Masterarbeit gemäß § 10 der Studien- und Prüfungsordnung vom 17.08.2009

im Masterstudiengang Digital Innovation Management

an der Hochschule für angewandte Wissenschaften Neu-Ulm

Cre-AI-tive: Impact of Machine-Generated Music on the Identity of Composers

Erstkorrektor: Prof. Dr. Andy Weeger

Zweitkorrektor: Prof. Dr. Heinz-Theo Wagner

Verfasser: Roland Kudor (Matrikel-Nr.: 235552)

Thema erhalten: 08.12.2022

Arbeit abgeliefert: 16.07.2023

Digitaler Anhang

(ggfls.)

1x ZIP-Datei

Abstract

As Generative AI continues to pierce through the realm of music production and composition, professionals within the industry are confronted with both transformative challenges and unprecedented opportunities. Central to this disruption are musical generative AI systems like OpenAI's Jukebox and AIVA, which necessitate a reevaluation of traditional roles, skills, and identities within the industry. This study delves into these profound implications, offering nuanced insights from ten music industry professionals acquired through a series of semi-structured interviews. Our findings unveil a diverse array of responses to the introduction of generative AI tools. For some, this shift induces a perceived threat to their professional identities, as their hard-earned skills appear on the brink of obsolescence. Others perceive AI as a creative ally, augmenting their artistic capabilities. Still, a third group acknowledges the imperative of technological adaptation within the dynamic music landscape, even in the face of unease and caution. This research enriches the ongoing discourse surrounding AI and identity, shedding a light on the complex mechanisms professionals employ to navigate, safeguard, and redefine their professional role identities amidst the uncertainties and uncontrollability of AI systems. It underscores the varied ways in which professionals negotiate, adapt and defend their professional role identities within this AI-integrated landscape as their identity work process. In addition, our study pinpoints critical factors that determine the adoption and adaptation of AI tools in music production, highlighting the interplay of the Big Five personality traits in shaping the perceived identity threat from generative AI. This provides an empirical base for assessing the potential risks and rewards of AI technology within the music industry, laying the groundwork for future interventions designed to assist industry professionals in navigating this paradigm shift. This thesis offers a comprehensive exploration of the intricate relationship between AI and professional role identity in the music industry, casting light on the evolving dynamics between technology and human creativity.

Keywords: Artificial Intelligence, Generative AI, Professional Role Identity, Identity Work, Identity Threat

Table of Contents

List of Figures

List of Tables

1 Introduction

In an era marked by rapid technological innovation, few developments have been as consequential and pervasive as the rise of artificial intelligence (AI). This remarkable technology, once solely the domain of scientific experimentation, has transformed every facet of human life, becoming a driving force behind a variety of sectors, from healthcare and finance to education and transport (Brynjolfsson 2014; Russell and Norvig 2016). Among these domains, the impact of AI on creative industries is particularly noteworthy. Today, AI not only handles mechanistic tasks but has also begun to breach boundaries long considered the exclusive realm of human creativity - music, art, literature, and more (Elgammal et al. 2017). Leading the charge is generative AI, which can produce original, creative outputs that echo human-like creativity. By authoring literature, composing music, and producing visual artworks, generative AI is sparking profound discussions about the nature and value of human creativity and has the potential to change the professional self-image of creative professionals (Alec Radford et al. 2019; Murnieks et al. 2014)

The concept of professional role identity is a crucial part of this discourse, referring to the professional self-concept based on the roles, attributes, and behaviours that professionals perceive as appropriate within their profession (Ibarra 1999). As AI increasingly emulates human creativity, an essential part of a creative's self-concept, it triggers a phenomenon known as an identity threat. Identity threats refer to the perception that valued identities are at risk of devaluation or invalidation (Petriglieri 2011). This threat arises when AI blurs the boundaries between human and machine creativity, unsettling the unique role and value of creative professionals within their field. Professionals, in response to these threats, engage in identity work, a series of activities individuals undertake to create, form, and adjust their identity narratives, thereby maintaining a coherent professional self-concept (Snow and Anderson 1987).

Existing research has established that contemporary technologies, such as AI, pose significant challenges to, and often threaten, professional identities (Strich et al. 2021). However, the specific factors triggering this identity threat and their intricate interplay leading to varying levels of perceived threat and resulting identity work processes remain largely unexplored. In this context, the Big Five personality traits - openness, conscientiousness, extraversion, agreeableness, and neuroticism - offer a comprehensive framework for understanding the factors that might influence how individuals perceive and react to these identity threats and subsequently shape their identity work (Clancy and Dollinger 1993; Costa and McCrae 1992). Thus, this study aims to fill this gap by exploring these factors from the lens of the Big Five personality traits. We pose two core research questions:

RQ1: "Which personality traits influence the perception of an identity threat by generative AI within creative professionals?"

RQ2: *"How are personality traits related to identity work processes induced by generative AI?"*

Our investigation is particularly significant given the transformative impact of AI on the professional landscape and the unique challenges it poses for individuals in creative fields. We concentrate our efforts on the music industry, a field teeming with research opportunities due to the substantial advancements in AI-enabled music composition technologies. Unraveling the complexities between generative AI, professional role identity, identity threat, and identity work is essential as we stand on the brink of a revolution in creative practices. This collective insight is crucial not only for creative professionals, but also for researchers, educators, policymakers, and society at large as we continue to navigate the evolving realities of a world increasingly entwined with artificial intelligence.

2 Literature Review

In this chapter, we aim to dissect the theoretical concepts underpinning our investigation and ground the forthcoming empirical findings in a well-rounded context. We start by exploring the landscape of *artificial intelligence*, particularly *generative AI*, and its impact on various professions. Then, we unravel the intricacies of *professional role identity* and its pertinence to creative fields, followed by a deeper look into *identity threats*, a key concept to understand the disruptions caused by AI. We further examine how the *five-factor model* of personality shapes identity and the perception of identity threats. Concluding the chapter, we discuss *identity work*, the dynamic process of managing professional role identities amid technological disruptions. Together, these elements provide a robust theoretical foundation for evaluating the effects of generative AI on creative professional role identities.

2.1 Artificial Intelligence

Artificial Intelligence (AI) represents a transformative technology that has evolved from a purely theoretical concept to a practical reality in the span of a few decades. Early stages of AI were marked by the development of rule-based systems that could automate simple tasks based on pre-set instructions and algorithms (Newell and Simon 1976). However, the true potential of AI began to unfold with the advent of machine learning, a subfield of AI, where computers learn from data without being explicitly programmed (Mitchell 2013; Samuel 1959). Machine learning has been a significant driver for the recent rapid progress in AI. With increasing computational power and access to large datasets, machine learning algorithms have evolved into deep learning algorithms that employ artificial neural networks inspired by the human brain (LeCun et al. 2015). These models can process a large amount of data, recognize patterns, and make predictions or decisions without human intervention.

AI's impact is broad and far-reaching, touching almost every professional sector. From healthcare to banking to the creative industries, AI is no longer just a tool for efficiency but an agent of transformation and, in some cases, disruption. In healthcare, AI's contributions are multifaceted and transformative. One primary application is in patient diagnosis. For example, deep learning algorithms are being used to interpret medical imaging, identifying patterns and anomalies that might be missed by the human eye (Esteva et al. 2017). Another major breakthrough is in the realm of drug discovery, where AI models can predict how different chemical compounds might interact, drastically reducing the time it takes to develop new drugs (Chen et al. 2018). Furthermore, AI is contributing to personalized treatment plans through predictive analytics, by analyzing a patient's genetic makeup, lifestyle, and other health factors to devise customized care plans (Bates et al. 2014). Beyond these examples, AI-powered robots are aiding surgeries, AI chatbots are delivering mental health services, and machine learning algorithms are predicting disease outbreaks, showcasing a paradigm shift in healthcare delivery (Buch et al. 2018; Miner et al. 2016; Santillana et al. 2014). In the banking sector, AI's penetration has been similarly profound. The complex task of fraud detection, once a laborious, manual process for humans, is now performed by AI models that can analyze millions of transactions in real-time and flag suspicious activities with incredible accuracy (Purnima Bholowalia and Kumar 2014). AI is also deployed in risk management, predicting loan defaults and other financial risks using historical data and patterns, leading to safer and more informed financial decisions (Dietvorst et al. 2015). In the customer service domain, AI chatbots have become the first line of contact, handling queries and problems efficiently and round-the-clock, a task that would have required considerable human effort.

AI's capability to mimic and even enhance human cognitive functions is revolutionizing various industries, but it is also challenging the traditional roles and identities of professionals in these fields. As

these technologies continue to evolve, these challenges will likely become more complex, leading to an urgent need for understanding and managing professional role identity in the age of AI. The remarkable progress in AI is not merely confined to enhancing efficiency and decision-making but extends to the realm of creativity through a subfield known as generative AI. This transition from AI performing procedural tasks to creating novel content reflects a significant advancement in the field, posing new implications for various professions, particularly those related to creativity.

2.1.1 Generative AI

Generative AI utilizes advanced machine learning algorithms to generate new data or content. These models learn patterns and structures from the data they are trained on and then generate outputs that mirror those patterns and structures (Goodfellow et al. 2014). The unique attribute of generative AI is its ability to create something new and unique, even though it is based on existing data. This 'creative' aspect of generative AI is bringing a revolution in many fields, one notable example being music.

Music generation has traditionally been a purely human endeavor, an expression of human creativity and emotion. However, generative AI has started to disrupt this traditional view. For instance, some AI models have been trained on a vast array of music, ranging from classical symphonies to modern pop hits. After training, these models can generate unique compositions that carry the stylistic elements of the music they were trained on, effectively creating a new piece of music (Briot et al. 2017). The resultant compositions are often surprisingly coherent and musically satisfying, which not only speaks volumes about the potential of generative AI but also brings forth critical questions about authorship, creativity, and the future role of human musicians in music production (D. Eck and J. Schmidhuber 2002).

Generative AI's applications indeed extend well beyond the sphere of music, marking its presence in a plethora of other creative domains and thereby, adding novel dimensions to the broader landscape of artificial creativity. In the realm of visual arts, generative AI is demonstrating its remarkable capability to create new, unique pieces of art. Building upon complex machine learning models, AI can generate images, sketches, and paintings that carry the stylistic essence of famous artists, while also retaining their individuality in design and composition (Elgammal et al. 2017). Such AI-generated artwork, often produced through Generative Adversarial Networks (GANs), has reached levels of sophistication and artistic value that even the art world has begun to acknowledge. The sale of an AI-created painting for an astounding $432,500 exemplifies the perceived value of such artwork (Kinsella 2018). However, this interjection of AI into visual arts isn't limited to reproducing existing styles. AI is also being used to create entirely new forms of art, like fractal patterns and intricate 3D structures, challenging conventional artistic practices and pushing the boundaries of creative expression (McCosker and Wilken 2014). Parallelly, the literary world is experiencing its own AI revolution. AI models, trained on a vast corpora of text, can now generate written content that spans a wide range of genres and styles. From poetry and short stories to journalistic reports, AI is creating content that is not only coherent and contextually relevant but also sometimes virtually indistinguishable from pieces authored by humans. The use of AI in literature is expanding the possibilities of content creation and reshaping the dynamics of the publishing industry, where AI-written books and articles are starting to appear (Geva et al. 2021). Moreover, AI is being leveraged to complete unfinished works, thereby extending its impact to posthumous authorship, a domain previously unthinkable for AI intervention (Cockburn 2019).

Such advancements in generative AI have begun to challenge traditional creative processes and the role of human professionals in these industries. The entry of AI into the creative territory, once thought to be an exclusively human domain, raises important questions. What does it mean to be a creative professional when a machine can generate a painting, compose a piece of music, or write a novel? These questions are leading to profound implications for the understanding of professional role identity

in creative fields. As AI continues to evolve, professionals in these fields may need to reevaluate their roles and identities, reconsidering the nature of creativity and their unique contribution to it.

In conclusion, the advent and development of generative AI have ushered in a new era of creativity, one where machines can contribute to, and even independently carry out, creative tasks. This development has far-reaching implications for professionals in creative fields, potentially challenging their roles, identities, and sense of self.

2.2 Professional Role Identity

Professional role identity is a crucial construct in understanding how individuals perceive their roles and function within their professional environment. It is derived from the principles of role identity theory, which refers to the part of a person's self-concept that arises from the roles they assume in their daily life (Burke and Reitzes 1981). In a professional setting, these roles are shaped by the expectations, responsibilities, and experiences associated with their profession (Ashforth 2000). Professional role identity is critical as it shapes behavior, influences motivation, and governs how individuals interact with others in their professional contexts. Role identity theory emphasizes that an individual's self-concept consists of multiple role identities that vary in salience depending on the situational context. Each role identity is characterized by unique meanings, expectations, and behaviors, and individuals strive to act consistently with these role identities (Burke and Tully 1977). Thus, in the context of professional role identity, the 'role' signifies the professional position held by an individual, like a musician, painter, writer, or banker. Each of these professional roles represents a category with its unique set of attributes, behavioral norms, and expectations. In this thesis, the terms *professional role identity* and *professional identity* are used interchangeably, as they are considered synonymous in the context of the study.

Within their professional environment, individuals are motivated to fulfill the role expectations and norms associated with their professional roles, which are largely defined by their workplace culture, professional community, and societal views (Burke and Reitzes 1981). The alignment between an individual's self-perception and the external expectations of their professional role forms the professional role identity (Ibarra 1999). This is not merely a passive acceptance of imposed norms but also an active, interpretive process where individuals continually assess, negotiate, and sometimes challenge the attributes and expectations associated with their roles, creating a more nuanced and personalized version of their professional identity (Ashforth 2000). Professional role identity is not static; it evolves over time as individuals gain new experiences, encounter different expectations, and face various challenges. This fluidity of professional role identity is reflected in identity work, the process by which individuals strive to align their professional identity with changing contexts and maintain a consistent self-concept (Sveningsson and Alvesson 2003). When professionals encounter disruptions to their roles, such as the introduction of new technologies, they may engage in identity work to reconcile these changes with their professional identities. We will delve deeper into this concept later on, as it proves to be of major importance with regard to our investigations.

The significance of professional role identity becomes distinctly prominent in the realm of creative professions. Occupations within these fields, including music, visual arts, literature, and design, require a deep-seated passion as they often necessitate a high degree of specialized skills, original thought, and a unique combination of technical prowess and emotional expressiveness (Florida 2002). As a result, professional role identities in these fields are often intertwined with personal identities, resulting in a close association between professional role identity and one's sense of self-worth, personal fulfillment, and societal value (Murnieks et al. 2014). This merging of personal and professional identities can lead to a strong connection between who individuals are and what they do, but also makes them

vulnerable to disturbances in the professional landscape (Baym 2015). The advent of disruptive technologies like generative AI, capable of emulating tasks traditionally executed by human professionals, such as composing music, writing literature, or creating visual art, poses potential threats to these identities. Such identity threats can incite a wide range of emotional and cognitive responses, from denial and resistance to adaptation and evolution of the role identity (Brown et al. 2015).

In essence, professional role identity, by acting as a significant component of an individual's self-concept, shapes their professional life. It molds their conduct, fuels their motivation, and shapes their interaction with others in their professional environment. It serves as a meaningful bridge between one's personal identity and the role-based expectations and norms associated with their profession. As AI continues to evolve and alter professional landscapes, understanding professional role identity becomes crucial in managing potential disruptions and facilitating adaptive responses. Given the strong alignment between personal and professional identities within creative fields, the advent of generative AI technologies indeed poses a potential threat to these identities, leading us to the deeper examination of the concept of identity threats.

2.3   Identity Threats

Identity threats are a critical aspect of the broader topic of professional role identity, particularly in contexts where identity is closely tied to the tasks and roles an individual performs. They manifest when individuals perceive a challenge or risk posed to the continuity and stability of their cherished identities, which, in professional contexts, are often seen as the core of their sense of self (Petriglieri 2011). These threats can be perceived as especially intense in situations where there is a profound shift in the established norms, routines, or, indeed, the fundamental essence of the role. Such shifts can be triggered by various factors, including changes in roles, responsibilities, or status within an organization or profession. For example, a senior executive transferred to a new division with lesser responsibilities might perceive an identity threat due to the sudden change in their professional role and associated status. In the same vein, a software developer shifted from a technical role to a managerial role might experience identity threat due to the significant shift in their work nature and responsibilities (Ibarra and Barbolescu 2010)

In the creative professions, such shifts are often precipitated by advancements in technology, specifically the introduction of disruptive technologies such as generative AI. The rise of AI technology, capable of accomplishing tasks traditionally executed by human professionals, has created a new source of perceived identity threats. As AI begins to create music, write stories, paint pictures, and even design buildings, professionals within these fields may start questioning their unique value and place within their profession. The threat perception escalates because AI does not merely assist in these tasks but shows capability to perform these tasks independently and, in some cases, with a degree of proficiency comparable to or surpassing that of a human (Brynjolfsson and Mcafee 2016). As such, creative professionals may experience a threat to their professional role identity as they struggle to understand what their role entails in an environment where a machine can potentially replicate their work. But this threat is not just about obsolescence or redundancy. It goes beyond to touch upon existential questions about what it means to be a professional, and in a broader context, what it means to be human, when a machine can accomplish tasks that were once considered exclusive to human intelligence and creativity (Boden 1998). These perceived threats can thus lead to profound introspection and questioning of one's value, role, and derived meaning from work, pushing individuals to reassess their identities in the face of a rapidly evolving professional landscape (Brown et al. 2015)

The experience and the subsequent impact of identity threats are subjective, heavily influenced by an individual's personal circumstances, their understanding of their professional role, and their perceived value within it. They are as diverse and varied as the individuals who perceive them (Petriglieri 2011). This subjectivity of experience can lead to a variety of reactions, depending on how deeply the professional identity is tied to the individual's sense of self, their tolerance for change, and their capacity to adapt and evolve. For some individuals, particularly those whose professional identities are heavily intertwined with their personal identities, these threats can be perceived as a fundamental challenge to their self-concept. They might experience strong negative emotions such as fear, anxiety, or grief (Kreiner et al. 2006). A vivid example of this could be a musician who, upon experiencing a piece of music created by a generative AI that rivals or even surpasses human composition in complexity and emotional depth, might fear professional obsolescence. They might question their unique value and place in their profession, leading to a profound sense of loss, akin to grief (Brown and Lewis 2011). However, the perceived threat is not only confined to the fear of obsolescence or redundancy. It can extend much deeper into the individual's self-concept, particularly in professions where personal and professional identities are closely intertwined. The introduction of AI in creative processes could cause individuals to question the uniqueness and irreplaceability of human creativity. This can raise profound questions about their self-worth, the nature of creativity, and indeed, the essence of being human in a world where machines can mimic, and potentially enhance, human creativity (Boden 1998; Brynjolfsson and Mcafee 2016). This can lead to a fundamental crisis, shaking the foundations of identity and prompting a profound introspective journey. Identity, however, is not a static construct. It is continuously shaped and reshaped by experiences, including adversities and threats (Ibarra and Barbolescu 2010). Therefore, identity threats can also serve as catalysts for change, growth, and adaptation.

While the initial reaction to identity threats might be discomfort, resistance, or even despair, over time these threats can stimulate a process of introspection and self-examination, prompting individuals to reassess and potentially revise their professional identity in response to the changes (Ibarra and Barbolescu 2010; Petriglieri et al. 2018). For instance, a visual artist might start to integrate AI into their artistic process, exploring new forms of digital art that blend human and machine creativity. The latter can lead to the evolution of their role, the development of new skills, and the expansion of their identity, turning the perceived threat into a chance for growth and transformation.

2.4 Personality Traits

The dynamics of identity threats in the context of generative AI can be better understood by considering the influence of individual differences, particularly in relation to the Big Five Personality Traits model, also known as the Five-Factor Model (Clancy and Dollinger 1993; Costa and McCrae 1992). This model offers a robust framework to examine personality traits and how they may interact with the perception of identity threat. The Big Five Personality Traits model encompasses five broad dimensions of personality: openness, conscientiousness, extraversion, agreeableness, and neuroticism.

Openness to experience, characterized by curiosity, creativity, and a preference for novelty, is likely to significantly influence an individual's reaction to new technologies and their implications for professional practice. It could be suggested, drawing from the theoretical framework by DeYoung, Quilty, and Peterson (2007), that those high in openness are generally more adaptive to change, making them more likely to embrace generative AI, perceive it as a tool that enhances their creative capabilities, and consequently mitigate the potential threat to their professional identity. For instance, a graphic designer high in openness may welcome AI-based design tools, seeing them as an opportunity to expand their creative repertoire rather than a threat to their professional role. Conscientiousness, denoting traits such as orderliness, responsibility, and dependability, may interact with identity threats in complex ways. Highly conscientious individuals often invest substantial effort and time in honing their skills, adhering to

established practices and achieving mastery in their field (Judge et al. 1999). Therefore, these individuals might perceive the abilities of AI as undermining their expertise and thus triggering an identity threat. For example, a meticulous photo editor who has spent years mastering their craft might feel their professional identity threatened by an AI tool that can replicate their work in a fraction of the time. Extraversion, characterized by sociability, assertiveness, and enthusiasm, might influence how individuals react to AI. Extraverts tend to seek external stimulation, thrive on social interactions and might thus view AI as a new frontier for collaborative possibilities (Barrick et al. 2001). In the context of a journalist, an extraverted individual might embrace AI-generated news reports as an opportunity for expanding their work and reaching new audiences, thus reducing the potential for identity threats. Agreeableness, characterized by trust, altruism, and cooperativeness, could also interact with an identity threat. Agreeable individuals tend to be cooperative and trusting, traits that may make them more accepting of new technologies (Graziano et al. 1996). This means that an agreeable individual, such as a team leader in a tech company, might be more inclined to view AI as a beneficial collaborator rather than a competitor, mitigating potential identity threats. Lastly, Neuroticism, marked by emotional instability and a tendency towards negative emotions, could influence the intensity of identity threat perceptions. Individuals high in neuroticism may be more prone to perceive changes in their environment as threatening due to their propensity for anxiety and emotional volatility (Bono and Judge 2004). For example, a software developer with high neuroticism might perceive the advent of advanced AI coding tools as a significant threat to their professional identity. Figure 1, which represents our preliminary research model, articulates the relationship between the Five-Factor Model and the degree of perceived identity threat upon exposure to generative AI.
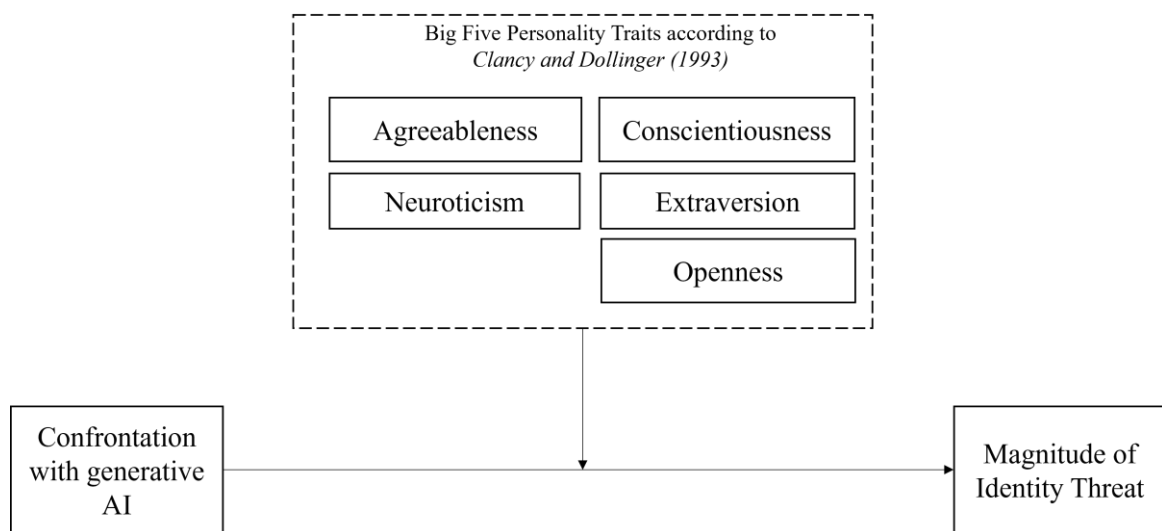
Figure 1: Initial Research Model

The Big Five personality traits present a compelling lens through which we can discern the multifaceted interactions between individual personality, professional role identity, and the advent of generative AI. This framework facilitates an intricate understanding of how these three components interweave, shedding light on the individual perception and reaction to the potential identity threats presented by modern technologies. The insights garnered from this perspective not only lend depth to our understanding, but they also equip us with the necessary knowledge to navigate the identity threats that may arise in our fast-paced, technologically advanced world. This intricate interplay between personality,

identity, and technology is not a static phenomenon but a constantly evolving narrative. As such, it leads us to the pivotal concept of identity work.

2.5 Identity Work

Identity work, as a concept, transcends the field of technology and permeates all aspects of professional and personal life. This process is an active, ongoing, and multifaceted engagement where individuals participate in the shaping, repairing, maintaining, bolstering, or revising of their self-conceptions, their understandings of who they are and what they stand for (Snow and Anderson 1987; Sveningsson and Alvesson 2003). This identity construction and reconstruction extend beyond the labels or roles that an individual assumes, to encompass personal narratives, behavioral patterns, beliefs, and motivations that underpin their actions (Ibarra 1999). The process of identity work is not purely introspective; it is heavily influenced by social interactions and external feedback. Individuals often shape their identities in dialogue with others, adapting and modifying their self-conceptions in response to the social roles they occupy, the expectations they encounter, and the feedback they receive (Goffman 1959; Swann Jr. et al. 2009). This social aspect of identity work further underscores its complexity and dynamism, as individuals need to negotiate and balance their self-conceptions with external perceptions and expectations.

Identity work can be triggered by various events or situations, known as identity disruptions or challenges, which can throw into question individuals' existing self-conceptions (Petriglieri 2011). These disruptions can range from significant life changes like job loss or promotions, to subtle shifts in roles or responsibilities, to broader societal changes like technological advancements. Regardless of the source, these disruptions necessitate a period of reflection, reassessment, and adaptation, where individuals may need to reconsider who they are, what they value, and where they fit within their social and professional contexts (Ibarra and Barbolescu 2010). The nature of this work varies widely, depending on the individual, the disruption, and the context. It can involve reinforcing existing identities, by seeking validation and support for current self-conceptions; revising existing identities, by adapting and modifying self-conceptions to fit new realities; or even constructing new identities, by developing entirely new self-conceptions that better align with changed circumstances (Ibarra and Barbolescu 2010; Sveningsson and Alvesson 2003). In essence, identity work is a deeply human process of continual self-definition and redefinition. It is a vital part of navigating the complexities and uncertainties of life and work, helping individuals to make sense of their experiences, maintain a coherent sense of self, and cultivate a meaningful existence amidst constant change.

In the context of emerging technologies such as generative AI, identity work assumes a crucial dimension for professionals in the creative field, as well as in other areas of work influenced by AI. This process involves a deep introspection, reassessment, and reconfiguration of their professional roles, the unique value they bring, and the points of differentiation from AI capabilities. For example, musicians, faced with generative AI's capacity to create music, they might be impelled to evaluate the core of their craft - the aspects that cannot be replicated by AI. This might encompass elements such as unique human experiences, the capacity to convey deep and complex emotions through music, the ability to improvise in live performances, or the profound understanding of a cultural context in which music is created and received (Boden 2005; Murnieks et al. 2014). In other words, identity work, in this case, could involve highlighting and reinforcing the intrinsically human aspects of their craft. Similarly, visual artists, writers, and other creative professionals might engage in a similar process of distinguishing their human creativity from AI's generative capabilities, emphasizing their unique perspectives, emotional depth, cultural understanding, and ability to create meaningful connections with their audiences.

However, identity work in the age of generative AI is not confined to distinguishing the human from the artificial. It can also involve embracing these technologies and incorporating them into one's professional identity. Creative professionals may approach AI not as a competitor, but as a tool or a collaborator that can expand their creative possibilities, stimulate new ideas, and enable new forms of artistic expression (Elgammal et al. 2017). For instance, visual artists might learn how to use generative AI as part of their creative process, using it to create new images or to inspire their works. Similarly, writers might use AI as a tool for generating ideas, constructing narratives, or exploring new forms of literature (Alec Radford et al. 2019). In this way, they integrate AI into their professional identities, transforming the potential identity threat into an opportunity for identity expansion and enhancement. Moreover, identity work might entail developing new skills and capabilities to engage with these technologies effectively. This could involve learning how to interact with, manage, and direct AI technologies, as well as understanding the principles and limitations of these systems (Bessant and Tidd 2015). As a result, new professional roles and identities could emerge that blend traditional creative skills with technological proficiency, leading to roles such as AI artist, AI musician, or AI writer.

In conclusion, identity work in the era of generative AI is a multifaceted process that involves reinforcing the unique human aspects of one's profession, integrating AI into one's professional identity, and developing new skills to engage with these technologies. It is a testament to the human capacity for adaptation and growth in the face of change, and to the resilience of our identities amidst technological advancement. Indeed, while identity work can involve acceptance and integration of emerging technologies such as AI, it can also encompass resistance to these changes. This resistance can be seen as a form of identity defense, a way for individuals to maintain and preserve their existing professional identities in the face of potential disruption (Petriglieri 2011). Such resistance might manifest in various ways. For instance, some professionals might choose to intensify their focus on the traditional aspects of their roles that AI cannot replicate or substitute. A musician may focus more intensely on live performances, where human presence, spontaneity, and interaction with the audience cannot be emulated by AI. Similarly, a visual artist may emphasize the physical, tactile aspect of their work, which involves manual techniques, materials, and three-dimensional forms that AI cannot yet create (McCosker and Wilken 2014). Further, these professionals might cultivate and reinforce the values, norms, and standards that privilege human-made over AI-generated work. They may stress the authenticity, originality, or soulfulness of human-created art, music, or literature, positioning these qualities as superior to the outputs of AI (Elgammal et al. 2017). Resistance to AI can also take the form of outright rejection. Some individuals, especially those in professions with a strong sense of tradition and craft, might see AI-based technology as incompatible with the ethos of their profession. For instance, a classical musician or a traditional painter might view AI as a violation of the cultural, historical, and aesthetic norms of their field, and therefore choose to avoid using such technology altogether (Dukerich et al. 2002).

This resistance, while potentially limiting the individuals' engagement with new technologies, can also serve a valuable function. It can act as a safeguard for preserving the human aspects of creativity and craftsmanship, ensuring that these elements continue to be valued and appreciated in a world increasingly dominated by AI. It can also stimulate a broader societal discourse about the role of AI in creative professions, the boundaries between human and artificial creativity, and the ethical implications of AI-generated art, music, or literature (Brynjolfsson and Mcafee 2016). Overall, the process of identity work in the age of generative AI involves a delicate balance of acceptance and resistance, integration and defense, adaptation and preservation. It reflects the complexity and dynamism of human identities, their resilience in the face of change, and their profound interconnectedness with the evolving technological landscape. The process of identity work is deeply personal, involving introspection, self-questioning, and adaptation. It plays a crucial role in helping individuals navigate changes to their

professional roles and maintain a sense of continuity and coherence in their identities in the face of disruptions like those brought about by AI (Ibarra and Barbolescu 2010).

Given the complexity and multifaceted nature of identity work in the context of generative AI, it becomes clear that we require a robust methodology to accurately explore this phenomenon. Understanding how professionals negotiate their identities in the face of AI advancements, the strategies they employ, the struggles they encounter, and the outcomes they achieve, calls for an approach that is both nuanced and adaptable. In light of this, we now turn to the methodology for our investigations.

3 Research Setting and Methodology

This chapter presents the strategic research method implemented to examine how generative AI technologies affect the perceived threat to professional identities of musical composers. To establish the relevance of our study, we first survey the rapidly evolving landscape of the modern music industry, emphasizing the increasing role of technology and AI tools like OpenAI's Jukebox and AIVA in musical composition. This context sets the stage for our qualitative, longitudinal research approach, which relies on semi-structured interviews with experienced industry professionals and includes a hands-on exploration of the AI tools. The chapter closes with our detailed data handling process, from transcription through to analysis, allowing us to delve deeply into answering the two key research questions of our study.

3.1 Context

The music industry represents a complex, multidimensional ecosystem. Within this realm, a diverse array of stakeholders, including artists, record labels, distributors, streaming platforms, concert promoters, copyright agencies, music publishers, and many others, engage in a coordinated manner to keep this vibrant sector thriving. These stakeholders each play their unique role in the broader process of music creation, production, promotion, distribution, and consumption, creating an interplay that shapes the industry's overall trajectory (Frith 2004). Yet, it is necessary to realize that the music industry has never been a static entity. Rather, it is characterized by continuous evolution and change, primarily driven by advancements in technology. From the early days of recording technology and live music, to the rise of radio broadcasts, the industry has always adapted and transformed in response to new possibilities. The advent of different physical recording formats, such as vinyl records, cassette tapes, and compact discs, each introduced new dimensions to the music experience, altering how music was produced, distributed, and consumed. These changes often presented musicians with both challenges and opportunities, forcing them to adapt their craft to the changing environment (urdesignmag 2022). The acceleration of this technological evolution over the past two decades has been particularly striking. The dawn of the digital era and the subsequent rise of digital platforms such as Apple Music or Spotify, have reshaped the musical landscape in profound ways. These platforms have drastically altered the distribution and consumption of music, making millions of songs instantly accessible to listeners worldwide. Moreover, the digital landscape has significantly democratized the music industry, making it easier for independent musicians to reach their audience without the backing of major record labels (Wikström 2020). The landscape of music production has also witnessed a significant transformation. High-quality music can now be created, edited, and produced with nothing more than a computer and the right software, often within the comforts of a home studio. This shift has enabled a broader range of individuals to participate in the music-making process and has diversified the kinds of music being produced (Morey and McIntyre 2014). Moreover, the proliferation of online tutorials and platforms for

collaboration has facilitated knowledge sharing and creative exchanges among musicians globally (Anna Reid and Dawn Bennett 2013). The influence of technology on the music industry extends beyond digital platforms and production software. Technologies like virtual and augmented reality are also beginning to find applications in the music industry, offering novel ways to enhance live performances and music videos (Spaziani 2022). As we look towards the future, the potential of artificial intelligence to further transform the music industry looms large on the horizon. AI's applications in the music industry range from data analytics and personalization to music composition and production. The advent of AI, in this context, raises fascinating questions about the future role of musicians in an industry increasingly influenced by automation (Thomann 2023).

3.1.1 Technologies used for our investigation

In the context of this investigation, we are focusing on two pioneering tools in the realm of generative AI and music: OpenAI's Jukebox and AIVA (Artificial Intelligence Virtual Artist). These tools represent the forefront of AI's inroads into the realm of musical creativity and serve as our primary subjects of exploration in assessing the impact of these technologies on the professional identities of musical composers. In this study, the term *music producer* is frequently employed; however, it is used interchangeably with *music composer*, denoting the same professional occupation.

OpenAI's Jukebox, a groundbreaking AI model, leverages advanced deep learning technologies to create original music compositions in a way that fundamentally reimagines the music creation process (Jukebox 2023). This AI tool is not just capable of generating instrumental melodies but also composes the corresponding lyrics and creates vocal performances, thereby covering the complete process of song creation. Its capabilities extend to replicating the style of specific artists and producing original songs that mimic the musical and lyrical qualities of those artists. Jukebox's training involved an extensive and diverse dataset of music from a multitude of genres, ranging from rock to pop, jazz to classical, and everything in between. By training on such a broad spectrum of music, the AI has gained the ability to generate music that captures the essence of these various styles (Jukebox 2023). It's akin to having a musical library with a broad palette of sounds and styles that the AI can draw from when creating its compositions.

One of the most intriguing facets of Jukebox is its ability to generate musical pieces in the style of specific artists, essentially emulating their musical 'signature'. For example, it could generate a song that sounds stylistically similar to the Beatles or produce a track that echoes the distinctive vibe of Billie Eilish. Such mimicry offers fascinating opportunities for exploring 'what if' scenarios in music, such as imagining new songs from legendary artists who are no longer with us or creating cross-genre musical blends that would be hard for human artists to achieve. In terms of its influence on the music production landscape, Jukebox has introduced a transformative new dimension. It has shown how AI can not only automate certain aspects of music production but can also become a creative partner in the process. Jukebox's capacity to generate complete songs also demonstrates that AI's role in music can extend beyond technical tasks to involve the very heart of the creative process (Brown et al. 2020).

AIVA, an acronym standing for Artificial Intelligence Virtual Artist, is a significant player in the realm of AI-enabled music composition. This sophisticated tool does not merely string together notes and chords. Instead, it draws from a vast reservoir of classical compositions, studying patterns, themes, and structures within these pieces, and utilizes this knowledge to generate new, original music (*AIVA* 2023). This learning process aligns with deep learning methodologies, where the AI algorithm trains on a substantial dataset and extracts intricate patterns that it can then replicate and modify in its compositions. Unlike Jukebox, which is designed primarily to emulate popular music styles and artist-specific sounds, AIVA has a different objective. It is focused on creating emotive soundtracks that can

be employed across a spectrum of media applications, including films, video games, advertisements, and other digital content (*AIVA* 2023). In the realm of film scoring, for instance, it could create a dramatic orchestral piece to accompany a high-intensity scene or a more somber, melancholic composition for a more introspective moment. For video game scoring, AIVA could provide dynamic musical backdrops that adjust in response to the player's actions and progress within the game.

One of the compelling aspects of AIVA's technology is its ability to encapsulate and convey emotion through its compositions. It has been engineered to understand the nuances of how different musical elements, such as tempo, melody, harmony, and rhythm interact to evoke specific emotional responses from listeners. This capacity to create emotionally resonant soundtracks demonstrates a sophisticated level of musical understanding, which is a testament to the evolution of AI in the creative arts. In 2016, AIVA received recognition from SACEM (The Society of Authors, Composers, and Publishers of Music), a French authors' rights society (Lauder 2017). This recognition established AIVA as a virtual artist, marking a significant milestone in the relationship between AI and the music industry. It showcased how AI's role in music has evolved beyond a technical or assistive capacity to one that can be recognized and appreciated for its artistic contributions (Chuan and Herremans 2018).

Together, Jukebox and AIVA offer a glimpse into the remarkable potential of AI in the music industry. These tools don't just automate certain aspects of music production - they also open up exciting new avenues for creativity, collaboration, and expression. However, as these AI technologies advance and become more integrated into the music production process, it is critical to understand the implications they have on the professional identities of music producers. As we navigate this intersection of music and AI, this investigation aims to shed light on these complex dynamics.

3.2   Data Collection Method

This study utilizes a two-stage interview approach to examine the impact of AI technologies, such as OpenAI's Jukebox and AIVA, on music composers and their professional identity. We engaged a total of 10 participants, each with a distinct expertise and focus area in the field of music composition. A critical aspect of the selection process was their significant experience in their respective fields, which contributes depth and nuance to the research. More comprehensive participant profiles will be discussed in chapter 4.

3.2.1   Interview 1

The initial stage of the interview process was meticulously designed to establish a comprehensive baseline understanding of each participant's relationship with their day-to-day routines, their music composition principles and technology within their specific professional setting. It was necessary to capture a detailed snapshot of their experiences, attitudes, and perceptions before the introduction and confrontation with the generative AI tools. To achieve this, a variety of open-ended questions were posed. Participants were asked about their initial professional and creative situation, their previous encounters with modern technologies in their work, and other nuances of their professional experiences. Questions ranged from specific ones, such as their preferred software for composition and recording, to more abstract queries about how they view the role of technology in music production. This helped to capture not only their comfort and proficiency with technology but also their underlying beliefs and attitudes towards it.

This first-stage dialogue offered invaluable insight into each participant's existing standpoint towards technology, with a particular emphasis on the emerging realm of AI music generation tools. The responses helped to frame their professional identity within the dynamic, rapidly evolving landscape of

the music industry. Understanding their initial perspectives, apprehensions, expectations, and perhaps even misconceptions about AI in music production formed an integral part of this process. Following this initial conversation, participants were then introduced to the two AI tools - OpenAI's Jukebox and AIVA. A brief tutorial was provided, explaining the fundamental features and functionality of each tool, followed by a demonstration of their capabilities and application in music production. The aim was not to give an exhaustive guide but to provide sufficient information for the participants to start their exploration.

The participants were then left to independently navigate, interact with, and immerse themselves in these AI technologies over an average period of a week. This experiential phase was deemed crucial for a multitude of reasons. It allowed participants to experience firsthand the capabilities of these AI tools, encouraging a deeper understanding of how these technologies operate, what they offer, and how they could potentially fit into, disrupt, or enhance their creative processes and professional practices. Simultaneously, this phase facilitated an identity work process. This concept stems from the idea that professional identity isn't static but rather an ongoing, dynamic process shaped by new experiences and perspectives. The introduction of AI tools into the participants' professional practice acted as a catalyst for this process. It offered them a chance to reassess, recalibrate, and reflect on their professional identity within this new technological context, to confront any feelings of identity threat, and to recognize the potential for growth and transformation. Thus, this initial stage of the interview process set the foundation for understanding the impact of AI music generation tools on the professional identities of musical composers.

3.2.2   Interview 2

The second stage of the interview process served as a reflective point of analysis, taking place after the immersion period, a phase of exploration and interaction with the AI tools. In this stage, participants were re-engaged and asked to share their experiences, thoughts, and feelings regarding their encounter with OpenAI's Jukebox and AIVA. The aim was to create an open dialogue where they could freely communicate their observations, struggles, successes, and overall impressions during their journey of discovery with these sophisticated AI applications. In particular, they were asked about their perception of the tools and whether and how it had changed over the course of their hands-on exploration. This was essential to ascertain if the actual experience of using the tools either confirmed or contradicted their initial assumptions. Were they surprised by the capabilities of these AI technologies? Did they find these tools more useful, creative, or invasive than they had initially thought? This helped to understand the impact of firsthand experiences with these tools on altering attitudes and beliefs about AI in music production.

Moreover, participants were encouraged to reflect upon any potential shifts in their sense of professional identity after working with these AI tools. This critical aspect focused on exploring how direct interaction with AI in a creative process might affect their self-conception as musicians and producers. Did they feel threatened, challenged, inspired, or empowered by the AI tools? Did they perceive a shift in their creative roles or responsibilities? How did they interpret the presence of AI in relation to their creative autonomy and authorship? The objective of the second stage interview was not just to determine whether and how their attitudes towards AI in music production evolved, but also to delve deeper into their cognitive and emotional responses to these changes. Understanding these dimensions is vital, as they illuminate the complex human experience at the intersection of art and technology, offering a nuanced perspective on how AI is perceived and integrated into the creative process.

This two-stage interview process is beneficial as it allows for a before-and-after comparison, shedding light on the transformative impact (if any) of these AI tools on the professional identities of musicians and producers. Moreover, by allowing the participants to engage with the AI tools over a period, the

research design encourages a deeper, more nuanced understanding of these technologies and their potential implications. The focus on experienced professionals ensures that the insights gleaned from this investigation are grounded in rich practical knowledge and lived experiences. Ultimately, the findings from this investigation will contribute valuable insights to the growing discourse around AI's role in creative industries, particularly regarding its potential identity-threatening implications for human creators.

3.3   Data Analysis Techniques

The analytical process for this research began with an open coding phase, where we meticulously examined the raw interview transcripts. The process was two-fold: we labeled concepts that emerged spontaneously from participants' narratives, while simultaneously mapping these concepts against the indicators of the Big Five personality traits. Thus, the narratives of both the first and second interviews were analyzed through the lens of these traits. This foundational step facilitated a preliminary segmentation of the data and identified emergent patterns and themes. Next, we embarked on a second, more comprehensive coding stage. This phase served to highlight more intricate and specific concepts that might have been initially overlooked, providing a deeper dive into the previously recognized broad concepts. Not only did this iterative process help fine-tune our understanding of the participants' experiences, but it also helped in piecing together their narratives into a more coherent story.

Following the detailed concept refinement, we proceeded to sort and group these fine-tuned ideas into broader categories. Each participant's data was treated consistently during this process, thereby ensuring systematic categorization. We identified common threads and assembled similar ideas under overarching themes, forging a structure that highlighted the relationships and intersections among various concepts. Then, we proceeded to identify higher-level patterns across the participants' responses to the AI tools. The goal of this stage was to form clusters based on participants' behavioral patterns and their interactions with the tools. This categorization served as the thematic umbrella that encapsulated broader trends, recurring motifs, and overarching narratives.

Finally, our analysis involved comparing and contrasting the identified categories, revealing differences, similarities, and insights about each group. The intention was to align our findings with existing theoretical frameworks, drawing meaningful insights and presenting a comprehensive picture of how musicians' professional identities are influenced by their interaction with AI tools. This rigorous multi-stage process ensured a thorough, systematic analysis, firmly rooted in the data and consistent across all participants.

4   Results

In the forthcoming section, we detail the results derived from our individual interviews. We begin by introducing the interviewees in table 1, providing context about their industry positions and backgrounds. Next, we offer a thorough analysis of observations made during the two rounds of interviews. Each participant's unique perspectives, personality traits and reactions towards generative AI technologies are explored in depth. Subsequently, we draw comparisons by grouping participants based on shared patterns and differences in their responses. The latter illuminates common trends and individual variances, offering a comprehensive view of the impact of generative AI on the professional role identities of our participants. These groupings subsequently form the foundation for the discussion chapter, where we further assess and interpret these findings against the backdrop of existing literature and our core research questions.

4.1 Overview of the Participants

Subsequently, we present an overview of our participants' profiles in table 1, followed by a comprehensive text-based analysis detailing the progression of their respective interviews and highlighting significant findings.

Interviewee	Description
Person 1	A 29-year-old guitarist and occasional music producer. He exhibits interest in the confluence of AI and music. Despite recognizing the possibilities offered by modern technology, he maintains a cautious stance, asserting the supremacy of human musicians in terms of creativity, emotion, and innovation.
Person 2	A 32-year-old musical composer, primarily a guitarist with 12 years of band experience, holds a general skepticism towards technology. He cherishes creativity and originality in music, asserting the unique emotional resonance of human-composed pieces over those generated by technology.
Person 3	A 30-year-old electronic music composer with 14 years in the industry, renowned as a ghost producer for various artists. Familiar with the swift pace of technological advancements, he routinely employs AI tools to fine-tune his work.
Person 4	A 54-year-old sound engineer and music composer who prefers analog equipment and minimal digital tools. He highly values creativity, originality, and the human element in music, expressing concern that AI might undermine human creativity and foster excessive reliance on technology.
Person 5	A tech-savvy 22-year-old Instagram guitarist, composing and producing his own music in a home studio. He is passionate about music and dedicated to honing his craft, leveraging cutting-edge technology for music mixing and production.
Person 6	A 35-year-old music software company owner and mastering studio operator. His business produces virtual instrument plugins and he has a wide network within the music industry. He sees potential in AI's ability to augment music composition, yet firmly believes in the paramount importance of human creativity in the process.
Person 7	A 42-year-old drummer, composer and music

	studio owner who has spent 15 years producing for local bands. While holding a traditional mindset, he expresses skepticism about AI and technology, viewing them as potential disruptors across multiple industries.
Person 8	A 31-year-old pop and rock music composer. A guitarist in his spare time, he has been in the production field for 6 years. Believing in the impending dominance of AI in the music industry, he actively seeks to adapt to these new systems.
Person 9	A 51-year-old acclaimed rock and country music composer who also serves as a session vocalist. Adaptable and cognizant of AI trends, he values human creativity while acknowledging technological advancements.
Person 10	A 42-year-old guitarist and composer, remains firmly rooted in the belief that authentic music is a solely human endeavor. Having been brought up in his father's analog music studio, he is skeptical about modern music technology.

Table 1: Overview of the Participants

4.1.1 Person 1

In our first encounter, Person 1 radiates a profound passion for music composition, emphasizing the pivotal role of creativity and originality. His strong conviction in his talent for composition, which perhaps signals a high level of self-efficacy, relies extensively on personal experiences, intuition, and emotions to ignite his creative prowess. His welcoming attitude towards technology suggests an adaptive personality trait and a willingness to explore new methods and techniques. To him, technology is a valuable ally in the music-making process, enriching the overall experience. This outlook hints at his proclivity for continuous learning, showcasing a curiosity and open-mindedness towards novel approaches in his field. When introduced to AI music generation tools such as AIVA and Jukebox during our dialogue, Person 1 reacts with a fascinating blend of curiosity, admiration, and concern. He marvels at the capabilities of the technology, envisioning how these tools could streamline the creative process and unveil new artistic pathways. Yet, he also voices reservations about the potential implications these tools could have on the roles of human musicians, the appreciation of their skills, and the uniqueness of their contributions as composers. This concern underlines a sense of protectiveness over his profession and perhaps a fear of change or disruption, common traits among dedicated creatives who value the human touch in their work. Person 1 proposes a balancing act between employing AI-generated music as an innovative tool and preserving the authenticity, human touch, and emotional depth that imbues music with its soul. At this stage, his attitude towards AI is best characterized as cautiously optimistic, reflecting an open-mindedness and slight adaptability - traits that allow him to navigate the evolving landscape of his industry.

Following our initial conversation, Person 1 spends seven days experimenting with the AI tools himself and further studying the topic. This willingness to immerse himself in the AI environment further emphasizes his curiosity and adaptability. During our subsequent interview, it appears that his perception of AI-generated music has subtly shifted following his hands-on experience with AIVA. While initially boasting a high degree of confidence in his musical abilities and the value of human creativity in music composition, his engagement with AIVA and firsthand experience of its potential prompts an acknowledgment of the substantial progress in AI music generation. Despite this recognition, Person 1

firmly maintains the belief that human musicians continue to excel in areas such as creativity, emotion, and innovation. His steadfast faith in the irreplaceable value of human creativity in music demonstrates his commitment to preserving the traditional essence of music making. His interaction with the AI tool prompts a minor recalibration of his views on AI and its implications for musicians, as well as on his professional role in this field.

4.1.2 Person 2

In our preliminary interview, Person 2 effuses confidence in his talents as a music composer, attributing this to his rich experience, emotional connection with his art, and intuitive mastery of music theory. This strong sense of self-belief and confidence may be interpreted as a sign of high self-efficacy and a strong professional identity. His ethos puts a focus on originality and creativity, indicative of a personality trait valuing individualism and authenticity. He perceives a discernable gap in emotional depth between human-created and AI-generated music, which suggests a high regard for human artistic expression and potential skepticism towards mechanical intervention in creative fields. Despite acknowledging the escalating influence of technology, he holds his skills in higher esteem. This could imply a certain level of traditionalism in his approach to music creation, a possible resistance to disruptive technologies, or a need to maintain control over his creative output. Yet, he also confesses that his limited exposure to music AI prevents him from fully validating his stance, indicating a willingness to venture into the realms of Jukebox and AIVA over a 7-day exploration period following our first conversation.

Our subsequent exchange with Person 2 reveals a surge in unease following his encounter with these AI composition tools. This could point to a vulnerability in his confidence or perhaps a sensitivity to threats to his established professional identity. His perception of AI-generated music experiences a large shift, as he concedes to the potentials of AI and anticipates its potential for further advancement. Although he criticizes the current state of the art for their lack of emotional subtlety, he envisions a future where AI could more convincingly replicate, and possibly even replace, the human touch in music composition. This revelation triggers a reevaluation of his skills, given AI's capacity to compose music without the need for the years of experience, practice, and dedication that he has poured into his craft. This interaction with the AI tools heightens his sense of disquiet about his role and worth in an evolving music industry increasingly under the sway of AI. This heightened concern may reflect a deep-seated passion for his craft and a fear of losing relevance or recognition in an industry he is deeply connected to.

4.1.3 Person 3

During our initial conversation, Person 3 demonstrates a fervent advocacy for originality and creativity in music, suggesting a strong personal and professional identity rooted in the values of uniqueness and authenticity. His existing engagement with AI technologies in his musical practices signals an adaptable personality that is open to the integration of modern tools in his creative processes. As he expresses his interest in AI's potential to enhance his creative process, this reveals a personality trait that thrives on exploration and innovation. His past experiences with AI technologies such as AIVA and Jukebox have paved the way for a positive attitude towards these tools. Rather than viewing AI as a looming threat to his identity as a musician-producer, he perceives it as a tool that could elevate his music-creation process, likely a testament to his innovative spirit and adaptability to change. After our conversation, Person 3 decided to undertake an eight-day period of hands-on trials and research with AI tools, demonstrating his readiness to challenge his beliefs and experiences.

As we delve into our follow-up discussion, Person 3's perspective of AI-generated music shows substantial evolution, a shift that reflects his adaptability to new experiences and information. This change is influenced by his deeper engagement with AI tools and his experimental phase with AIVA, and can be attributed to three primary factors. Firstly, his surprise at the captivating quality of AI-produced music, despite recognizing the unique creative spark and emotional depth exclusive to human composition, indicates a personality trait that appreciates quality and innovation. It's noteworthy that even the high-quality output of AI doesn't pose a significant threat to his personal identity, suggesting a high level of self-confidence and emotional stability. The second factor is the workflow and possibilities presented by AIVA, which Person 3 finds intriguing. His envisioning of AI tools not as a threat, but as a valuable enhancement to his creative pursuits, implies an open-minded personality that perceives opportunity in the face of change. Lastly, his outlook on AI in music centers around the acceptance and

adaptation of new technologies. This stance demonstrates his intellectual curiosity and willingness to explore potential synergies between human musicians and AI. In his view, AI tools serve as catalysts that push creative boundaries and spur greater innovation and diversity in music. In summary, Person 3's hands-on experience with AI tools seems to have reinforced his positive stance towards AI-generated music, implying a disposition that embraces change and fosters collaboration. His focus on the opportunities AI presents rather than potential threats to his identity as a music composer suggests an optimistic personality, one that can navigate change and uncertainty with a focus on potential growth and innovation.

4.1.4   Person 4

In the introductory discussion, Person 4, who has a strong commitment to creativity, originality, and the human element in music, shares his approach to composition. His artistic process is deeply rooted in his emotions, personal experiences, and the spirit of collaboration. It's clear that he's the kind of musician who puts a lot of himself into his work, using music as a way to share specific feelings and experiences. He acknowledges the role of technology in his work, but he hadn't yet ventured into the realm of AI-generated music before our conversation. As we introduce him to AI tools like AIVA and Jukebox, his reaction is a mix of cautious interest and skepticism, indicating a keen sense of discernment in his approach to his craft. His skepticism about the possible compromise of authenticity and emotional depth in his work suggests a deep-rooted commitment to the traditional aspects of music creation. He remains open to investigating AI's impact on the music industry during our experiment, but there's a sense of wariness about the future.

In our subsequent conversation following a seven-day hands-on experience with the AI tools, there's a noticeable shift in Person 4's perception. His interaction with AI tools like AIVA, Jukebox, and additionally eMastered (an online AI-based music fine-tuning tool) sparked a range of concerns. His recognition of the potential threat posed by AI to human musicians is indicative of his introspective nature, as he starts to question his place in a rapidly evolving industry. Person 4 expresses apprehension about the pace of technological advancements and the fear of being left behind. This unease seems to stem from a deep-seated attachment to traditional, analog methods and equipment, suggesting a respect for conventional methods and perhaps a discomfort with rapid change. Despite this, he admits the need to adapt to the evolving music landscape. This admission reflects a pragmatic side to his personality, willing to face uncomfortable truths for the sake of remaining relevant. In essence, Person 4's experience with AI tools seems to have deepened his sense of uncertainty about his place in an industry that is increasingly embracing AI-generated music and tools. Despite initial hesitations, he now sees the potential influence AI could have on his career and the urgent need for adaptability. His acknowledgment of the potential threat to his professional identity indicates a heightened self-awareness and a readiness to face the realities of a changing industry.

4.1.5   Person 5

In our initial interview, Person 5, displaying a particular fascination with technology, especially within the realm of guitar amplification, emerges as an artist who isn't afraid to adapt modern methods in his creative process. This willingness to embrace and integrate contemporary software for music mixing and fine-tuning into his workflow showcases his flexible and innovative nature. His robust faith in his composition skills is apparent, derived from his fervent love for music, discipline to keep honing his craft, and a tireless interest in exploring new techniques and tools. This passionate engagement with his craft reflects a person of relentless curiosity and resilience. Viewing AI and technological developments as potential enhancers of his musical prowess suggests that Person 5 is forward-thinking and willing to experiment with new ways of augmenting his artistic capabilities. His previous interactions with generative AI tools sparked his interest but also led to thoughtful reflections on the need for a balance between technology and creativity. His cautious optimism about AI's capacity to bolster his music-making process, providing fresh sounds and inspirations while retaining emotional depth and a human element, illustrates a nuanced understanding of technology's role in the arts. When introduced to the capabilities of AI tools like AIVA and Jukebox, his responses were a mix of enthusiasm and slight cautiousness, indicative of an open-minded yet discerning personality. He stresses the importance of preserving his creative instincts and the emotional core of his music, pointing to an artist who values authenticity and emotional honesty in his work.

Following a week of engaging with various generative AI tools, our follow-up interview revealed subtle changes in Person 5's perspective on AI-generated music. He was captivated by Jukebox's lyric-generating abilities and AIVA's capacity to produce inventive song starters, both of which showcased the opportunities for more efficient music composition. This intrigue implies a continued interest in pushing boundaries and exploring new creative methods. While acknowledging the impressiveness of AI-generated music, he still expresses a deep appreciation for the unique human touch and emotional resonance that comes with human-crafted music, signaling a respect for the human artistry involved in music creation. However, the fact that AI can generate innovative ideas that he himself wouldn't have conceived, with just a few clicks, made him confront the reality of rapid technological advancement, suggesting an introspective side and readiness to question his own assumptions. Despite his minor reservations, Person 5 saw this as an opportunity for growth and potential collaboration with AI, showcasing an optimistic outlook and willingness to adapt. His view of AI-generated music shifted from initial apprehension to acceptance of technology as a complementary tool in his music-making process, demonstrating an individual who is not only willing to embrace change but also to incorporate it into his own creative process in a meaningful way.

4.1.6 Person 6

In our initial conversation, Person 6 showed exuding confidence in his musical composition skills. This confidence is rooted in his extensive experience, technical expertise, and wide-ranging knowledge of diverse music genres. Despite acknowledging the potential of technological advancements, including AI, to improve music composition, he firmly believes that human creativity is integral to the process. His creative process, which involves experimenting with different sounds and textures, collaborating with other musicians, and employing a plethora of digital tools and virtual instruments, shows a high level of sophistication and a love for innovation. He highly values originality and creativity, viewing them as essential elements in forming genuine emotional connections with listeners. This perspective suggests that Person 6 is deeply emotionally invested in his craft and values the emotional impact his music can have. Already well-versed in using a variety of digital tools, virtual instruments, and software, he displays a keen interest in staying abreast of the latest technological trends. This curiosity and open-mindedness are indicators of an adaptable and forward-thinking individual. Upon being introduced to AI tools like AIVA and Jukebox, his reaction was a mix of enthusiasm for technological advancements and a steadfast belief in the crucial role of human creativity and expression in music creation. This suggests that, while Person 6 is willing to experiment with new tools, he firmly grounds his creative process in the human touch. His assertion of human creativity's superiority over AI tools, particularly because he uses AI as a cooperative aid in his software development process, demonstrates confidence in his skills and a clear understanding of how to use technology to enhance, not replace, human creativity.

After a six-day period of experimentation with various generative AI tools and conducting additional research, our follow-up interview with Person 6 revealed a nuanced appreciation for AI tools, particularly the workflow of AIVA and its potential for music production. However, he observed that AI still requires substantial human intervention to produce high-quality compositions. This observation reaffirms his belief in the irreplaceable value of human creativity and intuition in the music-making process. His feedback on the audio quality of AI-generated music not meeting his expectations implies a high standard for musical output and confirms that he believes AI technology still has a long way to go before it can compete with human musicians or producers. His experience as a music software company owner and his industry knowledge bolster his confidence in his creative abilities, reducing any potential concern about AI replacing human musicians or producers. In conclusion, Person 6's perspectives on AI's role in music remained mostly unchanged throughout our interactions. He acknowledges AI's potential in music production but continues to champion the vital role of human creativity and expertise. This firm belief serves as a protective shield, preventing him from feeling threatened by AI-generated music.

4.1.7 Person 7

In our initial conversation, Person 7 projected strong opinions about the importance of creativity and originality in music. Viewing music as a deeply personal expression of human emotion, he is concerned that the rise of AI-generated music might dilute the emotional depth of the genre. This perspective reveals a deep respect for the emotional nuances of music and its power to resonate with people on a deeply personal level. Person 7's music creation process, largely driven by his skills and experiences as a drummer and producer, is notably less reliant on technology. This minimal reliance shows a firm

belief in his abilities and a preference for hands-on, analog methods. Prior to our interview, he had not used AI music tools, and his resistance to incorporating AI into his music-making process was apparent. This reluctance reflects a suspicion of new technologies and a fear of losing the human touch in his music. Upon being introduced to AI tools like AIVA and Jukebox, Person 7's reaction was a complex mix of unease, resistance, and worry for the future of the music industry. This response signals a deep-rooted concern that a surge in the acceptance of AI-generated music could result in a decline in originality and creativity, thereby undermining the value of the skills and experiences of human musicians.

After using generative AI tools for seven days following our initial conversation, Person 7's skepticism about AI-generated music remained firm in our follow-up discussion. Certain aspects of the technology solidified his perception of AI as a threat to his identity as a musician. Intriguingly, while he was captivated by the AI's ability to mix genres and compose original lyrics, these features also compounded his discomfort. The potential challenge these capabilities pose to human composers and lyricists intensifies his unease. The notion that AI could replace lyric writers unnerved him further, deepening his apprehension about AI's role in music. His difficulty using AIVA amplified his skepticism and underscored the fear that he might be left behind as the music industry evolves. These elements – swift advancements in AI, the potential for AI to replace human roles, and his struggle to adapt to new technologies – collectively fuel his perception of AI-generated music as a threat to his role as a musician. In conclusion, Person 7's hands-on experience with AI tools did not mitigate his skeptical stance on AI-generated music. On the contrary, it intensified his sense of identity threat stemming from AI's impressive capabilities and his concerns about staying abreast of rapidly evolving technology. His interactions with AI tools underscored his wariness of technology and highlighted his apprehension about the future of human musicians in an industry increasingly inclined towards AI-generated music.

4.1.8   Person 8

In our first conversation, Person 8 conveyed a firm belief that AI and other technological advancements could positively shape his music composition skills. Embracing the prospects of adapting to new systems, his creative process artfully blends inspiration, experimentation, and collaboration. These elements reveal a flexible approach to music creation and a willingness to embrace new tools and techniques. The high importance he places on originality and creativity in music is evident, and he already incorporates technology into his music creation process. This reveals an innovative mindset that recognizes the value of technology as a creative tool. While Person 8 recognizes that AI-generated music may not evoke the same emotional impact as music created by humans, he still perceives it as a beneficial asset in the creative process. When he was introduced to AI music tools like AIVA and Jukebox, his reactions were characterized by enthusiasm and optimism for their potential. At the same time, he stressed the importance of maintaining the human touch and emotional connection in music, signaling a balanced view of technological innovation and human artistry.

Following our initial conversation, Person 8 embarked on a six-day exploration of these AI tools, with a primary focus on AIVA. His encounter with AIVA revealed potential, albeit with some confusion and demotivation due to the need for substantial technical adjustments. This experience suggests an openness to new tools but also hints at a degree of resistance to excessive technical complexities. The music generated by the AI impressed him, yet it seemed to lack the personal touch and emotional depth. Person 8 conceded that AI could potentially supplant specific aspects of the creative process, causing him to voice concerns about the future of music composition and production. The triggers for this unease were mainly the potential for AI to replace elements of the creative process, the questioning of his value in these areas, and the rapid advancements in AI capabilities. These elements highlight concerns about the future of music composition and production and the risk of human musicians falling behind. In conclusion, Person 8's interaction with AI tools resulted in a shift in his perception of AI-generated music. Despite his admiration for the technology, he felt it lacked the personal and emotional connection inherent in music created by humans. As his views on AI tools evolved, he continued to underscore the necessity for human involvement and the importance of human musicians in the music industry. This indicates a balanced perspective, acknowledging the potential of AI tools while stressing the irreplaceable value of human touch in music.

4.1.9 Person 9

During our initial conversation, Person 9, who has a background in working closely with digital software companies, demonstrated a nuanced understanding of AI trends. Person 9 exudes considerable self-confidence in his music composition skills and places a high value on creativity and originality in his work. His creative process heavily relies on experimentation and collaboration, indicating a flexible and inclusive approach to music creation. Incorporating technology into his music-making process is second nature to him, as it aids him in refining and streamlining his workflow. Given his past experience with AI music tools, Person 9 appreciates their potential to enrich music creation, but also showcases a cautious stance towards the latest AI trends. When exposed to AI music tools like AIVA and Jukebox, he maintained a sense of curiosity about the evolution of AI technology, yet held firm to the importance of human creativity and originality. His perspective suggests that AI tools serve as potential aids for musicians and producers, not threats to their identity. This viewpoint underlines his belief in the essential role of human touch and emotional connection in music.

In the week following our initial discussion, Person 9 delved deeper into the capabilities of generative AI music tools. During our follow-up interview, it became evident that his perspective on AI-generated music had undergone a slight shift. Although he initially felt unthreatened by AI trends in music, his increased interaction with these AI tools prompted a change in his viewpoint. The capabilities of Jukebox, especially its ability to generate cross-genre lyrics and compositions, emerged as somewhat threatening to Person 9. This unease stems from the potential for AI-generated music to compete with or even surpass his work, possibly diluting his unique creative voice and style. The rising acceptance and prevalence of AI-generated music could impact the demand for human musicians and the recognition of their creative contributions. In conclusion, his hands-on experience with AI tools has sharpened his awareness of the potential identity threats they could pose. He now recognizes the potential challenges that AI-generated music could present, particularly in terms of industry competition and the evolving landscape of music.

4.1.10 Person 10

Throughout our first conversation, it's clear that Person 10, a professional musician, holds a strong reservation regarding the impact of modern music technology, especially Artificial Intelligence, on music creation. He exhibits a strong self-confidence in his music composition skills, deeming creativity and originality as fundamental pillars of his work. Although he integrates some technology into his music creation process, he adopts a cautious and skeptical attitude towards AI's role in the music industry. His creative process is deeply rooted in emotional experiences and personal inspirations, and he hasn't previously engaged with AI-generated music tools. Upon being introduced to AI music tools like AIVA and Jukebox, Person 10 responds with a sense of anxiety, expressing concern over potential ramifications for the music industry and its musicians. He acknowledges potential applications for AI-generated music, such as creating background music, but overall, he remains uncertain about the long-term effects on music craftsmanship.

Following our initial discussion, Person 10 devoted nine days to exploring AI tools AIVA and Jukebox. However, this hands-on experience served to reinforce his skepticism towards AI's role in music. His critical viewpoint on the audio quality of both tools led him to question their value. His main source of concern is the possibility of AI-generated music diluting human creativity, potentially supplanting human musicians, and diminishing the art of music creation. This perceived threat is grounded in his belief in the significance of human emotion and experience in music creation, key components of his identity as a musician. Despite his interaction with AI tools, Person 10's stance on AI-generated music remains largely unchanged. He continues to express worry about potential repercussions of AI in the mainstream music landscape, particularly its potential negative influence on musicians' careers and the recognition of their talent. His enduring skepticism reflects his deep-seated worry about the role of AI in the music industry.

The following table 2 summarizes the observations after the respective interviews for the individual participants.

Interviewee	Observations Interview 1	Observations Interview 2
Person 1	Person 1 is a music enthusiast valuing creativity and originality; his curiosity and admiration for AI music tools is tempered by concerns for human musicians. He promotes a balance between AI innovation and the preservation of the human touch in music, reflecting his open-minded yet cautious approach to technology.	After experimenting with AI tools, Person 1 acknowledges the significant progress in AI music generation. He maintains strong belief in human musicians' superiority in creativity and emotion. His interaction with AI results in some view adjustments, altering this professional role identity slightly.
Person 2	Person 2 exhibits high confidence in his music composing skills, focusing on originality, creativity, and emotional connection. He views AI-generated music skeptically, citing its lack of emotional depth, but is willing to explore AI tools to confirm his beliefs.	After using AI tools, Person 2's perception shifts significantly, acknowledging AI's potential and prompting a reevaluation of his skills. His interaction with the AI tools heightens his concern about his future relevance in an industry increasingly influenced by AI, revealing a sensitivity to threats to his professional role identity.
Person 3	Person 3 strongly values originality and creativity in music but is open to AI integration, revealing an adaptable and innovative personality. His prior positive experiences with AI technologies contribute to his perspective of AI as a tool to enhance music creation, and he willingly embarks on further exploration.	Post-engagement with AI tools, Person 3's outlook evolves significantly, showcasing his adaptability and openness to new technologies. Influenced by AI-produced music's quality and potential for workflow improvement, he seizes opportunities and encourages collaboration, highlighting a forward-thinking perspective.
Person 4	Person 4 values creativity, originality, and the human touch in music, and his work is a deeply emotional and personal process. His initial response to AI tools reveals cautious interest and skepticism, hinting at his commitment to traditional music	Post hands-on experience with AI tools, Person 4's perception shifts, highlighting concerns about AI's potential threat to human musicians and causing introspection about his place in the industry.

	creation and a discerning approach to his craft.	His unease, rooted in respect for traditional methods, is balanced by an understanding of the need for adaptability, indicating a pragmatic, self-aware personality ready to face industry changes.
Person 5	Person 5 is an innovative artist, adaptable and tech-savvy, integrating modern tools like AIVA and Jukebox into his workflow. Displaying both enthusiasm and caution towards AI tools, he embodies an open-minded, discerning personality that values balancing technology and creativity.	After using AI tools, Person 5 appreciates their efficiency and innovation while remaining respectful of human artistry, indicating a shift in perspective. His thoughtful reflections on technological advancements and optimism about AI potential reveal an introspective, adaptable personality open to change in his creative process.
Person 6	Person 6 is an adaptable, forward-thinking musician who is open to technological advancements yet maintains a strong commitment to originality and emotional connection in music. Despite his enthusiasm for AI tools like AIVA and Jukebox, Person 6's outlook is firmly grounded in the belief of human creativity's essential role in music composition.	After experimenting with AI tools, Person 6 continues to uphold the irreplaceable value of human creativity, even while recognizing AI's potential in music production. His high standards and deep industry knowledge safeguard his confidence in his place in the music industry, insulating him from feeling threatened by AI advancements.
Person 7	Person 7 values emotional depth and originality in music and has strong reservations about incorporating AI into his minimally tech-reliant music creation process. His reactions to AI tools like AIVA and Jukebox reflect unease, resistance, and concerns for the future of the music industry.	Person 7's skepticism persists and his perception of AI as a threat to his identity as a musician intensifies. His struggle to adapt to new technology, alongside AI's capabilities, further fuels his apprehensions about the future role of human musicians.
Person 8	Person 8 demonstrates a progressive mindset, expressing readiness to integrate AI and technological advancements into his music	After exploring AI tools, Person 8 experiences a slight identity threat and concern over AI's potential to replace human creativity, indicating his worry

	creation process.

Despite his enthusiasm for AI tools, he emphasizes the importance of preserving human touch and emotional connection in music. | about the rapid pace of technological advancement.

He continues to emphasize the irreplaceable value of the human touch in music, believing AI-generated music lacks the personal and emotional depth of human-created compositions. |
| Person 9 | Person 9 is a confident musician, comfortable with using AI tools like AIVA and Jukebox in music creation.

Despite his optimism for AI in enhancing music creation, he values human creativity and doesn't initially see AI as a threat to his identity. | After engaging with AI tools for a week, Person 9's view shifted.

He started perceiving AI's capabilities, especially Jukebox's genre-blending features, as somewhat threatening, fearing AI could compete with or outperform his work. |
| Person 10 | Person 10, a professional musician, harbors strong reservations about AI's impact on music creation.

He views creativity and originality as vital to his work, and is anxious about the potential ramifications of AI on the music industry.

His skepticism remains strong despite understanding AI's potential in creating background music. | After exploring AI tools for nine days, Person 10's skepticism is reaffirmed.

He criticizes the audio quality and fears that AI-generated music could dilute human creativity and undermine musicians' roles.

Despite his engagement with AI tools, he remains worried about AI's influence on the recognition of musicians' talent. |

Table 2: Observations during the two Interviews

4.2   Commonalities and Differences

Identifying the personality types, shared traits surfaced among Person 3, 5, and 6, all exhibiting a proclivity towards digital technologies, attributed to their professional engagement in this arena. Person 3 provides a compelling perspective on the use of AI within the sphere of music creation and production. Drawing on his extensive history of deploying AI to tine-tune beats for his clients, he has witnessed firsthand the transformative effects of AI on music production. He insightfully notes, *"AI has greatly contributed to the development of advanced audio processing algorithms used in mixing and mastering plugins. These tools have made it easier for me to achieve professional-quality sound, enhancing the overall listening experience for my customers' audience."* His viewpoint is firmly rooted in a pragmatic understanding of AI's capabilities and potential. He sees AI as a beneficial tool to optimize the quality of his output, a perspective shaped by his successful integration of AI into his work. This understanding is further reinforced by the fact that his hands-on experience with AI did not spark any fears or insecurities. Instead, it reaffirmed his belief in the potential synergies between AI and human musicians. He extends his argument further by focusing the use of AI as an auxiliary tool that augments his creative process. In his own words, *"I view these AI tools as an additional resource that can help me expand my creative*

possibilities and streamline my workflow." This statement underlines his vision of AI as a tool that extends, rather than restricts, his creative capacity. In contrast to the traditional narrative of AI as a threat, Person 3 presents a nuanced perspective of AI as a collaborator in the creative process. He sees potential in the marriage of human creativity and AI's computational capabilities to forge more innovative and diverse musical landscapes. His concluding statement, *"Rather than feeling threatened, I see the potential for collaboration between human musicians and AI, which can ultimately lead to the creation of more innovative and diverse music"*, encapsulates this mindset.

Person 5 showcases an adventurous exploration of digital technologies in his music production process, including a bold adoption of cutting-edge musical plugins to facilitate self-production, mixing, and mastering of his work. This exploration signifies not only his openness towards advanced technology but also an inherent curiosity and desire to push the traditional boundaries of music creation. The cutting-edge plugins he uses serve as catalysts for his creative process, dismantling potential creative barriers and empowering him to forge novel soundscapes. *"I've experimented with AI-based tools that generate ideas for chord progressions, melodies, or rhythms, which can serve as a starting point for my compositions"* he shares, highlighting the utility of AI as a generator of inspiration, especially in overcoming the dreaded writer's block. Even as he utilizes AI as an assistive tool, he places emphasis on the importance of his own creativity, an essential ingredient in refining and developing the musical ideas initiated by AI. His hands-on experience with these technologies not only confirmed but further solidified his belief in AI's potential within the realm of music. Recognizing the dynamic relationship between AI and his work, he explains, *"So, while the AI may bring some level of competition or challenge to my work, it doesn't necessarily threaten my overall identity as a musician."* This insight presents a mature understanding of the intricate balance between technological innovation and personal creative identity. Moreover, Person 5 sees this relationship with AI as an opportunity for growth, a learning experience that could stretch his creative limits and foster his evolution as an artist. *"Instead, it offers an opportunity to learn from and collaborate with this new technology to push my own creative boundaries and grow as an artist"* he states, underscoring his vision of AI as a partner in his artistic journey.

Person 6 demonstrates a forward-thinking approach to AI, as shown by the active implementation of AI in his self-owned software company for the creation of diverse virtual instrument plug-ins. *"I am constantly exploring and utilizing the latest tools and advancements in music production"* he discloses. This proactivity not only keeps him and his company at the cutting edge of the industry, but also empowers him to innovate and refine the products his company offers, ensuring that they meet the ever-evolving needs of the modern music scene. This dedication to staying current mirrors the attitudes of Participants 3 and 5, who also utilize technology routinely to bolster their musical endeavors. Yet, even as they embrace AI, all three participants maintain an essential acknowledgment: human essence is the beating heart of music production. It is the human touch that can authentically convey emotions in musical compositions, a factor they believe to be indispensable despite the impressive strides of AI. Even with their affinity for technology, they don't lose sight of the fact that high-quality sound production still requires human input, even when AI-driven tools are involved. This perspective ensures they keep the humanity within the music, regardless of the degree of AI integration. Person 6 takes this sentiment a step further, positioning himself as superior to AI. He sees technology not as an equal partner but as a tool in service of his objectives. He is careful not to yield decision-making power to the AI, maintaining a firm human grip on the creative process. This view is captured in his reflection*, "I also realized that AI-generated music still requires significant human intervention to reach its full potential. This experience reinforced my belief that humans will continue to play a crucial role in the music industry, even as AI technologies advance".* Despite their varying roles and degrees of AI utilization, all three individuals share common ground in their openness to AI as a means of enhancing work efficiency and their broad acceptance of the technology's present and future possibilities. Their insights from the second interview highlighted their receptiveness to integrating technology into their work to foster meaningful human-machine synergies. Their extensive experience with technology has primed them for the advent of the AI revolution in music, suggesting that their careers will continue to evolve alongside this exciting frontier.

Contrasting with the profiles of the individuals we've previously explored, there is an evident alignment in the personality types among Participants 1, 8, and 9, hinting at a shared outlook towards the advancements in technology in the realm of music production. Starting with Participant 1, his background in computer science arms him with a strong understanding of technologies, which

undoubtedly influences his views on the application of AI in the music industry. Yet, his relationship with these advancements remains complex. His stance, following the second interview, is one of caution paired with adaptability, as he grapples with the potentials and limitations of these emerging tools. This is reflected in his statement, *"Although the quality of the compositions generated by AIVA wasn't quite on par with those of experienced human musicians, it was still impressive enough to make me question the future role of human composers in the industry"*. This statement reveals an intriguing contrast in his position. While he acknowledges the current capabilities of AI as not yet matching the nuance of human musicians, he also recognizes the impressive strides AI has made, prompting him to consider the evolving dynamics between human musicians and AI in the music industry. Notably, this perspective delineates him from Participants 3, 5, and 6. Their post-interview responses indicated a clear openness and unwavering confidence towards AI's growing role in the musical arena. They embrace these developments as an opportunity for enhancing their work, demonstrating an eagerness to engage with AI to optimize their musical production.

Echoing the initial skepticism of Participant 1, Participant 8 also exhibits a similar guarded approach towards AI in music production. With a well-founded recognition of the emotional depth and musical supremacy that human creators bring, he also underscores a shift in perspective following his first-hand experience with AI technology. As he interacted with AI tools, his observations led to contemplations on the future role of human artists, evident in his reflection, *"AI could potentially replace certain aspects of the creative process, such as generating ideas or composing basic arrangements. It made me question the value of my own creative contributions in those areas"*. This sentiment suggests a realignment of his initial assumptions as he wrestles with the potential implications of AI technology on the creative processes traditionally held by humans. Furthermore, he also voices concerns about the rapidly evolving AI capabilities, hinting at a future where AI could possibly overshadow human involvement. He muses, *"Additionally, the rapid advancements in AI capabilities raised concerns about the future of music composition and production, making me wonder if human musicians would eventually be left behind."* This apprehension provides a nuanced perspective on the complex interplay between humans and AI in the realm of music production, shedding light on potential implications for the industry at large. Despite these concerns, Participant 8 maintains an unwavering belief in the importance of human influence in music creation. He believes that the human touch, with its inherent emotional sensibility and creative intuition, plays an irreplaceable role in the process of music creation. However, his experiences have led him to question the future dynamics of this relationship as AI continues to evolve and becomes an increasingly integral part of the music industry.

Similarly, Parallel to the aforementioned participants, Participant 9 also demonstrates a degree of adaptability towards the rising tide of technological innovations within the music industry. Originally, he advocated for the paramount role of human creativity in music production, placing it as the central pillar in his creative process. However, his firsthand encounter with the burgeoning potential of AI in composing diverse song lyrics stirred a seismic shift in his perspective. This shift, while hinting at the fluidity of his views, also unveils his apprehensions regarding the future landscape of the music industry. The advancements in AI technologies not only impressed him but also sparked a flurry of concerns around the enduring relevance of human creativity and unique stylistic imprints in music production. His reflections, *"While I'm excited about the potential of using AI to enhance the music production process, there's a lingering concern about the impact on human creativity and the value we place on it"* and *"It's evident that they can be valuable tools for enhancing music production processes, but there's also the risk of reducing the importance of human creativity in the long run"* encapsulate this complex interplay of excitement and scepticism. Amid these concerns, Participant 9 recognizes the necessity of staying abreast of technological advancements. He underscores the importance of adaptability in responding to the transformative dynamics within the music industry, highlighting the need for continuous learning and evolution in his craft. Drawing these threads together, each of these participants, despite having spent considerable time in the music industry, approaches emerging technologies with cautious optimism. Their individual attitudes paint a multifaceted picture of the human response to AI in music. They acknowledge the unparalleled ability of humans to infuse music with authenticity and emotion, yet they don't shy away from recognizing the significant shifts that AI technologies bring to the music industry.

Identifying commonalities and contrasts in behavior and attitudes offers valuable insights into the impact of AI on the music industry. Distinctly different from the previously discussed individuals, persons 2, 4, 7, and 10 share a more traditionalist perspective and approach towards technology and its implications

in music. Their attitudes and concerns reveal another dimension of the ongoing dialogue surrounding AI's role in the creative arts. Person 2 presents an intriguing case, embodying a profound skepticism towards technology across all facets of life. This cautious perspective is particularly prominent when considering the impact of technological advancement on the music industry. At the core of his philosophy is the deep-seated belief that music should act as a conduit for human emotional resonance and authenticity. Such a conviction seemingly sets a barrier between him and the burgeoning field of AI in the creative process, as it runs counter to his view of music's inherent humanity. During our initial conversation, Person 2 elaborated on his reservations, remarking, *"I must admit that I am a bit skeptical about the idea of using AI in the creative process of music, as I believe that the emotional and human aspects of composing and performing music are essential elements that cannot be easily replicated by machines".* This statement emphasizes his belief in the irreplaceable nature of human sentiment and creative instinct in the conception and delivery of music. The potential of AI in this realm, in his view, threatens the vital humanistic core of musical creativity, potentially hollowing out its emotional depth and authenticity. Following the first interview, Person 2 embarked on an exploratory phase that involved a deeper dive into the world of AI in music. This journey encompassed thorough research, providing a conceptual understanding of AI's capabilities, and practical engagement, offering a firsthand experience of its functioning. However, this immersion in the world of AI-enhanced music seemed to reinforce, rather than mitigate his pre-existing skepticism. Engaging with AI tools in the music creation process, he encountered the perceived limitations of this technology firsthand. Despite the technological sophistication and capabilities AI presents, he remained unconvinced about its ability to reproduce the human emotional depth and authenticity that he believes are fundamental to music. He stated: *"It made me question the value of the skills I have developed over the years, and whether they will still be relevant in a world where AI can produce music at a comparable level".*

Person 4 embodies a perspective that echoes the sentiments expressed by Person 2, exhibiting a similar penchant for a traditional approach to the music industry. Within his professional identity as a music producer, he exhibits a deep reverence for analog equipment, which he sees as a cornerstone of the authentic musical creation process. This preference, paired with his deliberate limitation on the use of digital accessories, sets him apart from many of his contemporaries who are more closely aligned with current industry trends leaning towards digital and AI-based tools. Despite his traditional leanings, Person 4 is not entirely dismissive of the burgeoning field of AI in music. He expresses a certain curiosity about the potential benefits and enhancements AI could bring to music production. However, this curiosity is tempered by a significant level of caution and skepticism. The balance he strikes between intrigue and apprehension was clearly articulated during our initial interview when he remarked, *"I've heard about AI in the music industry, but I have some reservations about its impact on the creative aspect of music production".* This sentiment speaks volumes about his uncertainty regarding the potential for AI to supplant the human touch in the musical creation process. The second phase of our study, involving practical engagement with AI tools, allowed Person 4 to further examine his preconceived notions about AI's role in music. This experiential understanding of the technology seemed to amplify his concerns rather than assuage them. Engaging directly with AI tools and witnessing their capabilities firsthand had a profound impact on his perception, leading to heightened fears about the possible implications of this technology for his professional standing. He stated: *"I couldn't get rid of the worry that this technological progress could devalue the skills and expertise of professionals like me who have dedicated years to mastering the craft".* His growing concern centered on the potential for AI to devalue his skills and expertise, painstakingly acquired over many years of diligent work in the industry. In his view, if machines could replicate or even surpass the quality of human-led music production, the professional value and uniqueness of his skill set could be at risk.

Person 7's stance parallels that of Persons 2 and 4, exhibiting a similar degree of reluctance and caution when it comes to the role of AI in music production. Over a professional journey of 15 years in the music industry, Person 7 has developed a strong adherence to traditional methodologies. This focus on traditional practices has given him a unique perspective in the face of the evolving digital landscape, especially the integration of AI and advanced software tools into the music production process. As modern technologies gain traction, they introduce a potent competitive element that has compelled him to reassess his own practices and confront the possibility of adaptation to stay relevant. His concern over the mounting competition arising from the intersection of technology and creativity is aptly expressed when he notes, *"With the advent of AI-generated music and advanced software tools, there is increased competition in the music industry. The more musicians and producers embrace these*

technologies, the harder it will be to stand out and stay relevant". This suggests an awareness of the shifting dynamics within the industry, where technological prowess is increasingly valued alongside traditional musical talent. Person 7 also broaches the subject of emotional resonance in music, raising concerns that AI, despite its technical capabilities, may lack the ability to forge a genuine emotional connection between the artist and the audience. In his view, the human touch in music, its capacity to emote, inspire, and connect on a deep, visceral level, is something that cannot be easily replicated by machines. This perspective underpins his belief that the human essence should remain central to music creation, despite the ongoing advancements in AI and other technologies. Furthermore, Person 7 extends his concerns to the domain of lyrical composition. After exploring OpenAI's Jukebox, he raises the issue of potential displacement of lyricists by AI. The capabilities of Jukebox, while impressive, brought to the forefront the unsettling notion that even the traditionally human domain of lyric writing could be encroached upon by AI. He stated: *"I was intrigued by Jukebox and its ability to mix different genres and even write lyrics from scratch. However, the idea that lyricists could be replaced by AI was unsettling and made me question the value of human creativity in the industry"*. This realization underscores his broader apprehensions about the potential of AI to threaten traditional roles and creative autonomy in the music industry.

Finally, we turn our attention to Person 10, who shares a similarly human-centric perspective on the evolving role of technology in the music industry. His viewpoint, deeply influenced by traditional concepts and experiences growing up in his father's recording studio, leads him to regard technological advancement, particularly in the domain of AI, with significant caution. He has firmly expressed, *"I have strong beliefs that music should be created by humans, and I approach technological advancements like AI with caution. While I acknowledge that AI may have an impact on the music industry in general, I prefer not to let it influence my own composing ability"*. This stance underscores a preference for maintaining the intrinsic human element in music creation, a sentiment echoed by others in this group. Following a hands-on exploration phase post the first interview, Person 10's skepticism towards AI-driven music tools became even more apparent. His self-guided experience with these tools left him feeling *"disappointed and frustrated"*. What struck him most was the perceived lack of emotional depth and human touch in the AI-composed music. This highlighted for him the gap between human and AI-driven creativity in music, intensifying his reservations about the latter. Additionally, he was surprised by the surge in attention and popularity these AI tools have garnered in the music industry. Expressing his difficulty in forming a personal connection with AI-generated pieces, he stated, *"I'm unable to connect with these AI-generated pieces on a personal level, and it's baffling to me why these tools have gained so much attention and traction"*. This disconnect underlined his concerns about the potential impact of AI on the music industry, and by extension, on his profession. Despite these reservations, Person 10 remains confident in his personal abilities and does not see AI as a direct threat to his career. Instead, his fears lie more with the broader implications of AI's rise within the music industry. He mentioned: *"It was more due to the concern that these AI tools might gain undeserved popularity and devalue human creativity in the music industry, rather than a direct challenge to my personal abilities."* This concern is further compounded by his worry that an AI-dominated music landscape might diminish the appreciation for authentic, human-made music, potentially affecting the livelihoods and recognition of many talented musicians. In summary, given the constant developments in generative AI, these four individuals feel a clear threat to their own abilities or to the music industry itself, and hope to remain at the forefront of creativity and originality despite advancing trends in the industry by having confidence in their own abilities.

This analysis has underscored the diverse perspectives of the ten study participants, shedding light on their individual attitudes, expectations, and apprehensions concerning the integration of AI in the music industry. A salient commonality amongst all participants was the continued emphasis on the irreplaceable value of the human element in music creation and production, even in the face of rapid technological advancements. Despite this shared understanding, there is a rich tapestry of perspectives that reveal a spectrum of attitudes towards AI's role in music. The varied opinions reflect the complex interplay of personal experiences, professional practices, and beliefs about what constitutes genuine music.

To provide a more structured understanding of these perspectives, the participants' views have been categorized into distinct groups based on their shared outlooks and concerns regarding AI in music. The

following table 3 provides a nuanced comparison of the shared beliefs and divergences within these groups.

Interviewees	Group and characteristics	Observations in the Group
Person 3: (30 years, Electronic music producer/ghost producer for various artists, embraces technology and routinely uses AI tools in music production) *Person 5:* (22 years, Instagram guitarist/home studio music composer, tech-savvy and enthusiastic about new technology in music production) *Person 6:* (35 years, owner of a music software company and a mastering studio, sees potential in AI for music composition but sees human creativity as superior)	**Group 1 "AI Augmenters"** ● Embracing of generative AI technologies. ● Preference for a symbiotic approach, integrating contemporary technologies with creative pursuits. ● Resilience in professional identity, unthreatened by AI advancements.	In this group, individuals were observed to be welcoming towards generative AI technologies. They were ready to integrate these tools into their creative processes, seeing AI as a collaborative partner rather than a threat. Their professional identities remained secure, viewing technology as a creative enabler rather than a competitive force.
Person 1: (29 years, guitarist and band producer, interested in AI but asserts the supremacy of human creativity) *Person 8:* (31 years, pop/rock producer and occasional guitarist, believes in the future dominance of AI and actively trying to adapt to new systems) *Person 9:* (51 years, acclaimed rock and country producer/session vocalist, values human creativity while acknowledging technological advancements)	**Group 2 "AI Moderates"** ● Cautious receptiveness towards generative AI technologies. ● Exercising prudence and resistance in adopting modern technologies in music production. ● Perceived marginal threat to their professional identities from AI advancements.	The second group demonstrated a certain openness towards AI technologies, but with a noticeable caution. They considered using these tools in their professional practice while maintaining a protective attitude towards their traditional roles in the industry. There existed a mild sense of threat to their professional identities, but they seemed open to adaptation if it could prove beneficial.
Person 2: (32 years, musician with band experience, skeptical of technology and values originality in human-composed music)	**Group 3 "AI Traditionalists"** ● Unwavering resistance towards the adoption of generative AI technologies. ● Deeply entrenched human-centric and	This group exemplified a marked resistance towards the incorporation of AI in music production, leaning heavily towards human-centric and conventional practices. They perceived a significant threat to their professional identities due

Person 4: (54 years, sound engineer/music producer, concerned that technology might undermine human creativity) *Person 7:* (42 years, drummer/music studio owner/producer, skeptical about the influence of AI in the music industry) *Person 10:* (42 years, guitarist/producer in a modern metal band, skeptical about modern music technology)	conservative approach to music composition. ● Pronounced perception of AI as a significant threat to their professional identities.	to AI technologies, expressing concerns about potential devaluation of their skills and diminishing of the emotional resonance in music.

Table 3: The three main Groups of the Participants

Having explored the diverse reactions of our participants to their engagement with generative AI tools and examining their unique behaviors, perceptions, and actions, it becomes important to question the potential influence of their underlying personality traits on these response patterns. Furthermore, it is crucial to consider the variances in the manifestations of these personality traits within different participant groups. To undertake this task, we shall revisit these personality traits and identify indicators of each within the context of interactions with generative AI.

We propose the following adaptations of the Big-5 factors for the scope of our experiment:

1. *Openness* is characterized by the degree to which the participants are open to embracing modern technologies and demonstrate a willingness to integrate them into their process of identity work.
2. *Conscientiousness* is gauged by the level of self-confidence, self-awareness, and reliance on one's own musical skills and accumulated knowledge that the participants bring into the interaction.
3. *Extraversion* is represented by the enthusiasm and willingness of participants to explore and consider AI for creative collaboration.
4. *Agreeableness* is manifested through trust and acceptance of modern generative AI technologies.
5. *Neuroticism* is associated with the propensity to experience negative emotions regarding AI and the perceived individual implications tied to it.

Following a multilevel, iterative analysis of the participants' statements, based on these indicators and the respective trait definitions within our methodological framework and coding procedure, various correlations between the traits and perceived threat levels began to emerge. These perceived threat levels ranged from low, medium, to high. The forthcoming table 2 illustrates these relationships with greater detail.

The interpretation of these correlations, along with responses to the two research questions informed by our previous findings, will be presented in the subsequent chapter, under our Discussion. Here, we delve deeper into understanding these interconnections, shedding light on the relationship between personality traits and reactions to the implementation of AI in the music creation process.

Interviewees	Age	Openness to AI (Receptive to modern technologies)	Conscientiousness (Dependability and trust in own musical skills)	Extraversion (Enthusiasm over AI and creative collaboration)	Agreeableness (Trust and acceptance towards AI)	Neuroticism (Negative emotions towards AI)	Magnitude of Identity Threat
Person 5	22	High	High	High	Medium	Low	Low
Person 1	29	Medium	High	Medium	Medium	Medium	Medium
Person 3	30	High	High	High	Low	Low	Low
Person 8	31	Medium	High	High	Medium	Medium	Medium
Person 2	32	Low	High	Medium	Low	High	High
Person 6	35	High	High	High	High	Low	Low
Person 7	42	Low	High	Low	Low	Medium	High
Person 10	42	Low	High	Low	Low	High	High
Person 9	51	Medium	High	Medium	Medium	Medium	Medium
Person 4	54	Low	High	Medium	Low	High	High

Figure 2: Perceived identity threat of the Participants in relation to the Big 5 Personality Traits

5 Discussion

In this chapter, we delve deeper into our study's findings, offering a comprehensive interpretation of our results within the broader context of current research. We will carefully examine the implications of our results, not just for the field of academic research but also for the wider music industry and the creative sector at large.

5.1 Interpretation of the Results

Examining our results through the lens of the Big Five personality traits enables us to conduct a comprehensive exploration of individual attitudes towards generative AI within the music industry. This method also allows us to delve into the implications these attitudes may have on the identities of creative professionals, which is of critical importance in understanding their motivations and potential challenges in the AI-creative space. First, we would like to hereby answer our first research question, *"What personality traits influence the perception of an identity threat by generative AI among creative professionals?"* upon which we base the following interpretations.

Upon detailed analysis of individuals who perceived a low threat to their professional identities (Persons 3, 5, and 6), we note a recurring pattern in their personality traits. These individuals are characterized by a high level of openness to AI, conscientiousness, and extraversion. Additionally, they exhibit a fair degree of agreeableness and low neuroticism. Each of these traits provides us with a valuable information, helping to explain these individuals' interactions with, and responses to, the incorporation of AI into their work. Openness, a trait closely associated with adaptability, is particularly relevant in the face of constant technological changes (Srivastava et al. 2003). This trait encourages the exploration and integration of novel experiences and ideas, and has been linked to positive responses to changes in the workplace (Lepine et al. 2000). Coupled with this is the participants' high level of conscientiousness. Their strong confidence in their skills likely supports their acceptance of AI technologies, thereby reducing the perceived threat to their professional identities. Further, their high level of extraversion is indicative of their enthusiasm and willingness to engage in a creative collaboration with AI. Judge, Heller, & Mount (2002) have noted that extraversion is associated with positive emotions and assertiveness, both of which could contribute to the reduced perception of an identity threat in this context. Remarkably, these individuals also display lower levels of neuroticism, often linked to negative emotions and anxiety. A reduced propensity for experiencing negative emotions might suggest a lack of fear or apprehension towards AI technology, thus fostering their open-minded approach. An interesting finding from our analysis is the apparent diminished influence of age within this group. The combination of high openness and adaptability appears to transcend the age factor, echoing Costa and McCrae's (1992) assertion that high openness often leads to greater receptivity to new experiences, irrespective of age. This finding is particularly noteworthy as it aligns with investigations that emphasize the importance of individual personality attributes over age in technology adoption (Morris and Venkatesh 2000). This observation reinforces the importance of utilizing personality traits as an analytical tool to comprehend individual responses to disruptive technologies such as generative AI in the creative industries.

When we shift our focus to the individuals who perceive a medium threat to their professional identities (Persons 1, 8, and 9), we can observe a distinct set of characteristics that sets them apart. Their level of openness to AI and agreeableness are noticeably lower compared to the previously discussed group. Meanwhile, their level of neuroticism, which is indicative of a propensity for experiencing negative emotions, is slightly elevated. These variations in personality traits may be instrumental in understanding

their moderately heightened sense of threat, despite their high level of conscientiousness. Openness to experience, as mentioned before, is a trait often associated with the willingness to embrace novel ideas and experiences, such as new technologies (Srivastava et al. 2003). In this group of individuals, the slightly lowered level of openness to AI might signify a lesser readiness to accept the changes that AI integration brings about in their creative process. This reduced openness might contribute to the moderately elevated sense of threat that they perceive. Furthermore, their agreeableness, another is also seen to be slightly reduced. Agreeableness is linked with cooperative behavior and is associated with trust and acceptance towards new technologies (Graziano et al. 2007). The diminished agreeableness in this group can suggest a decreased inclination to trust or accept AI, which might consequently contribute to the heightened perception of threat. The increase in neuroticism observed in this group is another crucial factor to consider. This elevated neuroticism could indicate a heightened sensitivity to potential risks and threats, which might manifest as a heightened perception of threat towards the introduction of AI technologies in their work. Interestingly, despite their high level of conscientiousness, indicative of their trust in their own skills, it does not appear to fully compensate for their reserved attitude towards AI. This observation aligns with recent literature that underscores the impact of negative emotions, often linked to neuroticism, on technology acceptance (Venkatesh et al. 2012). Therefore, their potential negative emotions or reservations may override their general trust in their own abilities, leading to an elevated sense of identity threat. In conclusion, the interplay between these personality traits – slightly lowered openness and agreeableness, slightly heightened neuroticism, and high conscientiousness – forms a unique profile for these individuals. This profile may explain why, despite their high trust in their own skills, they perceive a medium threat to their professional identities in the face of generative AI integration.

In concluding our analysis, we turn our attention to the group of individuals that reported a high perceived threat to their professional identities, namely, Persons 2, 4, 7, and 10. It is within this group that we observe a distinct pattern of personality traits, marked by low openness to AI, low extraversion, and low agreeableness, which is contrasted with high neuroticism. It's intriguing to note that despite their high conscientiousness, the marked negative emotions towards AI and a reduced enthusiasm for collaboration or AI use, as suggested by their low extraversion, hint towards a substantial resistance to the integration of generative AI technologies in their creative processes. As we've noted previously, openness to experience is linked with the willingness to embrace novel technologies (Srivastava et al. 2003). Hence, their low openness to AI could potentially signal a strong resistance to the changes that AI brings to their creative workflows rooted in their professional identity. This resistance might be further fueled by their low extraversion, which is associated with lower enthusiasm for engagement with AI and collaboration. Their low agreeableness, indicating a lower level of trust and acceptance, might also contribute to this resistance (Graziano et al. 2007). This group's high level of neuroticism is also worth mentioning. This increased neuroticism in this group suggests a heightened perception of threat from AI technology, likely contributing to their high level of resistance. Furthermore, the age range within this group varies from mid-30s to mid-50s. This variance again points towards the potential insignificance of age as a primary factor influencing the perception of identity threats induced by generative AI. The influence of age seems to be eclipsed by the interplay of the Big Five personality traits, particularly openness, agreeableness, and neuroticism. In other words, it's not merely the age of these individuals that determines their perception of threat but their unique constellation of personality traits.

In conclusion, the interplay of the Big Five personality traits forms unique personality profiles that can help predict the perception of identity threat in the face of AI integration in the music industry. It's the specific mix and balance of these traits that determine the perception of identity threat rather than the dominance of any single trait.

The following interplays of Personality Traits and the corresponding extent of identity threat can thus be identified in our creative context among experienced musical composers after confrontation with generative AI:

1. Low Identity Threat: High openness, high conscientiousness, and higher extraversion combined with low neuroticism lead to adaptability, enthusiasm for AI, and low anxiety. This combination encourages positive engagement with AI and reduces identity threat perception.

2. Medium Identity Threat: Moderate openness and elevated neuroticism, despite high conscientiousness, result in a reserved attitude towards AI. The mix of trust in their skills, reduced readiness for AI-induced changes, and potential anxiety leads to a moderately increased identity threat perception.

3. High Identity Threat: Low openness, less extraversion, and high conscientiousness combined with high neuroticism lead to a high perception of identity threat. This combination suggests strong resistance to AI, lesser enthusiasm for AI engagement, trust in their skills but heightened anxiety, thereby increasing the identity threat perception.

In the following, we want to briefly touch on and answer the second research question: *"How are personality traits related to identity work processes induced by generative AI?"* of our investigation. Chapter 4 introduced three distinct groups with differing combinations of personality traits (see table 3), each responding differently to the integration of generative AI tools within their identity work process.

The first group, characterized by high levels of openness, conscientiousness, and extraversion, coupled with low neuroticism, exhibited a discernibly welcoming approach towards the utilization of generative AI tools. They did not merely view these tools with detached curiosity, but with a genuine interest and willingness to integrate them into their existing creative practices. AI was perceived not as a looming threat to their professional identities, but as a collaborative partner capable of enhancing their musical composition process. Throughout the hands-on phase, these individuals embarked on a transformative journey. This was not just about testing AI capabilities but an active process of integrating these technological advancements into their professional identities. They reflected upon, dissected, and assimilated the experiences they had with the AI tools, engaging in deep introspection and adaptation. This process represents a clear example of identity work, as they consciously sought to reconcile the changes brought about by AI with their existing professional identities. These individuals demonstrated a profound willingness to mold their identities around the possibilities opened up by AI. They sought to redefine their professional roles in this new context, reshaping their identities to not only coexist with AI but to harness its capabilities to augment their creative output. The positive interaction with AI tools, their readiness for innovation, and adaptability align seamlessly with their inherent personality traits - high levels of openness and extraversion. Moreover, their high conscientiousness perhaps contributed to their methodical exploration and integration of AI tools, ensuring they maintained a balanced approach that incorporated AI without losing the human essence in their work. Meanwhile, their low neuroticism allowed them to embrace these changes without excessive worry about the potential negative implications, further facilitating their progressive identity work process. Thus, their identity work emerged as a dynamic and ongoing process, in which they continuously negotiated and adjusted their professional roles in the face of AI advancements.

The second group, distinguished by their moderate openness, elevated neuroticism, and high conscientiousness, approached the integration of generative AI tools with significant caution and circumspection. Their moderate openness allowed them to recognize the potential value of AI in music

composition, leading to an initial willingness to experiment with these tools. However, their elevated neuroticism contributed to a heightened sense of skepticism and apprehension, stemming from the disruptive potential of AI on traditional human-centric creative practices. This relationship between exploring the technological opportunities offered by AI and preserving their deeply ingrained creative methodologies, permeated their identity work process. It was a nuanced balancing act, fluctuating between the desire to stay abreast of rapidly evolving industry trends and the need to safeguard their existing creative ethos. They grappled with an internal dichotomy, wanting to embrace the efficiencies of AI, but apprehensive of permitting machine-generated creativity to infringe upon their humanistic nuances. Their identity work, therefore, emerged as a complex process, marked by tension and compromise. They were neither wholly resistant nor entirely embracing of AI. They cautiously navigated this evolving landscape, taking calculated steps to interact with AI while fiercely protecting the boundaries of their creative sovereignty. This cautious engagement with AI tools is a reflection of their identity preservation strategy, a testament to their desire to retain their relevance in the face of a rapidly digitizing music industry, yet without surrendering their creative authenticity. Their high conscientiousness likely fueled their approach, ensuring a thoughtful exploration of AI tools, as opposed to a hasty immersion. This group's identity work can be seen as a constant negotiation between adaptation and preservation, a dynamic process of calibrating their professional identities in alignment with their beliefs about the role of technology and human creativity in their profession.

The third group, characterized by low openness, reduced extraversion, high conscientiousness, and heightened neuroticism, exhibited a resolutely dismissive posture towards the integration of AI tools. Their identity work process was deeply rooted in preserving their established creative practices and values, marked by a palpable sense of detachment and dissonance with AI-driven creative methods. The participants in this group were not merely indifferent towards AI's potential in the music industry, but they actively resisted its involvement in their creative endeavors. This resistance is perhaps informed by their low levels of openness, which tends to curb enthusiasm for novel experiences and technologies. Additionally, their lower levels of extraversion may have influenced their reluctance to engage with a drastically new and potentially disruptive technology. This group's identity work process was fundamentally defensive, with the primary objective of safeguarding their traditional creative identity against the perceived encroachment of AI. They were entrenched in a professional self-concept that values human creativity and expression above all else, viewing the incursion of AI as a threat to their creative value and integrity. Their high neuroticism may have amplified their concerns about AI's potential to diminish the importance of human contributions, leading to a more guarded approach. This fear of displacement spurred their determination to protect their professional role identity. Their identity work process, thus, served as a means of boundary-setting, a vehicle to define and maintain the professional self in an era of technological disruption. In essence, this group's identity work process was a testament to their deep commitment to human-centric creative processes and an affirmation of their belief in the irreplaceable value of human creativity.

Concluding, the varying combinations of personality traits influenced how each group integrated their attitudes towards generative AI tools into their identity work process. These interactions provide a deeper understanding of how musicians navigate the intricate balance between embracing technological innovation and preserving their creative and professional identities.

5.2 Implications for Research

Our study makes significant strides in understanding how music professionals' perceptions of generative AI impact their professional identities, specifically in relation to their Big Five personality traits. The findings highlight the role of individual personality differences in influencing the acceptance and

integration of AI technologies, providing a novel viewpoint to understanding the intersection of technology, creativity, identity work and professional identity. This research thus expands the discourse on professional identity in the age of AI, shedding light on how individual characteristics can mediate the relationship between AI adoption and professional identity construction in the creative fields.

Although our findings establish the significant influence of the Big Five personality traits on music professionals' perceptions of identity threat, the results also underscore the importance of considering other potential influencing factors. Beyond the Big Five traits, other psychological elements, such as creative self-efficacy, intrinsic motivation, or risk-taking propensity, may play a substantial role in shaping perceptions of generative AI. The interplay between these psychological characteristics and identity work processes could offer a richer understanding of AI acceptance within the creative landscape. Future research should therefore extend the focus to include these psychological aspects to construct a more holistic view of the interaction between generative AI and professional identities.

Furthermore, the ever-evolving landscape of Artificial Intelligence holds significant implications for the creative fields. As AI technologies progress, demonstrating an increasing aptitude for complex and creative tasks, there is an undeniable need for ongoing research to monitor these developments and their ramifications on the industry. This continuous examination becomes crucial as we aim to understand the dynamics of AI's integration into the creative process and its influence on professional identities. AI's rapid development raises compelling questions about the future of creativity and professional identity. As AI transcends its current limitations and starts to perform tasks that were once the exclusive purview of human creativity, how will professionals adapt their identities in response to these changes? This question underscores the importance of longitudinal studies that track the effects of AI advancements on professional identities over a longer period of time, not only one week as in our investigative setting. Such research can provide nuanced insights into how professionals navigate their identity work processes in response to the evolving landscape of AI technology. Lastly, acknowledging the influence of cultural and geographical factors is essential. Cultural norms, societal expectations, and regional attitudes towards technology can significantly sway the perception and acceptance of AI technologies, with variations across different cultures and societies. Hence, the cultural and societal context should be an important consideration in future research.

In conclusion, while our study contributes substantially to understanding generative AI's perceived identity threat in the music industry, it also illuminates numerous avenues for further exploration. By incorporating these suggested dimensions into future research, a more comprehensive understanding of the implications of generative AI across the creative professions can be developed.

5.3   Implications for the Music Industry and Beyond

The implications of our research, while grounded in the experiences of individual musicians and producers we engaged with, reach far beyond the personal and present a series of actionable principles for the broader music industry and other domains of creative endeavor. These principles serve as guidelines, illuminating the path forward as these industries increasingly integrate AI into their professional routines and practices, all the while being influenced by the spectrum of the Big Five personality traits.

The findings underscore the essentiality of continuous education and training in the realm of AI technologies. This need manifests as a two-fold approach. The first being a thorough understanding of AI's functionalities - its mechanics, capabilities, and limitations, which would allow individuals of different personality types to engage with AI in a manner consistent with their traits. The second aspect emphasizes the nurturing of creative potential harbored by these technologies. Individuals integrating

AI into their creative practice must be furnished with resources and opportunities to explore these technologies at their own pace, in alignment with their personality traits. This ensures that AI integration can be an augmentation rather than a threat to their creative and professional identities.

Professional bodies and educational institutions should consider developing dedicated courses, workshops, and webinars catering to varying levels of expertise. These can leverage online platforms and interactive methods to make the learning process engaging and accessible to all, allowing individuals to forge a relationship with AI that suits their personality and respects their identity. Moreover, facilitating forums where practitioners can share their experiences, concerns, and ideas can help build a supportive community around this technological transition. Such a platform would allow individuals to express and understand how their colleagues, each with different personality traits, approach AI integration into their identity work. Beyond formal education and training, organizations can foster a culture that encourages curiosity and experimentation with AI tools. Individuals with higher levels of openness, for example, might feel more comfortable experimenting with AI and sharing their experiences, influencing others who might be more hesitant.

A noteworthy implication from our research is the potential need for new collaborative approaches between AI developers and creative professionals. This collaboration can yield AI tools that effectively serve the creative process and honor the individual creative identities of the users. For AI developers, this means gaining a deep appreciation of the creative process, the needs, aspirations, and fears of artists, and the values of the creative industry. This will require understanding the different personality traits and how they influence individuals' reactions to and interactions with AI. On the other hand, creative professionals should strive to understand the capabilities and limitations of AI, and envision how they can incorporate these tools in a way that complements their skills and vision, rather than threatening their identity.

In conclusion, the future of AI in the creative industries will not be shaped by technology alone but also by the people who use it - their identities, their personality traits, and the values they uphold. As we navigate this transition, a spirit of openness, collaboration, and mutual respect is crucial, ensuring that all individuals, regardless of their personality traits, feel seen and heard.

6 Conclusion

With the implications for research and the broader field outlined, we now transition to the conclusion of our work. Here, we will encapsulate our key findings and synthesize the major insights, providing a comprehensive summary of our research into the impact of generative AI on the professional identities and identity work processes of musical composers.

6.1 Summary of our Findings

In our comprehensive examination of how creative professionals perceive the role of generative AI and the consequent impact on their identities, we identified three distinct groups based on their perceived level of identity threat from AI: low, medium, and high. Each group displayed a unique pattern of personality traits derived from the Big Five model, which underscored their distinct perspectives towards the integration of AI in their creative processes.

Our findings indicate that those with a low perception of identity threat were characterized by high levels of openness to AI, conscientiousness, and extraversion. This combination of traits, coupled with

moderate agreeableness and low neuroticism, alludes to their ready acceptance of AI, displaying little apprehension towards its integration in their creative processes.

The second group, perceiving a medium level of identity threat, was marked by a lesser openness to AI, and lower agreeableness, suggesting a moderate resistance towards AI. An elevated level of neuroticism within this group was indicative of an increased sensitivity to potential risks, which, despite a high level of conscientiousness, could not fully offset their reservations.

The third group, who perceived a high level of identity threat, displayed the lowest levels of openness to AI, extraversion, and agreeableness. This group's resistance to AI appeared to stem from their limited enthusiasm for AI integration and heightened negative emotions towards it. A higher level of conscientiousness in this group did not alleviate their perceived threat, underscoring the significant role of personality traits in shaping attitudes towards AI.

In addressing our research question - *"Which factors influence the perception of an identity threat by generative AI within creative professionals?"* - our findings underscored the critical influence of the Big Five personality traits. High openness emerged as a catalyst for AI acceptance, mitigating the perceived identity threat. Similarly, high agreeableness fostered trust and acceptance of AI, reducing the perceived identity threat. Conversely, high neuroticism amplified the perceived threat, whilst lower neuroticism attenuated it. The trait of extraversion emerged as a significant influencer, with highly extraverted individuals, enthusiastic for AI collaboration, perceiving less threat. While conscientiousness played a role in moderating perceived threats, its influence was conditional on other traits, becoming ineffective in the face of low openness, agreeableness, or high neuroticism. Our study, thus, highlights the complexity of the personality trait - AI acceptance relationship and underscores the critical role of individual personality traits in shaping attitudes towards the integration of AI in creative professions.

Our secondary research question - *"How does the perceived identity threat by generative AI within creative professionals relate to their identity work?"* - revealed that this perceived threat and the consequent identity work undertaken by creative professionals is intricately linked to their Big Five personality traits. The manner in which they negotiated, defended, and adapted their professional identities in the face of AI integration, was largely informed by their unique combination of these traits. This underscores the need for considering these individual differences in understanding and managing the transition towards an AI-integrated creative landscape.

These findings hold significant implications for the future of AI in the creative industry. In facilitating a smooth and effective transition, it will be essential to develop resources and strategies that cater to the diverse personality profiles within this field. Creating an inclusive, empathetic, and supportive environment for this technological transition, underscored by a nuanced understanding of the human side of this equation, will pave the way for a harmonious coexistence of AI and human creativity in creative professions.

References

AIVA. 2023, available at https://www.aiva.ai/, accessed on Jun 22 2023.

Alec Radford, Jeff Wu, Rewon Child, D. Luan, Dario Amodei, and Ilya Sutskever. 2019. "Language Models are Unsupervised Multitask Learners,"

Anna Reid, and Dawn Bennett. 2013. "Becoming and being a musician: The role of creativity in students' learning and identity formation,"

Ashforth, B. 2000. *Role Transitions in Organizational Life*, Routledge.

Barrick, M. R., Mount, M. K., and Judge, T. A. 2001. "Personality and Performance at the Beginning of the New Millennium: What Do We Know and Where Do We Go Next?" *International Journal of Selection and Assessment* (9:1&2), pp. 9-30 (doi: 10.1111/1468-2389.00160).

Bates, D. W., Saria, S., Ohno-Machado, L., Shah, A., and Escobar, G. 2014. "Big data in health care: using analytics to identify and manage high-risk and high-cost patients," *Health affairs (Project Hope)* (33:7), pp. 1123-1131 (doi: 10.1377/hlthaff.2014.0041).

Baym, N. K. 2015. "Connect With Your Audience! The Relational Labor of Connection," *The Communication Review* (18:1), pp. 14-22 (doi: 10.1080/10714421.2015.996401).

Bessant, J. R., and Tidd, J. 2015. *Innovation and Entrepreneurship*, New York: Wiley.

Boden, M. A. 1998. "Creativity and artificial intelligence," *Artificial Intelligence* (103:1-2), pp. 347-356 (doi: 10.1016/S0004-3702(98)00055-1).

Boden, M. A. 2005. *The creative mind: Myths and mechanisms*, London: Routledge.

Bono, J. E., and Judge, T. A. 2004. "Personality and transformational and transactional leadership: a meta-analysis," *The Journal of applied psychology* (89:5), pp. 901-910 (doi: 10.1037/0021-9010.89.5.901).

Briot, J.-P., Hadjeres, G., and Pachet, F.-D. 2017. "Deep Learning Techniques for Music Generation -- A Survey,"

Brown, A. D., Colville, I., and Pye, A. 2015. "Making Sense of Sensemaking in Organization Studies," *Organization Studies* (36:2), pp. 265-277 (doi: 10.1177/0170840614559259).

Brown, A. D., and Lewis, M. A. 2011. "Identities, Discipline and Routines," *Organization Studies* (32:7), pp. 871-895 (doi: 10.1177/0170840611407018).

Brown, T. B., Mann, B., Ryder, N., Subbiah, M., Kaplan, J., Dhariwal, P., Neelakantan, A., Shyam, P., Sastry, G., Askell, A., Agarwal, S., Herbert-Voss, A., Krueger, G., Henighan, T., Child, R., Ramesh, A., Ziegler, D. M., Wu, J., Winter, C., Hesse, C., Chen, M., Sigler, E., Litwin, M., Gray, S., Chess, B., Clark, J., Berner, C., McCandlish, S., Radford, A., Sutskever, I., and Amodei, D. 2020. "Language Models are Few-Shot Learners,"

Brynjolfsson, E. 2014. *The Second Machine Age*, Erscheinungsort nicht ermittelbar: W. W. Norton & Company Incorporated.

Brynjolfsson, E., and Mcafee, A. 2016. *The second machine age: Work, progress, and prosperity in a time of brilliant technologies*, New York, London: W. W. Norton & Company.

Buch, V. H., Ahmed, I., and Maruthappu, M. 2018. "Artificial intelligence in medicine: current trends and future possibilities," *The British Journal of General Practice* (68:668), pp. 143-144 (doi: 10.3399/bjgp18X695213).

Burke, P. J., and Reitzes, D. C. 1981. "The Link Between Identity and Role Performance," *Social Psychology Quarterly* (44:2), p. 83 (doi: 10.2307/3033704).

Burke, P. J., and Tully, J. C. 1977. "The Measurement of Role Identity," *Social Forces* (55:4), pp. 881-897 (doi: 10.1093/sf/55.4.881).

Chen, H., Engkvist, O., Wang, Y., Olivecrona, M., and Blaschke, T. 2018. "The rise of deep learning in drug discovery," *Drug discovery today* (23:6), pp. 1241-1250 (doi: 10.1016/j.drudis.2018.01.039).

Chuan, C.-H., and Herremans, D. 2018. "Modeling Temporal Tonal Relations in Polyphonic Music Through Deep Networks With a Novel Image-Based Representation," *Proceedings of the AAAI Conference on Artificial Intelligence* (32:1) (doi: 10.1609/aaai.v32i1.11880).

Clancy, S. M., and Dollinger, S. J. 1993. "Identity, Self, and Personality: I. Identity Status and the Five-Factor Model of Personality," *Journal of Research on Adolescence* (3:3), pp. 227-245 (doi: 10.1207/s15327795jra0303_2).

Cockburn, H. 2019. "AI text generator too dangerous to release, say creators," *The Independent*.

Colin G. DeYoung, Lena C. Quilty, and Jordan B. Peterson. 2007. "Between facets and domains: 10 aspects of the Big Five," *Journal of personality and social psychology* (93:5), pp. 880-896.

Costa, P. T., and McCrae, R. R. 1992. "The Five-Factor Model of Personality and Its Relevance to Personality Disorders," *Journal of Personality Disorders* (6:4), pp. 343-359 (doi: 10.1521/pedi.1992.6.4.343).

D. Eck, and J. Schmidhuber. 2002. "A First Look at Music Composition using LSTM Recurrent Neural Networks,"

Dietvorst, B. J., Simmons, J. P., and Massey, C. 2015. "Algorithm aversion: people erroneously avoid algorithms after seeing them err," *Journal of experimental psychology. General* (144:1), pp. 114-126 (doi: 10.1037/xge0000033).

Dukerich, J. M., Golden, B. R., and Shortell, S. M. 2002. "Beauty is in the Eye of the Beholder: The Impact of Organizational Identification, Identity, and Image on the Cooperative Behaviors of Physicians," *Administrative Science Quarterly* (47:3), pp. 507-533 (doi: 10.2307/3094849).

Elgammal, A., Liu, B., Elhoseiny, M., and Mazzone, M. 2017. "CAN: Creative Adversarial Networks, Generating "Art" by Learning About Styles and Deviating from Style Norms,"

Esteva, A., Kuprel, B., Novoa, R. A., Ko, J., Swetter, S. M., Blau, H. M., and Thrun, S. 2017. "Dermatologist-level classification of skin cancer with deep neural networks," *Nature* (542:7639), pp. 115-118 (doi: 10.1038/nature21056).

Florida, R. 2002. "The Rise of the Creative Class," *The Washington Monthly*.

Frith, S. (ed.). 2004. *Popular music*: *Critical concepts in media and cultural studies*, London: Routledge.

Geva, M., Khashabi, D., Segal, E., Khot, T., Roth, D., and Berant, J. 2021. "Did Aristotle Use a Laptop? A Question Answering Benchmark with Implicit Reasoning Strategies,"

Goffman, E. 1959. *The Presentation of Self in Everyday Life*, New York: Knopf Doubleday Publishing Group.

Goodfellow, I. J., Pouget-Abadie, J., Mirza, M., Xu, B., Warde-Farley, D., Ozair, S., Courville, A., and Bengio, Y. 2014. "Generative Adversarial Networks,"

Graziano, W. G., Habashi, M. M., Sheese, B. E., and Tobin, R. M. 2007. "Agreeableness, empathy, and helping: a person x situation perspective," *Journal of personality and social psychology* (93:4), pp. 583-599 (doi: 10.1037/0022-3514.93.4.583).

Graziano, W. G., Jensen-Campbell, L. A., and Hair, E. C. 1996. "Perceiving interpersonal conflict and reacting to it: the case for agreeableness," *Journal of personality and social psychology* (70:4), pp. 820-835 (doi: 10.1037//0022-3514.70.4.820).

Ibarra, H. 1999. "Provisional Selves: Experimenting with Image and Identity in Professional Adaptation," *Administrative Science Quarterly* (44:4), pp. 764-791 (doi: 10.2307/2667055).

Ibarra, H., and Barbolescu, R. 2010. "IDENTITY AS NARRATIVE: PREVALENCE, EFFECTIVENESS, AND CONSEQUENCES OF NARRATIVE IDENTITY WORK IN MACRO WORK ROLE TRANSITIONS," *Academy of Management Review* (35:1), pp. 135-154 (doi: 10.5465/AMR.2010.45577925).

Judge, T. A., Heller, D., and Mount, M. K. 2002. "Five-factor model of personality and job satisfaction: a meta-analysis," *The Journal of applied psychology* (87:3), pp. 530-541 (doi: 10.1037/0021-9010.87.3.530).

Judge, T. A., Higgins, C. A., Thoresen, C. J., and Barrick, M. R. 1999. "THE BIG FIVE PERSONALITY TRAITS, GENERAL MENTAL ABILITY, AND CAREER SUCCESS ACROSS THE LIFE SPAN," *Personnel Psychology* (52:3), pp. 621-652 (doi: 10.1111/j.1744-6570.1999.tb00174.x).

Jukebox. 2023, available at https://openai.com/research/jukebox, accessed on Jun 22 2023.

Kinsella, E. 2018. "The First AI-Generated Portrait Ever Sold at Auction Shatters Expectations, Fetching $432,500—43 Times Its Estimate," *Artnet News*.

Kreiner, G. E., Hollensbe, E. C., and Sheep, M. L. 2006. "On the edge of identity: Boundary dynamics at the interface of individual and organizational identities," *Human Relations* (59:10), pp. 1315-1341 (doi: 10.1177/0018726706071525).

LeCun, Y., Bengio, Y., and Hinton, G. 2015. "Deep learning," *Nature* (521:7553), pp. 436-444 (doi: 10.1038/nature14539).

Lepine, J. A., Coloquitt, J. A., and Erez, A. 2000. "ADAPTABILITY TO CHANGING TASK CONTEXTS: EFFECTS OF GENERAL COGNITIVE ABILITY, CONSCIENTIOUSNESS, AND OPENNESS TO EXPERIENCE," *Personnel Psychology* (53:3), pp. 563-593 (doi: 10.1111/j.1744-6570.2000.tb00214.x).

McCosker, A., and Wilken, R. 2014. "Rethinking 'big data' as visual knowledge: the sublime and the diagrammatic in data visualisation," *Visual Studies* (29:2), pp. 155-164 (doi: 10.1080/1472586X.2014.887268).

Miner, A. S., Milstein, A., Schueller, S., Hegde, R., Mangurian, C., and Linos, E. 2016. "Smartphone-Based Conversational Agents and Responses to Questions About Mental Health, Interpersonal Violence, and Physical Health," *JAMA internal medicine* (176:5), pp. 619-625 (doi: 10.1001/jamainternmed.2016.0400).

Mitchell, T. M. 2013. *Machine learning*, New York: McGraw-Hill.

Morey, J., and McIntyre, P. 2014. "The Creative Studio Practice of Contemporary Dance Music Sampling Composers," *Dancecult* (6:1), pp. 41-60 (doi: 10.12801/1947-5403.2014.06.01.03).

Morris, M. G., and Venkatesh, V. 2000. "Age Differences in Technology Adoption Decisions: Implications for a Changing Work Force," *Personnel Psychology* (53:2), pp. 375-403 (doi: 10.1111/j.1744-6570.2000.tb00206.x).

Murnieks, C. Y., Mosakowski, E., and Cardon, M. S. 2014. "Pathways of Passion," *Journal of Management* (40:6), pp. 1583-1606 (doi: 10.1177/0149206311433855).

Newell, A., and Simon, H. A. 1976. "Computer science as empirical inquiry," *Communications of the ACM* (19:3), pp. 113-126 (doi: 10.1145/360018.360022).

Petriglieri, G., Petriglieri, J. L., and Wood, J. D. 2018. "Fast Tracks and Inner Journeys: Crafting Portable Selves for Contemporary Careers," *Administrative Science Quarterly* (63:3), pp. 479-525 (doi: 10.1177/0001839217720930).

Petriglieri, J. L. 2011. "Under Threat: Responses to and the Consequences of Threats to Individuals' Identities," *Academy of Management Review* (36:4), pp. 641-662 (doi: 10.5465/amr.2009.0087).

Purnima Bholowalia, and Kumar, A. 2014. "EBK-Means: A Clustering Technique based on Elbow Method and K-Means in WSN," *International Journal of Computer Applications* (105:9), pp. 17-24.

Russell, S., and Norvig, P. 2016. *Artificial intelligence: A modern approach*, Boston: Pearson.

Samuel, A. L. 1959. "Some Studies in Machine Learning Using the Game of Checkers," *IBM Journal of Research and Development* (3:3), pp. 210-229 (doi: 10.1147/rd.33.0210).

Santillana, M., Zhang, D. W., Althouse, B. M., and Ayers, J. W. 2014. "What can digital disease detection learn from (an external revision to) Google Flu Trends?" *American journal of preventive medicine* (47:3), pp. 341-347 (doi: 10.1016/j.amepre.2014.05.020).

Snow, D. A., and Anderson, L. 1987. "Identity Work Among the Homeless: The Verbal Construction and Avowal of Personal Identities," *American Journal of Sociology* (92:6), pp. 1336-1371 (doi: 10.1086/228668).

Spaziani, M. 2022. "Learn how AR & VR are disrupting the music industry," *Inglobe Technologies*.

Srivastava, S., John, O. P., Gosling, S. D., and Potter, J. 2003. "Development of personality in early and middle adulthood: set like plaster or persistent change?" *Journal of personality and social psychology* (84:5), pp. 1041-1053 (doi: 10.1037/0022-3514.84.5.1041).

Strich, F., Mayer, A.-S., and Fiedler, M. 2021. "What Do I Do in a World of Artificial Intelligence? Investigating the Impact of Substitutive Decision-Making AI Systems on Employees' Professional Role Identity," *Journal of the Association for Information Systems* (22:2), pp. 304-324 (doi: 10.17705/1jais.00663).

Sveningsson, S., and Alvesson, M. 2003. "Managing Managerial Identities: Organizational Fragmentation, Discourse and Identity Struggle," *Human Relations* (56:10), pp. 1163-1193 (doi: 10.1177/00187267035610001).

Swann Jr., W. B., Johnson, R. E., and Bosson, J. K. 2009. "Identity negotiation at work," *Research in Organizational Behavior* (29), pp. 81-109 (doi: 10.1016/j.riob.2009.06.005).

Thomann. 2023. "The Rise of Artificial Intelligence in Music," available at https://www.thomann.de/blog/en/the-rise-of-ai-in-music-2/, accessed on Jun 22 2023.

urdesignmag. 2022. "How The Music Industry Has Changed Over The Last Decade — urdesignmag," available at https://www.urdesignmag.com/technology/2022/05/11/how-the-music-industry-has-changed-over-the-last-decade/, accessed on Jun 22 2023.

Venkatesh, Thong, and Xu. 2012. "Consumer Acceptance and Use of Information Technology: Extending the Unified Theory of Acceptance and Use of Technology," *MIS Quarterly* (36:1), p. 157 (doi: 10.2307/41410412).

Wikström, P. 2020. *The music industry*: *Music in the cloud*, Cambridge, UK, Madford, MA: Polity.