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## **Tyranny of (AI)Thought. Artificial Intelligence in Music Composition: A Case Study on Krallice “Diotimia”**

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Today, the universe of generative artificial intelligences has become extremely rich, both numerically and in terms of the fields of creativity and art touched by them (Zhang, Lu 2021; Jo 2023; Feuerriegel et al. 2024). This phenomenon, by no means new, is also beginning to be relevant in musical productions, becoming, as has already happened in the graphic arts, a debated and controversial topic (Kaliakatsos-Papakostas et al. 2020; Chu et al. 2022). This phenomenon has so far remained less popular in the musical sphere, the subject of growing interest mainly within the musical mainstream (Deruty et al. 2022), but could change several of its paradigms (cost cutting, increased efficiency, etc.) (Galaz et al. 2021). Artistic creativity, copyright and the legitimacy of these productions as art forms tout court are just some of the arguments commonly put forward in this new and increasingly crowded theatre (Anantrasirichai, Bull 2022). With regard to music, in particular so-called extreme music (Hiller 2020), the debate is even more heated and the stylistic features, rules and gatekeeping are more rigid and controlled (Tyft 2021). But, as already mentioned, the phenomenon is by no means new and in order to delve into it, to know its historical path and evolution, we have chosen to tackle it through a case study. In April 2011, the experimental black metal band Krallice released ‘Diotima’, a work that became a milestone for the genre and the underground. 6 years later, in 2017, during the Annual Conference on Neural Information Processing Systems (NeurIPS 2017), ‘Coditany of Timeness’, a project for the ‘Workshop for Machine Learning, Creativity and Design: Generating Black Metal and Math Rock’, was presented. The album in question was generated with a recurrent neural network\* trained on raw audio from the album ‘Diotima’ by Krallice. All titles were generated by a Markov chain, and the album cover was also created with neural style transfer. This article aims to analyse and reflect on these productions today. Both ‘Diotima’ and ‘Coditany of Timeness’ have been subjected to in-depth analyses (Dunsby, Whittall 1988) regarding song forms and structures, the use of choruses and melodies, possible leitmotifs, harmonic language, and subcultural context. The results of this analysis were then discussed directly with Krallice band members, using a reflexive approach (Bovone 2010), with the aim of delving into the whole universe of stories, creativity and skills that have been addressed, but often remain difficult to identify (Cook 2018), in order to initiate a deeper discussion on artificial intelligence (Shank et al. 2023).

What is the current state of the art of music? How are these artificial intelligences viewed by the artists themselves? What are the possibilities and threats they pose? Our aim is to question the intermediate steps through which an artificial intelligence could act and process the elements included in its inputs and transformed into a completely different output than the process that takes place in the human domain, i.e. what we actually call creativity (Young 1985; Gaut 2010; Runco, Jaeger 2012).

Keywords: AI music; Metal Music Studies; Creativity; Music Analysis; Cultural Studies.

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