BETWEEN TECHNOLOGY AND ART: REDEFINING MUSICAL EXPRESSION IN CONTEMPORARY SOCIETY

OZANA RAMLJAK[1*], ANTONIO DAVID PERINA[2]

[1] VERN' UNIVERSITY, ZAGREB, CROATIA, EMIAL: ozana.ramljak@vern.hr
[2] VERN' UNIVERSITY, ZAGREB, CROATIA, EMAIL: adperina@gmail.com

Abstract

Understanding music within the broader framework of the concept of art and culture in the contemporary world is marked by postmodernist concepts that shaped the second half of the 20th century and continue to play a crucial role in shaping contemporary thinking about art. These concepts lay the foundations for understanding modern artworks and practices, particularly in the context of globalization, digitalization, and cultural diversity and have opened a space to redefine many artistic fields, elevate experimentation to a new level, and introduce advanced techniques and technologies into the core of creating and thinking about music and art in general.

Based on the observations of scholars such as Daniel Levitin and Jonathan Sterne, this paper investigates the relationship between society, technology and content, in the context of modern musical expression. It will question the human desire for perfect digital sharpness, clarity, and precision, despite the persistence of cultural memory that associates sound with various forms of imperfection or saturation (as evidenced by modern techniques that often replicate the saturation of analog equipment during music mixing, which was once standard); a thesis on potential involution of art will be presented; and possible guidelines will be offered for thinking about creative processes leading to the creation of a work that can be considered artistic. Furthermore, this paper examines the shifting boundary between art and applied art within contemporary conditions, marked by growing demands for functional, commercial, and socially engaged forms of artistic production.

Keywords: culture, digital environment, music, postmodern concepts

I. INTRODUCTION

Postmodernist thought has significantly shaped cultural theory, aesthetics, and media studies since the latter half of the 20th century. Its critical orientation challenges establish artistic hierarchies, questions linear narratives, and underscores the fluidity of cultural meaning. Within sound and media studies, these frameworks have become increasingly relevant as digital technologies transform how sound is produced, distributed, and perceived.

Contemporary art emerges within a landscape defined by rapid technological and societal change. Understanding this environment requires considering the system as a whole: the intertwined relationships between art, society, and technology. Digital technology, although neither the originator of society nor the instigator of artistic practice, has become a defining component of contemporary cultural experience. Its influence now shapes production methods, distribution infrastructures, and interpretative frameworks. Within this context, characterized by postmodern paradigms and increasingly complex productive and reproductive workflows, this paper examines the co-existence and dynamics among these interdependent domains.

Digital platforms, compressed audio formats, and algorithmic filtering systems now structure everyday listening environments. As a result, sonic experience is shaped not only by artistic intention but also by underlying infrastructural and computational logics. These conditions reflect broader postmodern tendencies toward fragmentation, intertextuality, and the dissolution of stable aesthetic categories, positioning contemporary listening within a complex network of technological, cultural and perceptual forces.

The aim of this paper is to examine how postmodern paradigms intersect with digital listening practices, artistic production and the broader infrastructures that frame contemporary culture. By drawing on research in soundscape theory, ubiquitous listening, compression and reproduction standards, physiological responses, and algorithmic taste formation, the discussion situates current artistic and perceptual tendencies within a wider socio-technological context. The paper explores how digital systems influence the relationship between creators and audiences, how platform-driven constraints reshape aesthetic expectations, and how cultural dynamics shift between evolution and involution. Through this perspective, the analysis seeks to clarify the systemic forces that shape art today and to outline considerations that may help preserve creative depth, perceptual richness and cultural integrity in an increasingly mediated environment.

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II. THEORETICAL BACKGROUND: POSTMODERN PARADIGMS IN CONTEMPORARY ART AND MEDIA

Postmodern paradigms emerged as a response to structuralist and modernist frameworks, emphasizing instability, multiplicity, and the breakdown of rigid aesthetic boundaries. Lyotard's view of postmodernity as a condition defined by skepticism toward "grand narratives" [1] reflects a broader shift in which knowledge and cultural production become increasingly decentralized and diverse.

Within artistic practice, postmodernism highlights hybridity, boundary-crossing, and the recombination of existing cultural materials. Traditional distinctions between "high" and "popular" culture lose their authority, while techniques such as sampling, remixing, and collage gain recognition as meaningful creative strategies. These approaches shift focus away from conventional ideas of originality toward processes of decontextualization, recontextualization, and intertextuality.

The logic of postmodernism is deeply connected to technological mediation. As media infrastructures evolve, artistic forms progressively incorporate digital tools, automated workflows, and algorithmic systems. Technology becomes a co-author in the creative process, shaping not only how sound is produced but also how it circulates and is interpreted. Postmodern sensibilities therefore offer a useful framework for understanding contemporary digital culture, where fluidity, fragmentation, and recombination influence both artistic creation and audience engagement.

III. SOUND DETACHMENT, LISTENING MODES, AND THE POST-DIGITAL SOUND SPACE

To understand how listening has transformed into the digital era, it is essential to revisit the theoretical foundations that first articulated the relationship between sound, space, and perception.

Schafer's soundscape theory anticipates many of the perceptual shifts intensified by digital environments. The distinction between hi-fi and lo-fi soundscapes explains how sonic detail and environmental legibility are influenced by density and spatial clarity [2]. Digital listening, often occurring through very compressed formats and small speakers, tends to normalize lo-fi conditions in which detail is reduced and spatial cues are diminished. This affects how listeners evaluate sound quality and how artists design sonic materials intended for modern digital consumption.

Schafer's notion of schizophonia describes the separation of sound from its original source and context [2]. This condition has become standard in digital culture, where sound travels independently of the environments and cultural settings in which it originated. Streaming platforms, algorithmic playlists, and social media further amplify this detachment, repositioning sound as a mobile, decontextualized object. As sound becomes increasingly abstracted from its source, listeners interpret sonic events through personalized, algorithmically modulated contexts rather than through fixed cultural or spatial frameworks. It is important to note that it does not implicate that it makes the consuming process any less valuable, but it certainly affects the receiver differently.

While Schafer focuses on the spatial and contextual dislocation of sound, Kassabian extends this discussion by examining how listening itself becomes increasingly diffuse within everyday life.

Kassabian presents the concept of "ubiquitous listening," which describes ways of engagement where music becomes a background commodity within everyday activity rather than a focused practice [3]. This mode of listening indicates a shift from music as an experience toward music as an environment. It aligns with broader modern cultural tendencies toward decomposed and partial attention. In such conditions, artistic practices evolve to accommodate fragmented attention, leading to dominance of technical and sonic interventions rather than linear artistic expression. It is important to note that these observations do not implicate that the consuming process is any less valuable, but it certainly affects the receiver differently.

IV. ALGORITHMIC MEDIATION AND THE SHAPING OF LISTENER EXPERIENCE

As digital platforms increasingly mediate access to music and sound, the listening experience becomes shaped not only by artistic intention but by the computational systems that organize, filter, and deliver content. This section examines how algorithmic processes and technical formats reconfigure the conditions under which contemporary listening takes place.

A. Algorithms as Cultural Infrastructures

Seaver conceptualizes algorithms not as neutral computational tools but as cultural infrastructures that shape the conditions under which choices are made [4]. Recommendation systems influence what listeners encounter, how frequently they encounter it, and which aesthetic categories gain prominence. Even without explicit coercion, these systems shape behavior by narrowing exposure and reinforcing established patterns of consumption. Even in the absence of explicit coercion, these systems guide behavior by narrowing exposure to specific types of content.

Prey's concept of "algorithmic individuality" demonstrates how platforms construct data-driven models of listeners and feed these models back through personalized recommendations [5]. These systems do not reveal authentic preferences; instead, they generate iterative approximations that gradually shape user behavior. The curated nature of algorithmic listening reinforces cycles of predictability, often privileging styles that align with established consumption patterns over experimental or less commercially viable alternatives.

Taken together, these mechanisms highlight how algorithms function as active participants in the shaping of taste. Building on this structural influence, Prey's concept of "algorithmic individuality" examines how platforms construct data-driven models of listeners and feed these models back through personalized recommendations.

B. Compressed Formats and Changing Standards of Sound Quality

Sterne argues that compressed audio formats such as MP3s embed cultural assumptions about convenience, portability, and speed [6]. Over time, the normalization of compressed listening encourages acceptance of narrower frequency ranges and flattened spatial fields. This shift subtly reconfigures aesthetic expectations, as listeners adapt to technically limited sound as a perceptual baseline. Artists often respond by tailoring production techniques to match platform-specific constraints, reinforcing an ecosystem where technical limits shape creative decisions. Levitin notes that the brain depends on fine-grained spectral and dynamic information to identify sound sources and derive musical meaning, and that changes introduced by different listening formats or playback systems can influence how these details are perceived [12].

V. Post-Digital Aesthetics and Cultural Recombination

Building on the ways digital infrastructures shape listening and production, this chapter turns to the aesthetic consequences of these conditions. Post-digital practices reveal how artists respond to technological constraints and possibilities, often by foregrounding the very materials and processes of digital mediation.

A. Glitch, Error, and the Digital Artifact

Post-digital aesthetics foreground the materiality of digital systems by embracing glitch, error, and artifact as expressive tools. This aesthetic orientation challenges traditional ideals of sonic purity and fidelity. Instead, it reveals the underlying processes of digital mediation, treating failures and distortions as legitimate creative elements.

As Eno [13] and Tamm [14] emphasize, the creativity frequently emerges from unexpected events, mistakes, or system behaviors that fall outside the artist's complete control. Historically, such moments introduced friction, chance, and experimentation into the creative process, allowing works to develop spontaneously in directions the artist might not have consciously intended. Many influential artistic innovations have emerged from fracturing established forms and practises (historically considered to be great art) and recombining their elements.

Modern production environments, however, increasingly simplify workflows. Quantization, presets, algorithmic correction, and template-driven arrangements minimize the presence of these productive accidents. While these tools improve efficiency and accessibility, they also reduce the likelihood of encountering the very conditions that often catalyze new ideas or aesthetic breakthroughs.

Excessive reliance on predefined sonic palettes can lead to convergence, where different artists unintentionally arrive at similar textures, structures, and timbral signatures. Creativity risks becoming a matter of selection rather than exploration, shifting from discovery through experimentation to choosing from an already optimized and standardized set of options. This tendency reflects a broader shift toward standardized creative outcomes, which will be examined further in the next subsection.

D. Recombination as a Cultural Logic

Steyerl argues that rapid digital circulation flattens meaning by prioritizing speed, reproducibility, and shareability over interpretative depth [7]. As cultural objects circulate through platforms in fragmented and often decontextualized forms, their capacity for sustained engagement diminishes. Artistic practices increasingly mirror this dynamic through modular structures, short loops, and reconfigurable elements designed for seamless integration within algorithmic environments.

The combined influence of compression, algorithmic filtering, streamlined workflows, and platform economies induces a cultural shift from invention to recombination. Artistic innovation increasingly involves assembling existing fragments rather than producing wholly novel structures. This mirrors broader postmodern logics of intertextuality and bricolage, situating sound production within a networked system of continuous reuse and reinterpretation.

VI. DISCUSSION

The following discussion brings together the preceding analyses to consider how postmodern cultural logics and digital infrastructures jointly shape contemporary sonic environments and their aesthetic consequences.

A. Postmodern Hybrid Sonic Environments: Algorithmic Logics and Post-Digital Aesthetics

The combination of postmodern paradigms and digital infrastructures creates a cultural environment defined by fluidity, fragmentation, and systemic predictability. Listening practices are increasingly shaped by background engagement, algorithmic curation, and technically constrained formats. As a result, sound operates within a hybrid space where artistic intention, platform logic, and user behavior intersect.

Digital environments reward consistency, familiarity, and high-frequency output. These pressures reduce the visibility of experimental or unconventional artistic practices, which do not align easily with algorithmically optimized forms of distribution. This contributes to an involutionary tendency in which innovation is redirected toward recombination rather than exploration.

At the same time, post-digital aesthetics demonstrate how artists repurpose the constraints of digital systems as opportunities for creative expression. Glitch, error, and artifact become tools for revealing the materiality of digital

processes. This interplay between constraint and creativity characterizes the contemporary sound environment and reflects broader cultural patterns of reuse and reinterpretation.

B. Evolution and Involution: Implication and Guidelines

The discussion in this paper highlights the importance of understanding how technology, society and art continually shape one another. As digital systems mediate most forms of artistic production and consumption, it becomes necessary to stay aware of the context in which creative work is produced, distributed and experienced. It is useful to maintain a clear distinction between artistic creation and industrial or commercial production, not to separate them completely, but to understand their different roles. Both can overlap, influence each other, or even merge. Still, recognizing their differences helps us orient ourselves within a system where economic, technological and algorithmic pressures often guide aesthetic choices. In fast-changing environments, this kind of reflection supports conditions for experimentation and expressive depth.

Another important point concerns the difference between production and reproduction. Many artists today work under pressure to meet platform-driven standards, such as loudness, heavy compression or fast and uniform workflows. These standards may not always support the full aesthetic or emotional capacity of the work. Studies in auditory perception show that very compressed and hyper-present sound can increase physiological arousal and stress in listeners [8, 9], which suggests that technical constraints can meaningfully affect how art is experienced. Research on audio perception shows that debates about formats alone often miss the central issue. Reiss [10] notes that under controlled conditions, trained listeners may sometimes detect differences beyond CD quality, although these effects are small and require strict listening protocols. Meyer and Moran [11] found that in most real-world situations such differences are practically inaudible. These findings indicate that the problem is not the medium itself, whether streaming, CD, cassette or vinyl. Rather, the key influence comes from the wider economic and industrial infrastructure that determines how sound is produced, processed and delivered. Within this framework, the creative process increasingly becomes technocratic, shaping the choices of the creator, the expectations of the receiver and the form of the artwork itself. Platform standards, loudness requirements, compressed workflows and market-driven pressures have a greater impact on artistic experience than the medium as a standalone format. Understanding this distinction clarifies that concerns about production, reproduction, and quality of artistic experience arise from the surrounding system, not so much from any single format or medium.

Finally, sustaining artistic evolution requires deliberate use of the available tools. Understanding how presets, templates, algorithms and recommendation systems shape creative outcomes allows artists to use these tools intentionally rather than automatically. Although it is difficult to influence broader industrial, political or economic systems, maintaining awareness of these dynamics allows artists and listeners to make more informed decisions within the environments they navigate. In this way, even without changing the entire system, it becomes possible to protect the space for meaningful artistic expression and experience, and to preserve creative integrity on an individual level. Such awareness helps preserve space for meaningful artistic expression and guards against the unintentional involution of artistic practice, helping keep creative processes grounded in authenticity rather than in conformity to systemic constraints.

VII. CONCLUSIONS

Postmodern paradigms provide an applicable framework for understanding the transformations induced by technological and media advancements. Digital infrastructures, through compression, algorithmic curation, and ubiquitous listening, reshape both perceptual parameters and artistic approaches. These developments signal a broader cultural transition in which musical innovation shifts from depth to surface and media optimization, from event-based engagement to ambient consumption, and from invention to recombination.

This trajectory raises important questions about authenticity, as it is one of the most important pillars of human identity, and as such should be approached cautiously. Recognizing these dynamics is essential for analyzing contemporary art practices and for understanding how digital infrastructures mediate the cultural, perceptual, and aesthetic conditions of listening and consequentially living.

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