

Artificial Intelligence used to complete Beethoven's 10th Symphony

A group of music scholars teamed up with an AI research group to create an Artificial Intelligence model which was tasked with completing Beethoven's unfinished 10th Symphony. Beethoven died before he was able to complete this symphony and only left a few rough sketches of musical ideas. The group who took on this project trained the AI model on Beethoven's complete works, including his 9 symphonies as well as other music that Beethoven would have been exposed to and possibly influenced by. They also tried to teach the model how to develop small musical phrases in the style of Beethoven by having it analyze the main thematic motif in his 5th symphony (bum-bum-bum-bummmmmmm!!!). As the project progressed, the team realized more and more things they would need to teach this model to do. As a result, they really pushed the limits of what generative AI models were capable of. The finished product was played for two different groups of journalists, music scholars and Beethoven experts. Only those who had "intimate knowledge" of the 10th symphony sketches were able to tell what had been written by the AI model which has led many to label this experiment a success.

While this experiment does offer many exciting possibilities of what can be done with generative AI models in the world of art and music, it also brings up certain ethical dilemmas in regards to taking the work of a deceased musician and transforming it into a finished work to be presented to the public. There have been discussions over simply releasing unfinished works or demos of deceased musicians to the public without clear explicit consent from the artist when they were alive (Prince, Aaliyah). This example takes this discussion a step further in that this took only small musical ideas and turned it into a complete finished product that still has the original musician's name attached to it. It is being framed as "Beethoven's 10th Symphony" even though such a work does not actually exist. While there have been other AI models trained on deceased classical composers (Bach), these models have been promoted as composing "in the style of", while this experiment seems to imply "This is what his 10th symphony would have sounded like if he finished it" which is presumptuous at best. Even though the material is firmly in the public domain, no one can say for certain that Beethoven would have approved of something like this. Those involved in this project seem to have taken it upon themselves to take liberties with the legacy of a historically renowned musician, being caught up in the questions of if they could do this that they did not consider if they should.

As AI technology becomes more advanced, there are more capabilities to use the works of artists, both living and dead, as data sets to be used for training generative models. In the event an artist has an objection to the use of their work for such projects, as training data or in the output, they should be allowed the opportunity to voice their concern and have some say in how their work is used or not used in this process. The use of material from deceased artists does not allow for that discourse to take place. It could certainly be argued that doing so is disrespectful to their legacy and memory.

Sources

<https://www.npr.org/2021/10/02/1042742330/team-uses-ai-to-complete-beethovens-unfinished-masterpiece>

<https://www.techspot.com/news/91493-music-scholars-computer-scientists-completed-beethoven-tenth-symphony.html>

<https://www.dw.com/en/beethovens-last-symphony-finished-by-ai/a-59412362>

<https://www.sciencefocus.com/news/ai-beethovens-symphony/>