Chapter 2
AI-Assisted Music Mastering:
An Exploration of Human and AI Practices in Contemporary Music Production

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ABSTRACT

Artificial intelligence is becoming increasingly involved in our daily lives, and music production is taking its share of this trend. In this context, artificial intelligence has recently started to be involved in the mastering process, which is the last step of music production that involves optimizing the recorded and mixed musical work and its preparation for commercial distribution. This research aims to comprehensively examine the current state of AI-assisted mastering services, comparing the outputs from various AI-assisted web platforms and an AI-assisted plug-in with the services of a professional audio engineer. By distinguishing the differences in the quality of the outputs produced by AI-powered solutions for mastering and professionals of the music industry, thereby identifying the stage to which artificial intelligence-supported applications have come in music production, specifically in mastering services, and determining their strengths and weaknesses in the context of mastering is aimed.

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INTRODUCTION

Music production processes continue to undergo significant digitalization, with artificial intelligence (AI) playing an increasingly prominent role in shaping the field. The inclusion of AI in music production is relatively new, and its potential effects remain a topic of debate. As with many other areas of cultural production, AI-powered tools are reshaping traditional workflows, challenging existing norms, and raising questions about the balance between human creativity and automation. While the impact of this digital shift is reverberating within the industrial and academic circles, it is still open to discussion whether AI would possibly or eventually replace humans as not just a mere calculator or an assistant but a cultural and artistic producer. In that regard, exploring the current digital music production ecosystem, specifically the usage of AI during the mastering process might be a significant aspect to demonstrate how AI can be helpful to human actors in the music industry or how it may endanger their existence in the long run.

This comparative study aims to discuss how far AI has gone in terms of replicating human qualities such as music mastering, evaluating their role as assistants to sound engineers and their potential to surpass human expertise. Here lies the challenge of today's sound engineers, who must cooperate and compete with these tools. Investigating AI's influence in music mastering provokes inquiries about the relationship between human creativity and artificial intelligence, providing a deeper understanding of the changing landscape of cooperation and rivalry between humans and AI within the creative industries. Music mastering is chosen as the aspect of music industry to be analyzed in this chapter, because it sits at the intersection of technical precision and creative decision-making, making it an ideal site to explore the capabilities and limitations of AI.

Discussions about computer technologies causing more harm than good in an economic context already existed before the popularization of artificial intelligence in our everyday lives. During the late 1970s and early 1980s, when unemployment rose rapidly and computer technology spread across every sector of industry, many commentators linked the two (Edwards, 1987, p. 84). However, opposing perspectives also existed. In 1966, The Commission on Technology, Automation and Economic Progress, appointed by U.S. President Lyndon Johnson, came to the conclusion that technology destroys jobs but not work (Manyika et al., 2017). Nowadays, what is happening with AI might be similar; as AI's “humane” capacities keep evolving, its social and economic impact might seem scarier than ever. However, whether it will bring more opportunities than threats is still up to debate and probably will be for a while.