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The History and Possibilities of Distributing Music in the 21st Century

ABSTRACT: The goal of the present article is to observe the evolution of streaming services, this being one of many prospects for the distribution of alternative music. It would be unrealistic to compare the first of them, which arose at the end of the 1990s, to today's methods, which provide multiple ways and techniques to support the artists and simultaneously satisfy the hunger for new sounds in audiences. Discussing it from the scientific perspective of studies regarding the legality of musical distribution, in conjunction with the development of the underground music scene, the author – as a musician himself – attempts to introduce the functionality of sound-streaming media as an area for shaping the musical taste of individual listeners, an artistic activity firmly reliant on the cooperation of the artists and their audiences. The article is based on studies conducted by the author in 2021–2023.

KEYWORDS: streaming, streaming services, underground music, alternative music

Introduction

The unified definition of music streaming as a method of its distribution describes it both as a revolutionary hybrid of the listener's agency in choosing music that corresponds only to her/his preferences (Parus-Jankowska & Nożycki, 2020, p. 78) and a specific scope of influence on the songs s/he chooses, and as a 'miniaturization of experience', where the space for receiving sound matter is the smartphone. According to Stanisław Trzciński, author of the book *Zarażeni dźwiękiem* [Infected by sound] (2023, p. 68), the technological revolution brought by streaming services has caused the phenomenon of people constantly being surrounded by music. The phenomenon that streaming services have become – as the successor of portable media players that offered the potential to listen to one's favourite music wherever one chose – has a short history of development. The first came into production at the end of the 1990s and the beginning of the new millennium. Nevertheless, most consider the breakthrough to have taken place in the second decade of the 21st century, when smartphones drew a lot of

media attention due to their number of functions. Digital distribution being one of them, this resulted in abandoning the usage of the often cumbersome devices for mobile commerce with sound, and swapping them for a multifunction accessory fitting into a pocket. Naturally, the changes did not only bring benefits, as many iconic technologies slowly started disappearing due to the decreased interest of customers.

The methodology of musicological research created for the purposes of this work includes scientific and popular science publications collected and analyzed by the author that deal with the subject of the development of streaming audio files. The subject of the research is digital sound distribution, the way in which ways of listening to recordings have changed, and the current development of streaming as a leading solution in the broadly understood music industry. The aim of the publication was to expand the current state of knowledge in the field of contemporary distribution methods and their use in the dissemination of alternative music. The discussion refers to both musicological and socio-cultural literature on the subject, and also uses materials from the field of media studies, such as reportages posted on YouTube. The aim of this publication is to present the beginnings and current development of sound material streaming technology, both legal and illegal, and thus to enrich the current state of knowledge in musicological cultural circles around the world.

The beginning of streaming and musical ‘piracy’

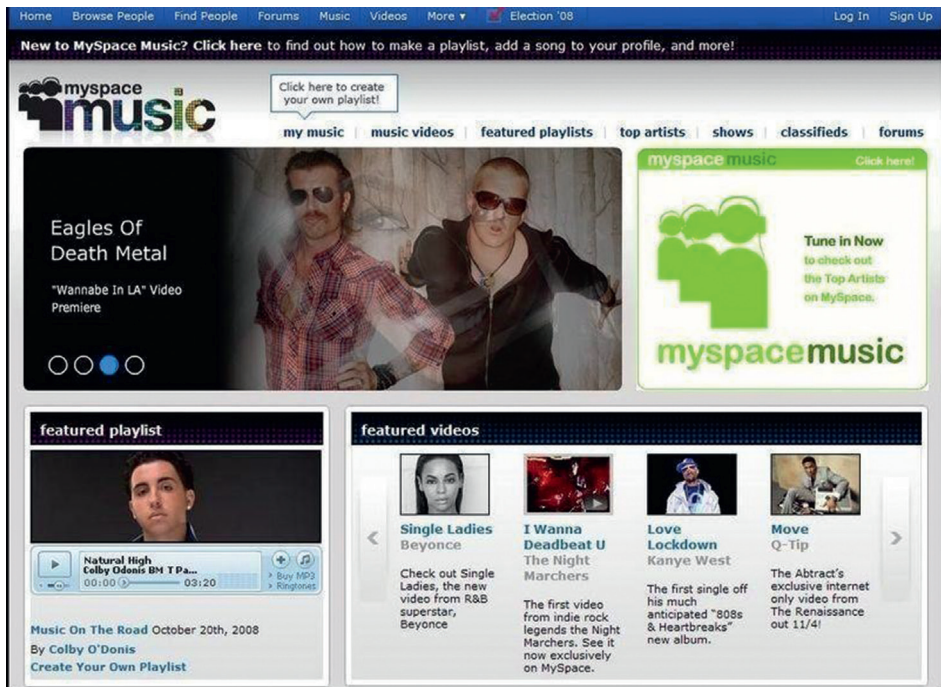
The distribution of the broadly understood creation of alternative music in the 21st century is based mainly on spreading it via the Internet. The first seeds of independent creativity music on the Internet date back to the early 2000s in the form of the so-called netlabels – operating as unaffiliated music publishing houses publishing and promoting licensed music Creative Commons – and they enabled the distribution of works without violating copyright laws. Bram Timmers, in his academic work ‘Netlabels and Open Content’ from 2005, showed the connections of netlabels with the demoscene subculture created at the turn of the 1970s and 1980s centuries, which brought together a community creating audiovisual works, often resulting from breaking the security of computer programs to obtain the code needed for further work (Timmers, 2005, p. 8–9).

What distinguished netlabels from the demoscene was the method of transmitting works and the issue of respecting copyrights. The former provided content in audio files – mp3 and Ogg formats – placed on websites, often created using free hosting to minimize costs. In the case of the demoscene, its productions were transmitted through magnetic media: cassettes and floppy disks, and now also in networks. The common thread between the two dissemination methods was the use of ‘guerrilla marketing’, consisting of not using traditional advertising techniques but focusing on building a local community using spray-painted inscriptions and sticking stickers, most often square pieces of paper with an adhesive backing on which simple graphics (e.g. company logos) and short texts

encouraging people to read were printed, with the (?) values presented by a given social group/enterprise.

The year 2003 brought a breakthrough in the digital music distribution world regarding alternatives, thanks to the creation of MySpace, which combines a social networking function with opportunities to promote music by young artists worldwide. By the ranking prepared by Amazon Alexa in 2007, MySpace was awarded third place on the most popular websites (Vincent, 2007, p. 3). Unlike those social networking sites developed at that time that focused on continuing and nurturing school activities knowledge, the platform created by Tom Anderson and Chris DeWolfe set itself the goal of building a musically diverse online environment, bringing together bands and soloists taking their first steps in the music and recording industry. Cross-section users were mainly adolescents and young adults from the age of 16 (this is the minimum age limit established under the US Children's Privacy Act on the Internet). Nevertheless, statistics collected in 2010 by Statista Research Department show that the largest user group were people aged 23 to 35, accounting for 42 percent of all MySpace accounts. The second largest group were people aged 18 to 22, constituting 25 percent of all respondents.

However, here we need to focus on the specificity of the services offered by the Californian company, as they created the foundations for today's functioning of streaming services. It seems most appropriate to compare the website to a traditional music store, where customers get recommendations from the sellers and other fans. This apt comparison refers to MySpace's main feature – a user-



1. The interface of the main MySpace page in 2008

generated recommendation system – which recommended content to others. It was quite logical to divide users into six distinct categories (Hupfer, Maxson, Williams, 2007, p. 11–13). The first was an individual community, ordinary people who created their accounts on the website with the need to satisfy their desire to discover new content. Another one was bands and soloists who wanted to share the results of their work. The portal also had a separate place on the Internet for comedians who wanted to share their content through videos and recordings. The next three oscillated around musical issues, related more closely to the industry than the composing process. In its heyday, MySpace was the perfect place for businessmen and marketers looking for artists for their projects and labels. The filmmakers mimicked that behaviour, giving the green light to musicians willing to cooperate. The last category was groups and organizations bringing together small communities within institutions such as schools, churches, and centres of extracurricular work.

Industry-wise, the portal provided great opportunities to promote one's work for both – a beginner and an experienced artist. Building a music portfolio took place on a created profile, where the first thing that caught the potential recipient's eye was the 'About me' tab – a source of basic information about the performer, performed genre and the influences shaping it. The range of modification methods of profiles allowed adding the so-called snapshots – shorter versions of the presented songs and added concert dates whilst informing fans about the closest ones. Moreover, to stay in constant contact with the artist and receive the latest news, the website permitted setting up fan clubs and mailing lists.

The appeal of the portal declined in 2009–2010 due to the growing interest in Facebook created by Mark Zuckerberg. The article by Dawn C. Chmielewski from June 2009 in the *Los Angeles Times* cites that as one of the reasons why creative artists stuck to the same strategy of focusing only on entertainment content for a long time (Chmielewski, Sarno, 2009). It resulted in MySpace – the pioneer of influencer marketing and *Time* magazine's Person of the Year 2006 – having no authority over contemporary music distribution. Nevertheless, it was an essential lesson in discovering an innovative way to create an online community for subsequent platforms to promote independent artists.

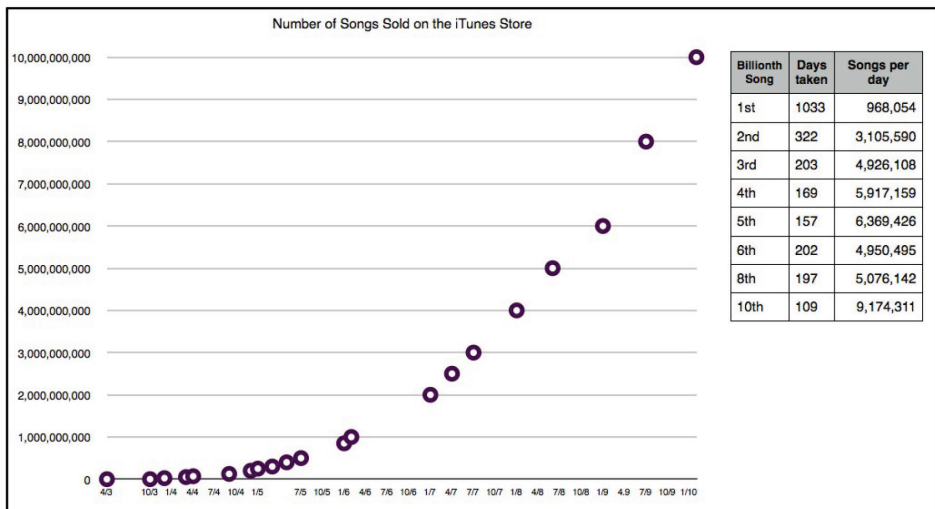
In the same year, Apple, located in Cupertino, opened an online store with music operating under the name iTunes Music Store. It initially functioned on par with the one created in 2001, iTunes, a program used to play and catalogue multimedia files. However, its leading purpose was to legally distribute music recordings protected from copying using the DRM (Digital Right Management) mechanism (Jędrzejewski, 2017, p. 85). Steve Jobs revealed in an interview with *Esquire* (Langer, 2014) in July 2003 that iTunes was intended to oppose successful programs based on the principle of communication, giving all users equal rights regarding file exchange, the so-called 'Peer to Peer'.

Music 'piracy' in the form of file-sharing applications appeared for the first time in 1999 when the nineteen-year-old Shawn Fanning and Sean Parker released the Napster app. Its main task was to distribute MP3 files of recordings that were unreleased, older and bootleg files that could be difficult for enthusiasts to obtain. At its peak, the app had eighty million registrant users, of which the

largest group of recipients were students who downloaded tremendous amounts of files. During Napster’s existence, an estimated 61% of external network traffic consisted of MP3 transfers. For this reason, many dormitories did not gain access due to fear of copyright infringement. For unaffiliated artists who wanted to gain recognition and improve their sales in the long run, it was an ideal promotional tool combining the positive aspects of the previously mentioned netlabels and guerrilla marketing without needing a music publishing house. However, it became problematic for musicians who wanted to protect their achievements, as exemplified in a lawsuit by the band Metallica. A demo of their song ‘I Disappear’ circulated online and on radio stations before the official premiere. The lawsuit became a success for the American team, and the court decided that the application creators had to delete all the band’s recordings from the servers within 72 hours. Napster completed its 15th year action on July 11, 2001, under subsequent lawsuits brought by the Recording Industry Association of America (Menn, 2011, p. 56). Creators pledged to pay 26 million USD in compensation to artists for unauthorized use of their music. In retrospect, it indicates that Napster paved the way for website streaming and tried to facilitate access to art in the public domain.

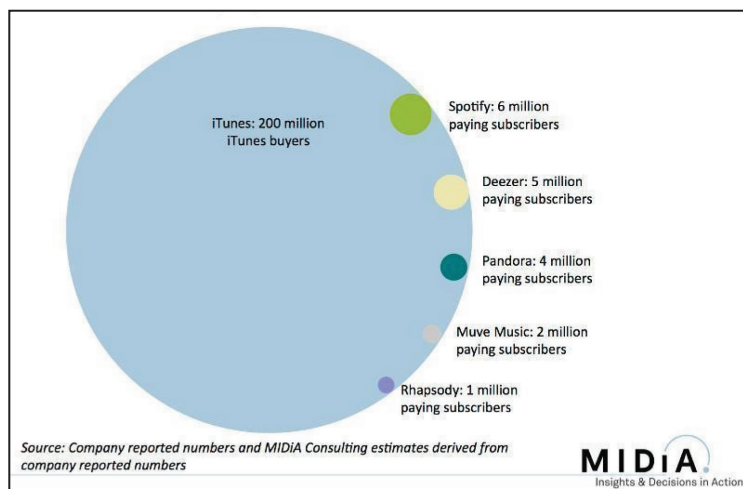
The start of legal distribution and Spotify’s triumph

The creators of the first legal music store on the Internet did so while assuming that users illegally downloading music do so selectively by concentrating on individual songs instead of entire albums. That is why the sales model focused not only on selling longplays but also on selected songs for 99 cents (the exceptions were songs over ten minutes, available only when buying the album) (Ripp, 2015).



2. A chart showing the number of songs sold in billions in the given time frame

With the launch of the iTunes Music Store on April 28, 2003, the decision was made to make available music in the AAC format (the equivalent of the MP3 format in the newer versions of the standard lossy coding). In the first 18 hours, it was a commercial success, selling approximately 275,000 songs, and after another five days, this number reached the threshold of one million (Jacobs, 2014, p. 158). Acquiring catalogues from soloists and bands previously unwilling to share their achievements on the Internet solidified iTunes' position as the market distribution leader. The most important achievement in that regard was signing the agreement with the EMI label and obtaining a catalogue of the entire Beatles discography (Kamiński, 2020).



3. A pie chart showcasing the number of users on popular music websites.

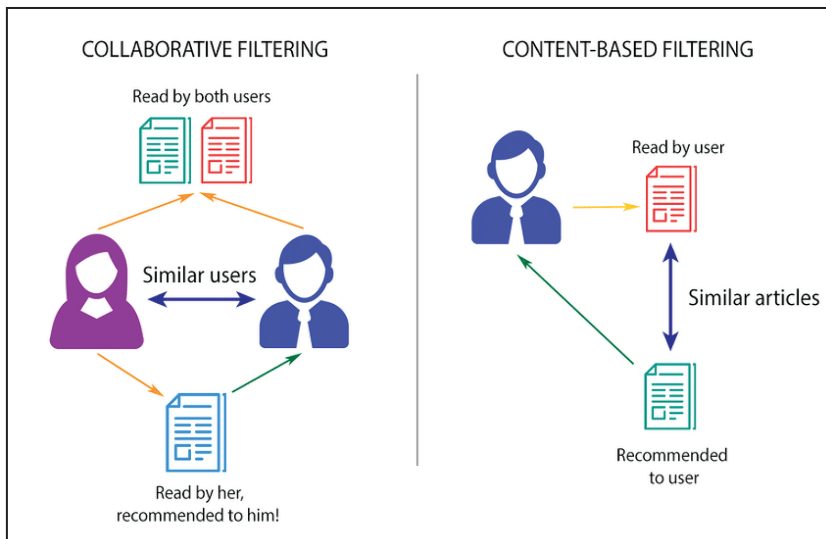
It is impossible not to notice the dominance of iTunes in the above chart on the Internet music market. It occupies as much as 64 percent of online music sales and 29 percent of general sales in the recording industry (Okopień, 2013). Currently, its sales model might be considered outdated, in the era of streaming services with monthly fees, where few people seem to bother buying selected songs when you can create playlists only with what will satisfy you.

The breakthrough in music distribution came in 2006 with the creation of Swedish Spotify. It was not a novel move, as the first streaming service called IUMA (Internet Underground Music Archive) provided the ability to receive content without downloading. Three students at the University of California created it in 1993. Moreover, it was the first website to pay artists royalties from the playback of their songs. However, to talk more broadly about streaming distribution, it would be a mistake not to focus on the service with the most considerable monthly number of active users. Based on data from MIDiA Research in 2020, Spotify maintains its leadership position with 32 percent share in the digital audio distribution market (Mulligan, 2020). The app created by Daniel Ek and Martin Lorentzon offered two types of accounts for its users. The first one

was based on the so-called Freemium model, where listeners had free access to the website and, in return, listened to advertisements between songs and limited track skipping function up to six times per hour (Główka, 2021). A paid variant of the service divided into four different subscription plans addressed to individual customers, couples, families of up to six people and students who could receive a discount after verifying their student ID. Purchasing a subscription increased the account's capabilities and allowed, among other things, to skip songs, download them for offline listening, no ads and settings quality up to 320 kilobits per second (standard quality is a maximum of one hundred and sixty).

The triumph of Spotify as a groundbreaking streaming service based itself on a written algorithm called BaRT. 'Bandits for Recommendations as Treatment', as is its full name, is a system for collecting data and further personalizing the content presented to people using a Swedish streaming service. The basic principle of its operation is Content-Based Filtering, which involves providing the listener with songs similar to previously chosen music. The degree of relatedness uses tools to measure the nature of works and analyzes such features as tonality, pacing and acoustics. The guideline of the algorithm properly working, created by The Echo Nest, is used in creating playlists because this advanced musical search engine based the segregation of music on the adjectives and conveyed feelings (Pierce, 2015). The second principle is Collaborative Filtering, which stops using artificial intelligence and focuses on user analysis and mutual recommendations of songs that suit their tastes. Sophia Ciocca explained in her article titled "How Does Spotify Know You So Well?":

...You both like three of the same songs, so you are probably a similar type of user. Therefore, it is likely that each of you will like the songs that the other person was listening to while you haven't heard them yet. (Ciocca, 2017).



4. A chart comparing Collaborative and Content-Based Filtering.

Spotify owes its unshakable position to combining a personal approach to the listener as an individual while simultaneously creating an intimate and unique system of receiving recommendations. The Swedish company contributed to the existence of music in the form that is most known nowadays, i.e. legal, relatively cheap and effortlessly available.

The underground SoundCloud rap scene and the rise of Tiktok

In the distribution of alternative music, it is also impossible to ignore the influence that has existed since 2007 – Soundcloud – the work of Swedish sound designer Alexander Ljung and electronic musician Eric Wahlforss. The initial premise of the website was to facilitate collaborations among musicians and share observations about projects. Only in later development did it transform into a full-fledged music streaming service with a low entry barrier for independent artists who want to share their work on the Internet without a label. The magazine *Wired* described its creation as the beginning of the end of MySpace domination (Van Buskirk, 2009). This bold statement also depicted several features of the website, which were ahead of the time, starting with the efficient interface running on smartphones with the ability to attach files of any size and comment on selected fragments of songs, sharing them on other social media using URL links, down to business networking (Van Buskirk, 2009). The Swedish start-up was similar to Spotify in its initial version, operating on a Freemium model, including the possibility to purchase one of two paid subscription packages. The basic package called ‘SoundCloud Go’ (later renamed to ‘SoundCloud Go+’), was offered for the monthly price of only \$10, was ad-free and expanded the library of suggested songs to include those from licensed distributors, offered track mixing and streaming services on 256 kilobits per second (also offline). The second one, called ‘SoundCloud Pro Unlimited’, was intended mainly for artists and independent publishers and offered for \$11 and 70 cents, providing up to four hours of music per month and a range of statistics regarding listener groups (Bryant, 2013).

SoundCloud’s cultural impact on the development of the niche music market gave birth to the term ‘SoundCloud rapper’, which was initially pejorative and associated with poor artists dreaming of fame. In the later years of their activity, they transformed the term into a definition of success. We can observe the website’s transition into the mainstream after the growing interest in 2016 in a rapper nicknamed Chance The Rapper, whose number of petitions calling for the inclusion of streaming-only albums (Gartland, 2018) led to the issuance of the announcement by the National Academy of Recording Arts and Sciences in 2017 regarding the possibility of them winning a Grammy Award. However, the Academy’s decision initially did not address the artists’ discography on the website; this issue was pending until a year later, when it appeared on an official announcement on the rapper’s Twitter (Bennet, 2017).



5. The artist's tweet regarding SoundCloud's inclusion in the Grammys.

The transition to the second decade of the twentieth century brought changes to Internet guerrilla marketing with the arrival of Gen Z artists on social media. One of the ways to spread music and gain popularity was the TikTok application (created in China under the name Douyin). Its creation dates back to 2016, but its most prominent popularity came four years later when it overtook the number of downloads from its rival – Facebook (Nakafuji, 2021). The principle of one of the most popular social media portals nowadays is based on the publication of short recordings – from 15 seconds to 10 minutes. The publications appear in two sections: 'For You', where the user can see the videos selected by the algorithm, tailored to his/her preferences, and 'Followed', with recordings only of creators s/he observed. Research conducted by the application developers shows its dominance in the music industry, where 80 percent of respondents said that TikTok was their primary source for discovering new music, and 56 percent of musical discoveries originated in the 'For You' section. An additional factor described for analysis created by InSites Consulting was to specify three division criteria for music discovered in the app:

- Discovery – presenting music that is currently trending,
- Be Discovered – helping young artists reach new recipients and improving reach,
- Rediscovery – shared videos help refresh old music years.

The biggest strength of TikTok is its self-acting marketing activity called Viral – creating advertising without spending and transferring content between people. As a marketing means, it provokes social groups into action and puts the music creator in the spotlight centre of events as someone who inspires trust.

Pandemic and the development of streaming on the example of Bandcamp

In addition to the multitude of services offered by streaming services, the global COVID-19 pandemic in 2020 had a huge impact on their development, where, despite the lack of live concerts, artists still had the opportunity to reach their audiences. Bandcamp gave artists a chance to earn money during this dif-

difficult period by introducing the 'Bandcamp Fridays' campaign, i.e. events taking place regularly on Fridays, lasting 24 hours, during which the entire amount collected by artists from the sale of music and souvenirs went to them (Frew, 2020). At that time, the website did not charge commission fees. Initially, this event was supposed to be a one-off experiment. However, it was decided to implement it long-term, seeing the huge interest of fans who spent over four million dollars during the first edition supporting their favourite creators, which was 15 times greater than on a regular Friday (Frew, 2020). In order to inform users about subsequent events, the website 'isitbandcampfriday.com' was created, where the dates of subsequent instalments of the series are published. In addition, it was decided to create a separate music category called simply 'Covid-19' where artists could publish songs created during this period. This section was divided into two tabs, the first was 'covid19 highlights', i.e. the best-selling songs highlighted by the originators of the website. The second tab 'all covid19 releases' included all releases marked with this tag. The vast majority of creators who decided to mark their music with this category donated their earnings to organizations fighting infectious diseases.

The pandemic time also coincided with the death of George Floyd, a black resident of Minnesota, who was killed by police officers (McGreal, Beckett, Laughland, Ajasa, 2021) by being restrained, making it impossible to breathe, and the start of protests by the Black Lives Matter movement, fighting systemic racism. As a form of solidarity, Bandcamp decided to allocate one hundred percent of the commission revenues from sales for the first three Fridays of June to the accounts of foundations promoting equal rights in the United States – NAACP Legal Defense Fund (McGrath, 2021). On the same days, artists and labels operating on the website could decide whether they wanted to allocate their income to the account of the Black Lives Matter foundation. Ethan Diamond, president of Bandcamp, gave a statement in which he announced that from then on, every year on June 19, they would donate all shares earned in 24 hours to this organization and allocate an additional \$30,000 to cooperation with organizations that fight for racial justice. He justified his decision by saying: "This moment is part of a long-entrenched history of systemic oppression against people of color, and progress requires a sustained and sincere commitment to political, social and economic change. We will continue to promote diversity by supporting artists, creating services that empower them.'

Conclusion

The evolution of possibilities to disseminate the creation of alternative music over the last two decades shows that this niche genre has come a long way in finding its place in the online space – struggling with problems at first, violating copyrights to become a medium where usage is possible in its current form fully legally. The future of the development of streaming sound distribution is facing a huge reassessment due to the continuous improvement of artificial intelligence, which currently allows musicians to automatically mix and master recordings. In addition to the benefits of AI, we should also remember about

the danger of spreading the so-called deepfakes, i.e. prepared recordings of the artist's vocals, which can be created by any user without obtaining consent. Artificial intelligence training is carried out by using copyrighted media without prior agreement and without paying any financial compensation to the creators (Trzciński, 2023, p. 267). Copyright regulations do not apply to creative activities using artificial intelligence, so it is likely that the development of this tool will involve the improvement of legal changes (Trzciński, 2023, p. 267).

The quote that undoubtedly arises in one's mind are the words of David Bowie, the legend of independent music, uttered in an interview with the New York Times in 2002, which was a prediction for the current state of music: 'Music will become present like running water or electricity' (Titliw, 2016).

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