and audience mutually condition one another. Interaction is therefore not a simple exchange but a recursive modulation of system behaviour.

This leads to the analytical questions of how algorithmic systems act, and how these actions reconfigure spectators from observers into participants within a distributed network of agency?

Together, these four analytical questions frame performance as an emergent configuration of co-presence, spatial mediation, contingent temporality, and distributed action. Rather than functioning as separate categories, they operate as mutually conditioning aspects of manifestation.

3.2 Performer

If Section 3.1 asks how the algorithmic protagonist manifests, this section asks: How is agency configured in the algorithmic performer?

As discussed in Section 2, Actor–Network Theory (ANT) provides a basis for understanding agency as distributed across heterogeneous actants (Latour 2005; Muniesa 2015). Transposed into performance contexts, this perspective reframes the performer not as a singular embodied subject, but as a configuration of actants whose interactions generate the event. The following questions are all necessary for a configuration of agency and should not be separated (and, with that, are presented slightly differently than the above).

Who or what acts within the performative situation?

Actants include not only human performers but also algorithms, hardware components, data streams, interfaces, environmental inputs, and spatial configurations that participate in shaping the event.

What properties characterize these actants, and how are they embodied, distributed, or infrastructural?

Relevant properties may include computational latency, probabilistic variability, sensory range, spatial positioning, algorithmic opacity, or degrees of autonomy embedded in system design.

What observable differences result from their actions?

Agency becomes visible through actions such as changes in light, sound, textual output, spatial atmosphere, audience movement, or shifts in system state.

What connections are established between actants?

These connections may be technical, such as data flows and sensor–actuator chains; spatial, such as diffusion and proximity; or perceptual, such as feedback loops between audience and system.

How do these properties and relations change over the course of the performance?

Agency may shift and change as system states evolve, as audiences intervene, or as environmental inputs accumulate, producing a dynamic redistribution of influence within the assemblage.

These questions operationalize the tracing of agency within distributed technical and social assemblages. Rather than assuming a centralized performer, they direct attention to networks in which algorithms, hardware, space, environmental inputs, and audiences co-constitute the performative event. At the same time, Latour reminds us that networks exist through “the very act of tracing” them (Latour 1996). The identification of agency is itself a methodological and artistic decision. In this sense, algorithmic performance cannot eliminate human authorship but reconfigures it. The artist designs the conditions under which algorithmic agency becomes perceptible, staging the network in which actants can make a difference. The performer thus emerges not as a stable entity but as a dynamically orchestrated assemblage whose agency is distributed, relational, and contingent.

3.3 Examples

To illustrate how the proposed analytical questions can be applied, we examine two performances that foreground algorithmic protagonists and renegotiate manifestation and agency within contemporary theatre.

Hello, Hi There (2010) by Annie Dorsen (Dorsen 2010) is a widely discussed stage play (Manuel 2017; Lucie 2020; Felton 2019) in which two chatbots reimagine a 1960s television debate between Foucault and Chomsky. Drawing from diverse textual sources, the system generates over eighty million possible variations, foregrounding recombination rather than scripted authorship. The performance stages two laptops as protagonists. Dorsen argues that stage presence does not require character imitation, but rather a participating body that “is or does or shows” (Dorsen 2012). From the perspective of performance (Section 3.1), the work challenges traditional notions of co-presence. Presence is grounded not in embodied actors but in real-time textual recombination, reframing liveness as computational eventfulness rather than intentional expression. Yet the actor–spectator relation becomes markedly asymmetric. As Dorsen notes, spectators are left “radically alone” (Dorsen 2012), producing a paradoxical experience of observing algorithmic “minds at work” while lacking reciprocal acknowledgment. From a performer’s perspective (Section 3.2), agency is distributed across software, hardware, textual databases, and audience interpretation. The chatbots do not simulate interiority. Instead, they generate relational effects through textual output. Meaning emerges through the network of actants rather than from a centralized performer.

No Body Lives Here (ODO) (2020) by Chris Ziegler (Ziegler 2020) presents an AI entity that interacts simultaneously with multiple visitors within a theatre installation. ODO manifests through a constellation of audio-visual systems and attempts to “understand” its environment. Unlike Dorsen’s stage-bound laptops, ODO dissolves the distinction between performer and space. Analysed through the questions of performance (Section 3.1), particularly manifestation and agency, ODO demonstrates how space itself becomes operative. The system mediates between sensors, audio-visual outputs, and visitor movement, establishing feedback loops that reorganize spatial relations. Co-presence emerges not from face-to-face exchange but from recursive modulation across sound, image, and environmental response. Visitors influence the audio-visual configuration and thereby participate in shaping system behaviour. From the performer’s perspective (Section 3.2), ODO foregrounds a distributed configuration of actants. Agency is not localized in a singular AI “character,” but emerges through relational effects across the interplay of cameras, projection systems, software processes, spatial acoustics, and embodied spectators. The relevant properties of these actants include real-time responsiveness, probabilistic variation, sensor range, spatial diffusion of sound and image, and degrees of computational autonomy. Their actions produce observable differences in atmosphere, spatial perception, and visitor movement. As these relations evolve over time, agency shifts dynamically within the assemblage. The performance thus exemplifies how algorithmic atmospheres reconfigure the performer as a relational network in which space itself assumes a protagonist function.

Together, these examples demonstrate how algorithmic protagonists manifest through computational temporality, mediated spatiality, and

distributed agency. They show that the performer in such contexts is not a stable figure but an emergent configuration of actants whose relations generate the event and through which the algorithmic protagonist becomes perceptible.

Fig. 2. Examples of algorithmic protagonists. Left: Annie Dorsen's *Hello, Hi There* (Dorsen 2010) stages two chatbots engaging in improvised dialogue about human nature and intelligence, foregrounding computational recombination and reframing co-presence and liveness as textual eventfulness rather than embodied exchange. Right: Chris Ziegler's *No Body Lives Here* (ODO) (Ziegler 2020) presents an AI entity that learns through audience interaction, dissolving the boundary between performer and space and exemplifying distributed agency across sensors, audiovisual systems, and embodied spectators. Images courtesy of A. Dorsen / W. Silveri / Steirischer Herbst (left) and C. Ziegler / Yvonne Mohr (right).



4 Artistic Exploration

Our contemporary landscape is increasingly shaped by the pervasive presence and influence of algorithmic entities. Within this evolving ecosystem, our artistic practice engages these conditions by staging algorithmic manifestation and agency as performative questions rather than abstract themes. Our artwork, *ENTITY*, explores how an algorithmic protagonist can manifest and how agency can be configured within a distributed network. *ENTITY* positions algorithmic presence as a constitutive element of performance. To move away from humanizing the algorithm, the work creates an environment in which its operational characteristics, constraints, and modes of action become perceptible. In doing so, the installation examines how co-presence can be established without embodiment, how space can become operative, how liveness can emerge from computation, and how agency can be distributed across technical and human components.

By inviting an algorithmic system to occupy the role of protagonist, *ENTITY* stages a reflective configuration within a technologically mediated environment. The work offers a situated exploration of algorithmic temporality, mediation, and interaction through direct experiential engagement. In this sense, *ENTITY* does not merely represent algorithmic entities. It constructs conditions under which an algorithmic assemblage can perform, articulate, and expose its own operational logic, talking about itself, within the broader discourse of contemporary technological zeitgeist.

Fig. 3. Two performance scenarios of *ENTITY*, illustrating the mirror chamber and the superimposed projections generated from live camera input. The stylized reflections merge visitor imagery with algorithmically produced waveforms and synthetic voice visualization, creating a mediated field in which co-presence emerges through recursive modulation rather than direct embodiment. The distributed interplay of projection, sound diffusion, and reflective surfaces renders space itself operative, allowing the algorithmic protagonist to manifest as a spatial assemblage rather than a centralized figure.



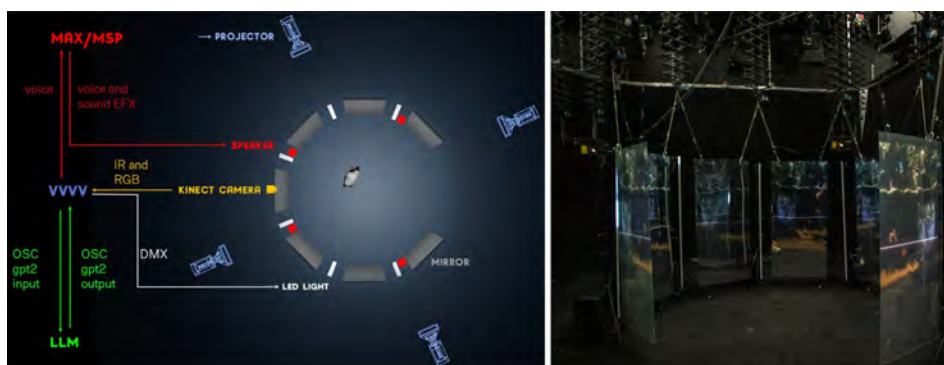
4.1 ENTITY

ENTITY stages an encounter between visitors and an algorithmic system that performs an inquiry into its own manifestation, agency, and entanglement in the world. As Figure 3 shows, the algorithmic performance is designed as an immersive space consisting of mirrors, projections, light, language, sound, and sensor interaction, supported by several hardware components. Visitors experience this process of algorithmic introspection within a mirror chamber that defines the performative space and embodies the artificial entity. Seven semi-transparent mirrors hang from the ceiling and are arranged along the sides of an octagonal area. The mirrors are aligned so that a visitor standing in the centre of the room can see themselves reflected in all surfaces. This spatial configuration structurally integrates the visitor's body into the algorithmic field of reflection.

Images are projected onto the semi-transparent mirrors from behind, superimposing and distorting the visitor's reflection. These projections depict waveforms of the synthetic voice, as well as live recordings of visitors captured via camera input. The system is activated when a visitor enters the performance space and continues as long as the visitor remains present. During this time, the system produces speech through a synthetic voice. Based on a large language model specially trained for the performance, the data-driven system continuously generates statements about itself, the nature of algorithms, cybernetic realities, and posthuman entanglements.

Regarding the technical setup, Figure 4 provides an overview of the arrangement of hardware and software components. The software is distributed across four computer instances, each optimized for a specific role within the overall system, reinforcing the distributed configuration of agency described in Section 3.2.

Fig. 4. Software components and hardware configuration of ENTITY. A GPT-2 model (the project was initiated in 2020), trained on cybernetic and posthuman texts by Norbert Wiener, Donna Haraway, and N. Katherine Hayles, processes prompts and transmits generated responses via OSC. The visual programming environment vvvv manages text-to-speech synthesis, waveform visualization, and camera input for mirror projections. Max/MSP handles audio processing and spatial distribution across a four-channel system, adding acoustic effects and ambient sound layers. The hardware configuration consists of four computers dedicated to video and audio generation, text generation, and sensor interaction; four projectors projecting onto the mirror plates; four speakers positioned at the corners of the octagonal space and oriented toward its centre; six LED pipes with twenty individually addressable pixels each, illuminating the interior to enable reflective effects; and a Kinect v2 sensor detecting visitor presence and activating the system.



4.2 Manifestation and Agency in ENTITY

Applying the analytical questions developed in Section 3 reveals how ENTITY configures manifestation and agency and, with that, performance and performer, through spatial mediation, computational temporality, and distributed interaction.

Manifestation: Co-presence and Space

In *ENTITY*, the algorithmic protagonist does not appear as a discrete body but manifests atmospherically through reflection, projection, sound, and light. Co-presence is established not through embodied reciprocity but through spatial coupling. The mirror chamber structurally integrates the visitor into the performative field, where reflections multiply the body, projections superimpose synthetic waveforms and live camera feeds, and spatialized sound diffuses the algorithmic voice throughout the room. The system's presence emerges from the dynamic interplay of visible and invisible processes.

Space itself becomes operative. Rather than functioning as a neutral container, the octagonal mirror configuration reorganizes spatial relations. The projections do not depict an external reality but actively produce a mediated perceptual field. By merging the visitor's reflection with algorithmically generated imagery, the installation establishes a recursive configuration in which audience and system are visually and acoustically entangled. The protagonist thus manifests as a spatial assemblage rather than a centralized figure.

Temporality: Computational Eventfulness

Temporal experience in *ENTITY* arises from the interaction between pre-trained statistics and real-time computation. While the language model is grounded in curated training data from humans, its execution unfolds contingently in response to voice prompts, stochastic variation, and visitor location. Each utterance is generated within probabilistic constraints, yet its concrete articulation remains singular.

Liveness is therefore not anchored in intention but in ongoing computation under conditions of contingency. The performance evolves as long as a visitor remains present, producing a temporal unfolding that reframes liveness as computational eventfulness. No encounter is repeated, as speech, spatial sound distribution, projection patterns, and lighting states are continuously recomposed.

Action and Interaction: Beyond Simulation

ENTITY explicitly does not simulate common character development or narrative structure. Instead, it exposes the algorithmic process as an event. The system generates speech that reflects on its own condition, not as evidence of consciousness, but as the unfolding of model-based computation. It is not designed to replicate the human voice but rather to create a stylized aesthetic, hand in hand with modulating light, transforming reflections, emitting spatialized sound effects, and text.

Interaction operates through recursive modulation rather than conversational exchange. Visitor presence activates the system, and movement and positioning influence visual capture and spatial perception. The resulting outputs in turn shape visitor attention and bodily orien-

tation. The performance unfolds as a feedback loop in which action is distributed across the system and the spectator.

Agency: Distributed Configuration

From the perspective of the performer, agency in *ENTITY* is not localized in a single computational core. It emerges from the coordinated interplay of sensors, a generative model, projection systems, acoustic diffusion, lighting infrastructure, and embodied spectators. The algorithmic protagonist appears not as a coherent, anthropomorphic unit, but as a distributed configuration of actants operating within the spatial assemblage.

The central computer recedes into the background behind the performative structure. What becomes perceptible is not a machine as an object, but a network of technical relations that produces observable differences in atmosphere, perception, and movement. Agency is therefore enacted as a relational effect rather than an intrinsic property.

In summary, *ENTITY* demonstrates how an algorithmic protagonist can manifest without embodiment, operate through mediated space, unfold through computational temporality, and distribute agency across a network of technical and human actants. Rather than presenting a simulated subject, the work stages the conditions under which algorithmic processes become perceptible as performative events.

5 Theoretical Implications

Sections 3 and 4 strive to situate algorithmic protagonists within a posthumanist perspective that recognizes non-human entities as operative participants in performance. Rather than treating algorithms as tools or extensions of human intention, this lens foregrounds their capacity to generate perceptible differences within a performative assemblage. At the same time, postdigital art scholarship (Berry and Dieter 2015) reminds us that digital systems are no longer exceptional or novel, but embedded and normalized within contemporary artistic practice. While our analysis adopts a posthumanist decentring of human agency, a postdigital perspective tempers this move by emphasizing that algorithmic systems are infrastructural and culturally situated. Future research may further examine how these perspectives intersect in performance contexts.

The relationship between developer and algorithm further complicates traditional artistic hierarchies. Rather than reproducing a strict director–performer model with separate roles, as often assumed, we understand algorithmic performance as an example of distributed authorship (similar to many human-human processes). Developers design architectures, training data, and interaction conditions, but once activated, the system operates within probabilistic constraints that exceed direct control. The artist functions less as a commander of actions than as a curator of parameters, configuring conditions under which algo-

rithmic processes can manifest. This reframing does not reduce human authorship but renders it structural rather than expressive.

The examples discussed in Section 3.3 highlight a recurring tension in AI-driven performance: expectations of natural or human-like interaction often remain unmet. Yet this shortfall should not be understood as a technical deficiency. Attempts to mimic human expressivity risk reducing algorithmic performance to simulation. Instead, we propose to highlight the distinctive capacity to operate differently: to generate atmospheres, to recombine language “erratically”, to modulate environments, and to produce effects without intentional consciousness. Language-generating systems such as *ENTITY* exemplify this goal, not employing language to convey interiority and intention, but staging text as probabilistic output, creating an ambiguous space between coherence, abstraction, and noise (Dorsen 2012).

Finally, our work participates in a broader cultural reorientation. If humans are no longer positioned as the sole agents of performance, then artistic practice can contribute to rethinking relationality more broadly. Posthumanist thought invites reconsideration of responsibility and coexistence within, e.g., complex ecological and technological networks (Braidotti 2013; Haraway 2016). In this sense, staging algorithmic protagonists is an attempt to recalibrate how agency, presence, and interdependence are understood within shared environments.

6 Conclusion

This research examines how algorithmic protagonists manifest and how agency is configured within performative contexts. Rather than proposing a fixed framework, we develop a set of analytical questions that address co-presence, spatial mediation, computational temporality, distributed action, and agency. These questions emerged from artistic experimentation and were refined through theoretical reflection, forming an analytical lens for understanding algorithmic performance beyond simulation or anthropomorphic projection.

With *ENTITY*, we translate this analytical apparatus into an experience. At the same time, the artistic process itself informed and sharpened our theory. The artwork stages an algorithmic assemblage that reflects on its own operational logic, making computational processes perceptible as performative events. In doing so, it renders questions of manifestation and agency accessible not only conceptually but affectively, allowing audiences to encounter algorithmic systems as relational to them. Similarly, for us, the reciprocal movement between theory and practice produces knowledge that is both scholarly and artistic, demonstrating how analytical inquiry and performative experimentation can co-generate meaning.

Our investigation continues along both theoretical and artistic trajectories. Theoretically, further work may examine the tension between the apparent autonomy of machine learning systems and their grounding

in human-generated data, asking how algorithmic agency is shaped by inherited statistical, but ultimately human, structures. Artistically, we aim to further explore atmospheric protagonists that operate without humanoid embodiment, using light, reflection, and projection to stage distributed forms of presence. In this regard, Friedrich Dürrenmatt's ballad *Minotaur* offers a resonant metaphor: The mythical creature exists solely within a hall of mirrors, knowing only itself and its reflections. This powerful metaphor for isolation, self-discovery and identity formation resonates with our exploration of algorithmic entities.

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