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Perceptions of AI-generated and co-created music among university students and social media users

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Abstract

This study explores how listeners perceive and interpret music created by or with artificial intelligence (AI). Using a custom-designed survey, 57 university students and social media users listened to a series of 12 music tracks (composed by humans, co-created with AI, or fully AI-generated) and attempted to identify the origin of each. Participants also responded to questions about their attitudes toward AI in music. Results revealed that co-created tracks were the most difficult to identify correctly, while AI-only and human-generated tracks had modestly higher identification rates. Musicians and non-musicians showed similar accuracy but differed in confidence and willingness to engage with AI-assisted music. Most participants expressed support for labeling AI-generated music and were cautiously open to AI-human creative collaboration, though concerns remained regarding authenticity and emotional depth. These findings offer insight into public readiness for AI in the arts and suggest pathways for ethical design, media literacy, and future research in music technology.

Keywords: artificial intelligence, AI music, human-AI collaboration, music perception, computational creativity, media literacy

Introduction

The emergence of artificial intelligence (AI) in the creative arts has sparked ongoing debate around issues of authenticity, creativity, and audience perception. In the domain of music, AI systems are now capable of composing, performing, and even improvising original works, either independently or in collaboration with human artists. As AI-generated content becomes more common in the cultural landscape, researchers and creators alike are grappling with important questions: How does the public perceive music that was created in part or in whole by AI? Can audiences distinguish between human and machine-made music? And how does musical background influence these perceptions?

This study was born out of a shared curiosity among four music-loving researchers, each with varying degrees of musical training and performance experience. Two members of the research team have worked professionally in music, while another has actively created and shared musical content (both original and cover songs) on platforms like TikTok, Facebook, and Instagram. In recent years, this researcher began exploring AI-assisted composition tools, culminating in the release of an instrumental ambient album of piano-based tracks co-created with AI and published on Spotify and other streaming platforms. Many of these tracks were shared publicly prior to being embedded as audio stimuli in the current study.

The AI-generated tracks used in this study were created using two distinct platforms: Suno and Soundful. Suno is a web-based, text-to-music generator that can produce full songs (including vocals and instrumentation) based on simple text prompts. It utilizes a combination of transformer and diffusion models to generate music, allowing users to create songs in various genres and languages (Suno AI, 2024; Vincent, 2024). Soundful, on the other hand, is an AI music studio designed for creators to generate royalty-free background music. It employs machine learning algorithms to analyze existing music patterns and structures, enabling users to create unique compositions tailored to specific moods and styles (Soundful, 2023a, 2023b).

As interest in AI across academia grows, so does its influence on IT-related scholarship. This was recently underscored during the presentations of doctoral candidates at Middle Georgia State University, where the majority of graduating students in the Doctor of Science in Information Technology program focused their research on AI-related topics. Such trends mirror broader academic discussions about how AI is reshaping disciplines; from enhancing research productivity to raising complex questions about creative ownership, expression, and value in the arts (Keiser University, 2023; Clarivate, 2024; Atif, 2022; Culliton, 2024).

To explore how these issues resonate with real-world audiences, the research team developed an online survey using SurveyMonkey in fall 2024. Participants were asked to listen to twelve short musical samples (embedded via SoundCloud) and identify whether each track was created by a human, co-created with AI, or generated entirely by AI. The survey was distributed to university students and a broad sample of social media users. It remained open from November 2024 through May 2025. Of the 76 individuals who began the survey, 57 completed it in full; only these complete responses were retained for analysis.

The goal of this study is to investigate not just whether people can accurately identify the origin of AI-influenced music, but also how their musical experience and general attitudes shape their perceptions.

Research Questions

1. *Can listeners accurately identify whether a piece of music was generated by AI, co-created, or created by a human?*
2. *Does identification vary based on participants' musical experience?*
3. *What are the general attitudes toward the role of AI in music creation?*

Literature Review

As artificial intelligence becomes more accurate and sophisticated, creative content creation is rapidly evolving. AI is now not only a tool for generating images, videos, and music but also a collaborative partner capable of contributing meaningfully to the creative process. In music, AI has transformed from a technological novelty into a key player capable of generating harmonically complex and stylistically diverse compositions (Huang et al., 2020). This development challenges traditional understandings of music as a solely human endeavor and invites questions about authorship, originality, and emotional authenticity (Zavada, 2024). Musical creativity is undergoing a significant transformation, with AI now capable of composing, producing, and performing music (including vocal performances), raising both enthusiasm and concern. Some critics argue machine-made music lacks the emotional depth and intention inherent in human artistry, while others view it as an opportunity to push the boundaries of musical imagination (Zavada, 2024).

Over the past 3 years noted producer and musician, Rick Beato (2023, 2024, & 2025), has contributed a number of interviews with notable music industry figures and individual videos addressing specific topics to consider the effects, legal issues, and creativity of AI-generated and AI-assisted music resulting in an appearance and presentation before a congressional subcommittee considering legal questions related to AI usage in producing entertainment. Beato (2024) considers multiple genres of music and notes that AI has the potential to replace musicians and other industry jobs while allowing individuals to create AI-generated music based on list of preferences entered at a prompt. On the whole, Beato (2025), seems to regard AI as a tool much akin to autotune or beat correct that technically improves music while removing a lot of nuances imparted by the human element noting, "… if you want to sound like computers, it is easier for computers to sound like computers than it is for people to sound like computers … (2024)".

Beyond the dichotomy of human versus machine, a more nuanced space is emerging: collaborative co-creation. In this model, AI acts as a co-creator, generating musical ideas, assisting in production, and adapting to input from human creators, who bring emotional nuance and cultural context to the work. Human-AI collaboration in music can be categorized into three primary models: assistive, generative, and interactive systems (Díaz-Jerez, 2019). Assistive systems support creative decision-making, such as in AI-enhanced digital audio workstations (Moffat et al., 2020). Generative systems produce melodies or full compositions that humans refine, exemplified by OpenAI's MuseNet (Payne, 2020).

The AI Song Contest offers insights into real-world co-creation, using modular approaches with distinct AI models for lyrics, harmony, and melody. While AI is still viewed legally as a tool, audiences often attribute expressive qualities to its outputs, creating ambiguity around authorship (Colton et al., 2015; Coeckelbergh, 2020). Legal frameworks like those from the U.S. Copyright Office do not recognize works solely created by AI, complicating collaborative credits (U.S. Copyright Office, 2023). Effective co-creative AI systems emphasize usability, real-time responsiveness, and transparency. The "Human-AI Musicking" framework, for instance, highlights the importance of adaptability in fostering creative expression (Vear et al., 2023). Studies show musicians prefer AI tools that enhance creativity without replacing the human element, though concerns about loss of control and reduced emotional impact remain (Chan et al., 2025).

Emotional perception of AI-generated music is another growing area of study. While machine learning models can replicate musical structure, capturing the emotional resonance of human-made music remains a challenge (Fernando, Mahanama, & Wickramasinghe, 2024; Mehta & Buntain, 2024; Novelli & Proksch, 2022). When comparing human-created vocals to AI-generated vocals some people are more capable indistinguishing the difference than others, but of those who correctly identify AI-generated or enhanced-vocals, the majority identifiers cite a lack of emotion or contextual misrepresentation of words or emotion (Beato, 2025).

The emergence of AI in music also raises significant ethical and legal questions. The controversial release of the AI-generated track "Heart on My Sleeve," which imitated the voices of Drake and The Weeknd, ignited debate over the ethics of voice cloning and deepfakes in music (Juzon, 2024). The Weeknd, ignited debate over the ethics of voice cloning and deepfakes in music (Juzon, 2024). The truth is that using generative-AI tools will allow users to create facsimiles of famous voices and performers live or dead in any musical genre specified (Beato, 2023). The U.S. Copyright Office's refusal to grant copyrights to AI-generated works exacerbates uncertainty around intellectual property in co-created art (U.S. Copyright Office, 2023). Musicians express concerns about AI oversaturating the market and undermining the recognition of human creators (Culliton et al., 2022). Listener bias also plays a role; some undervalue AI-generated music based solely on its origin, while blind tests suggest that quality can rival human compositions (Shank et al., 2023; Ventayen, 2023). Ownership, copyright, and ethical issues aside, it is easy to understand why users are attracted to the idea of being able to express ideas and create music

regardless of their level of skill or proficiency with their voice or an instrument other than being able to navigate the chosen AI tool (Beato, 2024). Recent advances are driving several key trends in music AI:

- **Real-Time Interaction**: Systems such as Riffusion allow dynamic music generation from text or images for live performance contexts (Forsgren & Martiros, 2022).
- **Culturally Inclusive AI**: Research stresses the importance of integrating diverse musical traditions to prevent algorithmic bias (Serra et al., 2021).
- **Educational & Therapeutic Use**: AI platforms like AIVA enable non-musicians to compose music and support therapeutic applications for emotional expression (Lambert & Grimaldi, 2023; Sun et al., 2024).
- **AI-Embedded DAWs & Plugins**: Tools like Amper Music and LANDR simplify production but also raise concerns over artistic autonomy (Drott, 2021).
- **Music Personalization:** AI-powered recommendation engines (e.g., Spotify) shape user listening and artist exposure strategies (Schedl et al., 2018).

In sum, human-AI co-creation is a rapidly evolving field where advanced technologies enable innovative artistic collaboration. While challenges remain, particularly regarding authorship, emotional resonance, and market disruption, ongoing research and ethical frameworks offer promising paths forward.

Methodology

A total of 76 individuals aged 18 and above began the survey. Of these, 57 fully completed the instrument and were included in the final analysis. Participants included university students, colleagues of the researchers, and social media users recruited through convenience sampling. All participation was voluntary and anonymous. Of the 57 participants who completed the survey, 16 (28%) self-identified as musicians or being involved in music creation, while 41 (72%) identified as non-musicians. This distribution enabled a comparative analysis of musical experience and its potential influence on identification accuracy and attitudes toward AI in music. The research received formal Institutional Review Board (IRB) approval from Middle Georgia State University in Fall 2024.

Instrument Design and Distribution

The survey was developed during the Fall 2024 semester using SurveyMonkey. It included twelve 30-second audio samples of music that were either human-generated, co-created with AI, or generated entirely by AI. These tracks were selected from a larger collection of previously published or posted content created by one of the researchers. Instrumental tracks were created using Soundful, and tracks with AI-generated vocals were produced using Suno. The audio clips were hosted on SoundCloud and embedded into the survey, allowing participants to listen before making their selections. In addition to the audio identification questions, the survey instrument also included:

- 5 demographic questions, covering age, gender, educational background, citizenship, and musical experience.
- 10 perception and attitude questions, focused on emotional authenticity, innovation, preferences, and ethical concerns regarding AI in music (see Appendix B for full list with question numbers).

The survey was shared across multiple channels, including announcements within university course management systems (in courses taught by the researchers), direct emails, and posts to Facebook, LinkedIn, and other social media platforms. The survey remained open for approximately six months, from November 2024 through May 2025, and a copy can be found in Appendix C.

Procedure

Participants listened to each of the twelve embedded audio samples and responded to a multiple-choice question identifying the source of the music: human-generated, AI-generated, or co-created by AI and a human. These identification questions formed the basis for evaluating perceptual accuracy (RQ1 and RQ2). Following the listening section, participants were asked a series of demographic and perception-based questions. These included items related to:

- Musical experience (e.g., Do you consider yourself a musician?)
- Emotional and ethical considerations (e.g., Can AI-generated music be emotionally authentic? Should it be labeled?)

All questions were required for submission. Only fully completed surveys (n = 57) were included in the analysis. All analysis was conducted using Microsoft Excel and Python (Pandas and Matplotlib), and only complete survey responses (n = 57) were included in the analysis. Missing data were confirmed to be absent for all primary analysis items. Responses were analyzed using descriptive and comparative statistical methods, with a focus on addressing the study's three research questions.

For RQ1 (Can listeners accurately identify the origin of music?), responses to the twelve audio samples were compared to an answer key that classified each sample as human-generated, AI-generated, or co-created by a human and AI. A confusion matrix was constructed for each track, detailing the percentage of participants who correctly identified the track's origin, misidentified it, or selected "No idea." These results were visualized in both table and narrative form and aggregated by track type to assess overall identification accuracy across categories.

For RQ2 (Does identification vary based on musical experience?), participants were grouped into two categories, musicians and non-musicians (based on their self-reported background). Identification accuracy percentages were calculated by category for each group and visualized in a side-by-side bar chart to compare patterns in correct, incorrect, and uncertain responses. These group differences were also discussed in terms of confidence and decision tendencies, not just overall accuracy.

For RQ3 (What are the general attitudes toward the role of AI in music creation?), responses to a series of attitudinal questions were analyzed by musical background. Frequency counts and percentage distributions were calculated for each question, comparing how musicians and non-musicians responded to statements about emotional authenticity, comfort with AI, innovation potential, and the need for labeling. These results were compiled into Appendix B in both raw count and percentage formats to provide a clear comparative summary.

Results

RQ1: Identification Accuracy of AI, Co-Created, and Human Music

To assess whether listeners could accurately identify the source of AI-influenced music, a confusion matrix was constructed for each of the twelve tracks used in the survey. A full track-by-track confusion matrix showing perceived versus actual source breakdowns is provided in Appendix A and the results reveal that participant accuracy varied widely by track and source type. Across the 12 samples, the majority of listeners correctly identified the origin in only 7 tracks. For example, the track "grace(1).mp3," which was co-created by AI and a human, was most frequently identified correctly (61.4%). In contrast, "ashes(1).mp3," a human-generated track, was more often perceived as co-created or AI-generated than as human.

Notably, “No idea” responses ranged from 10% to 21% per track, signaling a significant level of uncertainty. Co-created tracks were particularly difficult to distinguish, often mistaken for either fully human or fully AI. These findings illustrate the ongoing challenge in differentiating machine-assisted compositions from purely human creations and underscore the need for deeper public awareness and literacy around AI's role in creative production.

RQ2: Musical Experience and Perceptual Accuracy

Figure 1 illustrates a comparison between musicians and non-musicians in how they perceived the origin of AI, co-created, and human-generated music. The bar chart reveals that musicians exhibited slightly higher identification rates across most categories and were less likely to choose "No idea" when compared to non-musicians.

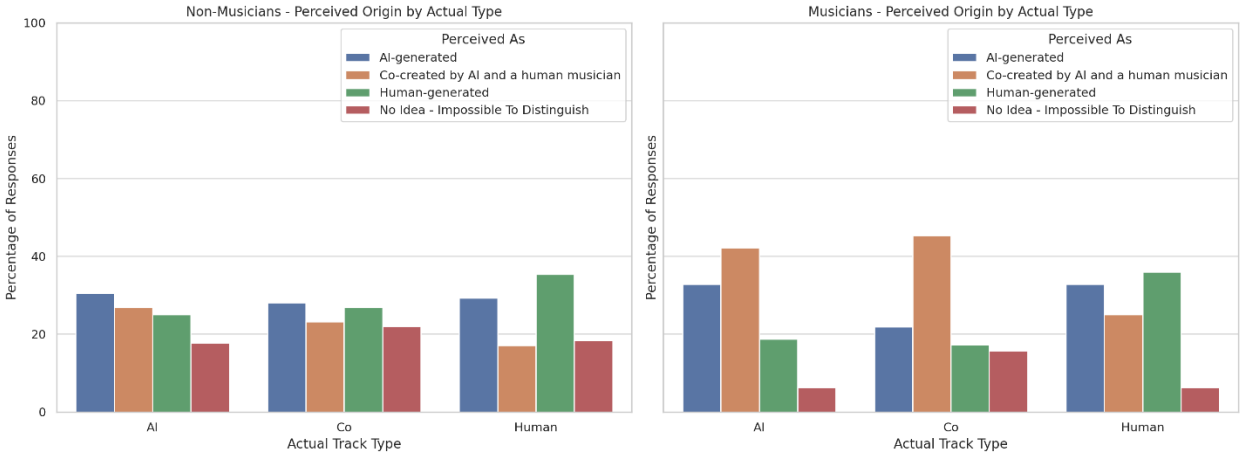

Figure 1. Comparison between musicians and non-musicians in music origin perception.

To explore the relationship between musical background and identification accuracy, participants were grouped by self-reported musician status. A comparative analysis of responses revealed that both musicians and non-musicians demonstrated the highest accuracy when identifying AI-generated tracks. However, both groups struggled most with co-created tracks, often misidentifying them as either fully human or fully AI. Musicians tended to display slightly greater confidence, reflected in marginally higher correct identification rates and fewer “No idea” responses overall. Non-musicians, by contrast, selected “No idea” more frequently, particularly when evaluating human and co-created tracks. These results suggest that while musical experience may improve overall comfort and confidence in making identification judgments, it does not necessarily translate to significantly greater accuracy, especially when evaluating hybrid, co-created music.

RQ3: General Attitudes Toward AI in Music

Participant responses to key attitude questions reveal nuanced views on AI’s role in music creation. Most participants, both musicians and non-musicians, expressed skepticism about whether AI could create music that feels as emotional or authentic as that created by humans. Despite this, a majority in both groups supported the idea that AI-generated music should be clearly labeled and indicated they would be more inclined to listen to music co-created with AI rather than generated by AI alone.

Figure 2 illustrates the distribution of responses to five key attitudinal questions, grouped by musical background (musicians vs. non-musicians) and labeled by question number (Q23, Q24, Q26, Q28, Q30). These items were selected based on their relevance to participants’ emotional perceptions of AI-generated music, ethical considerations, and openness to AI-human collaboration.

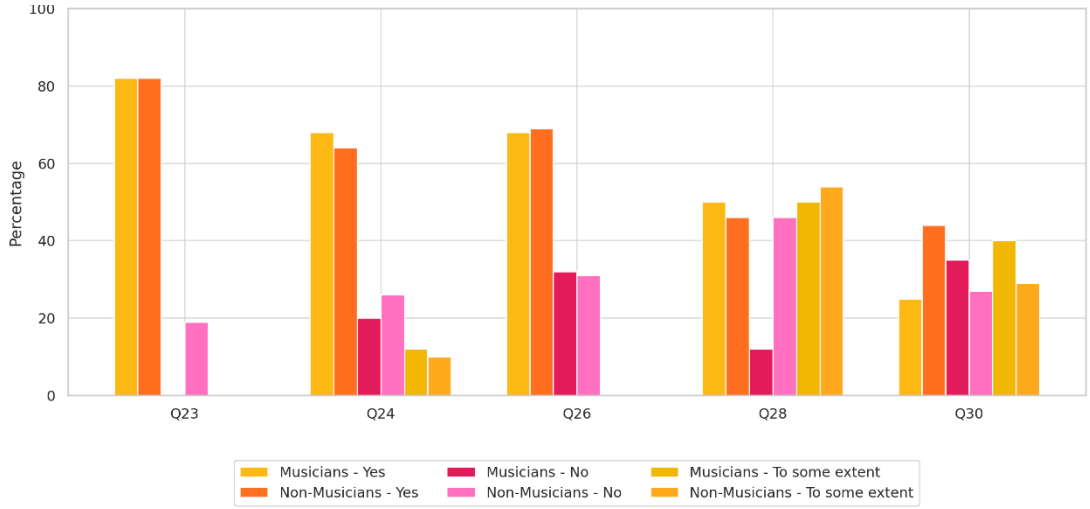

Figure 2. Key Attitudes Toward AI in Music by Musical Experience

The results reveal several notable patterns. For example, a clear majority of both musicians and non-musicians agreed that AI-generated music should be clearly labeled (Q24), with slightly higher support among musicians. When asked whether music co-created with AI was preferable to AI-only compositions (Q26), over half of both groups agreed, though musicians showed a marginally higher preference. Musicians were also slightly more likely to believe that AI could bring innovative ideas to music creation (Q28), reflecting more optimism about collaborative potential. However, skepticism was evident in responses to Q23 (AI music can be emotionally authentic) and Q30 (AI can fully replicate human musicianship). Both musicians and non-musicians were more likely to disagree or only partially agree with these statements, with musicians expressing slightly stronger doubt about AI's ability to match human emotion and nuance. These findings suggest that while musicians may demonstrate a greater willingness to engage with AI as a creative partner, both groups remain cautious about AI's ability to replicate the emotional and artistic essence of human music-making. A detailed comparison of musician and non-musician responses is available in Appendix B.

Discussion

This study contributes to a growing body of research focused on how audiences perceive music created by or with artificial intelligence. While some participants showed a moderate ability to distinguish between human, co-created, and AI-generated music, the findings suggest that even musically experienced individuals often struggle with accurate identification, especially when it comes to hybrid compositions. In fact, co-created tracks were the most misidentified overall, and several human-generated tracks were mistaken for AI outputs, revealing a potential shift in audience expectations or biases about production style and polish (Shank et al., 2023; Ventayen, 2023).

One of the more surprising findings was the relatively high rate of misidentification for human-generated music as either co-created or AI-generated. This not only suggests that AI-generated music is becoming increasingly indistinguishable from human-made works, but also raises concerns about a growing "AI suspicion bias," where audiences may presume AI involvement even in traditional compositions (Zavada, 2024).

Participant responses also pointed to nuanced attitudes toward AI in creative fields. Many supported labeling AI-generated music and expressed openness toward human-AI collaborations, but remained skeptical of AI's ability to replicate emotional authenticity (Atif, 2022; Coeckelbergh, 2020). These results indicate a need for improved media literacy and public education; not only about the capabilities and limitations of generative models but also about the ethical considerations they introduce into creative industries (Culliton et al., 2022).

Implications for Research and Practice

The findings of this study offer several implications for practice and future research:

- **Music education and media literacy:** These results suggest a need for curriculum updates in music and media programs to include critical engagement with AI tools, not only for creative use but also for understanding their cultural and ethical impacts (Sun et al., 2024).

- **Technology development**: AI tool developers may benefit from user feedback indicating a preference for collaborative roles over fully generative ones. Transparency in how AI is used (e.g., clear labeling) may foster trust and encourage innovation (Lambert & Grimaldi, 2023).

- **Policy and regulation:** With overwhelming support for labeling AI-generated music, there are clear implications for future content disclosure policies and copyright frameworks (U.S. Copyright Office, 2023; Juzon, 2024).

- **Creative partnerships:** Artists and educators can draw from these insights to explore more nuanced, ethical, and emotionally engaging ways to collaborate with AI (Vear et al., 2023).

Limitations

This study had several limitations:

- The sample was limited to university students and social media users, which may not represent the general population.
- Participant biases (whether through familiarity with generative technologies or skepticism toward AI) may have influenced their judgments and survey responses (Chan et al., 2025).
- The study included only 12 audio samples across a small range of genres. A broader sample across more musical styles and cultural backgrounds would yield deeper insight (Fernando et al., 2024; Novelli & Proksch, 2022).

Conclusion

This study highlights both the potential and complexity of integrating artificial intelligence into musical creation. Participants were generally open to AI-human collaborations but remained skeptical of AI-only compositions, especially regarding emotional authenticity. While few could consistently identify the true origin of each piece, their responses provided important insight into how people perceive technology's role in the arts. These findings point to a transitional moment in how audiences engage with music, raising important questions for developers, educators, and scholars. Future research may explore genre-specific responses, the evolution of perceptions over time, and cross-cultural differences in openness to AI-generated art (Serra et al., 2021).

References

Atif, U. (2022). How AI is changing the music industry. *The National High School Journal of Science.* https://nhsjs.com/2022/how-ai-is-changing-the-music-industry/

Beato, R. (2023, May 4). *The AI effect: A new era in music and its unintended consequences* [Video]. YouTube. https://www.youtube.com/watch?v=-eAQOhDNLt4

Beato, R. (2024, June 11). *How AI will slowly destroy the music business* [Video]. YouTube. https://www.youtube.com/watch?v=zbo6SdyWGns

Beato, R. (2025, April 3). *Will these new tools make songwriters irrelevant in 2025?* [Video]. YouTube. https://www.youtube.com/watch?v=JSswFa8Ta1k

Chan, J., Lee, S., & Kim, H. (2025). Exploring the collaborative co-creation process with AI: A case study in novice music production. arXiv preprint arXiv:2501.15276.

Clarivate. (2024). Artificial intelligence in research: Enhancing productivity, discovery and research excellence. https://clarivate.com/blog/artificial-intelligence-in-research/

Coeckelbergh, M. (2020). AI and creativity: Can machines be creative? *Philosophy & Technology, 33*(3), 331–347.

Colton, S., Cook, M., & Raad, A. (2015). On attributing creativity to computational systems. *International Journal of Creative Computing, 1*(1), 42–65.

Culliton, J. (2024). The impact of artificial intelligence on musicians. *Issues in Information Systems, 25*(1), 267–276.

Fernando, P., Mahanama, T. V., & Wickramasinghe, M. (2024, April). Assessment of human emotional responses to AI–composed music: A systematic literature review. *Proceedings of the 2024 International Research Conference on Smart Computing and Systems Engineering (SCSE)*, Colombo, Sri Lanka, 1–6.

Juzon, H. (2024). Fake Drake? AI music generation implicates copyright and the right of publicity. *Washington Law Review, 99*, 987.

Keiser University. (2023). The role of artificial intelligence (AI) in research. https://www.keiseruniversity.edu/the-role-of-artificial-intelligence-in-research/

Lambert, A., & Grimaldi, M. (2023). AIVA: Democratizing music creation with artificial intelligence. Journal of Music, *Technology & Education, 15*(2), 101–116.

Novelli, N., & Proksch, S. (2022). Am I (deep) blue? Music-making AI and emotional awareness. *Frontiers in Neurorobotics, 16*, 897110.

Serra, X., Gómez, E., & Herrera, P. (2021). Addressing cultural biases in music information retrieval systems. *Transactions of the International Society for Music Information Retrieval, 4*(1), 75–88.

Shank, D. B., Stefanik, C., Stuhlsatz, C., Kacirek, K., & Belfi, A. M. (2023). AI composer bias: Listeners like music less when they think it was composed by an AI. *Journal of Experimental Psychology: Applied, 29*(3), 676–692. https://doi.org/10.1037/xap0000447

Sun, J., Yang, J., Zhou, G., Jin, Y., & Gong, J. (2024). Understanding human-AI collaboration in music therapy through co-design with therapists. *Proceedings of the 2024 CHI Conference on Human Factors in Computing Systems*, 1–15.

U.S. Copyright Office. (2023, March 16). *Copyright registration guidance: Works containing material generated by artificial intelligence.* Federal Register, 88(51), 16189–16192. https://www.federalregister.gov/documents/2023/03/16/2023-05321/copyright-registration-guidance-works-containing-material-generated-by-artificial-intelligence

Vear, C., Benford, S., Avila, J. P., & Moroz, S. (2023). Human-AI musicking: A framework for designing AI-based musical instruments. *Journal of New Music Research, 52*(1), 22–39.

Ventayen, R. J. M. (2023). Emotional and quality perceptions of AI-generated music in blind listening tests. *Journal of the Audio Engineering Society, 71*(4), 189–200.

Vincent, J. (2024, March 11). What is Suno AI? *TechRadar.* https://www.techradar.com/computing/artificial-intelligence/what-is-suno-ai

Zavada, I. (2024, April 18). Can AI-generated music truly capture human imagination and emotion? The University of Sydney. https://www.sydney.edu.au/music/news-and-events/2024/04/18/can-ai-generated-music-truly-capture-human-imagination-and-emotion.html

Appendix A Confusion Matrix by Track

Table A1. Perceived Origin of Music by Track and Actual Source

Track	Actual	AI-generated	Co-created by AI and a human musician	Human-generated	No Idea - Impossible To Distinguish
ashes(1).mp3	Human-generated	31.6	36.8	19.3	12.3
embellished.mp3	Co-created by AI and a human musician	38.6	31.6	19.3	10.5
For Double eL(1).mp3	Human-generated	17.5	28.1	33.3	21.1
georgia-days-and-grapevine-nights 2(1).mp3	AI-generated	36.8	28.1	21.1	14.0
groovy-time(1).mp3	AI-generated	42.1	21.1	7.0	29.8
just-chillin(1).mp3	AI-generated	19.3	29.8	26.3	24.6
keepwalkin(1).mp3	Human-generated	17.5	33.3	35.1	14.0
positivity(1).mp3	Co-created by AI and a human musician	26.3	33.3	28.1	12.3
rejuvenating (1).mp3Nicky2Shoes Rigole	Co-created by AI and a human musician	49.1	22.8	8.8	19.3
thankful(1).mp3	Human-generated	26.3	10.5	45.6	17.5
the-grapevine-shuffle 2(1).mp3	AI-generated	38.6	26.3	26.3	8.8
grace(1).mp3	Co-created by AI and a human musician	7.0	17.5	61.4	14.0

Appendix B Attitudes Toward AI by Musical Experience

Table B1. Percentage of Musicians and Non-Musicians by Response (with Question Numbers)

Question Number	Question	Response	Musicians (%)	Non-Musicians (%)
Q22	Do you think AI can effectively create music that feels as emotional or authentic as music created solely by humans?	Not Sure	25.0	19.5
Q22	Do you think AI can effectively create music that feels as emotional or authentic as music created solely by humans?	Yes	31.2	36.6
Q22	Do you think AI can effectively create music that feels as emotional or authentic as music created solely by humans?	No	43.8	43.9
Q23	In your opinion, should AI-generated music be clearly labeled as such?	Yes	81.2	80.5
Q23	In your opinion, should AI-generated music be clearly labeled as such?	No	18.8	19.5
Q24	Would you be more inclined to listen to music co-created by AI and a human artist than music created solely by AI?	Yes	75.0	68.3
Q24	Would you be more inclined to listen to music co-created by AI and a human artist than music created solely by AI?	No	25.0	31.7
Q25	Do you think AI and human collaboration in music creation can bring out new and innovative ideas?	Not Sure	18.8	19.5
Q25	Do you think AI and human collaboration in music creation can bring out new and innovative ideas?	Yes	56.2	70.7
Q25	Do you think AI and human collaboration in music creation can bring out new and innovative ideas?	No	25.0	9.8
Q26	Do you think AI will ever fully replicate the unique touch of a human musician?	Yes	12.5	12.2
Q26	Do you think AI will ever fully replicate the unique touch of a human musician?	No	68.8	46.3
Q26	Do you think AI will ever fully replicate the unique touch of a human musician?	To Some Extent	18.8	41.5
Q27	Does knowing that music was created by AI change your appreciation or enjoyment of the music?	Yes	37.5	24.4
Q27	Does knowing that music was created by AI change your appreciation or enjoyment of the music?	No	18.8	46.3
Q27	Does knowing that music was created by AI change your appreciation or enjoyment of the music?	Depends	43.8	29.3
Q28	Are you concerned about the potential for AI to replace human musicians in the industry?	Yes	50.0	34.1
Q28	Are you concerned about the potential for AI to replace human musicians in the industry?	No	18.8	53.7
Q28	Are you concerned about the potential for AI to replace human musicians in the industry?	Neutral	31.2	12.2

Question Number	Question	Response	Musicians (%)	Non-Musicians (%)
Q29	Do you prefer music that is purely human-generated, or are you open to AI-involved creation?	Human-generated only	62.5	26.8
Q29	Do you prefer music that is purely human-generated, or are you open to AI-involved creation?	Open to both	37.5	73.2
Q30	Would you consider creating music using AI tools if given the opportunity?	Yes	25.0	43.9
Q30	Would you consider creating music using AI tools if given the opportunity?	No	43.8	26.8
Q30	Would you consider creating music using AI tools if given the opportunity?	Maybe	31.2	29.3

Appendix C Copy of Survey

Title: Perceptions of AI-Generated and Co-Created Music Principal Investigator: Neil Rigole, Ph.D.
Contact Information: neil.rigole@mga.edu Sponsor: N/A

Summary of the Study
You are being asked to participate in a research study about the perceptions of music created by artificial intelligence (AI) and by human musicians. In this study, you will listen to twelve (12) different music clips, and then be asked to complete a survey about how you feel regarding AI and human involvement in music creation. Your participation in this study will take approximately 15-30 minutes. The most likely risk of participating in this study is minor emotional discomfort if you have strong opinions about AI in creative fields. There are no physical risks. The results from this study may contribute to a better understanding of how AI is perceived in the field of music creation.

Purpose of This Research
This research aims to understand how participants perceive music created solely by AI, music co-created by AI and human musicians, and music created solely by human musicians. The study explores how different groups (musicians and non-musicians) experience AI's role in music creation and examines concerns about its artistic and ethical implications.

What You Will Be Asked to Do
If you agree to participate, you will listen to nine music samples (each under 1 minute long) and answer a series of questions for each sample, such as rating the quality of the music and identifying whether it was created by AI, a human, or both.

Potential Risks and Benefits
In this study, you will not face any risks beyond those encountered in daily life. You will not directly benefit from participating in this study. However, your participation will contribute to a broader understanding of AI's impact on music and the arts.

Your Right to Participate, Decline, or Withdraw
Participation in this study is completely voluntary. You may choose not to participate or withdraw from the study at any time without penalty. You may also skip any questions you feel uncomfortable answering.

Privacy and Confidentiality
Your responses will be anonymous, and no identifying information will be collected. The data will be securely stored and only accessible to the research team. The results of this study may be published, but your identity will remain confidential.

Contact Information
If you have any questions, concerns, or complaints about this study, please contact Dr. Neil Rigole at neil.rigole@mga.edu. If you have questions about your rights as a research participant, you can contact the Chair of the Middle Georgia State University Institutional Review Board (IRB) at irb@mga.edu

Survey Questions
1. Are you 18 years of age or older? Yes/No (If "No," you will not be able to participate in this study.
2. By selecting "Yes," you are giving your informed consent to participate in this study: Yes/ No
3. Age: Under 18/ 18-24/ 25-34/ 35-44/ 45-54/ 55-64/ 65+
4. What is your gender? Female/ Male/ Other (specify)

5. Are you a musician or involved in music creation? Yes/ No
6. If yes, how long have you been creating music? Less than 1 year/ 1-3 years/ 4-6 years/ 7+ years/ NA
7. How often do you listen to music? Daily/ Weekly/ Occasionally/ Rarely
8. What are your top three preferred genres? Pop/ Rock/ Country/ Jazz/ Classical/ Electronic/ Hip-Hop/ Other (please specify)
9. Where do you MOSTLY listen to music? Streaming Services (Spotify, YouTube, Apple Music, Amazon, etc)/ Social Media (TikTok, Facebook, Instagram)/ Traditional Radio/ Live performances/ Other (please specify)
10. How important is music in your daily life? Not important/ Somewhat important/ Very important
11. Do you think AI can effectively create music that feels as emotional or authentic as music created solely by humans? Yes/ No/ Not Sure
12. How comfortable are you with AI playing a role in music creation? Not at all comfortable/ Somewhat comfortable/ Very comfortable
13. In your opinion, should AI-generated music be clearly labeled as such? Yes/ No
14. Would you be more inclined to listen to music co-created by AI and a human artist than music created solely by AI? Yes/ No
15. Do you think AI and human collaboration in music creation can bring out new and innovative ideas? Yes/ No/ Not Sure
16. Do you think AI will ever fully replicate the unique touch of a human musician? Yes/ No/ To Some Extent
17. Does knowing that music was created by AI change your appreciation or enjoyment of the music? Yes/ No/ Depends
18. How should copyright for music generated with AI be handled? Belongs to the user of AI/ Belongs to AI developers/ Public domain/ Other (please specify)
19. Are you concerned about the potential for AI to replace human musicians in the industry? Yes/ No/ Neutral
20. Do you prefer music that is purely human-generated, or are you open to AI-involved creation? Human-generated only/ Open to both
21. Would you consider creating music using AI tools if given the opportunity? Yes/ No/ Maybe

In this section, you will have the opportunity to listen to TWELVE different music snippets. Each recording is only 30 seconds in length. The snippets include:

- Four pieces generated entirely by AI
- Four pieces co-created by a human musician and AI
- Four pieces created solely by a human musician

Half of the pieces are instrumental, while the others have vocals. After listening to each recording, you will be asked to assess the music based on your perception of its quality, emotional engagement, and origin (whether it was created by AI, a human, or a combination of both). Feel free to replay each clip as needed before submitting your responses.

22. (Nicky2Shoes Rigole · ashes(1).mp3) Who do you think created this music? AI-generated/ Co-created by AI and a human musician/ Human-generated/ No Idea - Impossible To Distinguish
23. (Nicky2Shoes Rigole · embellished.mp3) Who do you think created this music? AI-generated/ Co-created by AI and a human musician/ Human-generated/ No Idea - Impossible To Distinguish
24. (Nicky2Shoes Rigole · For Double eL(1).mp3) Who do you think created this music? AI-generated/ Co-created by AI and a human musician/ Human-generated/ No Idea - Impossible To Distinguish

25. (Nicky2Shoes Rigole · georgia-days-and-grapevine-nights 2(1).mp3) Who do you think created this music? AI-generated/ Co-created by AI and a human musician/ Human-generated/ No Idea - Impossible To Distinguish
26. (Nicky2Shoes Rigole · groovy-time(1).mp3) Who do you think created this music? AI-generated/ Co-created by AI and a human musician/ Human-generated/ No Idea - Impossible To Distinguish
27. (Nicky2Shoes Rigole · just-chillin(1).mp3) Who do you think created this music? AI-generated/ Co-created by AI and a human musician/ Human-generated/ No Idea - Impossible To Distinguish
28. (Nicky2Shoes Rigole · keepwalkin(1).mp3) Who do you think created this music? AI-generated/ Co-created by AI and a human musician/ Human-generated/ No Idea - Impossible To Distinguish
29. (Nicky2Shoes Rigole · positivity(1).mp3) Who do you think created this music? AI-generated/ Co-created by AI and a human musician/ Human-generated/ No Idea - Impossible To Distinguish
30. (Nicky2Shoes Rigole · rejuvenating (1).mp3) Who do you think created this music? AI-generated/ Co-created by AI and a human musician/ Human-generated/ No Idea - Impossible To Distinguish
31. (Nicky2Shoes Rigole · thankful(1).mp3) Who do you think created this music? AI-generated/ Co-created by AI and a human musician/ Human-generated/ No Idea - Impossible To Distinguish
32. (Nicky2Shoes Rigole · the-grapevine-shuffle 2(1).mp3) Who do you think created this music? AI-generated/ Co-created by AI and a human musician/ Human-generated/ No Idea - Impossible To Distinguish
33. (Nicky2Shoes Rigole · grace(1).mp3) Who do you think created this music? AI-generated/ Co-created by AI and a human musician/ Human-generated/ No Idea - Impossible To Distinguish