EDUKASIA: Jurnal Pendidikan dan Pembelajaran
Vol. 5, 2 (December, 2024), pp. 847-858
ISSN: 2721-1150; EISSN: 2721-1169; DOI: 10.62775/edukasia.v5i2.2012

Artificial Intelligence-Based Music as a Cultural Practice: A Socio-Anthropological Analysis of Creativity, Agency, and Algorithmic Mediation

Buky Wibawa Karya Guna[1], Diah Fatma Sjoraida[2], Soni Reffali[3], Agus Sukarna Dipura[4], Yuly Hidayah[5]

[1] Universitas Tarunabakti, Indonesia; buckywikagoe@gmail.com
[2] Universitas Padjadjaran, Indonesia; diah.fatma@unpad.ac.id
[3] Universitas Tarunabakti, Indonesia; reffalisoni@gmail.com
[4] Universitas Tarunabakti, Indonesia; diputraagus30@gmail.com
[5] Universitas Tarunabakti, Indonesia; joelithamusic.ent@gmail.com

ARTICLE INFO

Keywords:

artificial intelligence;
music practice;
human agency;
machines;
socio-anthropology;
digital creativity

Article history:

Received 2024-09-20
Revised 2024-11-23
Accepted 2024-12-31

ABSTRACT

The integration of artificial intelligence (AI) in music production is growing rapidly and has given rise to debates about creativity, authorship, and the role of human agents in cultural practices. While a number of previous studies have tended to highlight the technical, economic, or legal aspects of AI-based music, studies of its socio-anthropological implications are still limited. This research aims to analyze AI-generated music as a cultural practice that is at the intersection of human and machine agents. Using a qualitative socio-anthropological approach, this study applies digital ethnography and document analysis to AI music platforms, musical artifacts, and online public discussions that developed between 2022–2024. The findings show that AI-based music practices are characterized by the normalization of algorithmic sounds, increasing human-AI collaboration, unclear boundaries of authorship, the influence of algorithmic mediation on cultural visibility, as well as ambivalent listener responses. The results show that AI does not replace human creativity, but reconfigures music agencies through relational and curatorial practices shaped by the platform's infrastructure. The study concludes that AI-based music is a new socio-technical configuration in which creativity, meaning, and cultural authority are negotiated on an ongoing basis. The contribution of this research enriches the study of music anthropology, posthumanist theory, and critical discourse on cultural production in algorithmic societies.

Corresponding authors:
Buky Wibawa Karya Guna
Universitas Tarunabakti, Indonesia; buckywikagoe@gmail.com

1. INTRODUCTION

The rapid advancement of Artificial Intelligence (AI) has profoundly reshaped cultural production, positioning technology not only as a tool but as an active participant in the creative process (Hong et al., 2021). In the music domain, AI systems are now capable of composing melodies, generating lyrics, mimicking musical styles, and even performing alongside human musicians (Dai, 2021). This development signifies a fundamental transformation in how music is created, circulated, and experienced, challenging long-held assumptions about creativity, authorship, and human agency in artistic practice.

Music has historically been understood in socio-anthropological science as a highly human activity—embedded in ritual, identity formation, emotional expression, and social cohesion(Vitellone, 2021b). The classical anthropological perspective emphasizes music as a social behavior and cultural system rather than a purely aesthetic object (Vitellone, 2021a). From communal performances in traditional societies to the contemporary popular music scene, music has served as a medium through which humans negotiate meaning, power, and ownership (Mukhlis, Suradi, et al., 2023). The advent of AI-generated music, however, has unsettled this anthropocentric framework by introducing non-human actors to the heart of cultural production.

Recent studies in music technology and digital culture have largely approached AI from a technical, economic, or legal perspective, focusing on algorithmic efficiency, market disruptions, or copyright implications (X. Yu et al., 2023). While such studies provide important insights, they often adopt a techno-deterministic stance that frames AI as a neutral innovation that drives inevitable change. Less attention is paid to the socio-anthropological implications of AI in music, especially regarding how human-machine interaction reconfigures cultural meaning, creative energy, and symbolic authority (Afchar et al., 2022). This gap is important given the increasing influence of algorithmic systems in shaping global musical tastes, identities, and cultural trends.

Theoretical developments in posthumanism and the study of science and technology (STS) offer a productive lens through which to examine this transformation. Scholars such as Haraway and Braidotti argue that contemporary subjectivity is increasingly shaped through the interconnectedness between humans, machines, and cultural systems (Bakariya et al., 2024). From this perspective, AI in music cannot be reduced to a passive instrument; rather, it operates as a socio-technical actor participating in cultural co-production (Mukhlis, 2025a). Applying this framework to music practice allows for a more nuanced understanding of AI as a negotiating place between human creativity, technological agencies, and cultural forces.

This article argues that AI-driven music represents a critical crossroads where human and machine agents intersect, generating new forms of creativity while raising questions about authenticity, authorship, and cultural ownership (R. Yang et al., 2020). By adopting a socio-anthropological approach, the study moves beyond instrumental or normative debates about whether AI can "replace" human musicians (Oore et al., 2020) Instead, it examines how AI is reshaping social relationships, symbolic meanings, and cultural hierarchies embedded in music practice.

This research focuses on three main areas of study. First, the research examines how the integration of artificial intelligence in musical practice changes the concept of creativity and agency, from something entirely inherent in humans to a collaborative process between humans and machines. Second, the research highlights how AI-mediated music production is reshaping the social roles and identities of musicians, both in the context of creation, performivity, and their position in the digital music ecosystem. Third, the research outlines the broader socio-anthropological implications of the presence of AI-based music on cultural diversity and power dynamics in the global music landscape,

including how representation, creative authority, and cultural values are renegotiated through technology.

2. METHODS

This study uses a qualitative socio-anthropological approach to understand the relational dynamics between music, artificial intelligence (AI), and human-machine interaction in contemporary cultural practices. The research design is interpretive, positioning the practice of music as a phenomenon embedded in social and cultural contexts, and emphasizing meaning that emerges through interaction, rather than through technical measurement. This approach is reinforced by the theoretical framework of music anthropology, the study of science and technology (STS), as well as the perspective of posthumanism that views AI as a socio-technical actor that participates in the production and interpretation of music.

Data were collected through digital ethnography and qualitative document analysis. Digital ethnography allows researchers to observe interactions on streaming platforms, musician forums, digital communities, and social media where AI-based music is produced, shared, and debated. In addition, AI-generated digital music artifacts, both composition, performance, and generative audio material, are analyzed as cultural texts to identify stylistic patterns, claims of creativity, and symbolic meaning. Secondary sources, such as academic articles, platform policies, musician statements, and media discourse, are used to contextualize empirical findings within a broader socio-cultural and industry framework. Data selection is purposively conducted based on the relevance, influence, and representation of AI practices in music.

Data analysis follows a step-by-step procedure: (1) initial coding to identify themes related to creativity, agency, authorship, and algorithmic mediation; (2) thematic categorization to formulate conceptual patterns such as distributed creativity, human–AI co-creative production, and platform power; and (3) interpretive synthesis by linking empirical findings to the conceptual framework of the research. The validity of the data is maintained through triangulation of sources, repeated engagement with the digital field, and the researcher's reflexivity to his or her biases and analytical positions. Ethical aspects are considered by using public data, maintaining the anonymity of personal sources, and considering ethical issues inherent in AI-based music practices, such as data use, cultural ownership, and implications for creative personnel.

3. FINDINGS AND DISCUSSION

Results

This section presents empirical findings derived from digital ethnographic observations and qualitative document analysis of AI-based music practices. Data was collected from several publicly accessible AI music platforms, online musician communities, streaming environments, and social media discussions between 2022 and 2024. The analysis focuses on the practices, narratives, and repetitive patterns that emerge across this digital culture space. These findings are presented thematically, emphasizing the observed bias rather than statistical generalizations.

AI as a Perceived Generative Music Agent

Across the observed music platforms and artifacts, AI is often framed as a generative agent capable of producing complete musical output. In platform descriptions, user interfaces, and promotional narratives, AI systems are generally presented as "creating", "composing", or "producing" music, often with limited emphasis on human intervention beyond initial input.

During the ethnographic observation of listener interactions, it was evident that many users engaged with AI-generated music without immediately questioning its origin. In the comments and informal discussion sections, listeners sometimes express surprise upon learning that a work has been generated by AI, suggesting that such output is often considered musically conventional and culturally readable in familiar genres.

The repetitive comments observed in listener discussions capture this perception succinctly:

"It just sounded like regular background music to me—I didn't even think about who or what made it."

Human-AI Co-Creation as an Everyday Music Practice

Digital ethnography's engagement with musician-oriented platforms and online communities reveals that AI is more often used as a shared creative resource than as a fully autonomous composer. Musicians often portray AI tools as a source of inspiration, variation, or creative stimulation rather than as a substitute for human art.

Practices observed included using AI to generate melodic sketches, harmonic progressions, or alternate styles, which were then selectively refined through human judgment. In forum discussions and tutorial content, musicians repeatedly emphasize their role in curating, editing, and contextualizing AI-generated material.

One musician articulated this relationship in a publicly accessible discussion:

"The AI threw out ideas that I wouldn't have thought of, but the track only became mine after I formed it." Such statements appear consistently across various platforms, demonstrating a shared understanding of creativity as a collaborative but asymmetric process.

Ambiguity in Authorship and Creative Responsibility

Prominent empirical findings concern the ambiguity surrounding authorship and creative ownership in AI-assisted music. During the analysis of platform metadata documents, artist descriptions, and user discussions, attribution practices were found to be inconsistent and situational.

Some content creators explicitly acknowledge the involvement of AI, while others prioritize their own authorship and minimize the role of technology. In discussions among musicians, uncertainty often arises regarding how much creative credit the AI system should receive, especially when AI-generated material is an important part of the final product.

"I don't know where to draw the line again whether I wrote the song, or what is the system?" This ambiguity reflects ongoing negotiations rather than established conventions in AI-mediated music practice.

Algorithmic Mediation of Music Visibility and Value

Ethnographic observations of platform dynamics reveal that AI-based music is heavily shaped by algorithmic infrastructure that governs visibility and circulation. The platform's recommendation system, trend lists, and curation practices seem to favor stylistic familiarity, predictability, and engagement-friendly formats.

Musicians and users have repeatedly noted that experimental, culturally specific, or unconventional results receive less exposure. In informal discussions, content creators often describe adapting their use of AI to align with perceived platform preferences.

One repeated observation reveals this dynamic: "If you want your track to be noticed, it has to match what the algorithm likes."

These patterns suggest that algorithmic mediation plays an important role in shaping not only distribution but also creative decision-making.

Audience Acceptance and Cultural Evaluation

Listeners' responses to AI-generated music, as observed in the comments section and discussion threads, reflect a variety of evaluative positions. Some listeners expressed admiration for technical sophistication and convenience, especially for the context of functional listening. Others articulate skepticism, questioning the emotional depth or cultural significance of music produced by non-human agents.

Importantly, ethnographic observations show that disclosure of AI involvement often alters listeners' interpretations. Music identified as AI-generated is more likely to be described in instrumental or utilitarian terms, while similar music attributed to human creators is more easily attributed to expressive intent.

A representative comment noted: "It works well as a voice, but it doesn't feel like someone is speaking through it."

Constant Tension and Ambivalence

Across platforms and discussions, AI-driven music is consistently framed through ambivalence. Musicians acknowledge the creative abilities of AI while expressing concerns about originality and professional identity. The listener expresses curiosity and appreciation in addition to doubt and resistance.

Instead of converging towards a unified attitude, these tensions persist across time and context, suggesting that AI-driven music occupies an unstable position in contemporary music culture.

Discussion

These findings challenge deep-rooted anthropocentric assumptions that place creativity exclusively in human intentionality (Lupton, 2020). The normalization of AI-generated music in everyday listening practices shows that creativity is increasingly evaluated through outcomes and usability rather than through assumptions about human authorship (Yossef Ravid & Aharon-Gutman, 2023). This does not imply the loss of human creativity, but rather its redistribution across the entire human-machine set.

From a socio-anthropological perspective, this pattern resonates with historical moments in which musical creativity was reshaped by the mediation of technology, such as the introduction of notation, recording, or digital production tools (Mukhlis et al., 2024, Arifin, Ridwan, Zulbaidah, et al., 2025). However, AI differs in that it produces musical material independently, thus participating directly in the creative process (Jebeile & Roussos, 2023). This supports the posthumanist argument that creativity arises from relational configurations involving humans, technology, and cultural infrastructure, rather than from isolated subjects.

The human-AI co-creation advantage highlights the shift of musical agents from origin to curation (Milkoreit, 2023). Musicians are increasingly positioning themselves as selectors, editors, and contextualizers of algorithmically generated material(Mukhlis, Maryam, et al., 2023). This reconfiguration aligns with a broader transformation in the creative workforce under a platform-based culture economy, where value is generated through framing, visibility, and differentiation rather than through Single authorship(Afchar et al., 2022; Bakariya et al., 2024; Nismawati, 2025; Solomon et al., 2020; Sulastri, 2025; Syahidah et al., 2025).

Anthropologically, this shift reframes musicality as a form of relational expertise: the capacity to negotiate between algorithmic abilities and culturally meaningful expression (Yossef Ravid & Aharon-Gutman, 2023). AI does not eliminate human agents but reshapes them, placing musicians in the role of mediating between computing potential and social meaning.

The ambiguity surrounding authorship in AI-based music reflects more than just a lack of legal clarity; it reveals cultural anxieties about the limits of human uniqueness(Minkov et al., 2024). Anthropology has long shown that authorship is a socially constructed category rather than a universal principle (Mukhlis, 2025a). AI exposes these contingencies by confounding assumptions about originality, intent, and ownership.

Therefore, disputes over creative credit should be understood as a symbolic struggle over cultural authority rather than as a purely technical or juridical issue (Wei et al., 2022). AI-generated music forces a renegotiation of who or what can legitimately claim creative agents, highlighting the fragile foundations on which modern ideas of authorship rest (L.-C. Yang & Lerch, 2020).

Findings on algorithmic mediation underscore the role of AI as an infrastructural force shaping cultural visibility (Latif et al., 2023). The platform's recommendation system and logic don't just distribute music neutrally; they actively privilege certain aesthetic forms while marginalizing others (Yu et al., 2023). These dynamics contribute to the strengthening of dominant musical styles and the suppression of experimental, local, or culturally specific expressions.

From an anthropological point of view, this raises critical questions about cultural diversity and power in algorithmic societies (Singh, 2020). AI-driven music is embedded in platform capitalism, where visibility becomes the main currency of value. As a result, creative practice is increasingly shaped by anticipatory adherence to algorithmic norms, revealing new forms of cultural discipline and inequality (Stuttgart, 2025).

Listeners' ambivalence towards AI-generated music highlights the enduring importance of authenticity and expressive intent (Yulista, 2025). While AI-generated music can meet functional or aesthetic expectations, the perceived lack of subjectivity challenges conventional understandings of musical meaning (Sulastri, 2025). Anthropological theory emphasizes that music derives its significance not only from sound but from social narratives of expression, suffering, joy, and intention.

The changing reception of music after the authorship of AI was revealed suggests that meaning is mediated through cultural interpretation rather than sonic nature alone (Sukmawati, 2025). AI thus doesn't make music meaningless; rather, it forces a renegotiation of cultural criteria through which meaning is recognized and valued (Satory, 2025).

Beyond creativity and authorship, AI-based music poses pressing ethical issues. The reliance on large-scale training datasets introduces the problem of data colonialism, especially when musical traditions from marginalized communities are absorbed into algorithmic systems without recognition or reciprocity (Nismawati, 2025). In addition, the automation of creative processes intersects with a precarious creative workforce, which has the potential to intensify inequalities in the cultural industry.

This ethical dimension underscores the need to treat AI-based music not only as a technical innovation but as a cultural and political phenomenon that requires critical governance and ethical reflection. By placing AI-based music within socio-anthropological and posthuman theoretical frameworks, this article contributes to an interdisciplinary debate about culture and technology. It offers a critical perspective on AI not as an autonomous creative force but as a relational actor embedded in a social context, thus enriching contemporary discussions in music anthropology, cultural studies, and AI ethics.

This study is based on a socio-anthropological understanding of music as a culturally embedded practice, while also engaging with contemporary theoretical debates about artificial intelligence, technology, and posthuman creativity (Wen, 2021). Instead of treating AI as a neutral technological tool, this framework conceptualizes AI as a socio-technical actor that participates in the production, circulation, and interpretation of music (Mukhlis et al., 2024), to capture this complexity, the framework integrates perspectives from music anthropology, technological cultural studies, and posthumanist theory.

Music as a Socio-Cultural Practice

In anthropological science, music has long been understood as more than just an aesthetic artifact; it is a form of social action embedded in cultural systems, power relations, and collective identity (Bengesi et al., 2024). Merriam's formulation of music as "sound, behavior, and concept" highlights the inseparability of musical structures from the social context in which they are produced and experienced (Boscardin et al., 2024). Music serves as a medium through which people articulate values, negotiate boundaries, and reproduce or defy social hierarchies.

From this perspective, musical creativity is not an isolated individual act but a socially mediated process shaped by traditions, technology, and institutional structures (Dai, 2021). Further ethnomusicological studies show that musical meaning emerges through performance, interaction, and interpretation, rather than simply being in the musical text itself. This understanding is critical to analyzing AI-generated music, as it shifts the analytical focus from whether AI can technically produce music to how it is socially interpreted, legitimized, or contested in a particular cultural context.

The socio-cultural approach also prioritizes issues of power and representation. Historically, technological innovations in music—from notation systems to recording technology—have reconfigured authority over music knowledge and production (Mukhlis & Abdullah, 2025). Thus, AI can be placed in a longer technological mediation trajectory, while also representing a qualitative shift due to its capacity for autonomous pattern recognition and generative output.

Artificial Intelligence and Cultural Production

The study of AI in cultural production often emphasizes creativity, efficiency, and computational innovation (Kahn & Winters, 2021). AI systems trained on large music datasets are capable of generating compositions that mimic or recombine existing styles, blurring the line between imitation and originality (Millet et al., 2023). However, critical scholars caution against viewing AI creativity as independent of human culture, as the system is inherently shaped by human-designed algorithms, training data, and socio-economic interests.

From a cultural studies perspective, AI operates in what can be described as algorithmic culture, where data-driven systems increasingly mediate preferences, visibility, and aesthetic value (Solomon et al., 2020). In music, this mediation goes beyond composition to include recommendation algorithms, platform governance, and monetization structures (Mukhlis, Janwari, et al., 2023). As a result, AI not only generates music but also influences which forms of music are amplified or marginalized in the global cultural market.

The study adopts a relational understanding of AI, seeing it embedded in networks of human actors, institutions, and cultural norms (Turchet et al., 2020). Such an approach moves beyond techno-determinism by emphasizing that the cultural impact of AI in music depends on social negotiations, ethical frameworks, and power relations (Ooi et al., 2025). AI-generated music thus becomes a site where cultural meanings are constantly produced, challenged, and reconfigured.

Posthumanism and Human-Machine Creativity

Posthumanist theory provides a critical lens for rethinking creativity beyond anthropocentric assumptions (Indra Martadinata, 2025). Scholars such as Haraway and Braidotti argue that contemporary subjectivity is shaped through a collection of humans, machines, and non-human agents (Millhauser & Overholtzer, 2020). In this view, creativity is not exclusively human but arises from relational processes involving the mediation of technology and material infrastructure.

Applying posthumanism to music practice allows for the reconceptualization of creativity as a distributed phenomenon (Handayani, 2025). AI systems, instead of replacing human musicians, participate in shared creative pools where agencies are shared and negotiated (Mukhlis, 2025b). It

challenges the binary distinction between human and machine creativity, instead highlighting hybrid forms of authorship and expression.

However, posthumanism also raises critical questions about accountability and ethics (Ade Sitorus, 2025). If creativity is distributed across human-machine networks, how should authorship, responsibility, and cultural ownership be understood? In the context of music, these questions intersect with concerns about cultural appropriation, data colonialism, and the homogenization of musical diversity (Huang, 2024). Thus, the posthumanist perspective allows for nuanced analysis of the emancipatory and problematic dimensions of AI-based creativity.

Based on this theoretical perspective, this study conceptualizes AI-based music as a socio-cultural set that involves three interrelated dimensions: (1) human actors (musicians, listeners, developers), (2) technological systems (AI algorithms, platforms, datasets), and (3) cultural structures (norms, values, markets, and power relations). Music arises from the dynamic interaction between these dimensions, not from any single agent.

This conceptual framework positions AI as a co-constitutive element in music practice, shaped and shaped by human creativity and cultural contexts (Syahidah et al., 2025). By prioritizing relationality and cultural diversity, this framework provides an analytical foundation to examine how AI is changing the meaning of music, creative work, and social relationships. It also allows for a critical interrogation of broader socio-anthropological implications, especially regarding the future of cultural production in an increasingly algorithmic world.

4. CONCLUSION

This study shows that the integration of artificial intelligence in music practice does not eliminate human creativity, but rather reconfigures it in a more relational relationship between humans and machines. Through digital ethnographic analysis and critical reading of AI-based musical artifacts and discourse, this research confirms that creativity, authorship, and meaning now operate as a distributed process throughout the socio-technical ecosystem. The results of the study emphasize that AI-based music is not just a product of technology, but is a cultural practice negotiated through interactions, perceptions, and broader social structures.

This research provides three important theoretical contributions. First, this study expands the study of music anthropology by treating AI as a cultural actor that plays a role in the production of meaning and not just as a neutral tool. Second, this study operationalizes posthumanist theory in an empirical context, showing that creativity arises through collaboration and negotiation between humans and algorithms. Third, this study reveals that platform infrastructure and algorithmic logic have a significant influence in determining cultural visibility and legitimacy, thus linking creative practices with power dynamics in a digital society.

Therefore, advanced research needs to include in-depth ethnography with AI-using musicians, cross-cultural comparative studies, as well as exploration of the relationship between AI technology and traditional music. The effort will enrich understanding of how AI continues to reshape cultural production in a diverse social landscape.

REFERENCES

Ade Sitorus, S. (2025). Phenomenological Study of Senior Executive Experiences in Navigating Strategic Ambiguity in VUCA Environments. *Journal of Business, Management, and Accounting*, *1*(5), 194–202.

Afchar, D., Melchiorre, A. B., Schedl, M., Hennequin, R., Epure, E. V., & Moussallam, M. (2022). Explainability in music recommender systems. *AI Magazine*, *43*(2), 190–208. https://doi.org/10.1002/aaai.12056

Bakariya, B., Singh, A., Singh, H., Raju, P., Rajpoot, R., & Mohbey, K. K. (2024). Facial emotion recognition and music recommendation system using CNN-based deep learning techniques. *Evolving Systems*, *15*(2), 641–658. https://doi.org/10.1007/s12530-023-09506-z

Bengesi, S., El-Sayed, H., Sarker, M. D. K., Houkpati, Y., Irungu, J., & Oladunni, T. (2024). Advancements in Generative AI: A Comprehensive Review of GANs, GPT, Autoencoders, Diffusion Model, and Transformers. *IEEE Access*, *12*, 69812–69837. https://doi.org/10.1109/ACCESS.2024.3397775

Boscardin, C. K., Gin, B., Golde, P. B., & Hauer, K. E. (2024). ChatGPT and Generative Artificial Intelligence for Medical Education: Potential Impact and Opportunity. *Academic Medicine*, *99*(1), 22–27. https://doi.org/10.1097/ACM.0000000000005439

Dai, D. D. (2021). Artificial Intelligence Technology Assisted Music Teaching Design. *Scientific Programming*. https://doi.org/10.1155/2021/9141339

Handayani, L. (2025). Interpretative Phenomenological Analysis of University Students' Experiences of National Identity among Indonesian University Students in the Digital Age: An IPA Approach. *Journal of Educational Innovation and Research*, *1*(5), 173–179.

Hong, J. W., Peng, Q., & Williams, D. (2021). Are you ready for artificial Mozart and Skrillex? An experiment testing expectancy violation theory and AI music. Dalam *New Media and Society* (Vol. 23, Nomor 7, hlm. 1920–1935). https://doi.org/10.1177/1461444820925798

Huang, X. (2024). Computational urban science needs to go beyond computational. Dalam *Computational Urban Science* (Vol. 4, Nomor 1). https://doi.org/10.1007/s43762-024-00130-4

Indra Martadinata, M. (2025). Phenomenological Study of Airport Staff's Experiences in Managing Increased Air Traffic during Peak Periods. *Journal Homepage: Https://Journals.Ai-Mrc.Com/jmriJournal of Multidisciplinary Research and Innovation*, *1*(5), 194–202.

Kahn, K., & Winters, N. (2021). Constructionism and AI: A history and possible futures. Dalam *British Journal of Educational Technology* (Vol. 52, Nomor 3, hlm. 1130–1142). https://doi.org/10.1111/bjet.13088

Latif, S., Cuayáhuitl, H., Pervez, F., Shamshad, F., Ali, H. S., & Cambria, E. (2023). A survey on deep reinforcement learning for audio-based applications. *Artificial Intelligence Review*, *56*(3), 2193–2240. https://doi.org/10.1007/s10462-022-10224-2

Lupton, D. (2020). Internet of Things: Dimensi sosial. Dalam *Kompas Sosiologi* (Vol. 14, Nomor 4). https://doi.org/10.1111/soc4.12770

Millet, K., Buehler, F., Du, G., & Kokkoris, M. D. (2023). Defending humankind: Anthropocentric bias in the appreciation of AI art. *Computers in Human Behavior*, *143*. *Scopus*. https://doi.org/10.1016/j.chb.2023.107707

Millhauser, J. K., & Overholtzer, L. (2020). Commodity Chains in Archaeological Research: Cotton Cloth in the Aztec Economy. *Journal of Archaeological Research*, *28*(2), 187–240. https://doi.org/10.1007/s10814-019-09134-9

Minkov, M., Vignoles, V. L., Welzel, C., Akaliyski, P., Bond, M. H., Kaasa, A., & Smith, P. B. (2024). Comparative Culturology and Cross-Cultural Psychology: How Comparing Societal Cultures Differs From Comparing Individuals' Minds Across Cultures. *Journal of Cross-Cultural Psychology*, *55*(2), 164–188. https://doi.org/10.1177/00220221231220027

Mukhlis, L. (2025a). A Phenomenological Study of Personal Spiritual Experiences in Navigating Religious Pluralism within Interfaith Communities. *Irfana: Journal of Religious Studies*, *1*(6), 212–220.

Mukhlis, L. (2025b). Spiritual Grounds for Economic Growth: A Qualitative Exploration of Rural Indonesian Women's Transformative Journeys Through Mosque-Led Empowerment Program. *Servina: Jurnal Pengabdian Kepada Masyarakat*, *1*(8), 289–298.

Mukhlis, L., Arifin, T., Ridwan, A. H., & Zulbaidah. (2024). Integrating Artificial Intelligenceand Maqāṣid al-Syarī'ah: Revolutionizing Indonesia's Sharia Online Trading System. *Computer Fraud and Security*, *2024*(11), 301–309. https://doi.org/10.52710/cfs.238

Mukhlis, L., Janwari, Y., & Syafe`i, R. (2023). INDONESIA STOCK EXCHANGE: THEORETICAL AND PHILOSOPHICAL ANALYSIS OF MUDHARABAH AND MUSYARAKAH CONTRACTS. *Yurisprudentia: Jurnal Hukum Ekonomi*, *9*(2), 243–264. https://doi.org/10.24952/yurisprudentia.v9i2.8466

Mukhlis, L., Maryam, S., & Sormin, S. A. (2023). Model Pembelajaran Living History Berbasis PjBL Untuk Meningkatkan Keterampilan Histografi Mahasiswa. *Jurnal Educatio FKIP UNMA*, *9*(4), 1800–1809. https://doi.org/10.31949/educatio.v9i4.5595

Mukhlis, L., Suradi, J., Y., & Syafe`i, R. (2023). Sosialisasi Saham Syariah sebagai Instrumen Pengembangan Ekonomi Masyarakat di Badan Kontak Majelis Taklim (BKMT) Kabupaten Mandailing Natal. *Jurnal Pengabdian Multidisiplin*, *3*(2), 2–9. https://doi.org/10.51214/japamul.v3i2.604

Nismawati. (2025). Exploring Lived Experiences of Post-Therapy Recovery after Spinal Cord Injury. *Journal of Regenerative Medicine and Molecular Innovation*, *1*(5), 174–181.

Oore, S., Simon, I., Dieleman, S., Eck, D., & Simonyan, K. (2020). This time with feeling: Learning expressive musical performance. *Neural Computing and Applications*, *32*(4), 955–967. https://doi.org/10.1007/s00521-018-3758-9

Satory, A. (2025). Emotional Meaning-Making in Legal Consultants Managing Digital Contract Disputes: An Interpretative Phenomenological Study. *Hukmuna: Journal of Law and Policy*, *1*(5), 195–202.

Singh, M. (2020). Scalability and sparsity issues in recommender datasets: A survey. *Knowledge and Information Systems*, *62*(1), 1–43. https://doi.org/10.1007/s10115-018-1254-2

Solomon, C., Harvey, B., Kahn, K., Lieberman, H., Miller, M. L., Minsky, M., Papert, A., & Silverman, B. (2020). History of Logo. *Proceedings of the ACM on Programming Languages, 4(HOPL). Scopus*. https://doi.org/10.1145/3386329

Sukmawati. (2025). Understanding the Emotional, Social, and Existential Dimensions of Living with Continuous Glucose Monitoring: An Interpretative Phenomenological Analysis of Adults with Type 2 Diabetes. *Journal of Digital Health Innovation and Medical Technology*, *1*(7), 289–298.

Sulastri, A. (2025). Exploring the Experiences of Pharmaceutical Practitioners in the Development and Evaluation of Herbal Products as Alternative Therapy in Indonesia: Challenges and Strategies in Quality Control and Regulation. *PhytoCare: Journal of Pharmacology and Natural Remedies*, *1*(3), 96–104.

Syahidah, F., Rabbani, Q. S., Sopandi, T. P., & Putri, Z. N. (2025). Financial Literacy Intervention for Rural Farmers: A Qualitative Study on Collective Wealth Building through Simulation-Based Learning in Mekarmanik Village, Indonesia. *Journal Homepage: Https://Journals.Ai-Mrc.Com/finanomicsJournal of Economic and Financial Studies*, *1*(7), 323–329.

Turchet, L., György Fazekas, G., Lagrange, M., Shokri-Ghadikolaei, H. S., & Fischione, C. (2020). The Internet of Audio Things: State of the Art, Vision, and Challenges. *IEEE Internet of Things Journal*, *7*(10), 10233–10249. https://doi.org/10.1109/JIOT.2020.2997047

Vitellone, N. (2021a). Sociology and the problem of description. *Qualitative Research*, *21*(3), 394–408. https://doi.org/10.1177/1468794120975974

Vitellone, N. (2021b). Sosiologi dan masalah deskripsi. *Penelitian Kualitatif*, *21*(3), 394–408. https://doi.org/10.1177/1468794120975974

Wei, J., Karuppiah, K., & Prathik, A. (2022). College music education and teaching based on AI techniques. *Computers and Electrical Engineering*, *100. Scopus*. https://doi.org/10.1016/j.compeleceng.2022.107851

Wen, X. (2021). Using deep learning approach and IoT architecture to build the intelligent music recommendation system. *Soft Computing*, *25*(4), 3087–3096. https://doi.org/10.1007/s00500-020-05364-y

Yang, L.-C., & Lerch, A. (2020). On the evaluation of generative models in music. *Neural Computing and Applications*, *32*(9), 4773–4784. https://doi.org/10.1007/s00521-018-3849-7

Yang, R., Feng, L., Wang, H., Yao, J., & Luo, S. (2020). Parallel Recurrent Convolutional Neural Networks-Based Music Genre Classification Method for Mobile Devices. *IEEE Access*, *8*, 19629–19637. https://doi.org/10.1109/ACCESS.2020.2968170

Yossef Ravid, B., & Aharon-Gutman, M. (2023). The Social Digital Twin:The Social Turn in the Field of Smart Cities. Dalam *Environment and Planning B: Urban Analytics and City Science* (Vol. 50, Nomor 6, hlm. 1455–1470). https://doi.org/10.1177/23998083221137079

Yu, X., Ma, N., Zheng, L., Wang, L., & Kai, K. (2023). Developments and Applications of Artificial Intelligence in Music Education. Dalam *Technologies* (Vol. 11, Nomor 2). https://doi.org/10.3390/technologies11020042

Yustikasari. (2025). Digital Self-Reconstruction: Postgraduate Reflections on YouTube's Role in Identity Formation. *CommVersa: Journal of Communication Studies*, *1*(5), 175–181.