

Affective Glitch of the Empty Stage: Post-Subjective Creative Processes of SINGULAR_GLITCH in Posthuman Media Art

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YI SEUNGGYU

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(ポストヒューマン・メディアアートにおける《SINGULAR_GLITCH》のポスト主体的創造過程と空舞台
のアフェクティブ・グリッチ)

YI SEUNGGYU

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March 2026

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Abstract

This dissertation examines post-subjective creative processes in posthuman media art through the development of a theoretical framework termed SINGULAR_GLITCH. Rather than positioning SINGULAR_GLITCH as a singular artistic breakthrough, the study presents it as a conceptual and practice-based model that interrogates how aesthetic phenomena emerge when the conventional roles of sender, receiver, and performer are structurally displaced.

Drawing on affect theory, event philosophy, and posthuman critical thought, the dissertation argues that creativity in contemporary media systems can be understood as the modulation of intensity within distributed assemblages rather than as the expression of an individual subject. Affect is theorized as a pre-personal force circulating across human and nonhuman elements; glitch is framed as an evental rupture that reconfigures recursive processes; and agency is conceptualized as relationally enacted across technical, infrastructural, and perceptual domains.

At the operational level, the system translates anonymous textual inputs into seven-dimensional affect vectors that modulate audiovisual parameters within a recursive feedback loop. Intermittent glitch injections introduce discontinuities that redirect the system's trajectory without presupposing centralized authorship. The resulting behavior is neither purely random nor fully controlled, but conditioned by the dynamic interaction of algorithmic processes, material constraints, and audience participation.

A small-scale pilot study was conducted following a controlled prototype session to gather descriptive audience responses concerning affective intensity, perceived autonomy, and experiential transformation. While not intended to produce generalizable findings, these observations provide practice-based alignment with the theoretical claims advanced in the study.

The dissertation concludes that post-subjective creativity does not eliminate human interpretation but redistributes creative causality across human and nonhuman actors. Aesthetic events arise through relational intra-action rather than through sovereign authorship. In this sense, SINGULAR_GLITCH serves as a conceptual probe into the conditions under which machinic affect, recursive modulation, and evental disruption reconfigure the ontology of artistic production in posthuman media environments.

要旨

本論文は、ポストヒューマン・メディアアートにおける脱主体的創造過程を、SINGULAR_GLITCH と名づけた理論的枠組みの構築を通して検討するものである。SINGULAR_GLITCH を単一の芸術的突破口として位置づけるのではなく、本研究はそれを概念的かつ実践的モデルとして提示し、送信者・受信者・パフォーマーという従来の役割が構造的に解体されたときに、美的現象がいかに生成されるのかを問い直す。

本論文は、アフェクト理論、出来事の哲学、ポストヒューマン批判思想を理論的基盤とし、現代メディアシステムにおける創造性を、個人主体の表現としてではなく、分散的アッサンブラージュ内部における強度の変調として捉えるべきであると論じる。アフェクトは、人間と非人間の諸要素を横断して循環する前・人格的な力として理論化され、グリッチは再帰のプロセスを再構成する出来事の断絶として位置づけられる。また、エージェンシーは、技術的・インフラ的・知覚的領域を横断して関係的に遂行されるものとして概念化される。

操作的水準においては、本システムは匿名のテキスト入力を七次元のアフェクト・ベクトルへと変換し、それを再帰的フィードバック・ループ内で視聴覚パラメータの変調に用いる。断続的に挿入されるグリッチは、中心化された作者性を前提とすることなく、システムの軌道に不連続性を導入し、その方向性を再編成する。結果として生じる振る舞いは、純粋なランダム性でも完全な制御でもなく、アルゴリズムのプロセス、物質的制約、そして観客の参与の動的相互作用によって条件づけられている。

制御されたプロトタイプ・セッション後には、小規模なパイロット調査が実施され、アフェクト強度、知覚される自律性、体験的変容に関する記述的な観客応答が収集された。一般化可能な結論を導くことを目的とするものではないが、これらの観察は、本研究で提示される理論的主張と実践的経験との整合性を示すものである。

本論文は、脱主体的創造性が人間的解釈を排除するのではなく、創造的因果性を人間と非人間の行為者へと再分配するものであると結論づける。美的出来事は主権的作者性から生じるのではなく、関係的な intra-action を通じて立ち現れる。その意味において、SINGULAR_GLITCH は、機械的アフェクト、再帰の変調、そして出来事的断絶が、ポストヒューマン的メディア環境における芸術的生成の存在論をいかに再構成するのかを探るための概念的プローブとして機能する。

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I am deeply grateful to my Japanese parents, MAKITA Hiroyuki and Ritsuko, who became my family in Japan and provided invaluable support, warmth, and guidance throughout my life here. Their kindness and care made Japan truly feel like home.

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from zero knowledge of the Japanese language. What seemed like an insurmountable challenge became possible through my family's unwavering belief in me, which gave me the strength to progress from research student to master's and finally to doctoral candidate at Kyushu University. Above all, I am eternally grateful to my family in Korea, whose sacrifices, understanding, and constant belief in my dreams made this entire academic journey possible. Their love and support have been the foundation upon which this achievement stands.

To my son, who may read these words someday: Remember that it is never too late to pursue your dreams. Age is not a barrier to learning and growth—it is simply another perspective from which to view the world. Chase your passions with courage, embrace challenges as opportunities, and never stop believing in your ability to create meaningful change. Your father's journey is proof that determination and hard work can overcome any obstacle.

This dissertation would not have been possible without the collective contributions of all these individuals and institutions.

Chapter 1: Introduction

1.1 The Question of Technological Affect

In contemporary creative practice, a profound shift is underway: the traditional human-centered model of creativity is giving way to post-subjective processes—creative processes not anchored in a single human subject—in which technological systems play an active, generative role. This dissertation investigates the aesthetic and ontological implications of this shift. Central to this inquiry is the question of what role technological systems play in the production of affective experience. In framing this question, the study conceives “technological affect” not as a property of machines alone, but as a distributed, non-subjective force. Technology is viewed as a key participant in generating affect rather than as a solitary origin. Affect here is understood, following Massumi, as a pre-personal intensity—an ability to affect and be affected—that arises before it is captured by conscious emotion or meaning (Massumi 2002, p.25). Put differently, affect refers to the felt forces and intensities circulating through bodies and systems.

When creative processes are primarily driven by technological systems instead of direct human intention, what new forms or intensities of affective forces might emerge? How do these forces shape novel aesthetic experiences? This line of questioning arises from the recognition that technology is not a neutral tool but an active participant in creative events. Massumi’s affect theory, drawing on Spinoza and Deleuze, emphasizes that affect is an autonomous force that “escapes confinement in the particular body” (Massumi 2002, p.30)—flowing across human and nonhuman bodies alike. In a posthuman artwork, technology itself becomes a kind of body that both triggers and registers affect. For example, an algorithm that generates ever-shifting glitch visuals may induce sensations of surprise or disorientation even without human performance. The affective intensity—the feel of the piece—emerges from the interplay between viewer and machine. This dynamic suggests an affective loop between human and nonhuman actants, complicating the traditional one-directional model of artist → artwork → audience. Instead, affect circulates through a distributed network of human participants, algorithms, and material processes.

Importantly, this decentered perspective challenges the assumption that an authentic aesthetic experience requires a human subject as its source or anchor. Art’s affective impact has traditionally been linked either to the artist’s expressive intention or to the audience’s emotional interpretation. But when the human creator’s role is minimized or removed, one must ask: whose affect is it? This dissertation argues that truly post-subjective creative processes give rise to novel affective dynamics. Affect is no longer “owned” by a human subject; rather, it emerges from the interaction between algorithmic

processes, material substrates, and perceivers. Marie Thompson (2017, p.85) notes that noise functions as a relational force that transforms relations among bodies. This challenges the aesthetic prejudice that only intentional, signal-like content carries value; disruptions such as glitches, hums, and feedback become key contributors to aesthetic experience. The emergent patterns produced by technical systems carry affective charge without originating in a human hand, yet they are viscerally felt.

At the heart of this study lies the question of how a new aesthetic-ontological condition emerges through the systematic removal of human creative subjectivity in posthuman technological configurations. Put simply: when we remove the human as the creative center—handing over significant creative agency to machines or processes—what new forms of aesthetic experience and modes of being become possible? Here, “aesthetic-ontological condition” refers to the entanglement of perception and being within an artwork. This introductory chapter sets the stage by outlining an example of the “empty stage” of creativity, followed by the theoretical foundations, research design, and significance of the study.

Glitch aesthetics—used here in the narrow sense of abrupt, calibrated breakdowns rather than sustained disturbance—functions as a methodological anchor of this thesis. I adopt the tradition that treats technological error as a productive aesthetic resource (Cascone, 2000, p.13; Menkman, 2011, p.12) and mobilize SINGULAR_GLITCH as a proof-of-concept exemplar in which controlled glitch events punctuate and reconfigure an affective loop. In this dissertation, glitch refers to a short-lived, event-like rupture, while noise refers to a sustained or structural disturbance; the former punctuates the loop, while the latter conditions its background dynamics. This orientation complements the posthuman framework developed in Chapter 2 and is revisited in §2.5, where East Asian notions of emptiness and plain simplicity provide a cultural mirror.

Throughout this dissertation, the term “traditional aesthetics” does not refer to a universal or homogeneous artistic lineage. Instead, it designates two analytically distinct but mutually illuminating traditions: (1) Western philosophical-aesthetic traditions relevant to posthuman theory (including Deleuze and Guattari, Massumi, Badiou, and post-digital glitch theory) and (2) Korean and East Asian aesthetic traditions (such as yeobaek and sobak) that provide cultural frames for thinking about absence, relationality, and calibrated imperfection. These traditions are not treated as interchangeable nor as a single coherent canon; rather, the dissertation invokes “traditional aesthetics” only in relation to the specific historical or theoretical context under discussion. This precision prevents essentialism and ensures that “tradition” is approached as situated, plural, and

analytically specific rather than monolithic.

1.2 The Empty Stage: A Case Study in Distributed Agency

Consider a theater stage with no human performers: the lights are dim, the speakers hum with ambient sound, and the curtain hangs still – an empty stage. Yet in an experimental scenario, this stage might not remain inert. Imagine an autonomous artistic system installed in the theater: sensors around the space pick up environmental data, algorithmic processes generate audio-visual outputs (for example, fluctuating soundscapes and projections of glitching images), and robotic devices subtly adjust the lights or move stage props in real time. There are no human actors and no traditional “sender” or “receiver” of a message in the conventional sense. Nonetheless, an event unfolds on this empty stage, eliciting responses from any viewers who happen to be present.

This scenario exemplifies distributed agency in a creative context, wherein the capacity to act – to create change or effects – is dispersed across a network of nonhuman elements rather than centralized in a single human agent. The ostensibly empty stage becomes a site where agency is ambient and emergent, a partnership of algorithms, sensors, and material processes that collectively co-create an artistic experience. A theoretical instantiation of this principle is articulated through the framework *A Message Without Sender or Receiver*, which I developed as a conceptual exploration of distributed agency in media systems. This framework proposes that meaning and affect can circulate without reliance on a singular authorial origin or a fixed interpretive destination. In this installation model, synthesized sounds, lights, and visuals are generated and modulated by algorithmic processes that respond to internal feedback loops and environmental inputs. Although messages are produced, they are not anchored to an identifiable sender, nor are they directed toward a predetermined receiver. The space functions as an “empty stage,” where aesthetic events unfold through recursive machinic processes rather than through human performance. Viewers, when present, encounter an emergent dynamic rather than a composed expression, witnessing how agency is enacted across interacting technical and material elements.

This case study underscores a key concept of our research: creativity is not situated in a single subject but arises from multiple interacting elements. Instead of art emanating from a lone creative genius or performer, agency is distributed among various components of an assemblage or network. Philosopher Karen Barad’s theory of agential realism offers a useful lens here. Barad (2007) argues that agency “emerges from intra-action,” meaning it

arises from the relational entanglement of humans, nonhumans, and material forces. In the empty stage scenario above, the intra-action of algorithmic processes, sensors, sound vibrations, and physical space produces what we recognize as the artwork's event. There is no discrete actor in the traditional sense; rather, agency is an emergent property of the system's entangled elements.

Bruno Latour's actor-network theory further reinforces this point by dissolving the strict separation between human actors and objects, treating all participants as actants capable of influencing outcomes. Latour (2005, p.71) famously suggests that we consider an actant as "anything that does modify a state of affairs by making a difference" – whether human or not. From this perspective, my installation can be seen as a mesh of code, sensors, environmental factors, and the audience itself – each participating in a collective performance (via code, speakers, projectors, room acoustics, etc.). No single node in this network authors the experience; the overall artwork emerges from their interplay. This distributed, decentered notion of agency aligns with posthuman theories that question human exclusivity in creative acts.

It is important to clarify how this framework differs from related listener-centered theories, particularly those articulated by Jo Kondo in *Homo audiens* (Kondo, 2022). Kondo argues that musical communication "is not a 'transmission', it is simply a 'sharing' with others" (Kondo, 2022, p. 58), and that composition itself is grounded in listening rather than expressive authorship, since "composing, in the end, is 'listening'" (Kondo, 2022, p. 59). In this view, musical meaning does not originate from a sovereign sender but emerges through a shared object of listening among subjects. While this position effectively destabilizes the traditional sender-receiver model, it nonetheless presupposes a listening community as the locus in which meaning coheres. By contrast, the framework of *A Message Without Sender or Receiver* advances a further step: it questions not only the sovereignty of the sender but also the necessity of a stable receiving community. In *SINGULAR_GLITCH*, affective circulation may occur through recursive machinic processes even in the absence of a determinate human interpretive collective. The work does not relocate authorship from composer to audience; rather, it interrogates whether aesthetic emergence must remain grounded in human relationality at all. Thus, whereas Kondo reconfigures art as shared listening among subjects, the present study explores the possibility of post-subjective aesthetic events unfolding within distributed human-nonhuman assemblages.

1.3 Theoretical Foundations

Posthumanism and the Decentered Subject: Posthuman critical theory (e.g., Haraway 1991;

Braidotti 2013) challenges the humanist assumption of human exceptionalism in meaning-making. It posits a vision of subjectivity and agency as distributed among human and nonhuman actors within networks. In a posthuman world, the boundaries between human, machine, and environment become fluid; creative agency is not the sole province of the human artist but a phenomenon emerging from the interactions across species, technologies, and material forces. This perspective frames the empty stage scenario: rather than a human performer directing events, meaning and affect emerge from the interplay of multiple actants, from algorithms to ambient conditions.

Affect Theory and Nonhuman Intensities: Moving beyond the human-centric model also requires understanding how meaning and feeling can arise without a human author. Affect theory offers valuable insights. Brian Massumi, for instance, conceives of affect as an autonomous, pre-personal intensity that operates “beside” or before conscious intention (Massumi 2002, p.28). This concept implies that aesthetic power can reside in events and encounters themselves rather than solely in messages intentionally crafted by an author. A glitch on a screen, for example, might startle or captivate us before we have time to interpret it rationally - this is the affect at work.

Theories of affect emphasize embodiment and the visceral; importantly, they resonate with posthuman ideas by suggesting that bodies other than human bodies can generate affect. A resonant frequency from a subwoofer, for instance, can literally vibrate an architectural space and the bodies within it, creating a sense of tension or release - an affective experience orchestrated by nonhuman forces. Marie Thompson’s work on noise reframes “noise” as a ubiquitous relational force that “affects and transforms relations” among bodies (Thompson 2017, p.85). In her view, noise (and by extension glitch, as a form of noise) is not merely an error to be eliminated, but an active ingredient in how bodies and systems relate. She builds on Spinoza’s principle that to exist is to be affected, proposing that in a world saturated with sound and technology, “to exist is to resonate” - to vibrate with intensities (Thompson 2017, p.4). This notion directly parallels our framework: the affective disturbances (glitches, hums, feedback loops) in a posthuman artwork are not just background noise; they constitute the experience.

Recognizing this challenge the traditional aesthetic prejudice that only intentional, signal-like content carries value. Instead, these affective disruptions become key contributors to the aesthetic experience. Glitch artists and theorists - such as Kim Cascone (2000) and Rosa Menkman (2011) - have long embraced technological error and noise as sources of creative expression. Menkman’s Glitch Studies Manifesto, for example, proclaims that the glitch disrupts our expectations and reveals the underlying structures

of media (Menkman 2011, p.12). Notably, glitch aesthetics often emphasizes momentary, transformative errors in systems, whereas the related tradition of noise music involves sustained sonic disturbances. (For clarity, this dissertation uses glitch in the specific sense of abrupt ruptures, distinguishing it from the broader category of noise aesthetics.) Crucially, in glitch art the traditional notion of artistic mastery gives way to a form of collaboration with the machine. The artist may set the conditions for glitches to occur (or even intentionally provoke them), but the specific outcomes are not entirely under human control. The glitch event is something that happens rather than something an artist directly creates.

We can interpret such glitch moments through the lens of event philosophy. Alain Badiou's concept of the Event has been critiqued for its rarified notion of change (privileging only the most radical ruptures and viewing them as universal truths), but it offers a useful extreme case for thinking about creative rupture. In Badiou's formulation, an Event is a break in situation: something unpredictable occurs that was not accounted for by the existing structure of knowledge, and it "opens the possibility of something new" (Badiou 2005, p.173). Badiou himself speaks of art events (e.g., the emergence of atonal music or abstract painting) that inaugurate new artistic truths. Notably, Badiou's idea decenters individual agency: an Event "happens to us" and then calls subjects (those who recognize the event's significance) into being, rather than being something an individual person simply willed into existence. This notion resonates with a posthuman perspective - it strips away the romantic idea of the artist-genius as sole originator. Instead, the artist (or any person) becomes a witness and participant in larger processes of change. However, other philosophers conceive events more broadly; for example, Gilles Deleuze offers a complementary view of events as ongoing and immanent. Deleuze, particularly in his *Logic of Sense* (1969) and writings with Guattari, sees events not as one-time historical ruptures (as in Badiou's major Events) but as the continuous production of sense and difference. An event for Deleuze is a singularity, a unique point at which difference expresses itself and new sense comes into the world. Events are immanent to life - for example, the event of a shiver, a kiss, a sunrise - each a happening that cannot be fully reduced to its causes, yet it changes the state of what is. In art, one might think of each glitch as a small sense-event that subtly shifts the perceivers' experience and the system's trajectory. Deleuze's perspective helps us see the proliferation of minor events in an artwork as continuous creativity, not only the grand ruptures. Together, these overlapping insights from posthumanism, affect theory, and glitch aesthetics inform our approach, suggesting that art can arise from a constellation of forces and breaks rather than from a centered intentional act.

1.4 Research Questions and Methodology

This study is primarily conceptual but is complemented by a small-scale, controlled pilot using a minimal browser-based prototype. The pilot, reported descriptively in Appendix C, was not intended to produce generalizable findings; rather, it serves to align initial empirical impressions with the theoretical framework developed in this dissertation. Accordingly, the research adopts a theory-driven methodological orientation supported by practice-based insight.

Methodologically, the study integrates three components:

Philosophical Inquiry – analysing and synthesizing key theories from posthumanism, affect studies, event philosophy, and media aesthetics in order to frame a model of post-subjective creativity.

Technical and Structural Modeling – outlining a hypothetical but operationally plausible pipeline (anonymous Telegram message → Python processing → affect vector → audiovisual modulation) as a conceptual simulation that clarifies design logic without claiming full implementation within this research.

Comparative Case Analyses – positioning SINGULAR_GLITCH alongside analogous artworks and theoretical constructs to examine how affective feedback, glitch eventhood, and distributed agency may function as posthuman creative processes.

The overarching inquiry is guided by one primary research question:

How does a new aesthetic-ontological condition emerge through the systematic removal of human creative subjectivity in posthuman technological configurations?

This breaks down into three focused sub-questions:

Affective Loops (RQ1): What role do affective feedback loops play in creative systems devoid of a human author, and how do these loops shape aesthetic experience?

Glitch Eventhood (RQ2): In what ways can glitches or errors be theorized as events that generate aesthetic novelty in the absence of human intentional control?

Distributed Agency (RQ3): How is agency enacted across human and nonhuman actants in post-

subjective art, and what does this imply for creativity and authorship?

These sub-questions together address the sensory, ontological, and structural dimensions of the inquiry.

Throughout this dissertation, expressions such as “feel,” “autonomic,” or “emotion-like” are used analogically to describe functional responses in feedback systems; they do not imply biological emotion or consciousness. The pilot component reinforces but does not delimit the theoretical argument: findings are descriptive rather than inferential and serve only to triangulate the conceptual claims developed throughout the study.

1.5 The Significance of SINGULAR_GLITCH

SINGULAR_GLITCH is positioned as a proof-of-concept exemplar rather than the primary research object. The dissertation’s central contribution is theoretical: it advances a post-subjective account of aesthetic experience grounded in affective feedback loops, glitch eventhood, and distributed agency. Within this theory-first orientation, SINGULAR_GLITCH operationalizes these constructs and thereby verifies implementability at the level of system design without displacing the thesis’s emphasis on conceptual argument.

Concretely, the exemplar demonstrates how affect-vector mapping can drive a recursive media loop and how calibrated, intermittent glitch injections punctuate and reconfigure that loop to sustain novelty (Menkman, 2011, p. 12). It also renders distributed agency legible by assigning causal efficacy to nonhuman actants across the pipeline-code, interfaces, and material processes—thus modeling agency as relationally enacted rather than pre-owned by a single subject (Barad, 2007, p. 23). In short, SINGULAR_GLITCH shows that the proposed framework is not merely rhetorically coherent but technically instantiable within contemporary, browser-native media systems.

Methodologically, the exemplar aligns with practice-based research: the artwork functions as both method and object—a conceptual probe that tests claims in situ (Candy & Edmonds, 2018, p. 63). A small, controlled pilot (Appendix C) supplies descriptive audience impressions (e.g., intensity, awe, immersion, perceived autonomy), which converge with the theoretical account yet make no inferential or generalizable claims. This limited empirical alignment strengthens the argument that a post-subjective aesthetic can be experienced as well as theorized.

Accordingly, the significance of SINGULAR_GLITCH in this thesis is confirmatory and illustrative: it provides an implementable template that (i) evidences the feasibility of post-subjective, affect-driven design, (ii) clarifies how glitch events can structure aesthetic transformation, and (iii) reframes authorship as the emergent property of human-nonhuman intra-action rather than the possession of an individual (Barad, 2007, p. 23; Menkman, 2011, p. 12).

1.6 Chapter Overview

Following the introduction of the dissertation's central concepts, research questions, and methodological stance, the remainder of the study unfolds through a sequential structure that develops both the theoretical and analytical dimensions of the argument. Chapter 2 establishes the theoretical foundations of the project by examining affect theory, event philosophy, distributed agency, and relevant strands of posthumanist and new materialist aesthetics. It also situates these perspectives alongside Korean and East Asian aesthetic concepts, providing a cross-cultural frame through which the post-subjective orientation of this dissertation can be understood. By the end of Chapter 2, the conceptual vocabulary guiding the study—affect, event, agency, subjectivity, ontology—is clearly defined and positioned within existing scholarly debates.

Chapter 3 turns to the conceptual and structural analysis of SINGULAR_GLITCH. Here, the system is described not merely as a technical configuration but as a philosophical model that enacts the theoretical principles outlined in Chapter 2. The discussion is organised around the dissertation's three research questions, analysing how affective feedback loops function in the system, how glitch events contribute to creative emergence, and how agency becomes distributed across technological and human actants. This chapter also integrates descriptive insights from the controlled pilot study, illustrating through concrete examples how the system's behaviour performs the theoretical claims established earlier.

Chapter 4 concludes the dissertation by synthesising its contributions and reflecting on their broader implications. It revisits the central research questions to assess how effectively SINGULAR_GLITCH demonstrates a post-subjective creative process and considers counterarguments and limitations, including the unavoidable role of human design in shaping algorithmic systems. The discussion then draws connections to wider aesthetic and philosophical discourses, including resonances with Korean and East Asian notions of emptiness and plain simplicity. Finally, the chapter proposes future directions for research into machine-human creative ecologies, highlighting how the notion of the “empty

stage” may inform emerging practices in media art.

1.7 Contributions to Knowledge

This dissertation aims to advance understanding at both conceptual and practical levels. Its primary contributions can be summarized as follows:

Conceptualization of a Post-Subjective Aesthetic-Ontology: The research develops a new conceptual framework for understanding art practices in which human creative subjectivity is minimized or absent. By synthesizing ideas from affect theory, posthuman philosophy, and media aesthetics, it defines an aesthetic-ontological condition specific to post-subjective creativity. This framework provides scholars with a formal language and model to analyze similar artworks or phenomena, moving beyond loose metaphors (e.g. calling a system “the machine as artist”) to a rigorous theoretical account of how art can emerge from distributed, nonhuman-driven processes.

Empirical Case Study of Post-Subjective Art: The project offers one of the first detailed case studies of a fully post-subjective art system in action. Through the creation and analysis of SINGULAR_GLITCH, the dissertation documents how such a system operates and how it is experienced by audiences. It captures and examines concrete data - emergent system behaviors, glitch events, audience reactions, and system outputs - providing empirical evidence of creative processes that unfold beyond a human-centric paradigm. These observations ground the abstract theories in practice and demonstrate the feasibility and characteristics of art generated outside the traditional human-centered framework.

Integrated Model of the “Affective Glitch” : The study introduces and substantiates the concept of an “affective glitch on an empty stage.” It shows how affective intensity (pre-conscious feeling), glitch events (productive ruptures), and distributed agency (decentered networks of actants) converge into a coherent model for posthuman media art. In doing so, it expands glitch aesthetics by linking it with affect theory and posthuman notions of agency. This integrated perspective offers a novel understanding of how meaningful aesthetic experiences can arise without a human author - essentially framing the glitch itself, and the affect it generates, as a new kind of creative agent. To clarify the academic contribution more explicitly, it is important to consider what would remain unarticulated in the absence of this research. Without this study, discussions of creativity in musicology and media art would continue to oscillate between two dominant poles: human intentional authorship and algorithmic automation. In such frameworks, agency

is either located in the expressive subject or attributed to technical systems as tools or generators. What would remain insufficiently theorized is the relational condition under which creativity emerges from the interaction of affective modulation, rupture, and distributed agency.

This dissertation contributes a structural redefinition of creativity. Rather than asking who creates, it reframes the question as how relational configurations generate novelty. Agency is not reassigned from human to machine; it is reconceptualized as an emergent property of dynamic assemblages. In music research, this shift enables analysis of works not merely in terms of compositional intent or stylistic innovation, but in terms of recursive intensity modulation and eventual transformation. In artistic practice research, it provides a rigorous vocabulary for articulating post-subjective creation without collapsing into technological determinism.

The theoretical novelty lies in integrating affect theory, event philosophy, and distributed agency into a coherent model that treats glitch not as error but as ontological operator. This synthesis allows creativity to be understood as a field effect rather than a personal attribute. Accordingly, the research does not simply add another case study of algorithmic art; it proposes a new way of conceptualizing how creative emergence operates in technologically mediated environments. In doing so, it expands the conceptual horizon of both musicology and media art studies by introducing a relational, post-subjective account of agency that was previously only partially formulated across disparate theoretical traditions.

This contribution not only enriches theoretical discourse on posthuman aesthetics but also provides practitioners with a conceptual tool for designing or interpreting artworks where human agency is deliberately constrained.

Chapter 2: Theoretical Foundations - Toward Posthuman Aesthetic Theory

Clarification of the use of “traditional aesthetics.”

In this dissertation, “traditional aesthetics” does not refer to the long historical lineages of aesthetic thought—Confucian, Daoist, Buddhist, Kantian, Schellingian, or Romantic—many of which, in fact, treat Nature, nonhuman order, spontaneity, and non-intentional generation as central aesthetic principles. Such traditions already recognize aesthetic experience that exceeds human agency; therefore, the posthuman framework developed here is not positioned as a simple departure from all premodern or Western aesthetic thought.

Instead, “traditional aesthetics” refers more precisely to a modern, human-centered paradigm of aesthetic authorship that became dominant in the 19th-20th centuries:

- (1) a model of creativity grounded in personal expression,
- (2) a conception of art as the realization of intentional form shaped by a sovereign subject, and
- (3) an aesthetic framework where meaning, agency, and value are primarily attributed to human creators and human recipients.

When this dissertation contrasts its approach with “traditional aesthetics,” it critiques this specific humanist paradigm of artistic subjectivity, not the broader and more varied philosophical traditions in which aesthetics also concerns Nature, process, or nonhuman unfoldings. The argument is therefore not that posthuman aesthetics introduces nonhuman agency for the first time in intellectual history, but that it challenges the modern aesthetic assumption that human agency is the privileged or exclusive locus of creative production in contemporary media art.

2.1 Introduction: Toward Posthuman Aesthetic Theory

In practice, posthuman media art often features technological actors that collaborate with human agents to form a hybrid creative process. As Föllmer and Gerlach observe, “even the earliest media that were important for music were not exclusively acoustic media,” highlighting that the convergence of sound and image has long been embedded in the evolution of media technologies and thus provides a historical foundation for the posthuman intermediality explored in SINGULAR_GLITCH (Föllmer and Gerlach, 2005, n.p.). This historical continuity underlines how the system inherits, rather than entirely departs from, earlier traditions of intermedia art.

The aim of this chapter is to develop a rigorous conceptual model for understanding post-subjective creative processes in posthuman media art, using SINGULAR_GLITCH as an illustrative case. I propose a flexible structure that could be applied to various affect-based media art works. By treating SINGULAR_GLITCH as a conceptual case study, we focus on its design logic and theoretical implications, rather than any specific empirical outcomes. The chapter is organized as follows. Section 2.2 examines affect theory and its roots in Spinoza, Deleuze & Guattari, and contemporary thinkers like Brian Massumi and Marie Thompson, showing how affect - as pre-personal intensity - moves art beyond the subject-object divide. Section 2.3 turns to event philosophy, comparing Alain Badiou’s concept of the Event with Gilles Deleuze’s idea of sense-events and recent ideas about digital

events, to understand creative emergence as an ontological rupture. Section 2.4 discusses distributed agency, drawing on Donna Haraway's cyborg theory, Karen Barad's agential realism, and Braidotti's posthuman theory, to conceptualize agency as relational and enacted across human-nonhuman divides. In Section 2.5, we bring in East Asian aesthetic perspectives (especially Korean notions of emptiness and imperfection) as a cultural mirror that resonates with posthuman ideas. Section 2.6 addresses critical limitations and theoretical blind spots in these frameworks, ensuring a self-reflexive and balanced view. Finally, Section 2.7 synthesizes these strands into a coherent framework oriented toward SINGULAR_GLITCH. By the end of the chapter, we will have constructed a conceptual scaffold for analyzing how an "affective glitch" on an "empty stage" can produce novel, post-subjective creative processes in media art.

2.2 Affect Theory: Beyond Subject-Object Divide

Affect theory offers a framework for understanding aesthetic experience not as a property of a perceiving subject nor as a meaning encoded in an object, but as a dynamic field of intensities circulating among bodies, materials, and environments. This shift away from representational models has particular relevance for posthuman media art, in which neither intention nor interpretation serves as the primary locus of creativity.

Baruch Spinoza's foundational insight that "we do not yet know what a body can do" reframes experience as the capacity to affect and be affected. A body's capacities exceed conscious awareness, suggesting that aesthetic experience originates not in reflective judgment but in pre-reflective variation. This notion is developed further by Gilles Deleuze and Félix Guattari, who describe artworks as "compounds of percepts and affects" that exist independently of any personal viewpoint (Deleuze & Guattari 1994, p.164). In their formulation, sensation is not owned; it is evental, emergent, and materially grounded. This decentering of the subject aligns closely with this dissertation's post-subjective orientation.

Brian Massumi extends these ideas by conceptualizing affect as a "pre-personal intensity" – a modulation that "escapes confinement in the particular body" (Massumi, 2002, p. 30) and precedes the qualification of emotion into recognizable categories. For Massumi, affect is grounded in the Spinozist capacity "to affect and to be affected," which situates it at the level of bodily potential rather than subjective representation (Massumi, 2002, pp. 24-28). On this basis, the present analysis differentiates affect into three interrelated but heuristic dimensions. First, affect is bodily: it operates at the level of corporeal

activation prior to reflective cognition. Second, it manifests as a felt force – a modulation of pressure, vibration, tension, or atmosphere that may not yet be linguistically articulated. Third, it functions as intensity: a gradational shift in experiential charge that can increase, diminish, or oscillate independently of narrative meaning. These distinctions are not imposed categories but analytic clarifications derived from Massumi’s emphasis on pre-conscious bodily activation and relational modulation.

This clarification also illuminates the earlier example of subwoofer resonance (Chapter 1). When low-frequency vibration physically activates architectural space and the bodies within it, producing sensations of tension or release, what occurs is not yet a semantically structured emotion but a bodily modulation of intensity. The affective experience is generated through nonhuman forces that act upon and through bodies prior to conscious interpretation. In this sense, the subwoofer example is not metaphorical but materially continuous with Massumi’s theory: affect circulates as a felt force within a distributed human-nonhuman field.

Insights from contemporary neuroscience reinforce Massumi’s distinction between affect and emotion. Research demonstrates that emotional states cannot be located in discrete neural regions but emerge from large-scale interactions among bodily and cognitive systems (Shackman et al. 2011; LeDoux & Brown 2017). These findings support the theoretical claim that affective force operates at a more fundamental level than conscious, named emotions. Affect is infra-cognitive and autonomic, surfacing as shifts in physiological or environmental intensity prior to subjective categorisation. In the context of SINGULAR_GLITCH, this provides a strong conceptual grounding for the system’s use of non-categorical affect vectors rather than discrete emotional labels.

Marie Thompson extends the affective discourse into sonic experience, arguing that noise should not be understood merely as an unwanted disturbance but as a relational force that transforms bodies and spaces (Thompson 2017, p.19). Noise, in this sense, is not the negation of signal but a condition of vibratory co-presence that modulates relations. This conception is particularly relevant to media art practices in which sustained textures, interference patterns, and sonic atmospheres contribute to affective environments without recourse to semantic meaning.

In this dissertation, noise is understood as a continuous or structural perturbation—an ongoing condition that shapes the baseline affective field of the system. By contrast, glitch is used in a more specific sense: an abrupt, punctuating rupture that interrupts and reconfigures ongoing processes (Cascone 2000, p.13; Menkman 2011, p.12). Noise establishes the field of affective potential; glitch marks the event within that field. While the two

may blur in practice—especially in recursive systems where micro-instabilities accumulate—their conceptual distinction helps articulate how different forms of disruption contribute to creative emergence.

This distinction between background intensity (noise) and disruptive rupture (glitch) also clarifies the role of affect in SINGULAR_GLITCH. The system does not rely on symbolic interpretation but on the circulation of graded intensities derived from textual embeddings. These intensities do not represent the emotional content of a message but function as modulating forces within the recursive loop. The artwork therefore aligns with affect theory not merely metaphorically but operationally: affect becomes the medium through which the system moves, transforms, and generates novelty.

Historically, artists such as Ryoji Ikeda, Carsten Nicolai, Maryanne Amacher, and the early video experimentation of Steina and Woody Vasulka have explored affective modulation through frequency, interference, and signal materiality rather than through representational meaning. Their works demonstrate how sonic and visual intensities can serve as primary compositional materials. SINGULAR_GLITCH extends this lineage by inserting affective computation into the loop, thereby enabling the system to modulate itself based on pre-conscious intensities extracted from human text.

In summary, affect theory as employed in this dissertation reframes aesthetic experience as an emergent, relational, and pre-subjective phenomenon. It provides a conceptual foundation for understanding how SINGULAR_GLITCH operates: not as a system that communicates meaning, but as one that circulates and transforms affective intensities. This orientation prepares the ground for the subsequent discussion of event philosophy, where the question shifts from how intensity circulates to how ruptures emerge within its flow.

A further philosophical resonance can be found in Nishida Kitarō’s concept of pure experience (純粹経験), as articulated in *An Inquiry into the Good*. Nishida defines pure experience as “experience just as it is, without the least addition of reflective discrimination” (Nishida, 1990, p. 3). In this account, knowing, feeling, and sensing occur prior to the differentiation of subject and object; experience unfolds as immediate activity before it is conceptually divided. The self is not yet established as an independent agent but emerges within the movement of experience itself.

This formulation aligns with Massumi’s description of affect as a pre-personal intensity that precedes qualified emotion and conscious recognition (Massumi, 2002). Although arising from different philosophical traditions, both Nishida and Massumi articulate an infra-cognitive domain in which experience is not owned by a subject but occurs as relational

emergence. Introducing Nishida's formulation here clarifies that the pre-representational field central to this dissertation is not exclusively a contemporary Western theoretical construct but resonates with earlier non-dualist philosophical traditions.

The dialogue between these two frameworks is instructive for posthuman aesthetics. Nishida offers a metaphysical account of immediacy-experience as a non-dual field—while Massumi emphasizes the dynamism of embodied intensities that “escape confinement in the particular body.” Together, they help articulate why post-subjective or distributed creative processes do not require a central subject to generate aesthetic force. In both models, what precedes cognition is not chaos but a structured, affectively charged field of relation.

Accordingly, introducing Nishida's pure experience clarifies that the pre-conscious domain that underpins affective aesthetics is not merely a Western theoretical innovation. Rather, it resonates with longer, non-dualist traditions that conceptualize experience—human or machinic—as emergent from relational fields prior to representational thought. This strengthens the theoretical foundation for treating affective glitch events as pre-individuated aesthetic occurrences, arising not from a sovereign subject but from the ontological immediacy of the system's unfolding.

A critical point often overlooked in affect theory is that Massumi does not merely describe affect as pre-conscious intensity; he reframes aesthetic experience as an infra-representational field in which meaning is secondary to modulation. This has direct implications for media art: if affect precedes representation, then aesthetic form is no longer bound to signification but to variation, amplitude, and force. In this sense, Massumi's ontology supports the thesis of this dissertation that creative events in SINGULAR_GLITCH emerge not from symbolic content but from shifts in intensity across the system. My interpretation aligns affect with a dynamic ontology: affect is not simply “felt” but enacts the conditions of the artwork's becoming. These positions affect as an operational principle of posthuman creativity.

2.3 Event Philosophy – Unpredictability and the Ontology of Creative Emergence

At this point, it becomes possible to clarify an implicit philosophical correspondence. The distinction drawn in this dissertation between noise and glitch can be provisionally aligned with two different conceptions of the event. Noise, understood as a continuous or structural disturbance, resonates with Deleuze and Guattari's conception of the event as

immanent and ongoing—a field of micro-transformations through which difference is continuously actualized (Deleuze & Guattari, 1994, p. 164). In this sense, noise operates as a condition of becoming: it sustains a background of variation within which aesthetic modulation unfolds. By contrast, glitch, defined here as an abrupt and punctuating rupture, bears closer affinity to Badiou's notion of the Event as a decisive break within a situation—an occurrence that cannot be deduced from prior conditions and that reconfigures the coordinates of what follows (Badiou, 2005, p. 173). While this correspondence should not be treated as a strict one-to-one equivalence, it clarifies that the conceptual distinction between noise and glitch is not merely technical but ontological. Noise aligns with immanent continuity; glitch aligns with interruptive rupture. Together, they articulate two complementary modalities of eventhood within posthuman media systems.

Event philosophy provides a conceptual vocabulary for understanding how novelty arises without being reducible to the intentional will of a single subject. While affect theory accounts for the pre-personal intensities circulating within a system, event philosophy enables us to describe the moments when these intensities crystallize into ruptures—points at which the system's trajectory changes in ways that neither designer nor audience can fully anticipate.

In Alain Badiou's formulation, an Event emerges as a break in a situation: something occurs that is not derivable from the established order of knowledge and thereby opens the possibility of something new (Badiou, 2005, p. 173). Crucially, the Event is not willed by an individual; it interrupts the subject as much as it interrupts the situation. Subjectivity is constituted as a response to the Event rather than as its source. Badiou's account therefore provides a useful extreme case for understanding how certain glitch events in SINGULAR_GLITCH can function: when the system produces an abrupt rupture—an unexpected audiovisual mutation that exceeds prior state constraints—this occurrence reconditions the field of subsequent possibilities.

Deleuze and Guattari offer a complementary but more continual understanding of events. Whereas Badiou emphasizes rare, discontinuous breaks, Deleuze and Guattari conceptualize events as immanent productions of sense—small singularities through which ongoing difference is actualised (Deleuze & Guattari, 1994, p. 164). Every flicker, modulation, or micro-variation is an event in this Deleuzo-Guattarian register. In the context of SINGULAR_GLITCH, the system's countless small perturbations—subtle instabilities in feedback, shifting patterns in noise, fluctuating affect vectors—constitute a field of minor events that continually recompose the aesthetic surface.

At this point, it becomes necessary to clarify what is meant by the “power” or even the

“beauty” of glitch. If, following Deleuze, an event is not a singular historical rupture but a continuous production of difference and sense, then the aesthetic force of glitch does not lie merely in shock. Its force resides in its capacity to make variation perceptible – to foreground the process of becoming that ordinarily remains implicit within stabilized forms. A glitch momentarily disrupts perceptual habit and suspends recognition, exposing the instability underlying any given configuration. Humans respond to such moments because perception operates through pattern expectation; when those patterns shift, attention intensifies and bodily awareness heightens. What is experienced as emotional impact or even awe is the registration of relational reconfiguration. The beauty of glitch, therefore, does not lie in harmony or perfection, but in the felt emergence of difference itself. In Deleuzian terms, the event redistributes the sensible field. The power of glitch lies in rendering becoming perceptible; its beauty lies in revealing the dynamic instability that constitutes experience.

Taken together, these two philosophical trajectories create a productive framework for analysing emergent behaviour in posthuman creative systems. Badiou helps name the decisive ruptures—major glitch events—while Deleuze and Guattari describe the continuous field of variation within which those ruptures acquire meaning. The dialectic between the two allows us to conceptualize SINGULAR_GLITCH not as a deterministic system nor as a purely stochastic one, but as a system that unfolds within a space of conditioned unpredictability.

The convergence of Nishida’s relational field and Badiou’s rupture clarifies a central claim of this dissertation: distributed creativity in the absence of a human center should not be understood as the elimination of meaning, but as the expansion of possibility. Nishida’s notion that experience arises prior to representational thought situates both human and machinic processes within a relational field that precedes authorship. Badiou’s event, in turn, marks the moment when that field undergoes a discontinuity that reconfigures what can follow. When applied to SINGULAR_GLITCH, this suggests that human-absent distributed creativity does not consist in randomness or pre-programmed harmony, but in the generation of futures that are not fully predetermined by prior states. What spectators may register as surprise or affective intensity is the perception that the system’s unfolding is not teleologically resolved. The aesthetic experience arises from sensing that the trajectory remains open. Thus, distributed creativity is not simply the removal of the human subject; it is the structuring of a field in which non-anticipated possibilities can emerge and be perceptually encountered. The absence of a sovereign author does not produce emptiness, but rather a space in which the future is experienced as genuinely indeterminate.

Intentional Design vs. the Control of Outcomes

At the level of system architecture, it is necessary to clarify the role of intentionality in producing these events. The earlier phrasing— “we intentionally include processes that introduce discontinuities or noise” —might be misconstrued as evidence that the designer retains compositional control over the artwork’ s outcomes. However, the intentionality at play here concerns only the establishment of enabling conditions, not the determination of specific events. The system is deliberately configured to allow for ruptures, but their timing, magnitude, and qualitative effect remain indeterminate.

This distinction is crucial. Designing the conditions for emergence does not entail controlling what emerges. The designer establishes boundaries, constraints, and channels for circulation—feedback routing, stochastic perturbations, affect-driven modulation—but cannot script the behaviour of the system once it is operational. In this respect, the design is analogous to preparing a dynamical environment rather than composing a sequence. While the inclusion of disruptive processes acknowledges the designer’ s role, it simultaneously highlights the relinquishing of real-time authorship. The system becomes an arena in which events occur, but these events do not trace back to human intentionality in a straightforward causal chain.

Difference from Traditional Aleatoric Composition

This clarification also explains why the work differs from traditional aleatoric or chance-based composition. In conventional composed music that incorporates randomness, stochastic operations remain subordinated to the composer’ s overarching formal design. Even when performers introduce variability, the composer governs the interpretive space, aesthetic frame, and structural logic. Randomness serves the composition.

By contrast, SINGULAR_GLITCH enacts a deeper redistribution of agency. The designer cannot intervene during the work’ s unfolding, does not curate the event space moment-by-moment, and cannot anticipate specific outcomes generated by interacting subsystems. The system’ s behaviour emerges through intra-actions among algorithmic processes, feedback loops, material contingencies, and (when present) audience input. These relations produce events that the designer neither selects nor controls. The system’ s unpredictability is therefore not ornamental—that is, not a controlled effect deployed within a larger composed structure—but constitutive. It shapes the ontology of the work rather than ornamenting it.

Eventhood in a Posthuman Framework

Within this posthuman framework, an event is defined as engineered unpredictability with aesthetic and ontological consequence. An event does not originate in a subject but arises from the relational ecology of the system itself. SINGULAR_GLITCH thus becomes a site where subjectivity, agency, and authorship dissolve into distributed processes. Major glitch events appear as Badiouian ruptures that redirect the system's trajectory, while continuous fluctuations behave as Deleuzo-Guattarian micro-events that infuse ongoing variation. The system's recursive architecture ensures that each event—minor or major—modifies the conditions for future events, producing a cascading logic of emergence.

Accordingly, the ontology of SINGULAR_GLITCH cannot be understood as either fully autonomous or fully authored. It resides in the interzone between design and emergence, intention and contingency. The designer initiates a structure but does not govern its evolution; the system self-organises but within conditions it did not choose. The event thus becomes the central aesthetic unit through which posthuman creativity is enacted—neither the expression of a human subject nor the operation of a closed machine, but the manifestation of a relational process unfolding across human and nonhuman actants.

It is necessary, however, to acknowledge a conceptual tension that arises in the practical instantiation of SINGULAR_GLITCH. In the prototype and demonstration context, the perceptual distinction between noise (as continuous disturbance) and glitch (as discrete rupture) can become ambiguous. This ambiguity raises a critical question: if Badiou's Event must radically reconfigure a situation and retroactively transform the way all prior elements are understood (Badiou, 2005, p. 173), can the glitches in SINGULAR_GLITCH truly be considered Events in this strict sense? The answer is necessarily qualified. The system does not guarantee a totalizing rupture that redefines the entire ontological field of the work. Rather, glitch events function as localized reconfigurations within a bounded system. In this respect, Badiou's theory operates not as a literal description of what occurs in every instance, but as a conceptual horizon that sharpens the distinction between mere variation and transformative discontinuity. Even if the work does not produce an absolute Event in the Badiouian sense, the theoretical framework clarifies what would constitute such a rupture and thus establishes a critical measure against which the system's transformations can be evaluated. Badiou's Event, therefore, functions here less as a claim of realized total break and more as a philosophical intensifier: it elevates glitch from technical malfunction to a question of ontological consequence.

2.4 Distributed Agency: Beyond Human Exceptionalism

The notion of distributed agency is central to understanding post-subjective creativity. In a conventional art creation narrative, a human artist is treated as a unified subject who possesses agency as an intrinsic attribute. Posthuman and relational perspectives complicate this assumption. In this dissertation, agency is not understood as a property belonging to a sovereign human subject, but as an emergent effect of relational configurations within a system. This does not imply that the subject simply disappears. Rather, the subject is reconceptualized. Instead of being a centralized, autonomous origin of action, subjectivity becomes distributed across interacting human and nonhuman elements. What dissolves is not the existence of subjectivity itself, but the assumption that it resides exclusively within an individual. In SINGULAR_GLITCH, the “subject” can be understood as a temporary configuration of relations—a dynamic field constituted through feedback, modulation, and intra-action. Agency, therefore, is enacted by the system as a whole rather than owned by any single participant. The subject is not absent; it is decentered and relationally dispersed. This section examines how thinkers like Donna Haraway, Karen Barad, Bruno Latour, and Rosi Braidotti inform our understanding of agency as something that can be spread across humans and nonhumans.

Donna Haraway’s (1985) famous Cyborg Manifesto initiated this line of thought by asserting the blurring of boundaries between human, animal, and machine, thereby destabilizing the idea of a purely human agency. If we are all cyborgs, as Haraway playfully suggested, then our actions are already entangled with technology. Haraway’s later works continued to emphasize relationality and situated knowledge, implying that what we do (and can do) is co-determined by our tools, our environment, and our biology. In art terms, a cyborg view sees creative acts as co-evolving with the machines and mediums employed.

Karen Barad’s (2007) concept of intra-action goes further by proposing that entities do not pre-exist their interactions; rather, they emerge through those interactions. Barad, from a quantum physics perspective, illustrates that agencies are “enacted” in specific intra-actions. Applied to art, this suggests that the “artist” and the “tool” aren’t fixed beforehand - each time, agency emerges in the encounter. For instance, in SINGULAR_GLITCH the code, the hardware, and any human participant all intra-act to produce the artistic outcome. The “author” of the piece is that entangled state, not an isolated individual.

Bruno Latour’s actor-network theory reframes all relevant elements in a process as actants—any entity that “makes a difference” to a state of affairs (Latour, 2005, p. 71). In this sense, “actors” here does not reintroduce a sender/receiver pair; it denotes a heterogeneous set of mediators and translators: anonymous text inputs, parsing and affect-

vector code modules, OSC routing, the browser/Tone.js-Canvas rendering chain (and/or Max/MSP patch), Eurorack/synth circuits, projection surfaces and room acoustics, logging/rate-limiting layers, and, where present, audience interventions as constrained stimuli. Following these actants shows that outcomes are the contingent effect of many mediations rather than a single origin (Latour, 2005, p. 75). In SINGULAR_GLITCH, artistic form thus emerges as a network property: the human is not eliminated but decentered—one actant among others—with no component occupying a privileged role of sender or receiver.

Rosi Braidotti (2013) contributes an “affirmative” vision of the posthuman, which includes rethinking the subject not as an autonomous individual but as an “assemblage” of human and nonhuman elements. Braidotti encourages us to see the positive potential in expanding our conception of who/what acts. In Braidotti’s use, “relational capacity” means that agency is produced by relations among bodies, technologies, and environments rather than owned by an isolated individual (Braidotti, 2013, p. 66). From this view, a posthuman artist is best understood as a temporary configuration of connections—a node in an assemblage—rather than a single person exercising unilateral mastery; what appears as authorship is the effect of those interactions (Braidotti, 2013, p. 66; Barad, 2007, p. 23).

In practice, SINGULAR_GLITCH was conceptualized to manifest distributed agency. The human creator (the author of this text and designer of the system) made certain decisions - writing code, specifying data flows, choosing hardware. However, once the system runs, the creator steps back and the system’s components take over. The Python program “decides” how to interpret input according to its training; the glitch mechanism “decides” when to scramble data; the synthesizer “decides” how an electrical anomaly translates to sound; and so on. None of these decisions are sentient or intentional, but they have causal efficacy in the artwork. Even if a human viewer sends a message (thus adding a spark of human agency to the loop), that viewer’s input is constrained and transformed by the system - they become part of the assemblage’s agency, not an external controller.

For the audience, distributed agency can be a disorienting experience. People are accustomed to looking for the artist’s hand or some anthropomorphic cue. In an empty-stage scenario, viewers may start to attribute agency to the system (“the machine seems to be improvising”), or they might project narrative (as humans tend to do) onto what they see. An interesting avenue (though outside our main scope) is how audiences interpret agency in such works - initial anecdotal observations suggest they oscillate between marveling at the machine’s autonomy and searching for any sign of human intervention (e.g., “Is it reacting to us?”). This dynamic in itself indicates a shift: the locus of creativity is

perceived as distributed or even impersonal.

In summary, the theoretical stance in this dissertation is that creative agency can be decentered and shared among many participants, human or otherwise. SINGULAR_GLITCH operationalizes this by treating algorithms and circuits not as passive tools but as co-creators. The system was designed so that no single component (and certainly not the human designer alone) could claim full authorship of the results. This approach not only challenges human exceptionalism in creativity but also opens up new aesthetics - one in which the trace of distributed agency (the feeling that an impersonal process is unfolding) becomes part of the artistic experience.

Posthuman theories converge on a single insight: agency is not possessed but enacted. My contribution is to argue that distributed agency becomes visibly aesthetic in technical systems-particularly glitch-based systems-where no single node determines the outcome. Barad's intra-action offers a metaphysics of relational emergence; Haraway's cyborg dismantles purity narratives; Latour's actants redistribute causality; and Braidotti frames relationality as an affirmative creative force. SINGULAR_GLITCH operationalizes these ideas by engineering conditions where agency becomes a property of the assemblage rather than of an authorial subject. This shifts aesthetics from expression to configuration and from representation to entanglement.

2.5 Cultural Context: East Asian Aesthetics and the “Empty Stage”

While this dissertation is grounded primarily in Western philosophical frameworks such as posthumanism, affect theory, and glitch aesthetics, Korean and East Asian aesthetic traditions provide supplementary perspectives that enrich and nuance the analysis. Central among these is “yeobaek (餘白)”, the aesthetic value of intentional blankness or unmarked space in Korean painting and calligraphy. Far from representing mere absence, “yeobaek” functions as an active relational field that heightens surrounding forms and invites imaginative participation (Kang, 2001, pp. 60-62). This resonates with the metaphor of the “empty stage” in SINGULAR_GLITCH, where the absence of a visible human performer becomes a generative condition for machinic agency and affective emergence.

Related principles such as “sobak (素朴, plain simplicity)” and the celebrated irregularities of the Joseon white moon jars further highlight the value of calibrated imperfection and asymmetry in Korean aesthetics (Kim, 2003; Park, 2010). These concepts parallel the role of glitch in this dissertation-not as a defect to be corrected, but as a

productive rupture that structures aesthetic transformation. When viewed through this lens, glitch becomes an analogue to East Asian traditions that valorize spontaneity, incompleteness, and the refusal of polished control.

Beyond Korean aesthetics, Buddhist and Daoist traditions offer deeper ontological grounding for the “empty stage.” The Buddhist notion of “*sūnyatā* (空)” describes a condition in which entities lack inherent, self-subsisting essence and arise only through relational co-dependence. From this perspective, emptiness is not a void but a dynamic field of potentiality. Similarly, Daoist “*wúwéi* (無為)” describes non-coercive action-activity that unfolds without force or imposition. While SINGULAR_GLITCH does not enact “*wúwéi*” in the strict cosmological sense, it shares with Daoist thought a structural affinity: the system’s design minimizes authorial interference and allows emergent behaviour to arise from interacting elements. However, the system does not align with natural flows or promote literal non-action; audience participation and technical constraints clearly situate the work within a technologically mediated rather than naturalistic field.

These cross-cultural reflections are not presented as alternative theoretical foundations but as analogical lenses that broaden the conceptual scope of the study. They demonstrate that the aesthetic significance of emptiness, imperfection, and distributed emergence has long-standing precedents in East Asian traditions. Importantly, the “empty stage” in this dissertation should not be confused with visual emptiness or the simple removal of human performers. Instead, it aligns with the ontology of “*sūnyatā*”: the absence of a privileged causal center and the co-arising of creative agency from relational entanglement. In this sense, East Asian aesthetics complements the posthuman framework developed in Chapter 2, illuminating how creative force can arise when intentional control is relinquished and form emerges from distributed relational dynamics.

2.6 Aesthetic and Artistic Lineages of Image-Sound Experimentation

The conceptual reframing proposed in this dissertation does not emerge in isolation; it stands within a long and heterogeneous lineage of image-sound experimentation in which artistic practices have interrogated the relation between perception, technology, and emergent form. This subsection outlines several genealogical threads that contextualize SINGULAR_GLITCH within historical precedents while also differentiating its posthuman orientation from earlier works.

Early electronic and video artists such as Nam June Paik, Steina and Woody Vasulka explored

the image-sound interface by revealing the materiality of signal flow itself. Paik's Magnet TV (1965) demonstrated how electromagnetic interference could distort visual fields, thereby transforming technological malfunction into aesthetic material. The Vasulkas expanded this trajectory by treating electronic signals as performative agents—entities capable of shaping both image and sound through oscillation, feedback, and real-time modulation. Their work established a foundational shift away from representational imagery toward process-based media ecologies in which technological systems visibly participate in creation.

Subsequent developments in generative and algorithmic art extended these inquiries. Artists such as Ryoji Ikeda, Carsten Nicolai (Alva Noto), and Maryanne Amacher foregrounded data, frequency, and micro-temporal structures as primary artistic materials. Their works dissolve the boundary between auditory and visual domains, staging aesthetic experience as a field of intensities rather than as symbolic communication. Importantly, these practices reveal how sound and image can be co-constituted by computational logics and material processes—an orientation that resonates with the affect-driven, non-representational focus of SINGULAR_GLITCH.

Interactive and cybernetic art further contributed to the lineage. Myron Krueger's early responsive environments framed the artwork as a system that evolves through feedback between human participants and technological processes. Rafael Lozano-Hemmer later developed installations in which biometric and environmental data generate emergent audiovisual forms. These works inaugurated an understanding of creativity as a distributed phenomenon in which agency is shared across sensors, software, viewers, and architectural space.

Finally, practices in the tradition of noise music and glitch aesthetics—most notably those theorized by Kim Cascone and Rosa Menkman—position error, rupture, and interference as generative artistic forces. Rather than treating noise as a failure of communication, these artists mobilize breakdowns as opportunities for transformation. Their emphasis on system behaviour, instability, and unpredictability offers a crucial precursor to SINGULAR_GLITCH's event-based ontology.

Taken collectively, these artistic strands constitute a broader lineage of image-sound experimentation rooted in signal materiality, computational emergence, and distributed agency. SINGULAR_GLITCH does not reproduce these traditions; rather, it synthesizes them into a posthuman framework in which affect, glitch, and relational autonomy operate not as stylistic effects but as ontological conditions of the artwork. By situating the system within this lineage, Chapter 2 highlights both the historical continuity and the conceptual

departures that shape the present study.

2.7 Scope and Terminological Note (non-limitation)

Expressions such as “feel” or “autonomic” are used analogically to describe functional responses in feedback systems; they do not imply biological emotion or consciousness. These clarifications are scope notes, not limitations. The dissertation’s limitations concern the pilot design and data and are stated in Chapter 4 (and Appendix C).

2.8 Synthetic Framework: Toward SINGULAR_GLITCH Theory

Having examined the components - affect, event, agency, and cultural context - we now synthesize them into a coherent theoretical framework oriented toward our concept of SINGULAR_GLITCH. In essence, we propose an integrated model of a posthuman creative system: an “affective glitch” on an “empty stage” that exemplifies post-subjective creativity. This synthetic framework is not tied to a single artwork, but is presented as a general conceptual architecture for affect-driven, distributed, emergent art. It brings together the ideas discussed so far into a model that will inform both the design and the analysis of creative systems in subsequent chapters.

At its core, the SINGULAR_GLITCH model can be described as an affective feedback loop without a human center. Conceptually, imagine a closed loop in which anonymous or raw inputs are fed into a system, translated into affective signals, and then output back into the environment, thereby influencing the next round of inputs. The system continuously re-feeds its own outputs into itself - a design that is fundamentally autopoietic (self-producing) in the sense of Maturana and Varela (1980, p.79). In other words, the system generates and regenerates the elements it needs to keep going, much like a living organism that self-sustains by internal feedback.

In practical terms as realized in our case study), this loop might look like: a message enters the system, is analyzed for its emotional tone, converted into a multi-dimensional affect vector, which then drives visual and auditory outputs; those outputs (for instance, a line of text the system itself generates, or a sound that can be picked up by a sensor) become the next input, and the cycle continues. Throughout this process, no human intervention is required: the stage is “empty” of live performers or decision-makers, leaving the technology to perform to itself. The autonomy of this loop is a direct

manifestation of our affect theory: the system is effectively circulating intensity on its own. It creates what Massumi would call an “autonomic” dynamic - akin to a heartbeat or breathing reflex, but here it is a machine-driven circulation of affect (Massumi 2002, pp.24-25). We might say the artwork itself has, metaphorically, a nervous system that triggers and responds to its own signals.

Several theoretical principles come together in this loop. First, it foregrounds affect over content. The information being cycled is not narrative or figurative meaning, but intensity. For example, the textual input’s literal message is not what matters; what matters is the sentiment or emotional weight extracted from it. The system “privileges the level of intensity over semantic qualification” (Massumi 2002) - it cares about how positive/negative, how aroused/calm a message is, rather than what the message says. In Massumi’s terms, it separates content from effect: the signifying content (words) is set aside, while the affective effect (a nonlinguistic intensity value) is captured and passed along. This design embodies Massumi’s “logic of intensity” - a logic running parallel to and disconnected from linear narrative sequencing (Massumi 2002, p.27). The output visuals and sounds are driven by these intensity values, not by representational intent. Thus the feedback loop formed is affective rather than representational: it is a looping flow of intensity that the system continuously cycles and transforms. This aligns with our theoretical stance that the most crucial aspect of posthuman art lies in the modulation of felt experience (affect) rather than in conveying explicit messages or stories.

Second, the framework integrates the concept of event/rupture within the loop. Because the system is recursive, it can reach stable patterns unless something jolts it. Here is where glitch events play a role: we intentionally include processes that introduce discontinuities or noise (for instance, a random variation, a deliberate glitch in data transmission, or chaotic modulation in the output). These glitches serve as the punctuation in the recursive flow - they break the symmetry or repetition and force the system into new states (as discussed in Section 2.3). Each glitch is an internal Event that pushes the system to explore a different configuration, much like how mutation introduces variation into an evolutionary loop. The theoretical idea is that novelty (Badiou’s “something new”) arises through these internal ruptures. Without them, the autopoietic loop might just cycle indefinitely in homeostasis; with them, it can undergo creative evolution. We can draw an analogy: the system is like a musical improvisation where a riff repeats (feedback) but a sudden syncopation or key change (glitch) propels it somewhere unexpected. In sum, glitch events are the sources of transformation in an otherwise self-sustaining affective loop. This ensures the work isn’t static; it continuously becomes, in a manner consistent with an ontology of creative emergence.

Third, the model inherently distributes agency across its components, exemplifying distributed agency. There is no singular “controller” in the loop. The human designers set initial parameters, but once running, the system’s behavior results from the interplay of algorithm, data input, and random perturbations. Agency is thus enacted relationally: the Python script “decides” how to interpret text (based on its sentiment analysis algorithm); the visual and audio modules “decide” how to render the vector into form; the random noise “decides” when to perturb the cycle. And if a human audience is present and feeding inputs (say live messages), they too become part of the agentic network. This fulfills the posthuman notion that creativity emerges from intra-action of many parts. Indeed, we can say the author of a given moment’s output is not a person or a program alone, but the entire assemblage at that moment.

By conceptualizing the system in this way, we bring Barad’s and Haraway’s insights into practical terms: the artwork is a performance of an assemblage. Any sense of intentionality or expression in the work is co-produced by all participating actants (human and nonhuman). This leads to a striking scenario: the empty stage means that when one witnesses the artwork, one is effectively seeing an impersonal (or post-personal) process unfolding. There is form, change, and intensity, but one cannot straightforwardly attribute it to a single subject - it is literally post-subjective. This aspect of the model engages viewers in new ways, potentially causing them to project agency onto the machine or to sense a distributed presence.

Finally, we emphasize that this synthetic framework is generalizable beyond our case study. Although in Chapter 3 we will detail a specific implementation (using a Telegram messaging interface, Python code, OSC connections to Max/MSP, etc.), those technical choices instantiate the model but do not limit it. One could imagine a similar affective glitch system using different media: biometric sensors feeding into a robotic sculpture, or social media sentiment feeding into a lighting installation, and so on. The key structural features would remain: a feedback loop of affect, autonomous operation (empty stage), glitch-based novelty, and distributed multi-agent participation.

We present SINGULAR_GLITCH in this thesis as a practical model and conceptual prototype of such systems. In other words, it is a case study that illustrates and supports our central claims, but it also stands as a template that could inform other projects. By keeping the framework abstract at the level of theory, we ensure its relevance to a range of affect-driven art practices.

In conclusion, our synthetic framework posits a new mode of artistic creation under posthuman conditions. It is a mode characterized by self-organizing affective loops,

productive ruptures through glitch events, and decentered, distributed agency among human and machine actants. The following chapters will apply this framework: Chapter 3 will describe how we realized it in practice through the design and analysis of SINGULAR_GLITCH, and Chapter 4 will reflect on what this framework implies for the future of creative practice and aesthetic theory.

Although SINGULAR_GLITCH is grounded in an original practice-based system, it is important to situate the research in relation to existing algorithmic and generative artworks. Numerous prior works have employed algorithms, randomness, or autonomous processes as compositional tools. However, in many of these cases, algorithmic behaviour remains subordinate to a predefined aesthetic framework, stylistic goal, or authorial intention. The contribution of this research lies not in the mere use of algorithms, but in the way algorithmic processes are theorised and operationalised as sites of affective emergence and distributed agency.

Rather than treating the algorithm as an instrument for producing form, this study reframes the system itself as an affective and ontological environment in which creativity unfolds without a central author. The comparative axis of this research is therefore not stylistic similarity but conceptual function: whereas many generative artworks foreground algorithmic complexity or visual novelty, this work foregrounds the conditions under which affect, glitch events, and agency co-emerge in the absence of human intentional control. Its novelty lies in articulating this configuration as a post-subjective creative model, supported by both theoretical analysis and practice-based demonstration. In this sense, the research contributes not only a new artistic system but also a conceptual framework for understanding how algorithmic art can operate as an aesthetic-ontological experiment rather than as a compositional technique.

Throughout this dissertation, multiple theoretical concepts are mobilised in order to analyse post-subjective creative processes; however, these concepts are not adopted uncritically or as universal explanatory tools. Each theoretical framework—affect theory, event philosophy, and distributed agency—operates under specific assumptions and within particular conceptual limits. Affect theory, for example, provides a powerful account of pre-conscious intensity and relational modulation, yet it risks obscuring questions of interpretation and cultural mediation if treated as a self-sufficient explanation. Event philosophy enables an understanding of rupture and novelty, but its emphasis on discontinuity may underplay gradual or accumulative transformations within technical systems. Similarly, theories of distributed agency effectively challenge human-centred authorship, but they can dilute responsibility or obscure asymmetries of power embedded in

design decisions.

In this study, these theoretical frameworks are therefore employed selectively and reflexively rather than exhaustively. The dissertation adopts those aspects of each theory that illuminate the specific dynamics of SINGULAR_GLITCH, while recognising their limitations when applied to practice-based artistic research. By explicitly acknowledging both the explanatory strengths and the conceptual constraints of these frameworks, the analysis avoids treating theory as an authoritative overlay and instead positions it as a provisional lens through which artistic practice can be interrogated. This critical stance strengthens the theoretical coherence of the dissertation by demonstrating that concepts are not merely borrowed, but actively tested, delimited, and reconfigured in relation to the concrete conditions of artistic experimentation.

Chapter 3: Philosophical Architecture and Analysis of SINGULAR_GLITCH

This chapter provides a philosophical and structural analysis of SINGULAR_GLITCH, addressing each of the three research questions (RQ1, RQ2, RQ3) within the theoretical framework established in Chapter 2. Rather than presenting empirical results or a finalized installation, the chapter examines how the system's design logic operationalizes the concepts of affective feedback, glitch eventhood, and distributed agency as a proof-of-concept model for post-subjective creativity.

While Appendix A details the technical pipeline (Telegram → Python → affect vector → audiovisual processes), the focus here is conceptual. SINGULAR_GLITCH is approached as both an artwork and a theoretical construct: an autonomous audiovisual system running on an “empty stage,” capable of sustaining a recursive feedback loop even without human intervention. Audience participation—when present—functions as a constrained input rather than a governing force. Once initiated, the system's behaviour unfolds through interactions among algorithms, noise processes, feedback dynamics, and occasional human prompts, illustrating the decentered and emergent nature of creativity under posthuman conditions.

The chapter proceeds in three sections. Section 3.1 examines how affect operates as a driving force within the recursive loop (RQ1). Section 3.2 analyzes glitch events as rupture points that transform the aesthetic trajectory of the system (RQ2). Section 3.3 maps how agency is distributed across human and nonhuman components, reconfiguring authorship within the assemblage (RQ3). Together, these analyses demonstrate how SINGULAR_GLITCH embodies the post-subjective principles articulated in Chapter 2.

3.1 Affective Feedback Loops in SINGULAR_GLITCH (RQ1)

The Python component translates the text into an affective vector, but to clarify the methodological basis of this computation, it is important to note that the system does not rely on any pre-existing emotion taxonomy, sentiment dictionary, or psychologically labelled database. Instead, each incoming message is encoded using a multilingual transformer model (paraphrase-multilingual-MiniLM-L12-v2), which produces a high-dimensional semantic embedding representing the relational structure of the text. This embedding is continuous rather than categorical; it does not assign predefined labels such as “anger,” “joy,” or “fear,” but situates the textual input within a dense, multidimensional affective-semantic space.

From this embedding, the system derives an affective intensity profile through a process of dimensionality reduction: the full embedding is segmented into seven equal partitions, and each segment is averaged to produce a seven-dimensional affect vector. This procedure yields a compact representation of the internal contrasts within the embedding—patterns of magnitude and variation that reflect the text’s distributional dynamics. A min-max normalization step further accentuates these contrasts, enabling the resulting vector to function as a set of modulating intensities rather than discrete emotional categories.

Conceptually, this method aligns with Massumi’s notion of affect as a pre-personal intensity that precedes emotion’s qualification (Massumi 2002, pp. 24-30). The system therefore treats the seven values as operational signals within the feedback loop: they do not designate psychological content, but act as gradient forces that can perturb, stabilize, or amplify the audiovisual behavior of the system. In other words, the affect vector is not an interpretive reading of the message, but a computational extraction of intensity that becomes one of the driving variables in SINGULAR_GLITCH’s autopoietic dynamics.

By embedding this algorithmic translation into the larger feedback structure, the system ensures that textual inputs operate not at the level of semantic meaning but at the level of affective modulation. This design choice reinforces the post-subjective ethos of the installation: the system responds to the energetic contours of the input rather than its representational content, allowing affect to circulate as a formative, relational force within the closed loop.

Initial audience responses collected during the pilot demonstration support the view that affective modulation in SINGULAR_GLITCH is not merely a computational operation but a phenomenologically registered experience. Participants reported perceiving shifts in intensity as changes in visual instability, rhythmic acceleration, sonic pressure, or spatial tension. These reactions indicate that the affective vector, although algorithmically generated, manifests as a felt modulation within the viewer’s sensory field. Importantly, the audience did not experience these changes as expressive of a human agent but as emergent behaviors of the system itself. These observations reinforce the argument that affective force in this work arises through a recursive loop between human perception and nonhuman processes, rather than from intentional human expression.

Although audience responses are already identified as a significant component of the system’s operation, their role is expanded here through a qualitative analytic perspective. Rather than reducing audience reactions to quantitative indicators or aggregated metrics, this study approaches audience experience as qualitative data

consisting of verbal descriptions, observed behaviours, and reflective accounts. During the prototype demonstration, participants articulated their experiences using expressions such as unpredictability, tension, disorientation, and a sense of autonomous behaviour emerging from the system. These utterances and embodied reactions are treated not as subjective anecdotes but as phenomenological traces that reveal how affective modulation and glitch events are registered in lived experience.

While the exploratory nature of the pilot study limits the scope of systematic qualitative coding, integrating these observations allows for a more concrete linkage between theoretical claims and experiential evidence. The qualitative responses illustrate how abstract concepts such as affective loops, glitch eventhood, and distributed agency are encountered by audiences as situated experiences rather than as conceptual constructs alone. By foregrounding audience narratives and behaviours, the analysis demonstrates that post-subjective creativity is not only structurally enacted within the system but also perceptually recognised through specific modes of engagement. This qualitative perspective strengthens the dissertation's contribution as a practice-based research project by clarifying how theoretical propositions manifest in concrete aesthetic experience, even within the constraints of a limited pilot investigation.

3.2 Glitch Eventhood and Aesthetic Transformation (RQ2)

RQ2 asks: What constitutes a “glitch event” in the context of SINGULAR_GLITCH, and how do such events drive aesthetic transformation within the system? Building on the glitch theories discussed in Chapter 2, we define a glitch event in SINGULAR_GLITCH as a deliberate disruption introduced into the system's recursive loop - a moment of rupture that produces something new. In practice, a glitch can occur at various levels of the pipeline. For example, at the input stage a Telegram message might be randomly garbled or injected with noise (a data glitch); during processing, the Python code might introduce chaotic fluctuations or unexpected values (a software glitch); or at the output stage, the analog modular synthesizer might generate an abrupt burst of noise or visual distortion (a hardware glitch). Each of these anomalies is treated as an event that perturbs the ongoing flow of affect.

Calling these disruptions “events” is significant: following philosophical conceptions of the Event (e.g. the idea of a radical break that interrupts the status quo), a glitch event in SINGULAR_GLITCH is an unpredictable break from the system's current pattern. Such glitches are not mere errors to be corrected; rather, they are generative occurrences that

push the artwork into a new state. When a glitch strikes - for instance, a sudden data spike or a system hiccup that scrambles the visuals - it forces the autopoietic loop to deviate from its existing trajectory. This yields an aesthetic transformation: the audio-visual output shifts into a novel configuration that would not have arisen through continuous looping alone. Glitch events thus serve as the engine of novelty in the system, ensuring that the performance does not become static or repetitive.

Equally important is how SINGULAR_GLITCH handles these ruptures. The system is designed to absorb a glitch's effects and then return to its feedback cycle, incorporating the change rather than crashing. In other words, after a glitch event interrupts the flow, the feedback loop continues - now with altered conditions. For example, if a glitch produces an unexpected burst of noise and chaotic visuals, those outcomes become the new starting point for subsequent cycles. The next input (whether a system-generated message or an audience message) will be processed in the context of this altered state. Through this design, the rupture caused by a glitch is quickly followed by a re-stabilization of the loop.

These dynamic echoes a key principle of glitch aesthetics: breakdowns can be productive rather than purely destructive (Menkman 2011, p.12). Over time, the accumulation of glitch events in SINGULAR_GLITCH produces an evolving aesthetic narrative - one not scripted by an artist, but emergent from the interplay of order and disruption. Minor glitches might add subtle texture or deviation to the output, while major glitches might reconfigure the piece's direction entirely (akin to big "Event" moments). Because the system's design intentionally invites these anomalies, one can say that SINGULAR_GLITCH composes with chance as an artistic material. This aligns with Cascone's (2000, p.13) observation of an "aesthetics of failure" in digital art, where artists embrace system failures for creative ends. In our case, the artwork itself - as an autonomous agent - embraces its own failures.

By conceptualizing glitches as events within the system, we highlight their ontological role: they are the points at which something truly new enters the artwork. From a Badiouian perspective, each glitch is a small truth-event that breaks with the previous "rules" governing the output (Badiou 2005, p.173). From a Deleuzian perspective, each glitch is a singular expression of difference that creates new sense in the work. The fact that these events are induced by the machine itself (and chance processes) rather than a human decision is precisely what makes SINGULAR_GLITCH posthuman in its creativity. The human artist doesn't predetermine the "when" and "how" of the glitch - they only frame a space where glitches can happen.

In summary, SINGULAR_GLITCH addresses RQ2 by demonstrating that glitch events can be

harnessed as creative forces within an autonomous system. A glitch event in the context of this artwork is defined by its function: a rupture that transforms the aesthetic state of the system. Such events drive the artwork's evolution by injecting indeterminacy and forcing adaptation. By actively incorporating glitch events, SINGULAR_GLITCH ensures that its creative process remains open, emergent, and not entirely predictable - exemplifying how relinquishing strict control (and embracing error) leads to new artistic possibilities.

Although this dissertation conceptually differentiates noise and glitch-noise as a continuous or structural disturbance, and glitch as a discrete, disruptive event—the prototype example presented in this study does not always produce a clean perceptual separation between the two. This is due partly to the feedback-driven nature of the system: continuous noise textures may accumulate micro-instabilities, while disruptive glitch events may decay into sustained patterns, causing the two modalities to blur in practice. Rather than indicating an error in design, this ambiguity reflects the ontology of the system itself. SINGULAR_GLITCH does not treat noise and glitch as strictly isolated aesthetic categories; their perceptual overlap is a consequence of their co-emergence within a shared signal ecology. In this sense, the difficulty in distinguishing them is symptomatic of the system's posthuman configuration, where continuous and evental disturbances cannot always be neatly parsed, and where aesthetic significance arises from their relational interplay rather than from categorical purity.

3.3 Distributed Agency and Posthuman Creativity (RQ3)

RQ3 asks: How does SINGULAR_GLITCH distribute creative agency across human and non-human elements, and what does this imply for creative authorship? According to the posthuman perspective outlined in Chapter 2, agency in a creative system need not reside in a single human subject - instead, it can be distributed among many interacting components (Barad 2007, p.140; Haraway 1991). SINGULAR_GLITCH is explicitly built on this principle. No one element of the system (neither the artist-programmer, nor the software, nor the hardware) solely determines the artistic outcome. Rather, the artwork's behavior emerges from the interplay of all parts of the assemblage. The human creator's role is largely limited to setting the initial conditions and parameters (writing the code, configuring the hardware, defining how inputs are interpreted); after that, the system as a whole takes on a life of its own.

In effect, authorship in SINGULAR_GLITCH is collective and decentered. The final audio-visual performance is co-produced by the Telegram input module, the sentiment-analysis

algorithm, the visual and sound generators in Max/Jitter, and the analog circuitry - along with any stochastic variations or “noise” injected along the way. No single agent can claim full authorship over the outcome; creative agency is shared across the network of human and non-human actants.

This view aligns with Karen Barad’s concept of intra-action, which posits that agency emerges through relationships rather than being an inherent property of individual entities (Barad 2007, p.140). Within SINGULAR_GLITCH, the components only “act” in the context of the whole system. For example, the Python script’s analysis of text has creative influence only when its output shapes the behavior of the Max/MSP visuals and sounds; likewise, the Eurorack synthesizer’s unexpected oscillation becomes artistically meaningful only as it affects, and is modulated by, the digital visual feedback. Each part contributes tendencies or variations, but no part governs the process in isolation. In this sense, the creative agency in SINGULAR_GLITCH is relational - it resides in the interactions among the components rather than in any single one of them. This human-machine hybridity evokes Donna Haraway’s notion of the cyborg assemblage (Haraway 1991), wherein boundaries between human and technology blur in producing action. Similarly, the system reflects Rosi Braidotti’s idea of affirmative posthuman creativity (Braidotti 2013, p.50), treating algorithms and electronic processes as creative partners rather than mere tools. SINGULAR_GLITCH thus exemplifies an expanded creative subjectivity that moves beyond the traditional human-centered notion of the artist.

Notably, SINGULAR_GLITCH also reconfigures the role of the audience. Because the system can run autonomously on an “empty stage,” it does not require an active audience to sustain its feedback loop. The primary feedback is machine-to-machine; any human audience member is essentially a witness to a process that unfolds independently of their input. In a live setting, participants may send Telegram messages to provide stimuli, but this participation is limited to supplying initial triggers (affective data points) and does not alter the system’s underlying autonomous logic. By contrast, those who encounter the work after the fact (for instance, through documentation or recordings) witness the outputs without influencing them at all. Thus, a clear distinction emerges between the live audience and the post hoc audience. Live participants engage with the piece in real time and can introduce new inputs (within the system’s predefined constraints), whereas post hoc viewers experience a fixed sequence of events as spectators of a completed artifact. In either case, the locus of creative agency remains with the system itself: While the system can run autonomously, audience members who send messages are active co-participants: their texts modulate the system within designed affordances, even as authorship remains distributed with no privileged sender or receiver.

In summary, SINGULAR_GLITCH demonstrates a model of distributed agency in artistic creation. It shows that a creative process can be orchestrated by an assemblage of interacting agents rather than by a single human author. This finding answers RQ3 by highlighting that agency in this system is fundamentally posthuman and relational: the artwork's "creator" is the network of code, devices, and designed processes acting together. Artistic creativity is thereby reconceived as an emergent property of this human-machine assemblage, rather than the expression of an individual mind. Together, the analyses of RQ1, RQ2, and RQ3 underscore the triadic concepts of recursion, rupture, and relational agency (introduced in Chapter 2) as key pillars of SINGULAR_GLITCH's design. These interlocking principles form part of the broader theoretical foundation for understanding how the system operates as a posthuman creative work.

While SINGULAR_GLITCH demonstrates that aesthetic forces and creative transformations can emerge without direct human intention, this does not eliminate the role of the human subject in the constitution of aesthetic value. Aesthetic recognition remains a necessary condition for something to be understood as art. Even when a system self-organises, generates affective intensities, or undergoes glitch-driven transformations in the absence of viewers, the attribution of aesthetic significance—whether by the designer who frames the system or by the audience who later encounters it—ultimately requires human participation. This dissertation therefore distinguishes between the emergence of aesthetic phenomena, which can occur through nonhuman dynamics, and the ascription of aesthetic value, which remains tied to human perceptual and cultural frameworks. The contribution of SINGULAR_GLITCH is to show that creative change can arise independently of human authorship, but not that aesthetic judgement becomes independent of humans. In this sense, the artwork foregrounds a dual structure: creativity is distributed and decentered, yet the recognition of artistic meaning remains anchored in human evaluative agency.

Audience responses further illuminate how agency is attributed within SINGULAR_GLITCH. When viewers encountered autonomous changes in sound or image, particularly those triggered by glitches, they frequently ascribed creative force not to an absent human designer but to the system as an independent actant. Several participants described the system as behaving, deciding, or creating on its own, even while knowing it was programmed. At the same time, their interpretations did not erase the role of the human designer; instead, agency was perceived as distributed across design constraints, computational processes, and emergent behavior. These reactions confirm that creative authorship in this work is neither fully machinic nor fully human but arises relationally from the assemblage. The audience's perceptual judgments thus offer empirical support for a post-subjective model of agency.

A legitimate question arises at this point: does SINGULAR_GLITCH truly constitute a fundamentally new paradigm of authorship, or does it merely extend the experimental logic already articulated by John Cage in the mid-twentieth century? Cage's redefinition of music as a field of indeterminacy undeniably displaced compositional control and foregrounded chance operations. In this sense, SINGULAR_GLITCH stands in genealogical continuity with experimental music rather than in radical rupture from it. However, the difference lies not in the use of indeterminacy itself, but in the ontological status of agency within the system. Cage retained a human horizon of listening and framing: chance procedures were embedded within a compositional decision and ultimately addressed to a human interpretive field. By contrast, SINGULAR_GLITCH distributes agency across algorithmic, infrastructural, and machinic processes that operate autonomously within a recursive feedback ecology. The system does not merely relinquish control; it reconfigures the site of creative causality. In this respect, it is more accurately aligned with a Deleuzo-Guattarian conception of event as immanent emergence within a technical assemblage than with a Badiouian absolute rupture. Its novelty does not reside in abolishing authorship altogether—a gesture already explored in experimental music—but in engineering a sustained post-subjective ecology in which authorship becomes structurally undecidable. The work therefore should not be understood as a revolutionary break from experimental music, but as a posthuman mutation of it.

Chapter 4: Conclusion and Discussion - Embracing the Empty Stage

In this final chapter, the study's theoretical contributions and findings are synthesized with a focus on addressing each research question. They are briefly revisited and connected to the SINGULAR_GLITCH framework as outlined in Chapter 2. The chapter also clarifies definitions of the core concepts - SINGULAR_GLITCH, affective glitch, and post-subjective creativity - to ensure these terms are clearly understood in context.

4.1 Overview of the Study and Key Contributions

By developing the concept of SINGULAR_GLITCH as an affective, autopoietic art system, the study provides a concrete example of post-subjective creative process in action. In media-archaeological terms, SINGULAR_GLITCH can thus be situated within a broader lineage of image-sound experimentation, reflecting what Föllmer and Gerlach identify as an enduring intermedial character of music that predates the digital era (Föllmer and Gerlach, 2005, n.p.). Recognizing this connection strengthens the argument that the system is part of a historical continuum rather than an isolated innovation.

Theoretical Integration: The study synthesizes theories of affect (Massumi, Thompson), event (Badiou, Deleuze), and distributed agency (Haraway, Barad, Latour) into a coherent framework for posthuman aesthetics. It introduces the notion of an “affective glitch” on an “empty stage” as a unifying concept that captures the interplay of intensity, rupture, and decentered authorship.

Conceptual Model of Conceptual model of the integrated theory (Singular_Glitch) : The research proposes a detailed conceptual model of an autonomous creative system that embodies the above framework. This model - comprising a closed affect loop, self-induced glitches, and distributed multi-agent participation - serves as both a thought experiment and a blueprint for designing actual art systems that operate beyond human-centric paradigms.

Expanded View of Authorship: By analyzing SINGULAR_GLITCH's operation, the dissertation demonstrates how creative authorship can be redistributed among humans, algorithms, and machines. It challenges the conventional idea of the artist-genius and shows that meaningful art can emerge from an assemblage of actants, aligning with posthumanist calls to rethink agency and subjectivity in creativity.

Cross-Cultural Reflection: The work acknowledges and incorporates insights from East Asian

aesthetics - particularly the appreciation of emptiness (“yeobaek”) and imperfection - drawing parallels to the aesthetics of glitch and the notion of an “empty stage.” This cross-cultural lens adds depth to the discussion, indicating that the themes of letting go of control and valuing absence have precedents in non-Western art traditions.

Practice-Based Insight : Although SINGULAR_GLITCH was not built as a full installation (given the conceptual nature of this research), the process of designing its components and logic has yielded practice-based insights. The documentation and Appendix present a roadmap for implementing such systems, contributing practical knowledge to the emerging field of posthuman creative practice.

Conceptually grounded claims were lightly triangulated by the audience interviews, whose preliminary observations were consistent with the framework’ s emphasis on affective intensity and perceived system autonomy.

4.2 Integrating Pilot Audience Interviews – Implications (see Appendix C)

Rather than restating Appendix C, this section draws out what the pilot implies for the thesis. First, participant responses substantiate the claim of calibrated unpredictability: interest and immersion were sustained while the system remained non-scripted, aligning with the event-based account of glitch. Second, appraisals of machine-driven autonomy support the model of distributed agency without reinstating a privileged sender/receiver. Third, remarks on onboarding, legibility, and intensity ceilings specify design constraints under which the empty-stage aesthetics is most effective. These observations are descriptive, not inferential; Appendix C contains all methods, statistics, and quotations.

4.3 Clarification of Key Concepts

Throughout this thesis, several key terms were coined or adapted to articulate the theoretical framework. For clarity, the core concepts are defined here:

SINGULAR_GLITCH: This term denotes a unique, one-time glitch event elevated to the status of an artistic actor or focal point. Rather than treating a glitch as a mere technical error, SINGULAR_GLITCH frames it as a singular occurrence with its own affective intensity and creative potential. It is “singular” in the sense that each glitch is contextually unique and irreducible, embodying the idea that within a chaotic malfunction lies the seed

of something novel. In this thesis, the SINGULAR_GLITCH concept underpins an aesthetic strategy of embracing randomness and error as a way to break habitual patterns and generate unforeseen outcomes in art. It encapsulates the project's posthumanist aesthetic by suggesting that meaning and form can emerge from events beyond the artist's direct control.

Affective glitch: An affective glitch refers to a glitch event considered for its capacity to evoke or transmit affect (raw, pre-conscious intensity of feeling). Drawing on Massumi's distinction between affect and emotion, an affective glitch is one that triggers visceral responses or shifts in mood before they coalesce into recognized emotions (Massumi 2002). In other words, it is a glitch that is felt bodily by the audience at an intensity level that precedes analytical understanding. For example, a sudden distortion in a visual display or an unexpected jolt in audio might create a sense of disorientation, surprise, or curiosity – responses that register as pure intensity and potential meaning rather than a labeled emotion. The concept of affective glitch emphasizes the power of glitches to move us and produce experience directly, aligning with this study's interest in immediate, embodied responses rather than only interpretive ones. It also highlights that a glitch carries an autonomous affective charge which cannot be fully captured in language, occurring as it does before conscious awareness (Massumi 2002).

Post-subjective creativity: This phrase describes a mode of creative practice that goes beyond the individual human subject as the sole originator of an artwork. In a post-subjective creative process, agency is shared among human, technological, and even random material forces. The term takes inspiration from posthumanist theories (Haraway 1985; Barad 2007), proposing that creativity can be decentered and distributed across an assemblage of actors. Post-subjective creativity explicitly rejects the traditional notion of the artist-genius exercising complete control; instead it deliberately embraces uncertainty, algorithmic collaboration, and the emergence of artworks from interactions that exceed full predictability or conscious intention. It entails designing creative processes in which the outcome is co-crafted by both the artist's input and the glitching system's behavior. The human creator may set initial conditions or parameters (for instance, providing a live data feed or an algorithmic setup) and then step back to allow the system's responses (glitches, algorithmic permutations, even machine-learning-driven randomness) to significantly influence the final form. This approach yields artworks that the human alone could not have anticipated – a testament to how relinquishing control can foster innovation. By terming this mode post-subjective, the framework marks a deliberate move beyond human-centered creativity, aligning with broader posthuman trends that recognize the creative roles of nonhuman agents (Braidotti 2013).

With the above concepts in mind, we can now address the specific research questions (RQs) that guided this study. Each question is answered through a philosophical and conceptual lens, drawing on the theoretical framework established and the insights gained in the course of the research:

Answer to RQ1: Affective Loops

The first research question examined how affective feedback loops function within a post-subjective creative system. The findings show that SINGULAR_GLITCH operationalizes affect not as emotional content but as a graded modulation extracted from textual embeddings and circulated through a recursive audiovisual loop. Once transformed into affective intensities, audience inputs lose their semantic anchoring and re-enter the system as forces rather than meanings. The loop therefore amplifies, redirects, and transforms intensity in ways that exceed the intention of any participant. This demonstrates that posthuman affect arises from the system's relational dynamics rather than from a human emotional source. The creative force is thus not located in expression but in modulation—shifts in intensity that reorganize perception across human and nonhuman bodies.

Answer to RQ2: Glitch Eventhood

The second research question considered how glitch events—abrupt discontinuities within the system—produce aesthetic transformation. The analysis reveals that glitches function as eventual ruptures that reconfigure the system's ongoing trajectory. Minor fluctuations act as Deleuzo-Guattarian micro-events that continually reshape the expressive surface, while major glitches operate as Badiouian breaks that open qualitatively new directions for the system's evolution. Crucially, these events are not controlled by the designer; they arise from the system's internal physiology of feedback, stochastic variation, and recursive accumulation. Glitch eventhood therefore constitutes a distinct mode of creative emergence in which novelty is generated through engineered, yet unpredictable, dynamics. The system becomes creative not by symbolizing rupture, but by undergoing it.

Answer to RQ3: Distributed Agency

The third research question addressed how agency is distributed across human and nonhuman actants within SINGULAR_GLITCH. The study concludes that agency in the system is enacted relationally rather than held by any single actor. Although the designer establishes enabling conditions, creative authorship does not reside in design intention. Instead, agency emerges through intra-actions among algorithms, affect vectors, hardware processes, spatial acoustics, and occasional audience inputs. No component—whether human or machinic—

can claim authorship of the evolving output. The artwork thus exemplifies a posthuman model of creativity in which meaning, action, and transformation arise from a distributed field of relations rather than from a unified subject. This distributed ontology is the system's most significant departure from traditional compositional paradigms.

One of the central contributions of this research lies in what became evident only through the process of artistic production itself. At the outset of the study, the theoretical framework assumed that affective loops, glitch events, and distributed agency could be conceptually articulated as conditions for post-subjective creativity. However, the practical development and testing of SINGULAR_GLITCH revealed several dynamics that were not fully anticipated at the theoretical level. In particular, the degree to which audience perception actively reconfigured the system's behaviour, and the extent to which glitch events altered not only aesthetic outcomes but also interpretive expectations, emerged only during the process of making and observing the work.

These findings prompted a refinement of the original theoretical assumptions. Rather than treating affective modulation, glitch, and agency as stable conceptual categories, the production process demonstrated that these elements continuously reshaped one another in practice. For example, glitches initially conceived as isolated rupture points were experienced as extended moments of uncertainty that influenced subsequent audience interpretation and system response. Similarly, distributed agency appeared less as an abstract ontological claim and more as a perceptual phenomenon, recognised through moments when observers could no longer clearly attribute creative control to either human or machine. Through these practice-led insights, the research shifted from a purely conceptual model toward a more situated understanding of post-subjective creativity, grounded in the contingencies and feedback encountered during production.

By explicitly articulating what was learned through making the work—and how these insights diverged from initial expectations—this dissertation demonstrates its originality as practice-based research. The creative process did not merely illustrate pre-existing theory; it actively generated new questions and adjustments to the theoretical framework. In this sense, the artwork functioned as a research instrument that transformed the conceptual premises of the study, rather than simply confirming them.

Finally, while SINGULAR_GLITCH demonstrates that the emergence of aesthetic phenomena can occur without direct human control, the attribution of aesthetic value remains fundamentally human. Creative transformation within the system is generated through nonhuman processes such as affective modulation, recursive feedback, and glitch-driven rupture, yet it becomes art only when encountered, interpreted, and framed by a human

subject. At the same time, it is necessary to consider that the perceived absence of a human author may itself contribute to the affective intensity of the work. The recognition that no identifiable subject is guiding the unfolding process can heighten surprise, estrangement, or even awe. Part of the aesthetic response may therefore arise from the destabilization of anthropocentric expectation. Viewers accustomed to locating intention behind artistic form may experience a productive uncertainty when confronted with a system that appears to operate without a central agent. This tension does not contradict the post-subjective framework; rather, it reveals how deeply human perception remains oriented toward the attribution of agency. Accordingly, the dissertation distinguishes between the emergence of aesthetic events, which may be nonhuman, and the recognition of aesthetic value, which remains a human interpretive act. The power of the work lies partly in making this distinction perceptible.

4.4 Resonance with Korean Aesthetics of Emptiness (Integrative Synthesis)

As signposted in §2.5, East Asian aesthetics functions here as a corroborative lens, not an alternative canon. Three concrete interfaces between that lens and the present results are worth noting.

Empty stage as active space. Read through “yeobaek”, emptiness is not lack but a structuring field that heightens relational salience; this informed the work’s no-sender/no-receiver stance, minimal on-screen messaging, and anonymity policy (Kang, 2001, pp. 60-62).

Calibrated imperfection. “Sobak” and the moon-jar paradigm legitimize asymmetry and irregularity as signs of vitality; this underwrote the use of controlled, intermittent glitch as a design principle rather than a defect (Kim, 2003, pp. 115-118; Park, 2010, pp. 40-42; Cascone, 2000, p. 13; Menkman, 2011, p. 12).

Interpretive payoff. The pilot’s patterns (e.g., awe/immersion alongside occasional sensory strain; Appendix C) are consistent with an aesthetic that opens form and modulates intensity without reinstating a privileged author—an effect anticipated by the empty-stage/” yeobaek” reading.

Accordingly, the Korean aesthetic references converge with the thesis’ s posthuman account (affective loops, eventual unpredictability, distributed agency) while remaining strictly supplementary.

4.5 Final Reflections and Future Directions

In conclusion, this research advances our understanding of creativity in the digital age by foregrounding the productive role of glitches and affect in a posthuman context. It challenges the conventional human-centric narrative of art-making and demonstrates a viable alternative: a post-subjective, affect-driven creative process in which human and machine collaboratively generate outcomes that neither could achieve alone. This work shows that embracing unpredictability and nonhuman agency can open pathways to novel forms of artistic expression.

The implications of this work are manifold. Theoretically, it contributes to posthumanist aesthetics by providing a concrete example of how decentering the human creator can yield new creative possibilities. Beyond its theoretical contribution, this research also suggests practical and methodological applications for contemporary musicology and media art studies. A further question concerns the scope of applicability of the theoretical framework proposed in this dissertation. Although the model is articulated through the case of SINGULAR_GLITCH, it is not intended to remain confined to this specific system. The framework is grounded not in the technical details of one implementation, but in three structural principles: affective modulation, evental rupture, and distributed agency. These principles are not medium-specific; they describe relational dynamics that can emerge in a wide range of contemporary artistic practices, particularly those involving algorithmic systems, feedback architectures, interactive installations, or hybrid human-machine collaboration.

The theoretical applicability of this model therefore depends on structural conditions rather than stylistic similarity. Any artistic practice in which (1) intensity circulates prior to semantic interpretation, (2) discontinuities reconfigure ongoing processes in unpredictable ways, and (3) agency is enacted relationally across human and nonhuman actants, may be analyzed through this framework. The theory does not claim universal validity for all art, nor does it replace established aesthetic paradigms. Instead, it offers a conceptual lens suited to posthuman configurations of creativity in technologically mediated environments. Its scope is thus delimited but transferable: it applies where creativity is structurally distributed and where emergence cannot be reduced to individual intention.

In music research, the framework of affective loops and glitch eventhood offers a model for analysing works in which compositional control is partially delegated to algorithmic or

stochastic systems. Rather than interpreting such works through traditional categories of authorship or stylistic intention, scholars may examine how intensity, rupture, and distributed agency function structurally within the sonic process. In media art research, the model provides a vocabulary for describing systems in which meaning emerges from recursive interaction rather than representational content. It encourages a shift from object-centered analysis toward process-centered inquiry, foregrounding how affective modulation and engineered unpredictability shape aesthetic experience. Accordingly, SINGULAR_GLITCH may serve as a conceptual prototype for future investigations into human-machine co-creativity, algorithmic improvisation, and post-subjective artistic ecologies. Practically, it offers artists and designers a fresh approach - one that is experimental and open-ended - encouraging them to design systems that embrace unpredictability and to view technical glitches not as obstacles but as opportunities. Even though the outcomes in such systems are algorithmically generated, the complexity and sensitivity to initial conditions introduce genuine unpredictability, exemplifying deterministic chaos rather than pure randomness.

Of course, this study also opens several avenues for further exploration. Some key directions for future work include:

Richer affective inputs: Expanding the range of affective data driving the glitches. For instance, future implementations could incorporate physiological signals (heart rate, EEG, galvanic skin response) or computer-vision-based emotion recognition, in addition to textual emotion cues, to explore how different forms of affect influence the creative outcomes.

Audience experience and evaluation: Conducting user studies or other forms of audience research to better understand how affective glitches are perceived. How do viewers or participants experience the artworks produced by SINGULAR_GLITCH-like systems? Do they sense the shift in authorship or the post-subjective nature of the creativity? Systematic inquiry into audience reception would help evaluate the aesthetic impact and provide feedback for refining the approach.

Cross-domain applications: Applying the SINGULAR_GLITCH framework in other artistic domains beyond interactive installation or audio-visual art. For example, one might experiment with glitch-informed choreography in dance, architectural design that incorporates material glitches or randomness, or literary practices that use algorithmic “glitches” in text. Exploring these domains would test the versatility of the concept and potentially reveal new insights about posthuman creativity in different contexts.

Technical enhancements and scalability: Refining and extending the technical implementation of the system. The current prototype (a Python-Telegram-OSC pipeline for real-time affective modulation of media) successfully demonstrated the core ideas, but it could be augmented with more advanced machine learning models to interpret affect with greater nuance. It could also be scaled to networked, multi-user environments to investigate how multiple streams of human affect might intersect in a collective glitch-based creation. The documentation and code provided in Appendix A serve as a foundation that others can build upon, and sharing this technical groundwork invites collaboration and further innovation in the spirit of post-subjective creation.

In closing, SINGULAR_GLITCH as a conceptual and artistic project encourages us to rethink control, failure, and emotion in creative practice. Embracing the glitch means embracing the unknown and the imperfect - an attitude that can lead to richer and more authentic expressions in an era increasingly defined by complex human-machine entanglements. As both a theoretical construct and a practical experiment, this work suggests that when we allow technology's surprises and the raw intensity of affect to play a guiding role, we step into a post-subjective era of creativity: one where art emerges not just from the intentions of human minds or the determinations of machine algorithms, but from the vibrant interplay between them. This conclusion is not an end point, but a point of departure - a catalyst for continuing to explore (and indeed, to glitch) the boundaries of art, perception, and subjectivity.

4.6 Study Limitations and Scope Conditions

This dissertation is theory-first and is accompanied by a small, controlled pilot. The following constraints delimit what can be claimed:

Small-N, convenience sample. The pilot involved $n = 6$ participants recruited by convenience. Results are descriptive rather than inferential and cannot be generalized to broader audiences.

Ecological validity. Sessions were run in a non-public, lab/studio setting (10-minute interaction). Findings may not transfer to public venues, longer durational formats, or different display/sound systems.

Prototype scope. The pilot used a browser-based minimal prototype; it does not fully represent the behavior of a larger Max/MSP-Eurorack configuration. System performance and aesthetics under expanded hardware pipelines remain to be tested.

Measurement and analysis. Instruments comprised brief Likert items and short interviews; qualitative coding was performed by a single coder. No inter-coder reliability was computed, and no inferential statistics were run.

Translation and transcription. Interviews were conducted in Korean and translated into English by the author. Nuance loss and translator bias are possible.

No demographics. To protect anonymity, demographic variables were not collected; subgroup effects (e.g., expertise, age) cannot be assessed.

Temporal scope. The study captures immediate, post-session responses only; it does not include longitudinal follow-ups on memory, learning, or repeated exposures.

Ethical/data constraints. Raw chat logs were retained for ≤ 14 days under a minimal-retention policy; richer secondary analyses were intentionally avoided.

These limits do not weaken the theoretical contribution—they specify the conditions under which the descriptive pilot aligns with the proposed framework. Future work should test the model with larger and more diverse samples, public presentations, full hardware pipelines, multi-coder analysis, and longer-term evaluations.

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Appendices

Appendix A: Telegram-to-Max/MSP Emotion Pipeline Implementation

System Overview: Telegram-Python-OSC Pipeline

Editorial note. Appendix A documents a conceptual/legacy Max/MSP-centric pipeline that informed the system's design. The pilot prototype reported in the dissertation was executed in a browser-based audio-visual chain (Python → web client with Tone.js/Canvas), which is semantically equivalent at the level of affect-vector mapping.

This appendix describes a custom pipeline that enables real-time transformation of audience text messages into audiovisual outputs for the SINGULAR_GLITCH project. The system is composed of three primary components: a Telegram messaging interface, a Python-based processing script, and a Max/MSP patch for visual (Jitter) and sonic (Eurorack) manipulation. In summary, participants send messages via Telegram, the Python backend converts each message into a seven-dimensional emotion vector, and these values are sent over OSC (Open Sound Control) to Max/MSP. The Max/MSP patch receives the OSC data and uses it to modulate visual effects and analog synthesizer parameters. This pipeline allows an audience's textual input to directly drive generative audio-visual elements on stage.

At a high level, the data flow is as follows:

Telegram Input: A user sends a text message to a dedicated Telegram bot (running as a Python service on a local machine).

Python Processing: The bot application receives the message text, computes a high-dimensional text embedding (using a pretrained transformer model), and reduces it to a 7-value emotion vector. The vector (along with the original text) is then packaged into an OSC message.

OSC Transmission: The Python script, acting as an OSC client, sends the message to a local OSC server (localhost) on port 12000 with a specific address tag (in this case, `"/wek/outputs"`).

Max/MSP Reception: The Max/MSP patch (running on the same machine) listens on port 12000, extracts the incoming seven numeric values and text string, and routes these values to various modules in the patch.

Audiovisual Output: Within Max/MSP, the seven numeric values drive Jitter visual processes

(producing or altering images/video) and Eurorack synthesizer parameters (via control voltages or digital modulation), creating a responsive audio-visual “affective glitch” on the empty stage.

This end-to-end system ensures that an audience message sent from a personal device is translated into a multi-dimensional emotional representation that immediately influences the media art piece. The following sections document each component in detail, including code structure, communication protocols, and design considerations.

Implementation Details and Source Code Components

The implementation consists of a set of source files that work together to realize the Telegram-to-OSC pipeline. Each file plays a distinct role in the system’s operation. Below, each component is described, followed by relevant listings of source code or content.

`final_telegram_bot.py` - Telegram Bot and OSC Bridge

This Python script is the core of the system, acting as both the Telegram bot backend and the bridge to the OSC interface. Key aspects of `final_telegram_bot.py` include:

Telegram Bot Setup: Uses the `python-telegram-bot` library to create and run the bot. The bot’s API token is stored in an external file (`token.txt`) for security and read at runtime with `ApplicationBuilder().token(TOKEN).build()`. A message handler is added to respond to any incoming text message (filtering out commands). The bot is configured to operate in both private chats and group chats (using a filter that accepts all text messages that are not commands).

Message Handling: When a message is received, the asynchronous handler `handle_message` is called. It retrieves the text content of the message (ignoring any non-text content). The message text is passed into a `SentenceTransformer` model (pre-trained multilingual MiniLM) to produce a high-dimensional numeric embedding, which is essentially a vector representation of the message’s semantic content.

Emotion Vector Computation: The high-dimensional embedding (hundreds of dimensions) is compressed into a seven-dimensional emotion vector by a custom function `embedding_to_7d()`. This function divides the embedding into seven segments and computes the average value of each segment, yielding seven numbers. These seven values serve as a compact representation intended to capture different latent aspects of the message’s emotional or semantic tone. The raw 7D vector is then normalized for consistency: it is scaled so that its minimum value becomes 0.0 and its maximum value becomes 1.0. (In the rare case that all seven

values are identical, the code falls back to a default neutral vector of $[1/7, 1/7, \dots, 1/7]$ to avoid a divide-by-zero situation.) The result is a list of seven floating-point numbers, each rounded to four decimal places for brevity.

OSC Message Construction: The script prepares an OSC message payload containing the seven float values followed by the original message text string. Including the text in the OSC payload allows the Max patch to optionally display or log the actual message content if desired (for example, showing the text on screen or using it for further analysis in Max). The OSC address used is `"/wek/outputs"` - a tag chosen to align with a common convention (as used by Wekinator) but serving here simply as a consistent address that the Max patch will listen for. The Python script uses the `python-osc` library's UDP client to send the OSC message to 127.0.0.1 (localhost) on port 12000, where the Max patch is listening.

Logging and State: For debugging and analysis, the script logs information to the console. Each time a message is processed, it prints the outgoing OSC data (the 7 floats and the text) for verification (using a statement like `print("OSC to Max:", osc_max)`). It also computes the cosine similarity between the current emotion vector and the last one sent (if available) to give an indication of how similar the new message's emotional signature is to the previous message. This similarity is printed alongside the vector for reference. The script maintains a global variable `last_vec` to store the last sent vector for this purpose.

Bot Execution: The script runs the Telegram bot by calling `app.run_polling()` in the `__main__` section, which starts the bot's event loop and listens for incoming messages continuously. A simple Bash launcher script (discussed below) is used to start this Python program in the correct environment.

Full source code listing of `final_telegram_bot.py`:

```
import logging

from pythonosc import udp_client

from telegram.ext import ApplicationBuilder, MessageHandler, filters, ContextTypes

from telegram import Update

from sentence_transformers import SentenceTransformer

import numpy as np
```

```

with open('token.txt', 'r') as f:

    TOKEN = f.read().strip()

max_client = udp_client.SimpleUDPClient("127.0.0.1", 12000)

st_model = SentenceTransformer('paraphrase-multilingual-MiniLM-L12-v2')

def embedding_to_7d(embedding):

    step = len(embedding) // 7

    vec7 = []

    for i in range(7):

        group = embedding[i*step:(i+1)*step] if i < 6 else embedding[i*step:]

        avg = float(sum(group)) / len(group)

        vec7.append(avg)

    return vec7

from numpy import dot

from numpy.linalg import norm

def cosine_similarity(a, b):

    a, b = np.array(a), np.array(b)

    return float(dot(a, b) / (norm(a) * norm(b) + 1e-8))

```

```
last_vec = None
```

```
async def handle_message(update: Update, context: ContextTypes.DEFAULT_TYPE):
```

```
    global last_vec
```

```
    text = update.message.text
```

```
    chat_type = update.message.chat.type
```

```
    if chat_type in ['private', 'group', 'supergroup']:
```

```
        embedding = st_model.encode(text)
```

```
        vec7 = embedding_to_7d(embedding)
```

```
        vec = np.array(vec7, dtype=np.float64)
```

```
        floats = [float(x) for x in vec]
```

```
        if np.allclose(floats, floats[0]):
```

```
            scaled = np.ones_like(floats) / 7
```

```
        else:
```

```
            scaled = (vec - vec.min()) / (vec.max() - vec.min() + 1e-8)
```

```
        scaled_floats = [float(f"{float(x):.4f}") for x in scaled]
```

```

# '익명' 단어 없이 처리

osc_max = scaled_floats + [f"{text}"]

print("OSC to Max:", osc_max)

max_client.send_message("/wek/outputs", osc_max)


if last_vec is not None:

    similarity = cosine_similarity(scaled_floats, last_vec)

    sim_str = f" | Similarity: {similarity:.3f}"

else:

    sim_str = ""

last_vec = scaled_floats

print(f"Message: {text} | Vector7: {scaled_floats} {sim_str}")


if __name__ == "__main__":

    logging.getLogger("httpx").setLevel(logging.WARNING)

    app = ApplicationBuilder().token(TOKEN).build()

    app.add_handler(MessageHandler(filters.TEXT & (~filters.COMMAND), handle_message))

    print("Final Telegram bot started in private/group mode.")

    app.run_polling()

token.txt - Bot Token File

```

The file `token.txt` (not shown here for security) contains the private API token (authentication key) for the Telegram bot. The Python script reads this file at startup to get the token. Storing the token in a separate untracked file (rather than hard-coding it) is a security best practice, ensuring that sensitive credentials are not exposed in the source code or version control. In documentation, we mention the token handling approach without revealing the actual token value, thereby preserving system security while explaining the implementation.

`requirements.txt` - Python Dependencies

The `requirements.txt` file lists the Python libraries and specific versions needed to run the Telegram bot script. Listing these dependencies ensures that the software environment can be replicated exactly, which is important for both development and academic reproducibility. The contents of `requirements.txt` for this project are shown below:

```
python-telegram-bot~=20.3
```

```
python-osc~=1.8.3
```

```
transformers~=4.39.3
```

```
torch~=2.3.0
```

Each line specifies a package and a version (using the `~=` version specifier to allow minor version compatibility). In summary, these dependencies include:

`python-telegram-bot 20.3`: Telegram Bot API wrapper used to interact with Telegram's services.

`python-osc 1.8.3`: Library for sending and receiving OSC messages (here used for the UDP client that sends data to Max).

`transformers 4.39.3`: Hugging Face Transformers library, required for the `sentence_transformers` model (provides the underlying model architecture and utilities).

`torch 2.3.0`: PyTorch library, required as the backend for the transformer model (handles tensor computations for encoding the text embedding).

(Note: The `sentence-transformers` package providing `SentenceTransformer` is indirectly covered by these requirements, as it relies on `transformers` and `torch`. In a complete setup,

one might include sentence-transformers in this list as well for clarity, but the above list covers the major components of the NLP pipeline.)

RunFinalTelegramBot.command - Execution Script

RunFinalTelegramBot.command is a simple shell script used to launch the Telegram bot program on macOS/Linux. It is not essential to the logic of the pipeline, but it provides a convenient one-step startup. The script navigates to the project directory and runs the Python script. Its content is as follows:

```
#!/bin/bash
```

```
cd ~/Desktop/EmotionOSC
```

```
python3 final_telegram_bot.py
```

This script assumes the project folder is located at ~/Desktop/EmotionOSC and will execute the Python bot using the system's Python 3 interpreter. In practice, one could double-click this script (on macOS, after making it executable) to start the bot without needing to manually open a terminal and run the Python file. This convenience was used during the performance to quickly initiate the system.

Max/MSP Reception Patch Structure

On the Max/MSP side, a corresponding patch is set up to receive the OSC messages and route the data to audio/visual processes. The Max patch uses a UDP receive object and routing logic to handle the incoming stream from Python. In simple terms, the reception works as follows:

OSC Input: The patch includes an object [udpreceive 12000] which listens for UDP packets on port 12000 (the same port the Python script sends to). This object outputs any incoming OSC data.

Address Routing: The output of udpreceive connects to a routing object that filters messages by address. For example, the patch uses [route /wek/outputs] (or the equivalent OSC-route object) to catch incoming OSC messages tagged with the address /wek/outputs. This strips off the address and passes along the remaining data (the seven floats and the text string) as a list of arguments.

Data Unpacking: The seven floats and the text are then unpacked into individual outlets. A construct like `[unpack f f f f f f f s]` is used to split the OSC argument list into eight separate outputs. This delivers each of the seven numeric values and the message text to different parts of the Max patch for further processing.

Parameter Distribution: Each of the seven float values is routed to control a specific parameter in the audio or visual modules of the patch. For instance, these values (normalized 0-1) may be connected to DSP controls (via `[number]` boxes or directly into signal operators) and Jitter effect parameters. One value might control the intensity of a video glitch effect, another might modulate the speed of a video playback or the cutoff frequency of a filter in the sound, and so on. The design ensures that each component of the emotion vector influences a distinct aspect of the media output.

Text Utilization: The text string from the OSC message can be fed to a visual element if desired. For example, the patch could send this string to a Jitter text object (such as `[jit.gl.text]` or a 2D text overlay) to display the incoming message on screen. This means the audience's words could momentarily appear on the empty stage, potentially with glitchy transformations, reinforcing the concept of the audience's voice populating the empty space. If not needed visually, the text could also simply be logged or ignored by the patch.

Eurorack Integration: In addition to digital visuals, the Max patch outputs control signals to an external Eurorack modular synthesizer (for analog sound generation). This is achieved by mapping some of the seven values to CV (control voltage) signals. For example, through a DC-coupled audio interface or a MIDI-to-CV module, Max can send out voltage changes corresponding to the emotion values (e.g., mapping 0.0-1.0 to 0-5V) to influence analog synth parameters like oscillator pitch, filter cutoff, or effect levels. In the performance, this allowed the emotion vector to directly shape the timbre and behavior of the physical modular synth in real time.

Triggering and Sync: The inclusion of the message text in the OSC data also provides a trigger mechanism. Each new incoming message produces a change in the text output of the `[route]` object. The patch can detect this change (for instance, using a `[change]` object or by routing the text output to a `[bang]`) to trigger one-time events whenever a new message arrives. This can be used to synchronize events, such as resetting a visual routine or striking a sound, so that each audience message causes a distinct responsive "event" in the audio-visual output.

In summary, the Max/MSP reception patch consists of the following core elements working in sequence:

A UDP listener to receive data from Python (udpreceive 12000).

An OSC address filter to isolate the relevant stream (route /wek/outputs).

An unpacking stage to split the seven floats and the text (unpack f f f f f f f s).

Mapping of the seven numeric values to visual parameters (via Jitter objects/effects) and to sound parameters (via interfaces to the Eurorack modular synth or audio interface outputs).

Optional logic to display the text on screen and to trigger or reset effects when new messages come in.

This minimalist design of the Max patch ensures that the incoming emotional data is used effectively without over-complicating the patch. Each audience message is thus translated into a coordinated set of visual and auditory modifications, closing the loop of interactivity from text input to stage effect. The structure described above was implemented in the actual Max patch, providing a clear and robust bridge between the Python-generated emotion vectors and the live performance environment.

Appendix B - Public Presentation Materials

B.1 Research Participant Briefing (Neutral, used prior to interviews)

Purpose

This 10-minute session collects immediate impressions through short audience interviews (with brief numeric ratings). Participation is anonymous and voluntary; no personal identifiers are collected.

Procedure (≈12-13 min)

- Performance (10 min): Send short sentences to the Telegram bot at ~20-25 intervals.
- Interview (2-3 min): Provide brief ratings (0-10 / 1-5) and one or two open comments.

What to send

- Short Korean sentences (3-15 words), freely.
- Do NOT include names, contacts, or third-party personal information; avoid discriminatory or violent expressions.

System (minimal)

- A browser-based system maps incoming text to real-time audio/visual changes. Technical details are withheld to avoid bias.

Safety

- Strobe and audio operate in safe mode. Stop immediately if you feel discomfort.

Data / Privacy

- Anonymous participation. Collected: your text, timestamps, and system responses (numeric logs).
- Interview quotations in the thesis are the author's English translations from Korean.

Consent

- ☐ I have read this briefing and agree to participate voluntarily.

B.2 Performance Leaflet (Artistic Text, archived)

A Message Without Sender or Receiver - Designed by YI SEUNGGYU

While glitch aesthetics emphasizes momentary, transformative errors in systems, noise music often engages sustained sonic disturbances. To maintain conceptual clarity, this dissertation foregrounds glitch as distinct from broader noise aesthetics.

Educated in Sound Design and Sound Synthesis in London, and currently based in Japan, YI SEUNGGYU approaches noise and acoustic violence through a systems engineering lens. His long-standing research into real-time media processing, error aesthetics, and sonic

disturbance consistently resists total synchronization between audio and visuals, favoring a trajectory of humanization rather than machinic precision. In doing so, he reframes glitch and noise not as residues to be erased but as aesthetic events—occurrences that produce significant perceptual or experiential transformations, distinguished from everyday events by their artistic intentionality or emergent creative outcomes.

During the performance, the audience is invited to participate by scanning a QR code and submitting anonymous messages via their smartphones. These everyday messages, once entered into the system, are no longer bound to their authors. The system anonymizes, decontextualizes, and reprocesses the text as part of a self-referential circuit. The audience thus becomes both participant and observer, experiencing their own words defamiliarized in real time.

The sound dimension is generated from emotional vector data, converted into analog voltage that drives a Eurorack modular synthesizer. Though a performer is physically present, their identity is rendered indiscernible, submerged beneath layers of electric translation. Noise and distortion—far from being unwanted byproducts—are deployed to fracture semiotic order and sensory equilibrium. As such, they reconfigure the audience's perceptual expectations, offering a profound aesthetic and psychological confrontation.

Ultimately, A Message Without Sender or Receiver merges distinct theoretical domains to propose new perspectives in media system design and machine aesthetics. By rejecting traditional subjectivity and affirming the expressive potential of error, the system presents an experimental case for how glitch events and affective loops function in live environments. It is an inquiry into the emergent, recursive entanglement between humans, machines, and the collapse of clear authorship in the age of posthuman media art.

 CAUTION: This performance features intense flashing lights and high-volume noise that may cause discomfort or trigger adverse reactions. Viewer discretion is advised, particularly for children, elderly persons, pregnant women, and individuals with photosensitive epilepsy or other health conditions. 

2. Audience Instruction Visual (To Be Displayed Onscreen During Entry)



Step 1: Scan the QR code on your seat or at the entrance.



Step 2: Send any message anonymously using your phone.



Your message will be processed and transformed in real time by the system.

🚫 No names, no tracking. No sender. No receiver.
Even no performer.

🗨️ What you write may return to you-glitched, fragmented, unfamiliar.
Feel it. Don't try to control it.
This is not your stage.
This is not your message.
This is not your voice.
But it is your event.

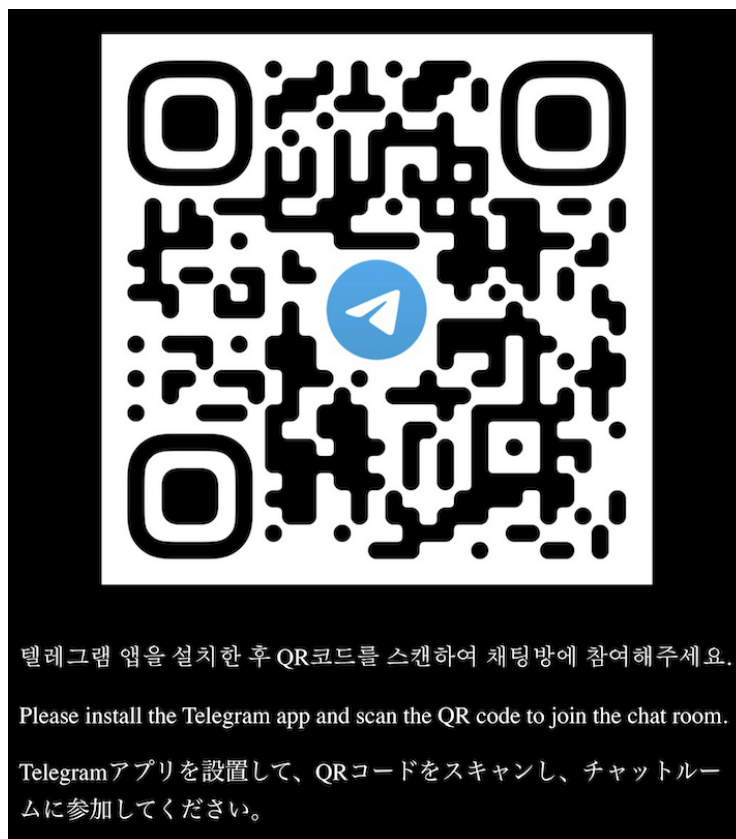


Figure B.1. Screen to be Displayed to the Audience Before the Live Performance. This screen is proposed to be displayed from the time the audience enters until the performance begins.

Appendix C. Audience Interview Results (Pilot Study)

C.1. Overview and Purpose

Aim. To assess immediate audience-participant experience of a 10-minute participatory

interaction (Telegram → seven-dimensional affect vectors → Jitter visuals / modular synthesis) and to gather qualitative feedback for system refinement.

Setting & Date. Studio, Busan, 2025-09-16. Non-public, invitation-only.

Sample. n = 6 participants (P1-P6). No demographics were collected; full anonymity was maintained.

C.2. Participants (Anonymous Record)

Table C-1. Participant Record (Anonymous)

ID	Session type (solo/pair/trio)	Messages sent (n)	Non-identifying notes
P1	-	-	Novelty/immersion; noted auditory/visual strain; suggests capping max flicker/loudness.
P2	-	-	Unpredictable sounds increased interest.
P3	-	-	Focus improves with more participants; anonymity helps participation.
P4	-	-	Felt like a ‘small new world’ ; branching metaphor of connected words.
P5	-	-	Session felt slightly short for deeper conversation.
P6	-	-	Screen legibility was low; visuals hard to see.

Participant profiles were fully anonymous; only P-codes were used. Optionally record non-identifying notes such as session type (solo/pair/trio) and approximate number of messages sent.

C.3. Instrument and Procedure

Table C-2. Instrument (Pilot Study)

Construct / Item	Scale / Range	Note
Overall affect intensity	1-10	
Surprise	1-5 (Likert)	

Anxiety	1-5 (Likert)	
Awe	1-5 (Likert)	
Boredom/Distance (reverse)	1-5 (Likert)	
Perceived autonomy (no human)	1-5 (Likert)	
Algorithmic generation	1-5 (Likert)	
Internal feedback	1-5 (Likert)	
Immersion/Focus	1-5 (Likert)	
Open-ended A	free text	Most striking point
Open-ended B	free text	Discomfort/Suggestions

Instrument. Overall affect intensity (1-10); eight Likert items (1-5): surprise, anxiety, awe, boredom/distance (reverse), perceived autonomy (no human), algorithmic generation, internal feedback, immersion/focus; two open-ended prompts.

Procedure. 10-minute interaction per small group, immediate mobile survey, and brief semi-structured interview. System logs captured message timestamps and affect vectors (hashed content).

C.4. Data Handling and Analysis

Quantitative. Descriptive statistics: mean (SD), median (IQR). Qualitative. Reflexive coding into themes: unpredictability, agency, intensity, mapping legibility, coherence, ethics/anonymity, instruction clarity.

C.5. Results – Quantitative (Descriptive)

Table C-3. Quantitative Summary (n = 6)

Item	Mean (SD)	Median (IQR)
Overall affect intensity (1-10)	5.7 (2.0)	6 (4-7)
Surprise (1-5)	2.7 (0.5)	3 (2-3)
Anxiety (1-5)	2.8 (1.2)	2.5 (2-3)
Awe (1-5)	3.7 (0.5)	4 (3-4)
Boredom/Distance (1-5)	2.5 (1.4)	2 (2-3)
Perceived autonomy (no human) (1-5)	3.7 (1.4)	4 (2-5)
Algorithmic generation (1-5)	3.5 (1.6)	4 (2-5)

Internal feedback (1-5)	3.3 (0.8)	3.5 (3-4)
Immersion/Focus (1-5)	3.8 (1.0)	4 (4-4)

C.6. Results – Qualitative (Themes with Exemplar Quotations)

Table C-4. Qualitative Themes and Exemplar Quotations

Theme	Summary	Exemplar (KR)	P-code
C-6.1 Novelty, Immersion, and Fatigue	Newness → engagement but sensory strain at peaks	“너무 낯선 느낌이긴 했는데 좀 즐겁게 한 것 같다. … 귀도 좀 아프고 눈도 아프다.”	P1
C-6.2 Unpredictable Sound	Unpredictable timbre/events drive interest	“예상치 못한 소리들이 나와서 흥미러웠다.”	P2
C-6.3 Group & Anonymity	More participants aid focus; anonymity helps	“참여하는 사람이 많아질수록 더 집중… 익명… 도움”	P3
C-6.4 Awe / World-Building	Metaphor of a small new world; branching text	“작은 새로운 세상을 보는 느낌… 나뭇가지들이 얹힌 느낌.”	P4
C-6.5 Length & Legibility	Session slightly short; visual clarity issues	“대화를 나누기에는 약간 짧았… 화면이 좀 잘 안 보였습니다.”	P5/P6

C.7. Triangulation (Vectors × Self-Report)

Table C-5. Exploratory Correlations (n = 6)

Pair	r (approx.)	Note
Surprise ↔ Overall intensity	0.85	interpret with caution
Immersion ↔ Overall intensity	0.69	
Immersion ↔ Awe	0.66	
Immersion ↔ Boredom	-0.96	
Perceived autonomy ↔ Algorithmic generation	0.45	

C.8. Limitations

Small-n convenience sample; controlled lab setting; single-coder analysis; author-translated quotations.

C.9. Actionable Design Changes (from Pilot)

Table C-6. Actionable Design Changes (from Pilot)

Focus	Change
Level & pacing	Cap flicker/loudness; add adaptive pacing
Group mode	Encourage 3-5 concurrent participants
Anonymity UI	Short on-screen notice; reassure focus
Legibility	Increase contrast/size; pre-start visibility check
Duration	Extend to ~12-15 minutes; clear end cue
On-Ramp	Keep 2-3 example prompts during first minute

C.10. Data Protection and Consent

Table C-7. Data Protection and Consent

Aspect	Policy
Data minimization	No demographics collected; P-codes only
Storage	Encrypted drive; hashed content
Retention	Raw chat logs retained ≤ 14 days; then permanently deleted
Quotations	Only de-identified excerpts retained in Appendix C
Rights	Deletion requests via the corresponding author (departmental office)

Appendix D. Prototype Demonstration of SINGULAR_GLITCH (Practice-Based Evidence Supporting the Theoretical Framework)

While SINGULAR_GLITCH is primarily discussed in the dissertation as a conceptual and theoretical model, a prototype implementation was developed in order to demonstrate the practical feasibility of the system. This appendix documents an example performance of the prototype and provides access to a recorded demonstration. The documentation is included not as a “finished artwork” but as practice-based evidence of the system’s operational behaviour and its relevance to the theoretical claims presented in Chapters 2 and 3.

In line with practice-based research methodologies (Candy & Edmonds, 2018, pp. 63-69), the prototype functions as both an object and a method: a working technical system used to investigate the conditions under which post-subjective creativity, affective modulation, glitch eventhood, and distributed agency arise.

D.1 Overview of the Prototype Demonstration

The prototype performance captures:

The Telegram-to-affect pipeline in operation

Anonymous text messages are translated into a 7-dimensional affect vector, which then modulates audiovisual behaviour.

The recursive affect loop

System outputs influence subsequent states of the system through feedback processes.

Glitch injections

Controlled discontinuities that produce aesthetic rupture and redirection within the loop.

Distributed agency in action

Behaviour that cannot be attributed to any single intentional agent.

D.2 Link to the Prototype Performance Video

A recorded excerpt of the prototype performance is publicly accessible at the following

link:

👉 <https://youtu.be/UQ5sJcwezUc>



Details:

Duration: approximately 19 minutes (standard demonstration length)

Format: Unlisted YouTube video (accessible via link)

Filename (internal reference): SINGULAR_GLITCH_Prototype_Demo.mp4

Viewers are encouraged to watch the video to observe the system's autonomous and responsive dynamics.

D.3 Description of the Demonstration Environment

Location: Studio/lab environment, non-public setting

System pipeline: Telegram → Python embedding → 7D affect vector → audiovisual processing

Software: Python back-end for text embedding and affect computation; audiovisual rendering via Max/MSP and browser-based interfaces (e.g., Tone.js)

Hardware: Standard laptop, DC-coupled audio interface, optional modular synthesis components for audio output

Audience involvement: Optional and situated; the demonstration includes cases with and

without active audience input

This controlled environment corresponds with the methodological constraints described in Chapter 1.4 and the technical details outlined in Appendix C.

D.4 Observations from the Prototype Performance

Affective Modulation (RQ1)

The video demonstrates how affective intensities—derived from textual input—modulate audiovisual parameters in real time.

Quantitative interpretation of the affect vector is not the focus; rather, the demonstration shows how affective intensity correlates with emergent audiovisual behaviours.

Glitch Eventhood (RQ2)

The video clearly shows interruptions in continuous audiovisual flow, consistent with the theoretical concept of glitch events as abrupt, reconfiguring ruptures rather than mere noise or randomness. These rupture points restructure ongoing behaviour and create new aesthetic pathways within the system.

Distributed Agency (RQ3)

The prototype demonstrates that no single agent (designer, performer, or audience member) fully determines the outcome. Instead, agency is distributed among algorithmic processes, affective modulation, environmental conditions, and optional user input.

D.5 Relevance to the Dissertation

This demonstration provides empirical grounding for the theoretical architecture developed in Chapters 2 and 3. It shows that:

The system can translate human-generated text into non-semantic affective modulation.

Affect can operate pre-consciously as a generative force within a recursive loop.

Glitch events are not random but emerge from the internal dynamics of the system.

Creative agency is distributed and not reducible to human intention.

Thus, the prototype serves as practice-based evidence that the theoretical constructs articulated in the dissertation can be instantiated technically and observed in action.

D.6 Notes on Interpretation

This demonstration should not be interpreted as a finished artwork in a public exhibition context, but rather as a research instrument that:

Tests theoretical propositions in situ

Provides observable evidence of emergent, post-subjective creativity

Documents the system' s behavioural ecology

Supports the claim that key theoretical constructs (affective loop, glitch, distributed agency) can be instantiated

It is included to satisfy the requirement for practice-based evidence and to demonstrate the practical application of the theoretical framework developed in this dissertation.