

Augmenting AI for Music Therapy Could Be Part of Your Next Marketing Gig!

Music has always been a passion of mine. I've been playing the drums for years and it has always been there for me during the good times and very therapeutic in managing the stressful times in my life. Looking back to when I first began to immerse myself in learning how to play, I couldn't have imagined then that my passion, coupled with artificial intelligence (AI), could be used to meaningfully aid in the treatment of cognitive and physical conditions across a wide variety of therapeutic areas.

Music's Influence in the Treatment of Patients

For those who aren't already familiar, music therapy is the clinical and evidence-based use of music interventions to accomplish individualized goals within a therapeutic relationship and AI has the potential to play an increasing role in its evolution. Music therapy has been used for years to supplement traditional health practices — from minor surgical procedures, to birthing, to MRIs, to treatment for cognitive decline to those receiving chemotherapy, it has proven to be very effective in reducing stress, managing anxiety, depression, and chronic pain. It can help lower blood pressure, reduce heart rate, and increase overall relaxation throughout the body. It's been effective in physical rehabilitation, as well.

More than 2 million people received formal music therapy services in 2019 alone, with more still informally incorporating music into a holistic approach to their overall well-being, signaling a growing acceptance of music therapy, by physicians and patients alike, as an important addition to their traditional treatment plans. Further evidence of growing interest in the field suggests that job opportunities for music therapists is expected to rise significantly as scientists continue to discover the efficacy of music therapy for multiple health conditions, broadening the demand for those who can offer these services.

Did You Hear That Tune?

Music therapy driven by AI is gaining traction fast and emerging via platforms such as Brain.fm, a service offering functional music

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and providing evidence-based solutions by working closely with field neuroscientists and psychologists to aid as part of a patient's treatment plan. Another example is MediMusic, a platform that can produce individualized playlists using proprietary algorithms and analyze biofeedback loops to swap out certain tracks for ones with more desirable reactions. Their AI and machine learning components are then employed to influence auto-playlist creation to best fit a patient's musical preferences.

Humans and Machines Creating Music Together

While a machine is tireless and can play paradiddles forever (providing you don't pull the plug), what about all those human elements like a musician's energy and mood, tempo drifts and fluctuations, improvisations, and yes, even the "happy accidents," which can sometimes turn a song into a true masterpiece? Currently AI cannot write or produce music from scratch without input from existing sources, but it can imitate the musician's input when given enough reference to build upon.

Musicians can certainly create songs specifically to aid in music therapy without using AI, but the process can be rather time consuming, so why not use technology to assist with the growing need? AI can accelerate an artist's output by using data sets such as genre, tempo, and individualized patient preferences. The algorithm of the AI can be adjusted and evolve based on a process called computer accompaniment technology. This allows the algorithm to adapt and synchronize to a musician's real-time performance, providing a foundation for AI to continue to build on the music using interactive composition technology to compose further portions of the song. The result? More music, and thus, more

opportunities to contribute to the growing field of music therapy.

Pharmaceuticals Creating Their Own Hits?

It's not an unlikely prospect that as demand grows and music therapy evolves, pharmaceutical companies will begin to hire musicians and AI specialists to work as a team with field neuroscientists, psychologists, and therapists to create music that effectively works in conjunction with their medications and treatment plans for certain illnesses or conditions. Once diagnosed and prescribed, patients might complete a questionnaire to help define their music preferences and download their personalized music package as part of the treatment plan. The downloads could work with an app in conjunction with the timing and flow of a patient's treatments. If case studies show enough positive outcomes, perhaps the next treatment hit within the industry will be the one with the most downloads.

Listen to This

We are living in an exciting time to experience only just the beginning of the relationship between AI and music therapy. While I don't believe AI will replace human musicians, there's little doubt it will find and solidify its place within the music field. It has the potential to crank up the artists' creative juices and help them break new ground, enabling them to create more music in ways they never imagined. The possibilities for the future of AI within music are endless. We, as marketers, have the opportunity to create unique patient experiences along the healthcare continuum while contributing to the evolution of AI's ability to help people through the specialized field of music.

Now that's music to my ears! **PV**

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