Have you ever wondered what happens when the AI starts composing music? Could a 'MusicGPT' be on the verge of gracing our concert halls?

I started taking piano lessons at an early age and I remember very often diverging from those tedious technical exercices, changing notes and rhythms to find a melody that appealed to me. But despite the fun of experimenting, there was always something missing, something fundamental. And you know what? In my research, I realized that AI was actually no different than me as a child playing around on my piano. It can produce fragments of songs and mimic musical styles, but something essential is missing.

Consider this: What unites Taylor Swift, Mozart, Drake and Chopin? The same thing that unites all music genres. They all possess an organization: repeating patterns that grant music its direction and its meaning. And while Taylor Swift’s musical patterns greatly differ in nature from those of Mozart, they all possess the characteristic of having melodies and rhythms that are repeated throughout their songs. Music needs consistent elements for listeners to grasp on to. It’s what makes it memorable.

And that’s precisely the problem with music generated by AI.

Its creations often miss the cohesive structure that gives music its narrative, just like a novel without a unifying plot.

And that’s the problem that I’m tackling in my thesis. I analyze songs from a certain music style and find the patterns repeated within them. I then pass on this knowledge to the AI to better guide it when it’s creating a melody.

But hold on. Does that mean repeating the chorus of *Cruel Summer* in every new song?

No and that’s just it. I don't force the AI to follow the nature of these patterns. Would a novelist want to follow the exact same plot of an existing book? No. Instead, I consider the characteristics of these patterns: when are they repeated? How often? How long do they last?

And with this knowledge I gathered, I help the AI make better informed choices while still maintaining creativity.

So, are we ready for a MusicGPT concert? Perhaps not quite yet. But we’re certainly one step closer

~~It can create music that perfectly imitates a specific style but fails to organize it into a meaningful whole.~~

they all possess the characteristics of having melodies and rhythms that are repeated throughout their songs. Music needs consistent elements for listeners to grasp on to. It’s what makes it memorable. Would you remember the chorus of *Cruel Summer* if it weren’t repeated so many times?

So just like a coherent novel doesn’t switch plots every chapter, successful music composition also relies on a sense of consistency.

You're familiar with AI that generates images and text. But what about music? Could a 'MusicGPT' be on the verge of gracing our concert halls?

I started taking piano lessons at an early age and I remember often diverging from my scales and arpeggios, changing notes and rhythms to find a melody that appealed to me. But despite the fun of experimenting, there was always something missing, something more fundamental. And you know what? In my research, I realized that AI was actually no different than me as a child playing around on my piano. It could produce fragments of melodies and mimic musical styles, but something essential was missing.

Consider this: What unites Taylor Swift, Mozart, Drake and Chopin? The same thing that unites all music genres. They all possess an organization: repeating patterns that grant music its direction and its meaning.

And while Taylor Swift’s musical patterns greatly differ in nature to those of Mozart, they all possess the characteristics of having melodies and rhythms that are repeated throughout their songs. Music needs consistent elements for listeners to grasp on to. It’s what makes it memorable. Would you remember the chorus of *Cruel Summer* if it weren’t repeated so many times?

So just like a coherent novel doesn’t switch plots every chapter, successful music composition also relies on a sense of consistency.

That’s precisely the flaw in current music generated by AI. Its creations often miss the cohesive structure that gives music its narrative, just like a novel without a unifying plot. It can create melodies that impeccably imitate a specific style but will lack the ability to organize them.

And that’s the problem that I’m tackling in my thesis. I analyze songs from a certain music style and find the patterns repeated within them. I then look at these patterns: when are they repeated? How often? How long do they last?

I then pass on this knowledge to the AI to better guide it when it’s creating a melody. And most importantly, I don't force the AI to follow the nature of these patterns. Would a novelist want to follow the exact same plot of an existing book? No. Instead, I help the AI make better informed choices with the knowledge I gathered while it still maintains its creativity.

So, are we ready for a MusicGPT concert? Perhaps not quite yet. But I’m confident that with this approach, we’re moving one step closer.