Exhibit 2

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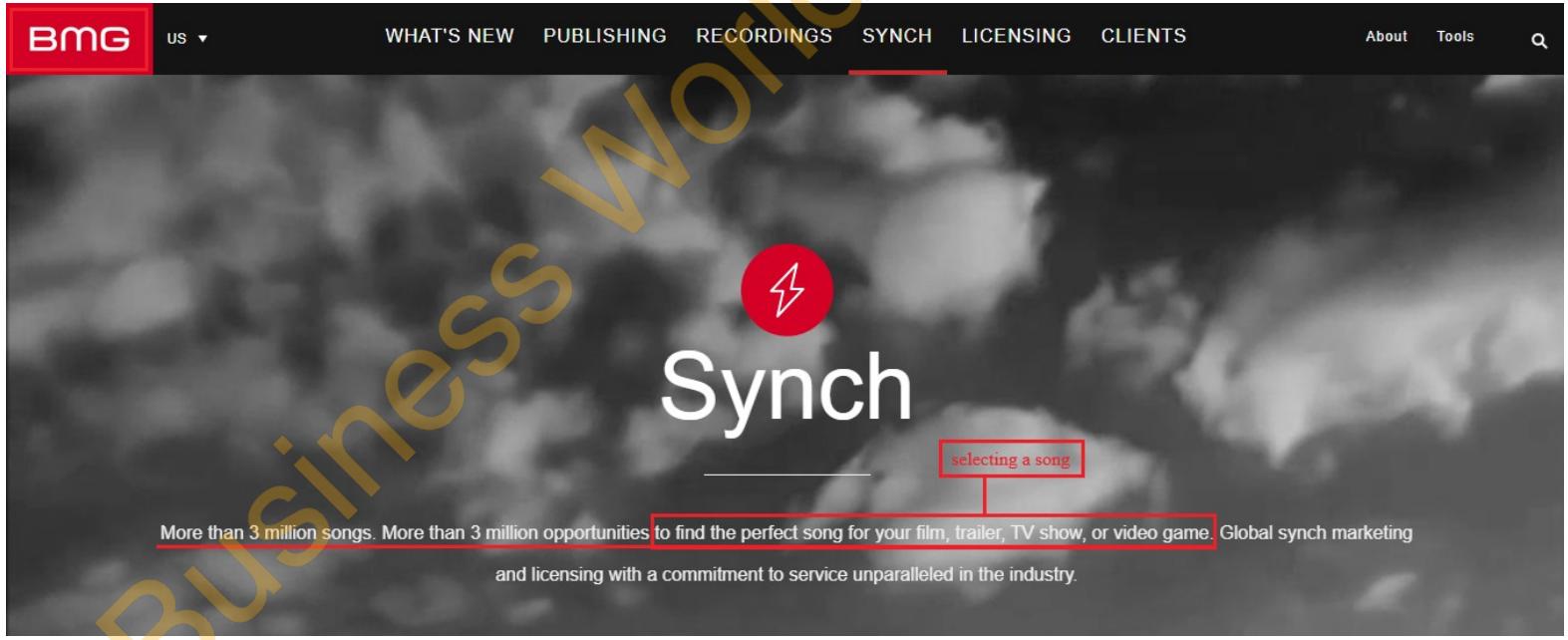
US11899713B2	BMG Synch (“The accused instrumentality”)
1. A method for selecting a song, comprising:	The accused instrumentality discloses a method for selecting a song (e.g., selecting a particular song for the user specified mood). As shown below, the accused instrumentality is a digital platform that allows clients to license music for synchronization purposes. It offers a catalogue of music from various artists, songwriters, and composers, providing a wide range of genres and users can search within this catalogue, listen to tracks, etc.  https://www.bmg.com/us/synchs.html

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	BMG is a new kind of music company. Our mission is clear; to help artists and songwriters make the very most of their songs and recordings in the digital age. That's why we offer the best creative support, provide the best access to platforms and work hard to maximize the value of each and every copyright, ensuring all our artists receive all payments promptly and accurately. https://www.bmg.com/us/about Commitment to service Our global synch team offers free music supervision, music searches, and comprehensive licensing guidance. We are on hand to help you through every step of the process. Our world-class systems and tools mean that our repertoire is tagged, playlisted and organised to meet your requirements, whatever they may be. We have everything you need to find the perfect piece of music for your project. https://www.bmg.com/us/synchs

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	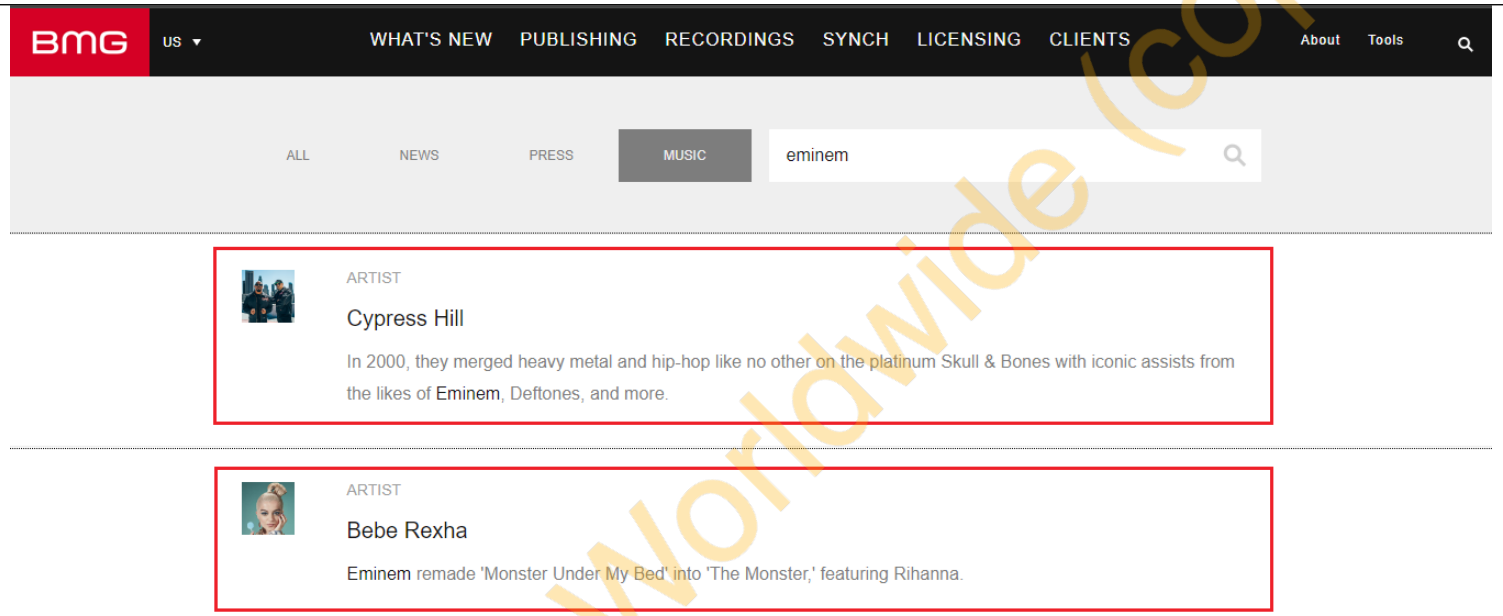 https://www.bmg.com/us/search.html?filter=music&q=eminem
selecting the song based on a computer-derived comparison between a representation of the song to known similarities in representations of other songs,	The accused instrumentality discloses selecting the song (e.g., selecting a particular song for the user specified mood) based on a computer-derived comparison (e.g., identifying similar songs based on a mood of a current song, etc.) between a representation of the song to known similarities in representations (e.g., frequency characteristics of a song, etc.) of other songs (e.g., other songs in the catalogue). As shown below, the accused instrumentality is a digital platform that allows clients to license music for synchronization purposes. It offers a catalogue of music from various artists, songwriters, and composers, providing a wide range of genres and users can search within this catalogue, listen to tracks, etc. Each song is analysed to determine its characteristics which include frequency characteristics of the song such as pitch, tone, etc. to infer the mood of the song. When a user searches and/or plays a song, the accused instrumentality compares the characteristics of the desired song to the known similarities in characteristics of other songs in

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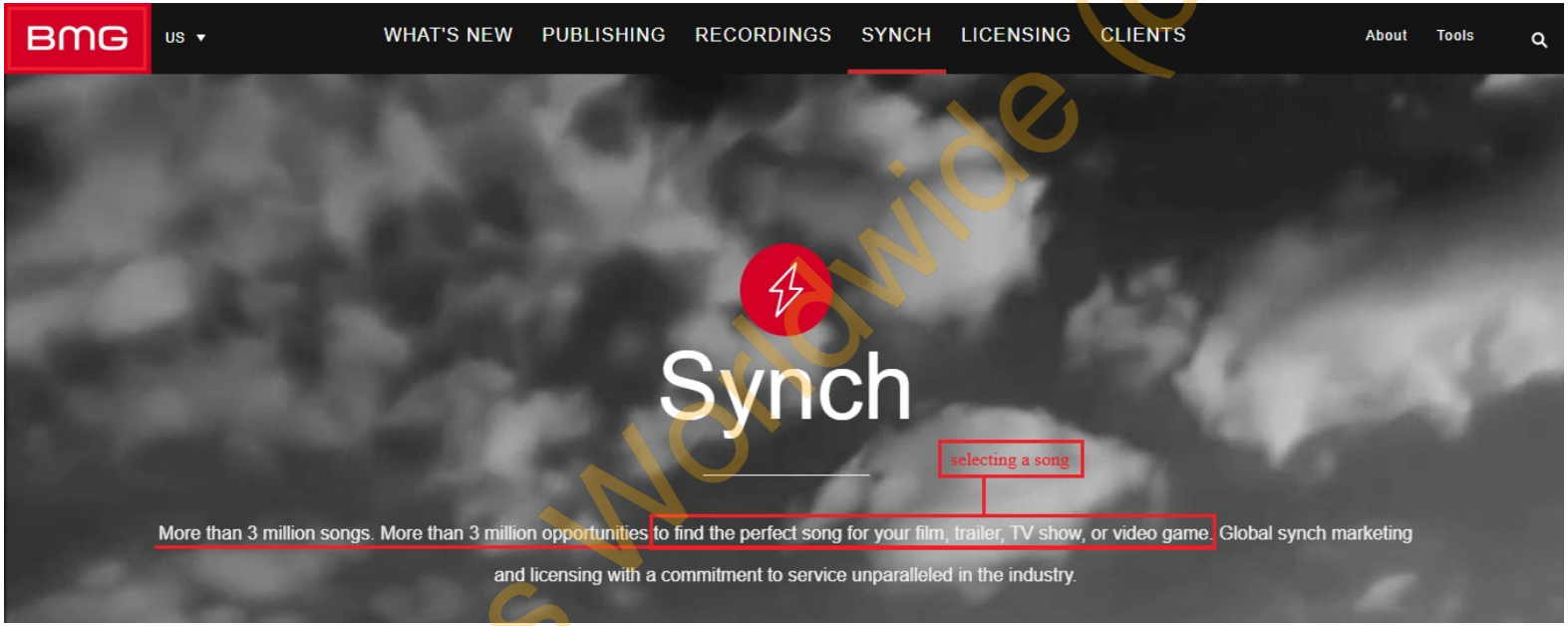
	the catalogue.  https://www.bmg.com/us/synchs.html

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	(c) Rackspace computer-derived comparison Rackspace Technology, a leading end-to-end hybrid multicloud technology solutions company, has announced it has helped enable groundbreaking service enhancements for artists and songwriters signed to music company BMG. Using Google Cloud's advanced AI and big data capabilities, BMG can process royalty payments ten times faster and track music 50% faster. The achievement stems from Rackspace Technology's Elastic Engineering team successfully migrating 95% of BMG's applications and services to Google Cloud. BMG's new cloud-based platform will also support new data tools it will use following its decision to take control of its previously outsourced distribution, striking direct deals with leading streaming platforms such as Spotify and Apple. The world's fourth-largest music company will use it to offer clients increased transparency and access to more detailed data. https://www.bmg.com/us/news/Rackspace-enables-BMG-to-process-royalties-ten-times-faster-than-before.html

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	comparison between a representation of the song "Thanks to advanced AI integration, we've seen a huge increase in data harmonization, analysis and processing velocity. And now we can categorize music much faster, which helps us make better decisions on classification," said Maxime Rousson, Cloud Architect at BMG. "Rackspace Technology was great to help us in this journey. They helped us design and architect the best services in Google Cloud." BMG CTO Gaurav Mittal said, "The collaboration with Rackspace's team of experts worked well, and together, we successfully executed a complex project of cloud migration in record time. This program was an important milestone of our latest platform upgrade, enabling BMG to meet the future customer needs." https://www.bmg.com/us/news/Rackspace-enables-BMG-to-process-royalties-ten-times-faster-than-before.html

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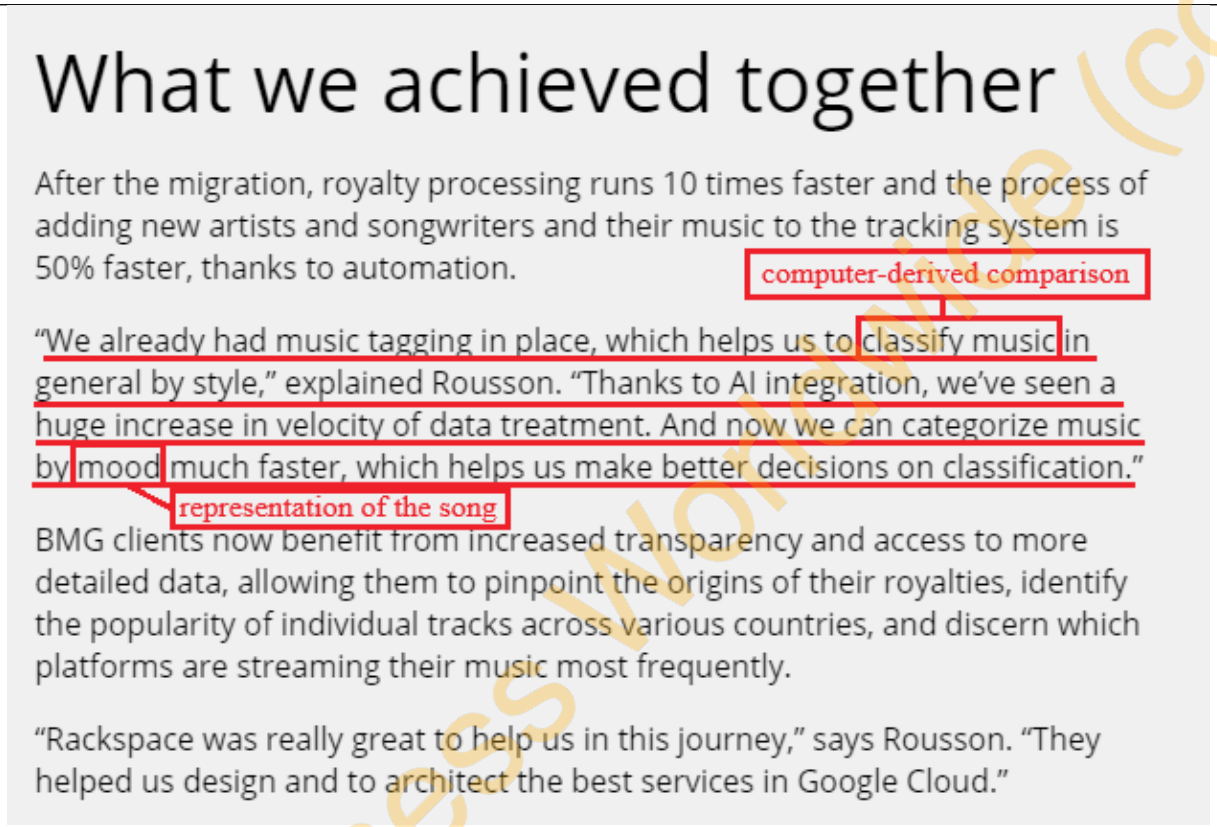

What we achieved together

After the migration, royalty processing runs 10 times faster and the process of adding new artists and songwriters and their music to the tracking system is 50% faster, thanks to automation.

computer-derived comparison

"We already had music tagging in place, which helps us to classify music in general by style," explained Rousson. "Thanks to AI integration, we've seen a huge increase in velocity of data treatment. And now we can categorize music by mood much faster, which helps us make better decisions on classification."

representation of the song

BMG clients now benefit from increased transparency and access to more detailed data, allowing them to pinpoint the origins of their royalties, identify the popularity of individual tracks across various countries, and discern which platforms are streaming their music most frequently.

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https://www.rackspace.com/case-studies/bmg-google-cloud

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While research is ongoing, the following musical elements are often associated with these effects:

- **High Frequencies:** These can create a sense of alertness, focus, and even mild agitation.
- **Low Frequencies:** These promote relaxation, calmness, and sometimes even introspection or melancholy.
- **Minor Keys:** Often evoke feelings of sadness, longing, or introspection.
- **Major Keys:** Typically associated with happiness, optimism, and energy.

one or more moods of the song

https://englishpluspodcast.com/can-music-frequencies-change-your-mood/

Expression of emotion

one or more moods of the song

frequency characteristics

Different pitches evoke different emotions. Higher pitches are often associated with brightness and excitement, while lower pitches may convey depth and introspection. Composers and musicians use pitch variations to express a wide range of emotions in their music.

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One of the most significant aspects of pitch in music is its ability to convey meaning and emotion. **Different pitches can evoke different moods and feelings, from the uplifting and joyful to the sombre and melancholic.** For example, a **higher pitch can often convey a sense of excitement or elation,** while a **lower pitch can suggest sadness or seriousness.**

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	https://www.aulart.com/blog/understanding-the-importance-of-pitch-in-music/#!
wherein the known similarities in representations of other songs is based at least in part on a human-trained machine using the representations of the other songs, **Row: 28-33, Column: 6** *The moods identified above are just examples of categories into which similar RTP scored tracks may be organized. There could be many*	The accused instrumentality discloses that the known similarities in representations (e.g., frequency characteristics of the songs, etc.) of other songs (e.g., other songs in the catalogue) is based at least in part on a human-trained machine (e.g., machine learning, etc.) using the representations (e.g., mood) of the other songs (e.g., other songs in the catalogue). As shown below, the accused instrumentality is a digital platform that allows clients to license music for synchronization purposes. It offers a catalogue of music from various artists, songwriters, and composers, providing a wide range of genres and users can search within this catalogue, listen to tracks, etc. Each song is analysed to determine its characteristics which include frequency characteristics of the song such as pitch, tone, etc. to infer the mood of the song. When a user searches and/or plays a song, the accused instrumentality compares the characteristics of the desired song to the known similarities in characteristics of other songs in the catalogue. These known similarities are informed by a machine learning model, which is trained to understand how different frequency characteristics correlate with specific moods. The accused instrumentality determines which songs have similar moods. For example, if the user plays a song with a "happy" mood, the system will search for songs that share frequency characteristics associated with happiness. The song is selected based on how closely its mood matches with the moods of other songs that have been classified by the human-trained machine learning model.

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more categories. The categories may have any name or number associated with each one, such as the moods above, colors, locations, etc., including completely arbitrary or made-up words.	(c) Rackspace Rackspace Technology, a leading end-to-end hybrid multicloud technology solutions company, has announced it has helped enable groundbreaking service enhancements for artists and songwriters signed to music company BMG. Using Google Cloud's advanced AI and big data capabilities, BMG can process royalty payments ten times faster and track music 50% faster. The achievement stems from Rackspace Technology's Elastic Engineering team successfully migrating 95% of BMG's applications and services to Google Cloud. https://www.bmg.com/us/news/Rackspace-enables-BMG-to-process-royalties-ten-times-faster-than-before.html

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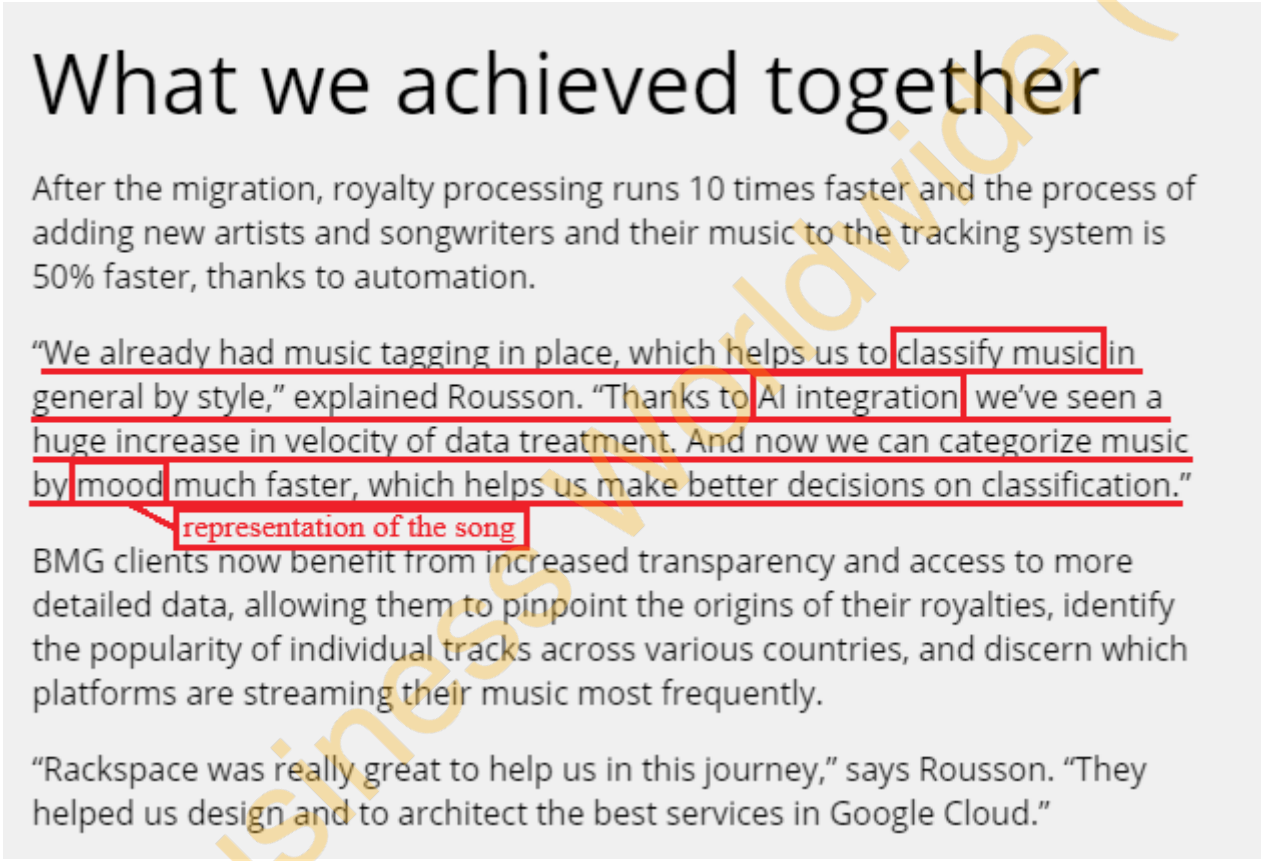

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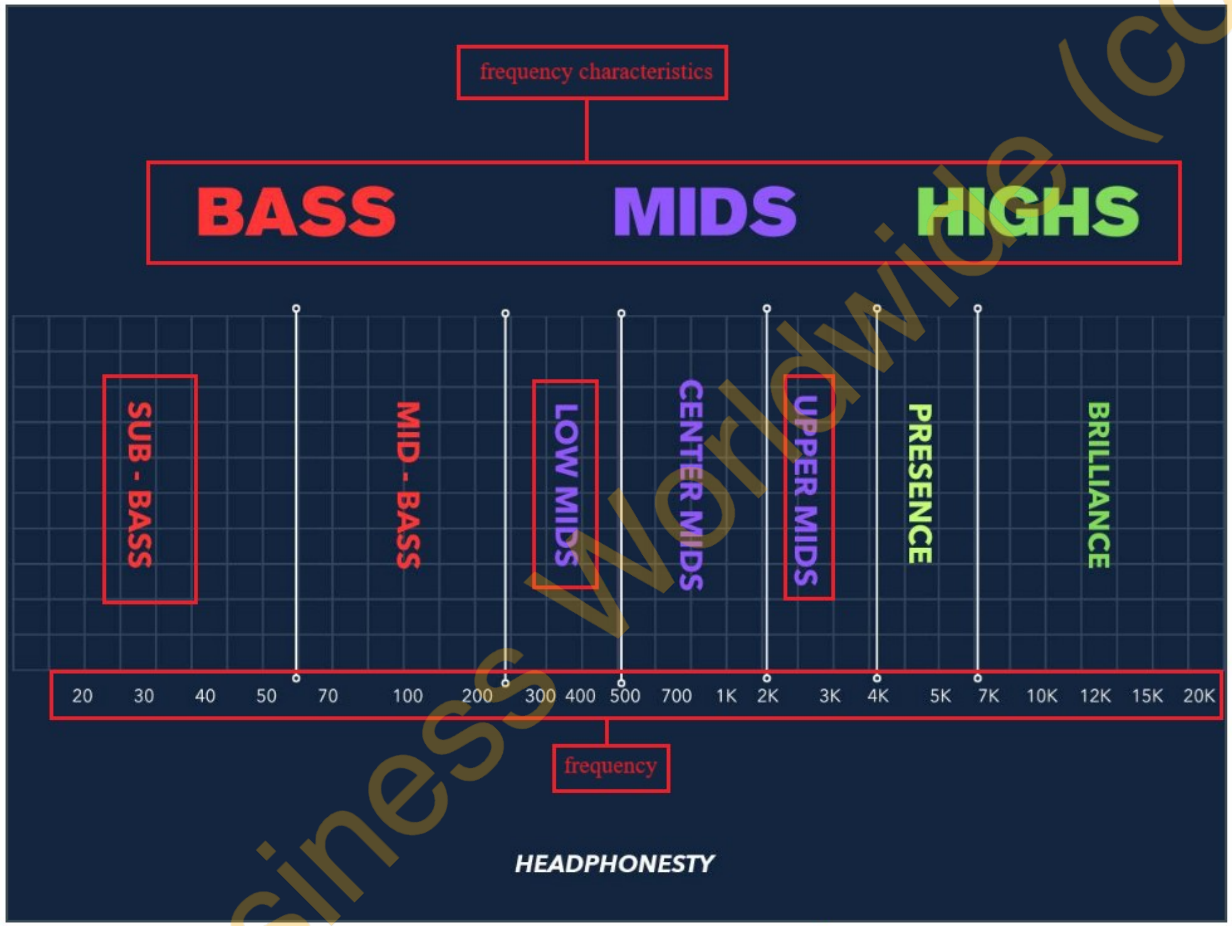

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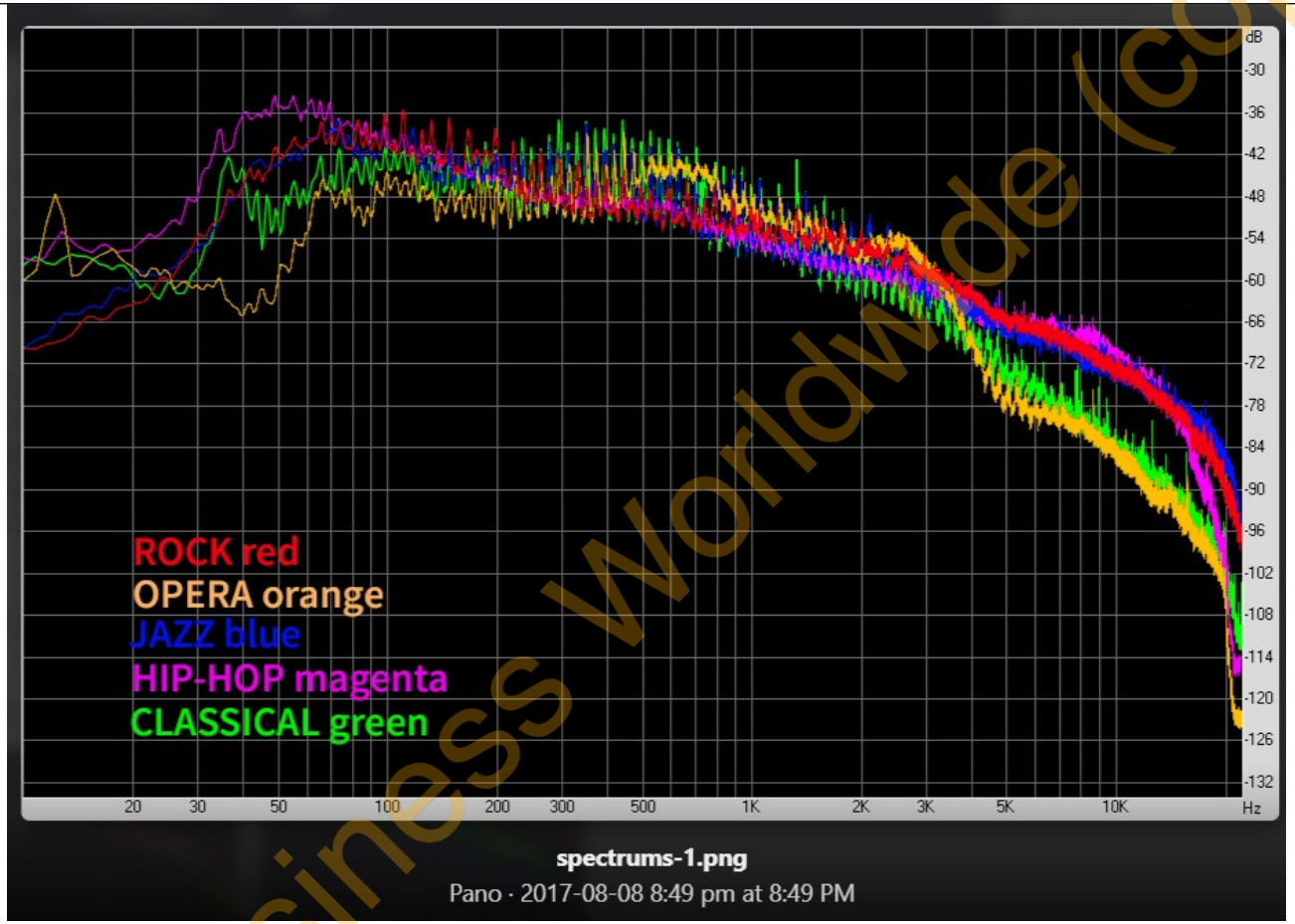

https://www.diyaudio.com/community/threads/spectrum-of-musical-genres.310900/

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What is pitch in music?

In music, "pitch" refers to the perceived frequency of a sound. Essentially, it's how high or low a note sounds. The pitch of a sound is determined by its frequency, with higher frequencies producing higher pitches and lower frequencies building lower pitches.

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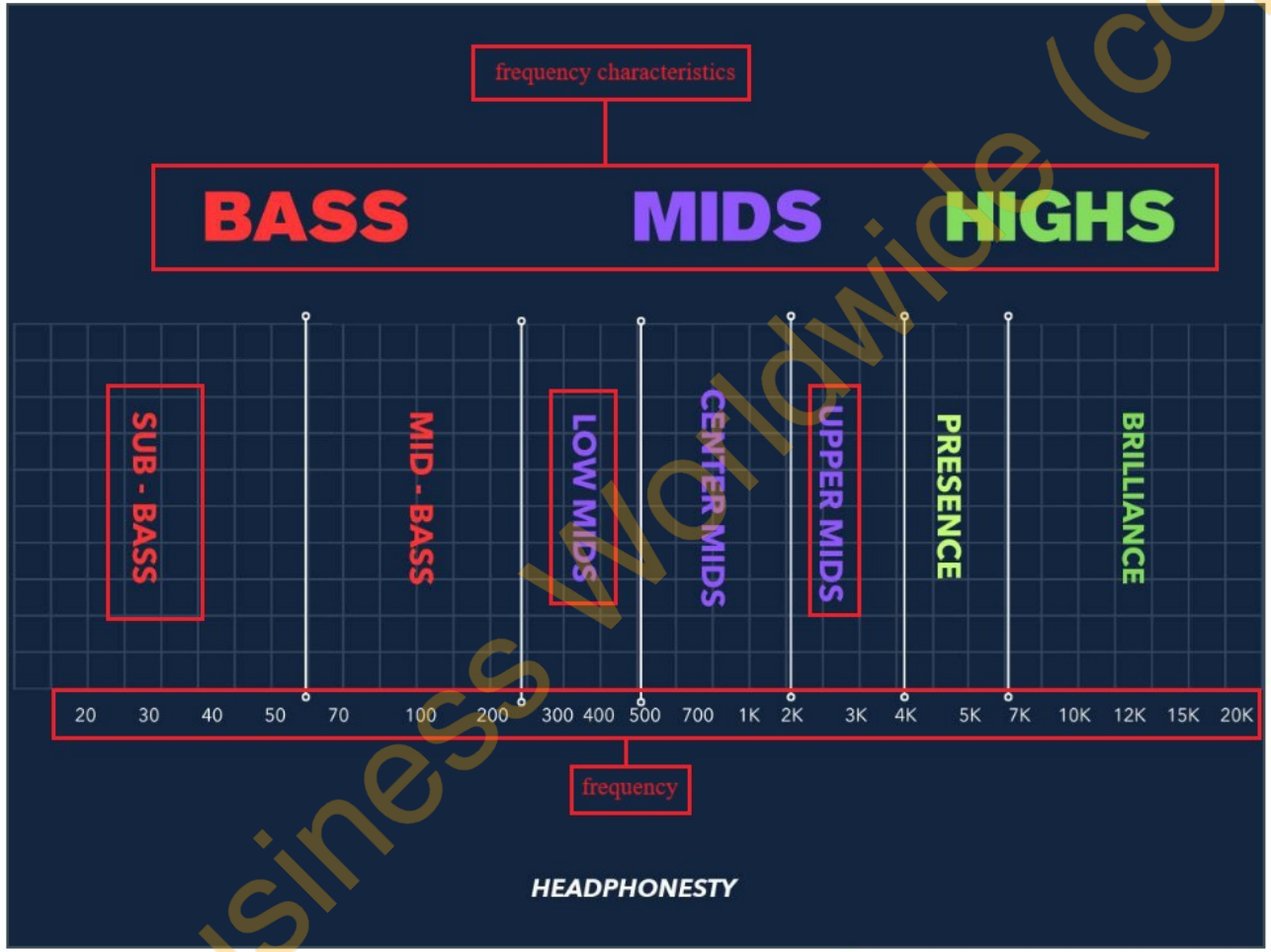

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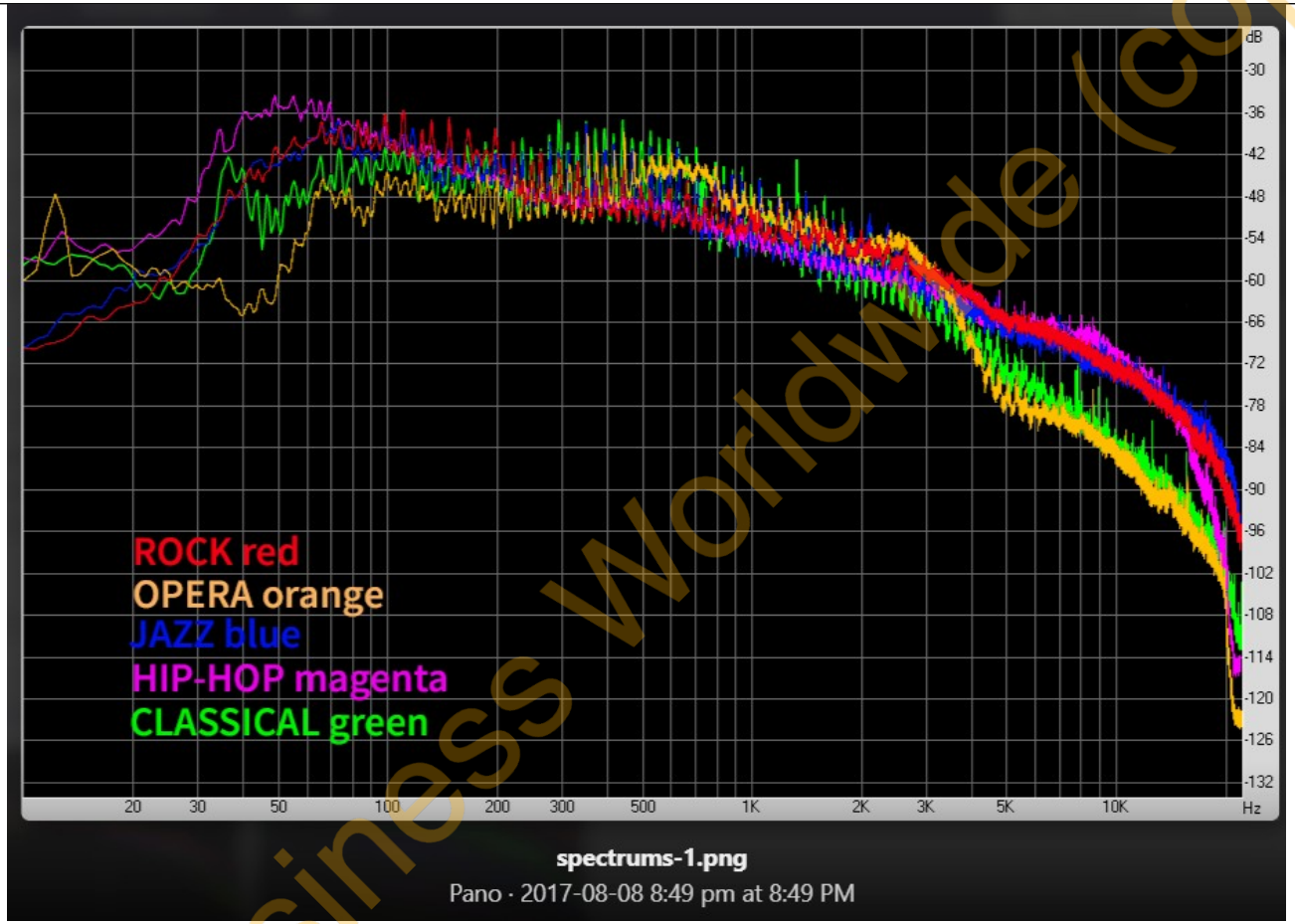

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of the song correspond to one or more moods of the song and the frequency characteristics of the plurality of the other songs correspond to one or more moods of the plurality of the other songs,	frequency characteristics (e.g., pitch, tone, etc. representing mood of a song) of the plurality of the other songs (e.g., other songs in the catalogue) correspond to one or more moods (e.g., categorizing songs into moods such as happy, sad, etc.) of the plurality of the other songs (e.g., other songs in the catalogue). As shown below, the accused instrumentality is a digital platform that allows clients to license music for synchronization purposes. It offers a catalogue of music from various artists, songwriters, and composers, providing a wide range of genres and users can search within this catalogue, listen to tracks, etc. Each song is analysed to determine its characteristics which include frequency characteristics of the song such as pitch, tone, etc. to infer the mood of the song. A song with high pitch represents availability of high frequency component and low pitch represents availability of low frequency component. When a user searches and/or plays a song, the accused instrumentality compares the characteristics of the desired song to the known similarities in characteristics of other songs in the catalogue. These known similarities are informed by a machine learning model, which is trained to understand how different frequency characteristics correlate with specific moods. The accused instrumentality determines which songs have similar moods. For example, if the user plays a song with a "happy" mood, the system will search for songs that share frequency characteristics associated with happiness. The song is selected based on how closely its mood matches with the moods of other songs that have been classified by the human-trained machine learning model.

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	(c) Rackspace Rackspace Technology, a leading end-to-end hybrid multicloud technology solutions company, has announced it has helped enable groundbreaking service enhancements for artists and songwriters signed to music company BMG. Using Google Cloud's advanced AI and big data capabilities, BMG can process royalty payments ten times faster and track music 50% faster. The achievement stems from Rackspace Technology's Elastic Engineering team successfully migrating 95% of BMG's applications and services to Google Cloud. https://www.bmg.com/us/news/Rackspace-enables-BMG-to-process-royalties-ten-times-faster-than-before.html

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What we achieved together

After the migration, royalty processing runs 10 times faster and the process of adding new artists and songwriters and their music to the tracking system is 50% faster, thanks to automation.

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representation of the song

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https://www.rackspace.com/case-studies/bmg-google-cloud

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Frequencies and Their Potential Emotional Effects

While research is ongoing, the following musical elements are often associated with these effects:

- **High Frequencies:** These can create a sense of alertness, focus, and even mild agitation.
- **Low Frequencies:** These promote relaxation, calmness, and sometimes even introspection or melancholy.
- **Minor Keys:** Often evoke feelings of sadness, longing, or introspection.
- **Major Keys:** Typically associated with happiness, optimism, and energy.

one or more moods of the song

https://englishpluspodcast.com/can-music-frequencies-change-your-mood/

Expression of emotion

one or more moods of the song

frequency characteristics

Different pitches evoke different emotions. Higher pitches are often associated with brightness and excitement, while lower pitches may convey depth and introspection. Composers and musicians use pitch variations to express a wide range of emotions in their music.

https://thedemostop.com/blogs/music-education/music-industry/what-is-pitch-in-music/

One of the most significant aspects of pitch in music is its ability to convey meaning and emotion. **Different pitches can evoke different moods and feelings, from the uplifting and joyful to the sombre and melancholic.** For example, a **higher pitch can often convey a sense of excitement or elation,** while a **lower pitch can suggest sadness or seriousness.**

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	https://www.aulart.com/blog/understanding-the-importance-of-pitch-in-music/#! Hey there, music enthusiasts! Let's dive into the world of music and explore a term that gets thrown around a lot: tone. When we talk about tone in music, we're talking about the quality of sound, specifically the pitch of a musical note. It's what makes each instrument or voice unique and helps us tell them apart, even when they're playing the same note. Think of it like hearing a guitar and a piano playing the same note—you can instantly tell the difference in tone. Pretty cool, right? Well, in this blog, we're gonna explore what tone is all about and how you can use it to take your songwriting game to the next level. So, how can you use tone in music? Well, it's all about creating a certain mood or emotion. By choosing the right notes and instruments, you can convey different feelings in your songs. For example, playing a minor chord progression on a piano can bring out that melancholic, sad vibe, while strumming some major chords on a guitar can fill your music with happiness and joy. https://melodystudio.net/2023/08/07/tone-in-music-what-it-is-and-how-to-use-it/

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Classification via Tags: Music mood classification often involves tagging songs with emotional descriptors such as "happy," "sad," "energetic," and "relaxing." Machine learning models can then be trained on these tags to automatically classify songs based on their emotional content.

Mood	Intensity	Timbre	Pitch	Rhythm
Happy	Medium	Medium	Very High	Very High
Exuberant	High	Medium	High	High
Energetic	Very High	Medium	Medium	High
Frantic	High	Very High	Low	Very High
Anxious/Sad	Medium	Very Low	Very Low	Low
Depression	Low	Low	Low	Low
Calm	Very Low	Very Low	Medium	Very Low
Contentment	Low	Low	High	Low

https://kratichoudhary258.medium.com/music-mood-classification-relativity-to-music-therapy-7c44250c45dc

and wherein the selection is based on	The accused instrumentality discloses that the selection is based on the similarity between the one or more moods (e.g., categorizing songs into moods such as happy, sad, etc.) of the song (e.g., a mood of particular song) and the one or more moods (e.g., categorizing songs into

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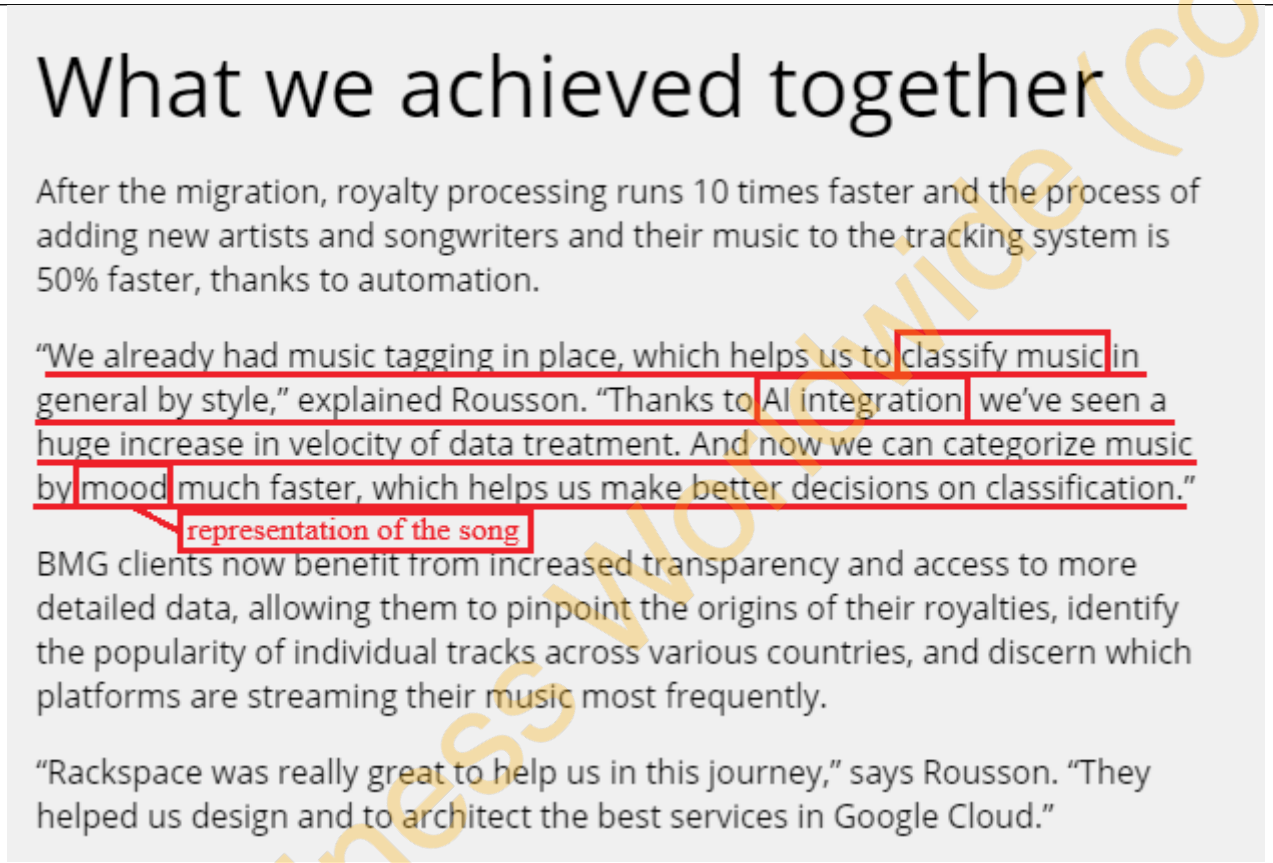

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