Can Artificial Intelligence Create Original and Convincing Art?

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My goal is to determine if artificial intelligence can create art that is both original and comparable to human-created analogues. To determine this, I decided to use music as the artform, as it does not require external hardware as might be required by painting or sculpture, and it is a complex process. I will use the deep learning library Keras in conjunction with the open source TensorFlow software to build my A.I. As input, I will use the most notable classical music compositions in history, in midi form. My expectation is that my A.I. will discern the rules for creating these compositions and use the rules to create its own compositions. The A.I. will produce output in text data form, which I will convert to midi form. I will then apply an orchestral VST to the midi file in a separate audio program to emulate the sound of the appropriate symphonic instruments. I expect that the results will be original compositions that are free from errors (e.g. out of key notes, unintentionally out of rhythm sections, etc.). Broadly, my interest is in using A.I. to solve complex problems that require creative solutions, and not music per se. I hope to use my results to investigate other areas where an A.I. might benefit humanity through original ideas (e.g. risk analysis and mitigation, novel engineering designs, and countermeasures for the spread of disease, for example).

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