

The Popularity of AI-Generated Music: Trends, Genres, and Influencing Factors

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Abstract: Music is an integral part of life, and in recent years, machine learning has been increasingly applied to music generation. While many existing review papers focus on the models used and the overall development of the field, few have examined the popularity of different musical genres within AI-generated music. This paper aims to fill that gap by analyzing the popularity of AI-generated music from two angles: overall trends and genre-specific trends. It also offers possible explanations for the patterns observed. To assess popularity, the number of related publications indexed on Google Scholar each year is collected and analyzed. The paper is divided into two main sections. The first examines the general rise in interest in AI-generated music, particularly the sharp increase after 2016. This surge may be attributed to developments such as more efficient models, improved and affordable hardware, and broader access to training data. The second section focuses on the three most popular genres in AI music generation, comparing their relative popularity and exploring the reasons behind these trends. Factors such as data availability, genre complexity, and real-world popularity are discussed as possible explanations.

Keywords: Artificial Intelligence, Music Technology, Popularity, AI-Generated Music

1. Introduction

"Music can have a remarkable impact on listeners' emotional states" [1], making it an integral part of our lives. Before the 21st century, all music was composed by humans—a process that could take weeks or even months. Today, AI can compose a piece of music in a matter of seconds. Models such as Recurrent Neural Networks (RNNs), Feedforward Networks (FFs), Variational Autoencoders (VAEs), Transformers, and others [2] are already being implemented in music generation.

AI-generated music is increasingly being adopted by companies and organizations. For example, OpenAI, the creator of ChatGPT, developed a music generation model called MuseNet [3], capable of generating music in a wide range of styles. One demonstration involved the model receiving the first six notes of a Chopin Nocturne and being prompted to continue the piece in a pop style using piano, drums, bass, and guitar. Impressively, the model managed to blend the two styles convincingly, with the full band joining in around the 30-second mark.

Another notable example is Suno AI, which has been described as "one of the best AI music generating engines so far" [4]. It is capable of producing music across multiple genres, with results that sound natural and are often comparable to human-composed pieces. Additionally, AI was involved in completing Beethoven's unfinished Tenth Symphony, which premiered in 2021. Tim

Höttges, Chairman of the Board of Management at Deutsche Telekom, remarked, *"I believe that the result is something truly amazing because people and machines have created something new"* [5].

Although top-tier AI-generated music can produce impressive results, the technology is still in its infancy. The compositions generated by models like MuseNet and Suno AI have not yet reached the artistic level of classical composers or modern professionals. Even in the case of Beethoven's AI-assisted Tenth Symphony, significant human involvement was still required. Although gaining traction, AI-generated music still requires further research to meet human expectations and creative standards.

This paper primarily aims to analyze trends in the popularity of AI-generated music. The number of related academic publications has steadily increased over the years, with a noticeable surge after 2016. Additionally, the paper explores the popularity of specific music genres within AI-generated music, offering possible explanations for the observed trends. The structure of the paper is divided into two main sections. The first section examines the overall trend in the popularity of AI-generated music, particularly focusing on the sharp rise in publication numbers after 2016, and explores various possible reasons behind this surge. The second section delves into genre-specific trends, identifying and analyzing the three most popular genres in AI music generation.

2. Methodology of the Review

The number of publications (Figures 1 and 2) was estimated based on the number of search results returned by Google Scholar using specific search strings. For Figure 1, the search string used was: "(AI OR 'Artificial Intelligence' OR 'Machine Learning' OR 'Deep Learning') AND 'Music Generation'". This means that "music generation" was a required keyword, and at least one of the terms within the parentheses had to be included in the results.

For Figure 2, which illustrates the number of publications related to specific music genres, the following genre-specific extensions were added to the original string: "AND 'classical music'", "AND 'jazz music'", and "AND 'pop music'".

The data presented in Figure 3, which analyzes the popularity of different music genres, was calculated using a weighted sum based on the population of each age group [7] and the genre's popularity ranking within those groups [6]. The weighting scheme assigns values of 3, 2, and 1 to the first, second, and third most popular genres in each age group, respectively. The popularity score for each genre was calculated using the formula:

$$PopularityScore = \sum (P \times Weight_{popularity})$$

where P represents the population percentage of each age group. The final popularity score shown in the graph is the cumulative total across all age groups: 13–17, 18–24, 35–44, 45–54, 55–64, and 65+. All data used in Figure 3 [6,7] is from the year 2024.

3. Results

3.1. Popularity of Music Generation

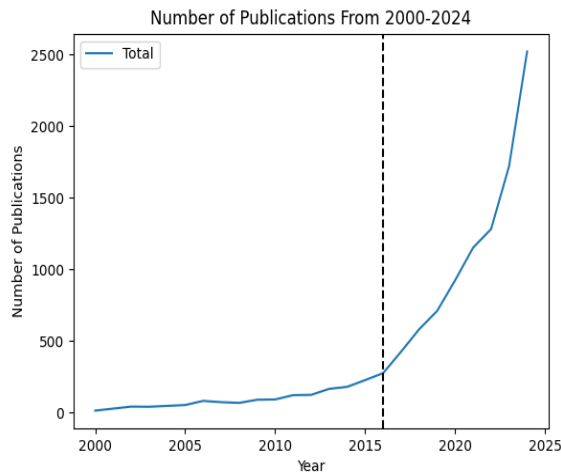


Figure 1: Number of Publications Per Year from 2000-2024

According to the figure, the number of publications began to rise sharply around 2016–2017. From 2000 to 2016, annual publications increased gradually, from just 12 to 274. However, in a single year—from 2016 to 2017—this number jumped from 274 to 424. This sudden surge can be attributed to several factors. One key contributor is the invention of the transformer model, which significantly advanced the field of AI. A study by Epoch AI [9] indicates that, after 2016, there was a sharp increase in the number of frontier models, large language models (LLMs), notable architectures, and leading AI companies. This rapid growth in AI research and development naturally extended into areas like AI-generated music.

As shown in Figure 2, the number of publications related to AI music generation followed a steady upward trend before 2017. However, the introduction of the transformer architecture in 2017 [8] marked a notable shift. Interestingly, according to the review *"A Systematic Review of Artificial Intelligence-Based Music Generation: Scope, Applications, and Future Trends"* (2022) [2], between 2017 and 2021, transformers were still not as widely used in music generation as other models, such as RNNs. This suggests that while the introduction of the transformer was influential, it was not the sole driver behind the exponential growth in publications.

Another possible explanation is the improvement of hardware for intensive AI training. A 2023 study by Epoch AI [10] noted a sharp rise in the price-performance of machine learning hardware around 2017–2018, largely due to the emergence of new number formats. This made high-quality computational resources more affordable and accessible, enabling researchers to develop and train complex models—including those for music generation. Additionally, the growing availability of training data played a role. According to a 2023 study by McCain [11], the number of paid music streaming subscriptions began to increase rapidly around 2016. This surge reflects the expansion of streaming platforms and, by extension, the volume of digital music recordings available. These recordings serve as valuable training data for AI models, and the growth of such datasets further accelerated research in this emerging field.

3.2. Popularity of Different Genres in Music Generation

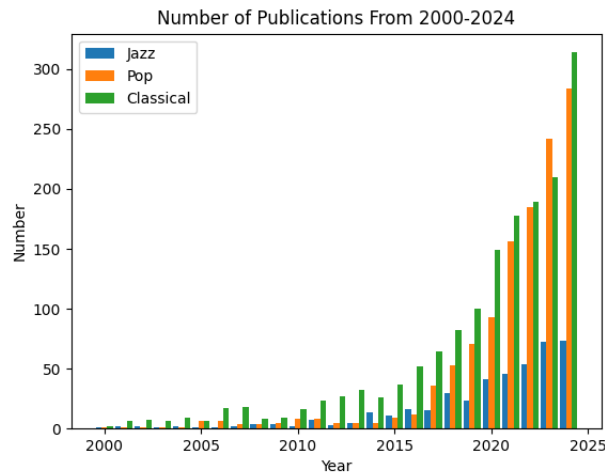


Figure 2: Number of Publications by Genres: Pop, Classical, and Jazz. (from 2000-2024)

The overall trend in the total number of publications is clear: as artificial intelligence technology continues to advance and gain popularity, an increase in the number of related publications across various fields is expected. However, when analyzing specific music genres, distinct trends emerge.

This paper focuses on three specific genres—classical, jazz, and pop—selected based on their publication counts between 2000 and 2024, as determined through Google Scholar searches. The search string used was: "X Music" AND "Music Generation" AND ("AI" OR "artificial intelligence" OR "deep learning" OR "machine learning"), where X was replaced by each genre. The total number of publications found were as follows: Classical – 1,050; Jazz – 281; Pop – 949; Rock – 178; EDM – 10; Country – 38; Soul – 11. Based on these results, classical and pop music are the two genres with the highest number of publications. Although jazz is less popular in mainstream music consumption, it has still attracted a considerable amount of attention in academic research.

One notable observation is that the combined total of genre-specific publications remains significantly lower than the total number of publications shown in Figure 1 for the year 2024 alone. This suggests that a substantial portion of AI music generation research does not focus on specific genres, but rather explores general or cross-genre approaches.

As illustrated in Figure 3, jazz has a relatively low popularity score among listeners. This could partially explain why, compared to pop, jazz did not experience a large increase in the number of related publications over the past 24 years. Moreover, jazz music emphasizes live performance and improvisation over rigid composition, which results in less predictable musical patterns. This complexity poses additional challenges for AI models, requiring higher levels of robustness and adaptability.

However, there may also be a practical reason for the relatively high number of jazz-related publications despite its lower popularity: many jazz compositions are distributed as lead sheets, which include only a melody line and chord symbols. This format simplifies data processing, making jazz music a convenient subject for algorithmic analysis and model training in AI research.

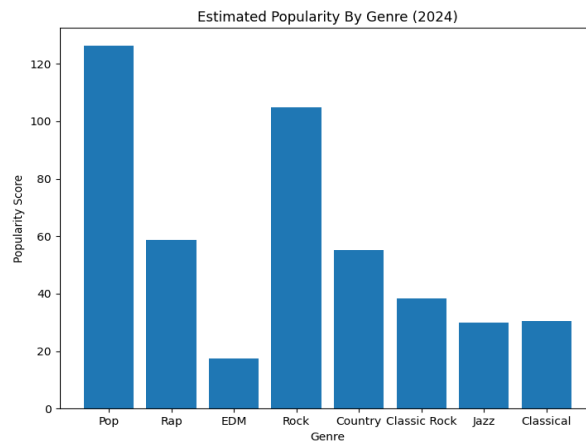


Figure 3: Estimated Popularity by music genres. The popularity score is calculated based on the age groups' populations and the ranking of the popularity of a genre within that age group (Genre, 2024).

Pop music has experienced a substantial rise in related publications, nearly matching classical music in 2024 despite lagging far behind in 2000 (Figure 2). Popularity is clearly a significant factor in this trend. However, technical considerations also contribute. Pop music typically features relatively simple harmony and structure. Much of it is homophonic, consisting of a single melody line accompanied by chords—unlike many classical compositions, which often involve polyphony, complex harmonic progressions, and intricate formal structures. As such, pop music serves as a more accessible entry point for AI music generation.

Furthermore, successful demonstrations of AI-generated pop music may have encouraged more researchers to explore this area. Its widespread appeal and contemporary relevance also mean that a vast amount of high-quality training data is readily available from modern streaming platforms.

Despite these factors, classical music remains the most researched genre among the three in the context of AI. One key reason is the extensive availability of data: centuries' worth of compositions across various styles have been well-documented and digitized. However, the relatively slower growth in classical music publications compared to pop may be due in part to its lower real-world popularity. Like jazz, classical music appeals to a more niche audience today. Moreover, its intricate rules, dense harmonies, and long-form structures pose greater challenges for algorithmic composition, potentially deterring some researchers in favor of genres with simpler musical frameworks like pop or jazz.

4. Conclusion

Using Google Scholar, this paper estimates the number of publications related to music generation from 2000 to 2024, encompassing both general AI music generation and three specific genres: jazz, pop, and classical.

Overall, the total number of publications has shown a steady upward trend, with a notable surge occurring after 2016. This sudden rise can be attributed to several key factors, including advancements in hardware that made training AI models more accessible, the increased availability of large-scale training datasets, and the introduction of the transformer model in 2017. Data from various sources suggest that around 2017 marked a turning point in both hardware performance and the growth of paid subscriptions to music streaming platforms—both of which likely contributed to a greater volume of data available for model training and heightened interest in AI music generation.

Interestingly, the three most prominent genres in AI music generation—jazz, pop, and classical—differ significantly from their relative popularity among general audiences. Jazz, for instance, ranks

third in terms of AI research interest, despite its relatively small listener base. One plausible explanation is that jazz compositions are often distributed as lead sheets, containing only a melody and chord symbols, which makes them easier to process and model compared to genres with more complex arrangements. Pop music, which ranks second, has widespread real-world popularity, contributing to its growing presence in AI research. Additionally, its simpler harmonic structures and the availability of large datasets make it an attractive subject for music generation. The emergence of companies like Suno AI, which specialize in generating pop music, may also be driving this trend.

Classical music, despite its relatively niche audience today, remains the most researched genre in AI music generation. This could be attributed to the vast availability of public-domain scores, much of which is attributable to deceased composers whose works are freely accessible. Unlike pop music, where acquiring detailed scores can be challenging due to copyright restrictions, classical scores are abundant and easier to obtain. However, the growing popularity of pop music and its accelerating publication trend suggest that it may soon surpass classical music as the leading genre in AI music generation.

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