# The Creative Process in the age of AI: Amsterdam-Based Art Directors and their perceptions of AI co-creation

Understanding Art Director's perceptions of AI on the advertising creative process

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## Abstract

The aim of this thesis is to understand how Amsterdam-based Art Directors perceive changes in their creative process through human AI co-creation. There are existing debates in computational creativity research about the degree to which generative AI systems are creative, yet they lack focus on the user-perspective of interacting with these technologies, especially in the stages of the creative process. More specifically, there is a gap in research regarding co-creativity – the collaboration between humans and AI in the creative process – pertaining to the advertising industry and the creative professionals in charge of developing innovative advertising ideas. Through a qualitative research design using in-depth semi-structured interviews with ten Art Directors based in Amsterdam. A thematic analysis of the interviews reveald three key themes, along with sub-themes that helped answer the research question of the study. These themes offer new insights on the ways AI is enhancing the creative process of Art Directors, while also revealing existing concerns in regard to the rapidly evolving technology and its implications on advertising creativity and the advertising industry at large. On one hand, AI co-creation is improving the efficiency of creative workflows as a time-saving tool, which is crucial in today's fast-paced advertising landscape. New opportunities for innovative ideation were also found in AI co-creation which enhance the Intimation, Illumination and Verification stages of the creative process through enhanced thinking, expressing, building, and testing. On the other hand, there is a need to balance the tension between human and AI creativity, mitigating AI's perceived 'soullessness' with consistent human involvement and critical awareness of the technology. Additionally, participants in the study perceived AI's role in the evolution of creative skills and jobs, and the need to navigate a rapidly changing professional landscape. As academia, the advertising industry and Art Directors gain a greater understanding of AI systems, they can better address these concerns and leverage the enhancements of the creative process by effectively combining human and AI-creativity. This approach fosters a future where AI is seen as a trustworthy collaborator instead of a competitor, allowing human vision to remain as the primary force behind creativity.

Keywords: *advertising, computational creativity, artificial intelligence, art directors, creative process, innovation, human-AI co-creation.*

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# 1. Introduction

Creativity is often perceived as a complex and magical phenomenon that has allowed us to build the world as we know it. When it comes to advertising creativity, the importance of it is highlighted by the industry and academia as inherently more creative ads make a lasting impact on those who view them (Lehnert et al., 2013, p.211). The goal of advertising is to reach consumers meaningfully and effectively in a saturated advertising environment, therefore leveraging existing technologies is crucial to gain a competitive advantage (Vakratsas & Wang, 2020, p.227). Extensive research exists on consumer perceptions of advertisements, as well as the impact of digital technologies on the advertising creative process (Barker, 2018; Chen et al., 2019; Chen et al., 2014; Derda, 2020; Jin et al., 2022). Although academia has also focused on discussing the creative process of creative professionals in advertising, questions surface regarding the role of new technologies such as artificial intelligence (AI) (Vakratsas & Wang, 2020; Wu et al., 2021; Yang, 2023; Yu, 2022).

There are many existing definitions of creativity in academia. Some of these definitions focus on human creativity, while others deem creativity extends beyond humans into artifacts and environments (Vakratsas & Wang, 2020, p.1). The rise of AI across the creative industries has brought new aspects to these pre-existing debates. Understandably, we live in an era where academia is increasingly interested in understanding the implications of AI on creativity to leverage its opportunities while mitigating its challenges (Wingström et al., 2022, p.177). Curiosity for this research lies in adding to this notion, with a specific focus on the advertising industry and the perspectives of Art Directors. These creative professionals develop ideas for advertising campaigns inspired by the world outside of agency walls. Barker (2018, p.11) notes that using digital technologies has become the main way of gaining access to the world and used for different purposes throughout the creative process.

There has been a long-term academic interest on creativity and its complexities, especially in the nature of the creative process and its professional applications in advertising. James Webb Young (1960/2013, pp. 1–44) is credited with establishing the classic framework of the creative process in advertising. Young's model is heavily inspired by Wallas' model of the creative process as it also depicts the same five-stages and is one of the most popular approaches for developing advertising ideas (Barker, 2018, p. 3). Wallas' (1926, p.80) four-stage model of the creative process offered a foundational framework for creativity researchers to identify the formation of new ideas through research, unconscious connections, the moment of insight, and testing of the idea. This framework of the creative process has since

been expanded and debated upon in academia. While Sadler-Smith (2015, p.346) note the existence of five-stages of the creative process in Wallas's work, Cropley and Cropley (2012, p. 35) claim there are seven stages. It's clear that researchers have not reached a common understanding on how many stages of the creative process exist (Vuichard et al., 2023, p.3). This lack of consensus could be due to the complex nature of creativity and the fact that the creative process is applied generally to most creative domains (Botella et al., 2018, p.4).

Despite the existing debates on creativity, curiosity to understand how it manifests in the workflows of Art Directors is the driving force of this study, especially when digital technologies such as AI are increasingly used for creative purposes. Computational creativity is the sub-field of AI where computers are used to perform tasks that would be deemed creative if they were performed by humans (Johnson, 2012, p.1). Parallel to creativity research, the idea that machines may display creativity is also highly debated. Boden (1992, p.215) explains that creative systems, whether they be the brain or software, need internal mapping of their own conceptual spaces. The internal maps of these spaces allow the system to explore, experiment and even transform them to generate ideas. As Boden exemplifies, "Mozart was different from the rest of us in that his mind contained more richly-detailed maps of musical structures, and more ways of negotiating them fruitfully, than other people's" (Boden, 1992, p.215). Similarly, computational systems can be creative in that they have the ability to explore the conceptual spaces in them.

Computational creativity is a new field that provides meaningful opportunities for reshaping our understanding of the creative process in advertising. This domain is providing a foundation for rethinking advertising creativity from a different perspective that only considers outcomes such as novelty and value (Vakratsas & Wang, 2020, p.11). The rapid growth of AI technologies add to the social and academic relevance of this study as there is a limited understanding about their impact on the creative process. The use of AI in the creative industries has largely increased as more creators are aware of the technology and have begun implementing its use (Anantrasirichai & Bull, 2021, p. 590). Barker (2018, p.15) explains that creativity can be enabled by using digital media while simultaneously potentially constraining it, and highlights that understanding how the creative process manifests in digital practices needs further investigation. Computational creativity consists of two perspectives, one which attempts to replicate human creativity in machines, and the second which emphasises co-creativity between humans computational systems (Wingström et al., 2022, p.182).

The debate of whether AI is as capable of creativity as humans is largely seen in computational creativity research (Colton and Wiggins, 2012, p.22). However, supporters and

critics of AI generally agree on a single point: the central focus of this debate lies in comprehending how computational systems operate internally. In other words, according to both sides of the argument, the belief that resolving such controversies can only be achieved by comparing the objective capabilities of computers to those of the human mind (Natale & Henrickson, 2022, p.1911). For computational creativity to be worth researching, it does not have to actively compete with human creativity, since “expecting that computers will generate historically consequential art of high cultural value is a rather utopian vision, or dystopian, if we consider the ethical and economic impact of computers displacing human artists” (Gioti, 2020, p.30). Turning away from the academic debate about whether AI is creative or not towards a user-perspective enables us to expand our understanding of AI and its potential to enhance or inhibit human creativity. Additionally, focusing on how AI can be built with an awareness of user needs and preferences, through continuous evaluation, is crucial to meet the evergrowing needs of its users (Natale & Henrickson, 2022, p.1911).

Anantrasirichai and Bull (2021, p.369) explain that for the moment, advancements in AI will remain human-centric, designed to enhance instead of replace human creativity. They add that the standardisation of AI demands building trust with users by recognising its social and ethical implications. Although AI-creativity remains human-centred, Wingström et al. (2022, p.177) highlighted there is still a need to understand how AI is affecting the creative process. There is a gap in research, outside of aesthetic art domains and computer science, regarding co-creativity, where computational systems and humans collaborate in the creative process (Wingström et al., 2022, p,177). To examine the role of AI in the advertising creative process, the focus of this research lies on the perspective of Art Directors. Unsurprisingly, prior to this research, anecdotal evidence from conversations between art directors in Amsterdam highlight their active interest and utilization of AI technologies within their professional roles, and raise the concern of how AI may affect their creativity also. This observation reveals a significant parallel between the existing gap in academic literature and the social implications regarding AI’s influence on creativity and advertising. Ultimately, this study aims to answer **How do Amsterdam-based Art Directors perceive changes in their creative process through human AI co-creation?**

As suggested by Chen et al. (2019) and Yu (2022), this research aims to answer this question with the intent of creating recommendations for art directors to incorporate AI in their creative process in a way that potentially enables the production of innovative advertising campaigns, while mitigating potential challenges. To better understand the context of the

question proposed, this study is structured firstly with a theoretical framework based on academic literature in Chapter 2.

The first section of the theoretical framework is designed with the purpose of understanding the current role of computational creativity in visual arts. In this section the multifaceted nature of creativity is discussed and defined, exploring its models and academic frameworks. Then, definitions of computational creativity are discussed as well as academic debates of AI's role on influencing creativity, explaining AI's potential to enhance human creativity through co-creation. Finally, the widespread use of generative AI tools in visual arts are discussed noting their efficiency in creative workflows. The academic debate over whether AI can be considered creative is expanded upon, resulting in the introduction of co-creativity and its applications. This section also highlights the challenges of AI co-creation and ethical implications regarding AI's impact. The second section of the theoretical framework focuses on AI integration in advertising. Definitions of creativity in advertising are discussed to build a better understanding of the current attitudes towards AI in advertising and inform the user-perspective of this study. The human-AI co-creation model proposed by Wu et al. (2021 p. 173) is also introduced, emphasizing AI's collaborative potential with humans. Lastly, the topic of AI integration in the advertising creative process explains how AI is transforming creative practices. Ethical considerations, job impacts and biases related to AI are also discussed.

In the methods section, Chapter 3, the methodology of this research is presented with chapters on in-depth semi-structured interviews, sampling methods, operationalisation, data collection and the choice of thematic analysis. To answer the research question, the perceptions of Art Directors regarding their creative process and the use of AI were analyzed with specific focus on stages and tasks of the creative process in the context of advertising ideation. To better understand the influence of computational systems such as generative AI, this study employs the human AI co-creation model proposed by Wu et al. (2021 p. 173) and Wallas' creative process model as proposed by Sadler-Smith (2015, p.346). Chapter 4 describes the three themes that emerged as a result of the study. These are later analysed and discussed in Chapter 5, informed by existing literature. This chapter provides answers to the research question, while also discussing the limitations and directions for future research.

# 2. Theoretical Framework

## 2.1 Computational Creativity in Visual Arts

### 2.1.1 Defining Creativity

Creativity has been described as a mystery, which may explain why we tend to feel conflicted when explaining how ideas come to us. For decades, researchers have been extensively studying this phenomenon. Although there are several theories on creativity that continuously develop, researchers have determined five elements that characterise creativity: actor, process, outcome, domain and space (Amabile, 1996; Atkinson & Barker, 2023; Csikszentmihalyi, 1998; Wingström et al., 2022). Considered an interactive process, creativity occurs when individuals or groups of people engage in the creative process to create something novel or innovate which results in a product or creative endeavour within the field in which their creativity is expressed and in the context where creativity occurs (Wingström et al., 2022, p. 178).

The first element of creativity, actor, consists of individuals or groups of people who produce unique ideas. In a post-human society however, notions of what constitute actors are being challenged, which will be further discussed in chapter 2.2.2. (Wingström et al., 2022, p.179). The second element of creativity entails engaging in the creative process to create something novel or innovative which is the main focus of this study. There are several cognitive skills used in the creative process, one of the most essential being divergent thinking, where individuals are able to imagine and explore various potential solutions to a problem (Runco & Acar, 2012, p.68). Following divergent thinking is convergent thinking “where different thoughts come together in a structured manner, landing upon a single solution to a problem” (Wingström et al., 2022, p.179). These types of thinking enable innovation to occur by engaging in the creative process.

The third element of creativity pertain to the outcomes of the creative process. These are famously separated between psychological and historical creativity (P-creativity and H-creativity) to distinguish personal innovation from innovation that is new to human history (Boden, 2004, p.2). Csikszentmihalyi’s (1998, p.100) systems model of creativity explains the fourth element of creativity, domain. According to this model, artistic, professional and academic disciplines play a crucial role in shaping individual creativity. Additionally, social factors are instrumental in shaping

and evaluating creativity within these domains. Space is the fifth element of creativity. Although space is less commonly mentioned in research, it is inherent to creativity as the creative process involves the movement of people and artefacts interacting within a network of actors, environments and spaces (Wingström et al., 2022, p.179).

Creativity is considered the essence of being human, and so we are unsurprisingly protective of it and keen on understading its complexities. It's a process so unique to human consciousness that it is difficult to imagine being formalised. While people may believe human creativity is impossible to replicate, research in computational creativity, a sub-field of AI, argues we are closer to that reality than ever before (Colton and Wiggins, 2012, p.22). Artistic and problem-solving creations are highly valued as they shape who we are and the world around us. The rise of AI in recent years has disrupted people's perspectives of this notion. How powerful are machines? And are they here to take our place? These seem to be age-old questions academia and society continuously contemplate. AI has become a predominant topic in creative industries with a key focus on computational creativity (Brisco et al., 2023, p. 1836). Nonetheless, studies of computational creativity are relatively novel and must keep pace with the rapid development of AI technologies.

### 2.1.2 Computational Creativity

Johnson (2012, p.1) describes computational creativity as "the application of computers to perform tasks that would be regarded as creative if performed by humans". Computational creativity allows us to construct and collaborate with computational systems that create works of art and ideas (Colton & Wiggins, 2012, p.21). Computational creativity research distinguishes itself from other AI paradigms, as it works with an artefact generation paradigm, where the application of automation of an intelligent task is viewed as a chance to generate a culturally valuable object (Colton and Wiggins, 2012, p.21). An essential condition of computational creativity projects is the ability to "think outside the box" when performing a given task, proving it assists advanced creative practices (Colton and Wiggins, 2012, p.22).

Developments in neural networks and deep learning techniques are paving the way for further research on computational creativity (Wingström et al., 2022, p.182). There are two existing perspectives of computational creativity. The first perspective focuses on building AI that imitates human creativity (Wingström et al., 2022, p.182). The idea of independently creative AI poses a "competitive relationship" between humans and AI, and it has raised concerns regarding AI's ability to replace human creativity (Gioti, 2020, p.25). AI has performed outstandingly in controlled environments when measured quantitatively but when it comes to

creative tasks where results are harder to define, AI seems less promising (Gioti, 2020, p.30). Gioti (2020) suggests that when it comes to creative tasks a different perspective of AI is necessary.

This study focuses on the second perspective of computational creativity, where AI enhances human creativity through co-creation as explained in previous research (Gioti, 2020; Karimi et al., 2020; Wingström et al., 2022; Wu et al., 2021). Ido (2016, p.2) argues that AI should be seen as extended intelligence (EI), understanding that intelligence is a “fundamentally distributed phenomenon”. Collective intelligence and collective learning insinuate that learning occurs beyond a single mind and rather into a network of minds constructed through the sharing and preserving of knowledge throughout human history (Gioti, 2020, p.30). Considering these concepts, computational learning can also contribute to our collective learning where instead of replacing human creativity, computational systems enhance it (Gioti, 2020, p.30).

The first examples of computational creativity in visual arts include AARON (Maccorduck, 1991, pp. 59–111) and the Painting Fool (Colton et al., 2015, pp. 189–196), where systems were able to generate visual objects through human collaboration. The development of new systems persists with Dall-E, Midjourney and Adobe Firefly amongst various systems that are increasing in popularity. These co-creative computational systems “involve human users collaborating with an AI agent on a shared task in real time” (Karimi et al., 2020. p. 222). This type of AI interacts with humans while simultaneously learning and adapting their programming (Wingström et al., 2022, p.182). How can AI generative systems be used in the creative process and for what purpose? And most of all, what does this mean for creativity?

### 2.1.3 Current Debates of AI in the Creative Process

Generative AI is widely used by creative professionals in visual arts who incorporate it in their workflows (Brisco et al., 2023, p. 1836). These tools are capable of doing in minutes what teams of designers would take weeks to produce by being fed prompts into their system (Yu, 2022, p.193). They allow users to create moodboards, storyboards, build prototypes and of course, create artwork. As previously mentioned, the concept of co-creativity has emerged to understand how humans and computational systems co-create together which brings new aspects to the debate of the effects of AI on creativity (Wingström et al., 2022, p.177).

Moving towards attempting to answer whether these systems are creative, it is important to note the existing complexity surrounding this topic as researchers go back and forth arguing how creative these systems may be (Gunkel, 2021, p.385). The issue is not whether programs can or cannot be accountable for their actions, rather the issue regards “how we have

determined, described, and defined responsibility in the first place" (Gunkel, 2021, p.392). Understood this way, computer systems could potentially display creativity. By nature, the creative sector is characterised with different levels of innovation and skill types compared to routine activities which characterise AI systems (Anantrasirichai & Bull, 2021, p.2). Current AI systems are unable to reflect on their intentions, and fail when providing meaning or reflections of their outputs since they lack real human experiences, which many users deem necessary to display creativity (Wingström et al., 2022, p.182).

Johnson (2006, p.202) argues that computer systems play a part in the moral world because they are intentional creations designed by humans and as a result are also moral entities. While computers are not moral agents, they are elements in moral actions and have a moral impact depending on how they are designed and with what purpose. It doesn't matter how much computers develop in the future because "they will be the products (direct or indirect) of human behaviour, human social institutions, and human decision" (Johnson, 2006, p. 197). Johnson (2006, p.198) notes that computers lack possession of mental states or intentions to act the same way as human agents do. This human-centric perspective highlights the responsibility of designers and users to ensure the technology is deployed ethically. Whether these systems are inherently creative or not doesn't necessarily matter since the efficacy of computer systems and their ability to impact the world is proof of their creative and influential essence (Johnson, 2006, p. 202).

Recent studies in computational creativity show the focus has shifted from strict definitions to more subjective views of AI. The domain of computational creativity explores both the theoretical and practical characteristics of the supposed creative behaviours of computational programs (Natale & Henrickson, 2022, p. 1912). The ongoing debate of whether these programs can create beyond their programmer's intentions persists. Natale and Henrickson (2022, p.1911) argue that the debate of whether computational programs are creative goes back to Ada Lovelace, who in the 19th century envisioned calculators could do more than simply compute numbers, they could generate ideas.

Inspired by Lovelace, Boden (2004, p,10) claims that the focus should not be on debating whether a system is creative but rather on whether it can *seem* to be creative. Similarly, Colton and Wiggins (2012, p. 3) argue that AI systems can generate images that are recognised as creative even if their behaviour differs from a human's creative process and goals. Despite the historical scepticism of AI, there is growing recognition that computational systems can demonstrate creative abilities (Wingström et al., 2022. p.183). The field of computational creativity continues to evolve along with our understanding of traditional notions

of creativity and intelligence. Shifting away from viewing creativity as a strictly defined phenomenon, Lovelace's and Boden's perspectives align with notions of creativity as abstract, and complex. The Love Lace effect described by Natale and Henrickson (2022, p.1921) demonstrates how it is essential to shift the focus towards the users of AI and the level of creativity they attribute to these systems.

## 2.2 AI Integration in Advertising

### 2.2.1 Creativity in the Advertising Industry

Advertising agencies are in the business of selling creativity. Advertising is inherently connected to businesses and so definitions of creativity vary depending on who you ask in the industry. The industry is full of stakeholders such as the general public, industry judges, industry leaders and customers, which contribute to the nuances surrounding definitions of creativity in advertising. Academics in advertising creativity agree that relevance and divergence are necessary for advertising effectiveness, and for an ad to be considered creative (Jin et al., 2022, p.2). "Originality, novelty and newness must be present in at least one aspect of advertising to call it creative" (Derda, 2023, p. 13), this ensures advertisements surprise and disrupt the norm through innovation. Relevance ensures that advertising is perceived as commercially meaningful to its target audience, differentiating it from art.  Creative products are further characterised by problem-solving, appropriateness of context and goal orientation (Derda, 2023, p. 13). In other words, creativity in advertising is not only about being unique.

Goal orientation specifically differentiates advertising creativity and is equally as important as uniqueness. Compared to other creative industries where creativity might be leveraged to go beyond mastering skills or finding genius solutions to problems, in advertising, creativity is directly related to a client's business goals. Advertising as an industry relies on creativity to deliver good business results and solve their client's problems with ideally innovative solutions. Chen, et al. (2014, p.347) suggest that more creative advertisements can lead to increased attention, depth of processing, greater recall, and favourable influences on ad wear-in, brand, ad and product evaluations. The level of attention and processing depth that creative ads receive influence their memorability and have a positive impact on advertisement effectiveness (Lehnert et al., 2013, p.213).

Other studies indicate that while highly creative ads can stand out, they can also negatively impact the recall and attitude toward other ads (Jin et al., 2022, p.2). Also present is

the fact that advertisements that are more creative are not necessarily better recalled than non-creative advertising that have enough repeated exposure (Derda, 2023, p. 15). When an ad is only relevant or divergent, wearing-out begins at moderate levels of repetition compared to an ad that is both relevant and divergent (creative), which then resists wearing-out at high levels of repetition (Chen et al., 2014, p.343). Ultimately, creative ads are more effective at holding people's interest over time, especially considering that ads require repeated exposure to have an impact. Despite the opportunity to stand out in a saturated market, creativity is seen as a risk that most businesses aren't willing to take and prefer a repeated exposure strategy, hence why effectiveness is highlighted by the advertising industry (Derda, 2023, p.15).

The role of the creative professional is changing with digitisation, increased consumer literacy, data measurements, always-on culture and "in-house" advertising (Derda, 2023, p.16). The emphasis is on speed and delivery rather than creativity. Effectiveness is regarded as a kind of creativity that is not usually associated with the craft of an advertisement but rather the new and interesting ways a client's business problem is solved (Derda, 2023, p.16). Creativity is perceived as a critical and strategic asset in the advertising industry, playing a central role in driving innovation, differentiation and effectiveness in marketing campaigns. While creativity has always been valued in advertising for its ability to capture attention, evoke emotions and influence consumer behaviour, its significance has been further amplified by today's competitive and fast-paced digital landscape. Evolving perceptions and executions of creativity in the advertising industry are influenced by technology through data-driven creativity, digital tools and platforms, virtual and augmented reality, collaborative platforms and AI (Derda, 2023, p. 2).

The rise of digitisation has also led to the restructuring of workflows in advertising agencies. Forced to adapt to changing media landscapes, agencies have been leveraging technology to enhance their creative strategies (Stuhlfaut & Windels, 2017, p.21). This has created new roles and positions within agencies to address emerging technologies. Positions such as 'chief creative officer' and 'creative technology officer' indicate the ongoing fundamental changes of agencies in adapting to current media climates by incorporating interactive media, digital platforms, and social channels into communication campaigns (Stuhlfaut & Windels, 2017, p. 5). These transitions have undoubtedly impacted the creative process in advertising. To better understand this impact it's important to explore how the creative process has been addressed in advertising academia.

Intrapersonal, societal and organisational models exist and have been used to understand how the creative process manifests in advertising (Stuhlfaut & Windels, 2017, p. 7). Advertising academia has shown that the intrapersonal creative process involves creator's

mental models regarding idea generation, which is the essence of advertising creativity and so this study focuses on the creative process through an intrapersonal lens as it attempts to understand the self-perceptions of Art Directors (Stuhlfaut & Windels, 2017, p.7). Specifically, James Webb Young's classic model to generate ideas in advertising is highlighted (Sullivan & Ramos, 2022, p.22). Webb's model is based on Wallas' (1926 p.80) foundational five-stage model of creativity which remains relevant among current creativity researchers, despite existing debates on the number of stages in the model (Sadler-Smith, 2015; Vuichard et al., 2023).

The five stages are preparation, incubation, intimation, illumination and verification. Preparation is when people consciously gather domain-specific knowledge and expertise (Sadler-Smith, 2015, p.345). Incubation is the involuntary mental processes that take place as the mind is deliberately not focused on the problem (Sadler-Smith, 2015, p. 345). Intimation operates in a semi-conscious state that captures creative intuitions, building from them until illumination occurs (Sadler-Smith, 2015, p. 347). Illumination refers to a train of associations, ending with a breakthrough moment where the creative solution emerges, ready for refinements (Sadler-Smith, 2015, p. 346). The verification stage involves evaluations to determine the creative value or reference of the result. This stage ensures the outcome is refined, validated and communicated effectively to others (Sadler-Smith, 2015, p. 347).

Integrating technology in advertising has elevated the role of creativity and expanded the possibilities for innovative and impactful advertising campaigns. By leveraging the opportunities of AI advancements, creative professionals in advertising can harness the power of computational creativity to create compelling brand narratives, engage audiences effectively, and drive business results in today's digital-first marketing landscape. The increasing growth of AI technology demands that the advertising industry becomes familar with the different forms of AI to enhance the creative process.

Advertising has always developed along with technology. First going from print to digital, now the industry finds itself in the age of AI. Creative AI systems are redefining our traditional notions of creativity (Wingström et al., 2022, p.178). Whereas traditionally creativity has been studied from a human-centred or AI-centred perspective both are now increasingly being connected. This in-between perspective is known as co-creativity where human and AI creativity collaborate (Karimi et al., 2020; Koch et al., 2020; Wingström et al., 2022; Wu et al., 2021). Co-creativity has been mostly studied within computer science but these studies "mostly utilise pre-arranged empirical settings and rarely dispute the definitions of creativity" (Wingström et al., 2022, p.187). There aren't many studies on co-creativity, and there are less studies that scrutinise the creative process of Art Directors in advertising when collaborating with AI.

Nonetheless, within the existing research relevant studies related to specific tasks of the Art Director role were found that deepen our understanding of the attitudes of creative professionals towards AI.

### 2.2.2 Attitudes of AI in Advertising

In a study on Finland-based computer scientists and new media artists, it was found that AI may challenge the traditionally recognised five elements of creativity: actor, process, outcome, domain and space (Wingström et al., 2022, p.177). Advancements in AI are blurring the lines of this notion and what we considered human creativity and machine-generated creativity as nearly half of the participants in the study considered AI to be creative. AI may be expanding our definitions of what we consider actors and outcomes as AI also engages in the creative process to create outputs through divergent thinking and problem-solving (Wingström et al., 2022, p.188). The question of how AI may expanding our understanding of process remains, hence the focus of this study.

Tensions between AI creativity and human-centred creativity still exist. One third of participants in the Finland-based study did not agree that AI is creative because AI systems were perceived to lack certain human traits such as the ability to act independently. Wingström et al. (2022, p.182) found that despite being able to pass the Lovelace effect, where systems create outputs (Natale & Henrickson, 2022, p.1910), AI cannot provide intentionality and motivation behind its work. For some, the act of consciously creating something is still deemed an inherent human ability and therefore AI did not meet their standards for creativity. Nonetheless, many artists in the study recognised and embraced the concept of co-creativity (Wingström et al., 2022, p.186). They acknowledged that using AI in their creative process was like a collaboration where both actors contributed to creative outputs. Thus AI was perceived as a creative tool and partner that enhances their creative process.

Even errors in the AI systems have the potential of inspiring artists to try something different and experiment with ease. This perspective reflects the artists' willingness to explore new opportunities for innovation in artistic expression. Users may find unpredictability as a positive characteristic of AI, even when AI may lessen their perception of controllability and predictability (Oh et al., 2018, p.2). Attitudes of designers towards human-AI creativity found in a study with the Creative Sketching Partner (CSP) were generally positive too (Karimi et al., 2020, p. 224). The CSP has two main design principles: "1) provide a sketch response to the user and 2) enable users to interactively change the amount of visual and conceptual similarity

for the system's response" (Karimi et al., 2020, p.223). The study demonstrated that the CSP tool can facilitate ideation and help overcome creative blocks. Participants were able to explore new ideas and enhance their design process; they were able to change the amount of visual and conceptual similarity of the system's outputs, and tailor the inspiration they received to meet their needs.

Decision-making is a crucial step in the creative process. In general, when a machine is involved in co-creation, humans want to be in control and have the last say when making decisions. People expect machines will assist them in efficiently meeting their goals and handling tedious, time-consuming tasks (Koch et al., 2020; Oh et al., 2018; Sun et al., 2019). The more we can understand how users perceive and use AI systems, the more these can be fine-tuned to meet user needs and better serve those who use them. Several strategies and considerations exist to ensure the user is at the forefront of these novel technologies. A user-centred design that is composed of a deep understanding of users and their needs, preferences and behaviours is essential. Feedback mechanisms and continuous evaluation and adaptation are necessary to ensure the systems grow according to user needs and are tailored to meet them. The user perspective is also important in shaping our understanding of AI capabilities (Natale & Henrickson, 2022, p.1911). Learning how users perceive AI-generated art helps us understand how to build systems that are perceived as trustworthy and engaging as well as aid the general acceptance of AI technologies.

### 2.2.3 Human-AI Co-creation in the Creative Process

Recognition of AI's abilities to assist the creative process in advertising has been highlighted by Anantrasirichai and Bull (2021, p.639) who also argue that using AI is most beneficial when it is human-centred and focused on enhancing, rather than replacing human creativity. Creative applications are categorised into five groups in relationship to how AI technologies are used: "(i) content creation, (ii) information analysis, (iii) content enhancement and post-production workflows, (iv) information extraction and enhancement, and (v) data compression" (Anantrasirichai & Bull, 2021, p.589). Predictions regarding the application of AI look promising, as AI is a widely used tool for assistance and collaboration for creativity (Wu et al., 2021.p.174). These applications often leverage advanced technologies to enhance the creative process and enable users to produce innovative and engaging content.

As previously mentioned, AI is capable of generating ideas that can inspire human users to continue creating (Karimi et al., 2020. p. 222). The Human-Co Creation model developed by Wu et al. (2021, p.177) shows how humans and AI complement and co-create by leveraging each other's strengths to boost productivity, inspire innovation and empower users. The Human-Co Creation model depicts how AI co-creates with humans through six stages consisting of enhancing perception, thinking, expressing, collaborating, building and testing (Wu et al., 2021, p.177). Some AI programs transform their own rules and structures to generate new ideas, and it allows for the continuous selection of the most interesting or relevant ideas to facilitate the process of creation.

Collaboration between humans and AI vary across domains, but humans tend to be better when it comes to creativity, strategic thinking and compassion whereas AI's stronger at automation and optimization (Wu et al., 2021, p. 173). This is clear in the six stages of The Human-Co Creation model where big data can be enhanced by using AI to derive meaningful information and insights. Creatives also have a chance to think deeper and wider in a thorough and efficient way. Wu et al. (2021, p.177) claim that creativity matters more than skills and with the empowerment of AI tools, creatives won't be limited by their lack of training. With AI, creatives can explore at a faster pace and experiment with different ideas through prototyping. Collaboration is also available with AI, where both play to each other's strengths to bounce off ideas. The key to positive collaboration is to understand the strengths and weaknesses of both humans and AI and delegate accordingly. Building and testing are the final stages of the model where AI integration can achieve high-quality products and lower production costs by simulating and analysing potential outcomes (Wu et al. 2021, p.178).

### 2.2.4 AI in the Advertising Creative Process

Atkinson and Barker (2023, p.1055) argue that the increasing use of AI affects the social basis of creative practice. The authors note that AI can reduce and shape the diversity of information that can be used as inspiration in the creative process by optimising efficiency and workflows (Atkinson & Barker, 2023, p.1055). Additionally, AI provides new content that competes with human production, and as a result is changing the way we value creative work and communicate about it (Atkinson & Barker, 2023, p.1062). Individuals also use AI by incorporating AI-generated material into creative work, creating a hybrid between human creativity and machine generation. Boden (1992, p. 215) said we can use computers to aid creativity and in the current media landscape, we are witnessing how this occurs. There is no

denying AI is being integrated in creative practices. As Atkinson and Barker (2023, p.1063) put it: “in the study of AI in the creative process, understanding where and when is as important as the generation of content” .

Yang (2023, p.110) claims that in the future, creative professionals will become project managers for AI programs and collaborate with them to create value for their companies and clients. For example, AI tools like ChatGPT can help generate ad campaign ideas and other visual generative AI tools like Midjourney can help generate visual elements, speeding up the creative process by enabling collaboration between humans and AI. The picture becomes clearer – while AI may automate certain tasks in advertising, it won’t replace human work entirely when it comes to creativity (at least not in the foreseeable future). AI’s role will be more of an assistant to creatives, helping them manage, develop and create new workflows that increase creativity and efficiency to reach and engage target audiences and optimise campaigns (Yang, 2023, p.105). AI offers so many advantages to the creative process that its integration is crucial for advertising professionals and companies to stay competitive in this rapidly evolving media landscape.

In the process of integrating AI in advertising, Yang (2023, p.112) highlights the need to prepare advertisers to learn how to leverage AI technologies while simultaneously being critical about the important boundaries that need to be implemented when using them. The potential impacts on industry jobs, moral risks related to copyright issues, and privacy concerns are paramount in the discussion (Yu, 2022, p.193). Additionally, AI is still limited, and vulnerable to bias. Research calls for advertisers to assess the content of the visuals produced by AI acknowledging the potential for controversial material generated – such as structural biases, stereotypes, and offensive content – while also being concerned with potential breaches of privacy. Furthermore, advertisers should be attentive regarding campaign objectives, and the potential of the imagery to resonate with the target audience and meet the expectations of clients (Yang, 2023, p.111).

The opportunities AI offers are huge but come with ethical concerns regarding ownership and copyright. It's unclear how to address permissions to use existing images in the training of models for the generation of new images (Kalpokas, 2023, p.2). The question of ownership of the images generated also lie in a grey area as a result (Lee, 2022, p.605). We are still a long way away regarding how to clarify these ethical concerns. Advertisers can effectively enhance their campaigns by integrating AI technologies with critical thinking and ethical considerations. This strategy encourages responsible AI use in the advertising industry and fosters trust among consumers and industry stakeholders, especially among creative professionals. Raising

awareness and promoting education of AI has the potential to boost professionals' understanding of AI's limitations and ways in which AI can be harnessed to benefit their creative process. Focusing on collaboration with AI is more advantageous than opposing or competing against it (Wu et al., 2021, p.178).

# 3. Research Design

To add to the existing literature, this study aims to answer how Art Directors in Amsterdam perceive influences to their creative process through AI co-creation. The study is explorative, attempting to build the grounds with relevant insights for further research on this topic (Babbie, 2018, p.90). A qualitative approach allows us to understand, describe and sometimes provide explanations for social phenomen (Flick, 2018, p.5). This methodological approach allows us to focus on hidden patterns in the meaning-making process of Art Directors while investigating their understanding of AI and its relationship to their creative process (Flick, 2018; Gubrium & Holstein, 2001).

Semi-structured, in-depth interviews were selected as the appropriate data-collecting method to obtain detailed and insightful information about the perceptions of Art Directors (Johnson & Rowlands, 2012, p. 101). This method offers the best possbililty to gather data on an “individual’s self, values and decisions, lived experience, occupational ideology, cultural knowledge, or perspective” (Johnson & Rowlands, 2012, p.100), providing depth and context for this study.  The interviews will be led by a flexible semi-structured interview guide that covers this study's theoretical concepts (Kallio et al., 2016, p.2955). A deductive approach when interviewing will be used to adopt the established theoretical framework as an analytical tool when collecting and analysing data from the interviews (Flick, 2018, p.50). Furthermore, this semi-structured design provides flexibility and adaptability to follow the interviewees’ interesting points and probing unexpected themes which is crucial for uncovering the intricacies of the participants’ perceived influences of AI-co-creation in their creative process.

## 3.1 Sample

The goal of empirical research is to make wider, more relevant conclusions rather than only describing particular occurrences (Schreier, 2018, p.84). To uncover how Art Directors use AI and how they perceive the changes in their creative process, a purposive sampling method was chosen. This non-probability sampling method was chosen as it requires that participants meet specific criteria relevant to the research question (Babbie, 2018, p.187). The interviews will be conducted with Art Diectors based in Amsterdam until saturation is reached as this is “the most common approach to sample size” in qualitative research (Beitin, 2012, p.244).

Specifically, the chosen sample has at least one year of experience working as an Art Director, and includes participants of any age and gender who work in advertising as specific

knowledge is required (Babbie, 2018, p.187). Art Directors are responsible for ideating campaigns and producing them while focusing on efficiency (Derda, 2023, p.16). Gaining access to these creative professionals is imperative and facilitates finding information-richness related to their perceptions, feelings and impressions of AI technology. Participants will be approached through direct communication and informed consent will be obtained before the interviews begin. Additionally, participant's identities are kept confidential to ensure their privacy. An overview of the interviewees can be found in Appendix A.

## 3.2 Operationalisation

To answer the research question, 'how do Art Director's perceive changes in their creative process through human-AI co-creation?' an interview guide was developed ensuring relevant concepts are covered (Morris, 2015, p.39). The interview guide can be found in Appendix B. To build trust with participants, the interviews started with warm-up questions related to their personal background as a way to ease the conversation into the relevant topics of the guide (Hermanowicz, 2002, p.489). The first stage of the interview also consisted of clarifying confidentiality, and obtaining consent to record and utilise the information shared during the discussion (Adams & Cox, 2008. p.22).

The second stage of the interviews focused on broad questions related to the relevant theoretical concepts followed by relevant follow-up questions. Probes including, silence, rephrasing, and requests for clarification were used (Hermanowicz, 2002, p.487). It should be noted that the interview guide was slightly adjusted during the data collection due to the iterative nature of the study.

The topics covered relate to the creative process, human-AI collaboration and attitudes regarding AI in advertising (Atkinson & Barker, 2023; Sadler-Smith, 2015; Stuhlfaut & Windels, 2017; Wu et al., 2021; Yang, 2023; Yu, 2022). The first concept in the interview guide was "creative process" (see chapter 2.2.1). Creativity is described as the process of making a work of art, encompassing cognitive, affective, behavioural, and contextual factors (Mace & Ward, 2002, p.179). The questions aimed to understand the creative process in advertising using the five-stage model; preparation; incubation; intimation; illumination; verification (Sadler-Smith, 2015, p.346).

The second concept, "perceptions of human-AI co-creation" was developed to cover the extent of the participants collaboration with AI, attitudes towards AI, as well as future predictions regarding AI in advertising and the creative process. The questions were developed according

to the Human-AI co-creation model (Wu et al., 2021, p. 178). The circular process model co-creates with humans through six stages consisting of enhancing perception, thinking, expressing, collaborating, building and testing (Wu et al., 2021, p. 178). This model explains the creative process in the era of AI, highlighting how AI can complement human intelligence and enhance creativity by harnessing the strengths of both parties (see chapter 2.2.3).

## 3.3 Data Collection

For this research, 10 art directors based in Amsterdam were contacted and successfully interviewed in the period of April to May 2024. Access to participants was facilitated through social media platforms such as LinkedIn and Instagram leveraging the researcher's network in Amsterdam.

All interviews were conducted in English and lasted 45 to 60 minutes online using Google Meet to facilitate accessibility and accommodate the busy schedules of Art Directors. Each participant provided verbal consent to being recorded before the official interview began. After permission was given, the interviews were recorded using the built-in recording setting on Google Meet, which automatically saved the recordings in a private folder in Google Drive.

The semi-structured guide covering all concepts was used in every interview (Appendix B). Open-ended questions allowed participants to share their perspectives and the semi-structured interview format allowed for follow up questions which expanded the data. The researcher remained open to new possibilities despite having done extensive research as some topics may be considered less significant, others may become central and new themes may surface during data collection (Morris, 2015, p.41).

After each interview, field notes were taken to ensure the researcher's initial insights were documented (Hermanowicz, 2002, 496). The recordings were transcribed shortly after each interview using Otter.AI, and manually revised and edited to facilitate data analysis. To ensure security and prevent data loss, all recordings were stored on multiple devices. The majority of participants requested their names remained private, therefore all names are anonymised.

## 3.4 Methods of Analysis

This study is mainly interested in uncovering how Art Directors in advertising are currently perceiving changes in their creative process human-AI co-creation. A latent thematic analysis was used as it best uncovers ideas, assumptions and conceptualizations that are hidden beneath the semantic level of interviews (Braun & Clarke, 2006, p.84). A mixed deductive and inductive approach provided a streamlined analysis that was open to new themes and patterns to provide insights that were not previously found in the pre-existing theories (Braun & Clarke, 2006, p.83).

As outlined by Braun and Clarke (2006, p.87) the thematic analysis consisted of six phases: first, familiarisation with the data by closely reading and re-reading transcripts of the interviews as well as noting and highlighting initial interesting findings. Second, initial codes were developed according to concepts in the creative process and the human-AI co-creation model previously mentioned. It should be noted that in the second stage, relevant, new and unexpected codes were created too. All codes were generated by coding relevant text fragments from the interviews. The coding of the data was performed using the software program ATLAS.ti and continued until coding refinements weren't adding anything substantial (Braun & Clarke, 2006, p.92). In the third step, codes were clustered and themes were searched for and identified following patterns from the data.

In total, the coding process consisted of 400 codes that related to the research question and predetermined concepts from the theoretical framework. An example of the coding process can be found in Appendix C. Of the 400 codes, 104 codes remained after multiple rounds of clustering and refining. In step four, codes were grouped into themes which were thoroughly reviewed, modified, combined or discarded, ensuring the themes were sufficiently different from each other and relevant to the research aims.

In step five, three themes were defined, along with five sub-themes, reflecting upon existing theory. The specifics of each theme were refined and the essence of each theme was determined considering the aspects of the data captured. The themes are: innovative ideation with AI co-creation, balancing the tensions between human and AI-creativity, and AI's role in the evolution of creative skills and jobs. After the three themes were identified, defined and named, step six followed: the findings were presented and connected to the theoretical framework in a written report with extracts from the interviews found in the next chapter. The interpretation of the results intends to underscore the key findings to answer the research question about AI use and perceived changes in the creative process of art directors.

## 3.6 Validity & Reliability

In order to establish trustworthiness in qualitative research Morse et al. (2002, p. 14) outlined different criteria that were applied in this study. Requirements for validity and reliability were met by utilizing verification strategies. Firstly, methodological coherence was achieved by the choice of research method matching the research question. In the case of this study the perceptions of Art Directors in advertising were best found to be collected through interviews which were thoroughly documented in the data collection section (Morse et al., 2002, p.18). Secondly, the sample was appropriate, as Art Directors, who have a wide amount of relevant knowledge, were selected in the research sample. Collecting and analyzing data congruently as well as thinking theoretically occurred by going back and forth between previously discussed theory, finings, and the data analysis. Lastly, theory development was implemented by using existing theory and adding relevant new findings (Morse et al., 2002, p.18).

Validity was enhanced by developing an interview guide using concepts informed by the theoretical framework. Respondent validation occurred by asking interviewees about previous results for review and confirmation. The potential to overlook key pieces of data is present, as only one researcher looked at a large data set, offering limitations to the analysis and coding of the data. Mitigation was attempted through prolonged engagement as suggested by Baxter and Eyles (1997, p.514).

## 3.7 Ethical Considerations

Seeing as this research covers the intimate perceptions, thoughts and feelings of Art Directors, their names are made anonymous to ensure their privacy. The topics covered are personal, and in order to guarantee the interview questions were answered honestly, the participants' request to maintain their identities annonymous were respected. Furthermore, to ease participation and enable full expression, the interviewees were reassured there were no right or wrong answers as the study's interest lies in understanding their perspectives on their creative process and their attitudes towards AI.

# 4. Results

This study aims to answer ‘how do Art Director’s in Amsterdam perceive changes in their creative process through human-AI co-creation?’. To answer the research question, semi-structured interviews and a mix between deductive and inductive thematic analysis were conducted. From the coding process, three themes derived along with corresponding sub-themes. The key findings focus on the effects of Human-AI collaboration on the stages of Intimation, Illumination and Verification in the creative process and the implications of such. Additionally, key findings show that co-creating with AI enhanced the efficiency of advertising creative workflows mostly in the Verification stage. Perceived changes to the Verification stage were also found in the need to balance human creativity and AI creativity with the development of necessary AI skills and knowledge by leveraging the Preparation stage. Finally, the way in which Art Directors are navigating the perceptions and reactions of stakeholders in the advertising industry were found to influence their collaboration with AI and creative process.

## 4.1 Theme 1: Innovative Ideation with AI Co-creation

As previously discussed in Chapter 2, there is no denying AI is being integrated in creative practices. The need to adapt to a rapid evolving media landscape is no news to creative professionals. The rise of digitisation has opened up possibilities for new tools to be used in the process of creating innovative advertising campaigns by leveraging new technologies (Stuhlfauth & Windels, 2017, p. 4). The shift from analog to digital was lastly seen with the emergence of digital tools such as Photoshop, Illustrator and Premiere among many more to aid the production of advertisements. Now computational creativity in the form of generative AI tools are revolutionising the way in which Art Directors engage in their creative process by enhancing their abilities to conceptualise and experiment with ideas in innovative ways:

> “On paper, [AI] opens up the imagination that allows you to make things that previously would be very difficult, production wise, etc. I think as the technology gets better that's going to become more and more apparent as well, I think that's a big possibility.” (Interviewee 8, Age 47)

In general, almost all interviewees recognised AI's potential to enhance the process of ideation. In advertising this usually occurs after the client has presented agencies with their business problem, and account managers present their briefs to Art Directors. As Derda (2023, p.15) explains, advertising agencies are in the business of selling creative solutions that achieve business goals and target their audiences in meaningful ways. These creative solutions are paved by ideation, where insights of the target audience are leveraged to create advertising campaigns. Specifically, the interviews revealed several perceived changes in the stages of Intimation, Illumination and Verification in the creative process. Intimation and Illumination are closely connected, followed by Verification. Where Intimation involves partial attention and influence on emerging creative thoughts. Intimation captures creative intuitions, building from them until Illumination occurs. Illumination refers to the emergence of an idea, which is then refined during Verification.

Collaborating with AI was found through experimentation to enhance the moment of insight, or "eureka" moment, by providing unexpected and innovative visuals which offer inspiration to the Art Director's final idea. In the Verification stage, whether an idea was triggered by AI or not, the creative professionals noted how AI allows them to test their idea and visualise its materialisation in the stage of production. This allows them to select, refine or change their concepts to present prototypes to their colleagues or clients. In the following section, the specifics of how AI enables innovative ideation with the creative process are discussed and how AI is leveraged through experimentation and inspiration in accordance with Wu et al.'s (2021, p.173) AI-human co-creation model.

### 4.1.1 Leveraging AI for Inspiration and Experimentation

A recurring topic among Art Director's was the use of AI as a conceptual tool with potential for creative innovation through experimentation. AI tools such as ChatGPT, Midjourney, and even Photoshop's new AI features are perceived as influencing the stages of Intimation, Illumination and Verification in the creative process. Wu et al. (2021, p.173) human-AI co-creation model explains how humans collaborate with AI through six phases. Art Directors mostly perceived collaboration through Thinking, Expressing, Building, and Testing during ideation. The notion that AI tools can assist Art Directors to better visualise concepts to enhance ideation aligns with Boden's (1992, p.215) idea of exploring and transforming conceptual spaces. Colton and Wiggins (2012, p. 2) emphasise AI's role in generating valuable creative artefacts and thinking outside the box. Innovative ideation with AI can be leveraged by creating

new forms of advertising campaigns. AI tools allow Art Directors to navigate conceptual spaces more creatively resulting in richer ways of developing ideas:

> “I think now that we have new AI programs, it's almost opened up a whole new way of looking at advertising campaigns, because you suddenly have so many new ways of approaching different ideas and also uncharted ground” (Interviewee 7, Age 26)

Uncharted ground is a key word in the previous quote. Some Art Directors explained the existing homogeneity in advertising campaigns and feeling saturated by it. This is perhaps a result of businesses unwillingness to take creative risks in their campaigns (Derda, 2023, p. 15). AI tools provide opportunities for innovative ideation while still keeping focus on achieving business goals, as these tools provide Art Directors with new ways of adding novelty to campaign concepts, even if only through internal processes. As they engage in the client’s brief, they are in the Preparation stage, consciously gathering domain-specific knowledge and expertise to develop an insight that informs ideation. AI is then implemented in the Intimation stage, when the Art Directors are brainstorming and exploring connections between conceptual spaces expecting Illumination to occur. When using AI tools to try different creative directions, the generated outputs of AI can sometimes be triggers to a creative solution that addresses the client’s brief:

> “Sometimes AI is really good for brainstorming, you write something, it shows you something that you don't like, and you start to go other ways until you get to something that you like, and sometimes in that process, you have gems, you say to yourself: this is more interesting than what I was thinking” (Interviewee 1, Age 35).

The element of surprise often generated by AI can lead to innovative creative directions that would otherwise not have been considered as efficiently using traditional methods of ideation. This aligns with notions by Oh et al. (2018, p.650) where AI’s unpredictability is perceived as positive. Thinking, Building and Testing with AI further enhance the abilities of Art Directors to ideate by using AI for visual references in moodboards, storyboards or to see how an idea might play out through mock-ups or prototypes. Although interviewees perceive AI as a facilitator to the Intimation and Illumination stages of the creative process, it was also mentioned that the current development state of AI tools come with certain limitations. Nonetheless, these comments were often followed with the understanding that AI not only allows Art Directors to

conceptualise abstract ideas but also aids in the materialisation of concepts that may otherwise be difficult to find in online databases:

> “We had the client Rituals and we wanted to place a phone booth on the Dam Square in Amsterdam in the winter with the right look and feel and the right lighting. So it's really difficult to find that online or Photoshop that. AI gave me a hand and, like I said, it isn't perfect, but it's just enough because you're in the concept phase and need to show the concept or the story that you want to tell” (Interviewee 10, Age 33).

There is a growing acceptance of AI as a supporting tool in the creative process despite the fact that these systems are still being developed, with room for further improvement being acknowledged by the interviewees. The current state of AI tools and the quality of their outputs aren’t yet perceived as being usable as final products for advertising campaigns. These outputs are instead leveraged for refining and evaluating creative ideas in the Verification stage of the creative process by Building with AI. Here the construction of innovative solutions with higher quality and lower production costs are leveraged. There is a current perception that the rise of AI tools for ideation is opening up the room for the democratisation of creativity by providing opportunities to various creators.

As previously discussed in Chapter 2, the mysterious nature of creativity might intimidate creatives and ordinary people in the belief that creativity is far from them (Wu et al., 2021, p.174). AI tools remove perceived limitations in the lack of resources to engage in creative work. Outside of agency and client dynamics, Art Directors are able to experiment with these tools and broaden their horizons, using AI to widen their ability to think deeper and wider which consequently results in an increase of knowledge. Having creators from diverse backgrounds leveraging AI tools for experimentation allows the stage of Verification to be enhanced by providing innovative solutions that might not have been seen before:

> “Imagine all the possibilities that you have to make something great every week. It gives possibilities to everyone because before and still, the possibilities were just for a few... Now someone from any country can do it… For me, it's democratisation. Everyone can access [AI]... If you have an idea, and you want to materialise it, you can”. (Interviewee 1, Age 35)

### 4.1.2 Improved Efficiency in Creative Workflows with AI co-creation

Art Directors acknowledged the importance of time in Advertising, emphasising how time is money which aligns with Derda's (2023, p.16) explanation that effectiveness and creativity are necessary to the creative process in advertising. Effectiveness in advertising is often seen not in the craftsmanship of the ad itself, but in the novel and intriguing ways it addresses and resolves a client's business problem (Derda, 2023, p.16). In today's fast-paced advertising landscape, being both efficient and creative is crucial. The notion of AI as both a time-saving and supportive tool and its ability to simplify production processes, were present in the interviews with Art Directors. AI is streamlining creative workflows in the Illumination stage but especially in the Verification stage also. Wallas (1926, p. 80) compared this stage to preparation, involving conscious, objective, and aesthetic evaluations. These evaluations determine the creative value or significance of the result, ensuring that the outcome is refined, validated, and effectively communicated to others (Sadler-Smith, 2015, p. 347):

> "You can either work for hours on the visual by compiling it and photoshopping… or you just look into an easy way to get people to understand it… The initial phase is to be able to show people something, I think that's the most helpful place for [AI] tools. It's like: I'll generate something so I can show you this, and you get the idea and if we like it, we'll craft it further". (Interviewee 5, Age 31)

The Componential Model of Creativity described by Amabile (2018, p. 112) supports the iterative process of idea refinement. As previously mentioned, AI is enhancing conceptualization which in turn makes the process of refining and evaluating outcomes from the creative process more efficient and effective. Implementing AI allows Art Directors to create visuals that previously would've been more difficult and time-consuming, opening up possibilities for unimaginable outcomes and campaigns. The continued development of AI tools is likely to extend its integration in the creative process. AI is increasingly viewed as a standard tool for the creative process, having the potential to transform how Art Directors and creative teams operate. Furthermore, the delegation of mundane tasks to enable focus on other activities, and improve efficiency were also identified, all of which result in a perceived faster production of ideas to enhance focus:

> “Advertising is such a game of time. Sometimes you don't have time to make really cool visuals because you have three meetings a day or you have 10,000 things you need to deliver… So a quick AI generation makes your life so much easier.” (Interview 3, Age 41)

Evidently, Art Directors largely perceive a positive impact in the implementation of AI to innovate ideation, leveraging experimentation in stages of the creative process as well as improved efficiency of their creative workflows. The new insights on the practical benefits and potential in AI-human collaboration are made more apparent in the advertising industry. Despite the clear efficency of stages in the creative process by leveraging AI, Art Directors often mentioned challenges when utilising AI tools and how it sometimes results counterproductive. Specifically, concerns were raised regarding what the implementation of AI may mean for creativity, and the challenges they face while using these tools.

## 4.2 Theme 2: Balancing the tensions between human and AI creativity

Existing tensions between leveraging AI for creativity and preserving the human touch in creative outputs were found. Art Directors emphasise the need to maintain high standards of creativity especially when using AI tools. This balancing act is essential in co-creativity, as AI-generated outputs were perceived in lacking emotional depth, authenticity and human-truths, as opposed to human-generated work. The challenges of effective AI prompting and the need for human involvement were recurring patterns. Human involvement is essential for creative outputs to be meaningful. The Human-Co Creation model developed by Wu et al. (2021, p.173) shows how humans and AI can complement each other by enhancing each other’s strengths to improve productivity, innovation and to empower. However, when AI systems haven’t reached a certain stage of development, Art Directors find the collaboration frustrating, as a loss of time, and find a different course of action:

> “Sometimes you tell [AI] something and it does it quickly and you’re like, oh, this is exactly what I needed, done, I’m happy. But sometimes and I don't know why that is…you just don't get it to work… it doesn't understand…It's a bit frustrating, I'm losing time because it doesn't do what I want…mostly it's okay because it's not something I rely

on too much. If it works it's easy and nice. Otherwise, I'll find another way to do it." (Interviewee 5, Age 31)

As previously mentioned, the value of time in advertising in imperative as effectiveness in advertising is highly regarded (Derda, 2023, p.16). When AI systems fail to support users and save time, frustration is to be expected. As AI becomes increasingly integrated in advertising, its important these systems are built to meet the needs of those who use them. Mitigating these frustrations can be achieved by deepening researcher's understanding of the challenges Art Director's face after co-creation when evaluating AI outputs. Patterns regarding concerns of the quality of AI-generated outputs describe the need for human involvement to ensure human creativity is at the core of ad campaigns.

### 4.2.1 Mitigating AI's 'soullessness' by preserving human involvement and creativity

AI is most beneficial when it is focused on human creation and centered on enhancing human creativity rather than replacing it as explained by Anantrasirichai and Bull (2021, p.639). Human involvement is essential in the implementation of AI. Art Directors discussed the importance of preserving human vision in their collaboration with AI due to AI's inability to understand and respond to client briefs. As previously discussed, the creative process in advertising involves the development of an insight that enables solving a client's problem and helps reach the desired target audience in meaningful ways. The current state of AI developments lack in the ability to replicate this process:

"I think there's always a human touch in the creative process because, for instance, I do think AI can do a lot, but it still needs input and it doesn't do things by itself right now. So it can't judge a person or can't judge a feeling or it can't judge a question from a brief for what the client is looking for exactly because then it needs clarification and thinking" (Interviewee 10, Age 33)

The process of developing a campaign idea that evolves from an insight occurs in the Intimation stage where Art Directors make semi-conscious connections of their conceptual spaces up until Illumination. Later, in the Verification stage, the complexities behind these insights are analyzed, and refined to ensure creative outputs meaningfully impact the target

audience. Parallel to Wingström et al. (2022, p.189), Art Directors recognised the rapid advancements of AI, and the crucial need for human involvement in their development, ensuring AI creativity aligns with creative visions and cultural contexts that serve humanity. Implementing AI in the creative process requires Art Directors to continuously learn and engage with the technology to effectively harness AI's potential while mitigating its limitations. A cautious approach was perceived as necessary in collaborating with AI tools, balancing fun and experimental characteristics of the technology while maintaining high-quality creative campaign ideas. This perceived notion extends to the preservation of human creativity by ensuring Art Directors are cautious not to become lazy or too reliant on AI for creativity:

> "It's very easy to say: can chatGPT give us a good headline for this? Yes, ChatGPT will give you multiple headlines, and it will never stop giving you headlines…Even though it can be painful as a creative to constantly try to think of new ideas, it's also how we become sharper and better creatives. That's where the downfall is in terms of how we evolve. AI is evolving so much faster than we are…that's when we need to be strict on ourselves not to get too reliant on these AI programs" (Interviewee 7, Age 26)

If creatives become over-reliant on AI for creativity, the creative process is at risk as the most inherently human stages – incubation, intimation and illumination – are skipped resulting in a perceived decreased quality of creative outputs. Caution and critical thinking are essential to produce authentic ideas that evoke emotional responses and are meaningul to target audiences and their values. The predominant perception of AI-generated outputs as "soulless" indicate how Art Directors value human-created work for its emotional resonance and cultural relevance, which AI tools evidently still struggle to replicate. Where humans tend to be better at creativity, strategic thinking and compassion, AI's stronger at automation and optimization (Wu et al., 2021, p. 173). It's therefore not surprising that AI was perceived as lacking compassion, leading to an inability to reproduce emotional responses in the generated outputs:

> "The [AI] imagery doesn't look as good… it misses something, there's some sort of soullessness, some sort of flatness to it, or something, even with the most incredible stuff that's cooked up… but you know, give it five years" (Interviewee 8, Age 47)

The inevitable change as a result of increased AI developments and use is widely acknowledged, even if it appears underdeveloped at the moment. Yang (2023, p.105) explains

that leveraging AI technology is necessary while also being critical of its limitations such as structural biases, deep fakes, and copyright issues. Concerns over copyright and misuse of AI were perceived as a direct threat to creativity and the need for AI regulation was heavily touched upon. The importance of giving credit to references used for prompting and being transparent with AI generated content were consistently highlighted:

> "You can control how you use the machine and how we come as a community to use this tool that we created ourselves. Whether it be giving credit where credit is due or being very clear with your prompt, and which things you use…If we don't have regulation…making sure that at all times you can double check if it's AI, I'm afraid". (Interviewee 4, Age 30)

The importance of integrating AI into the creative process in a way that enhances, rather than diminishes the creative quality and authenticity of create outputs is highlighted. The findings suggest that while AI offers significant potential for innovation and efficiency, the human touch remains indispensable. Despite passing the Lovelace effect (Natale & Henrickson, 2022, p.1910), AI tools are unable to provide intentionality and motivation, lacking an essential aspect of engaging in the creative process. Aligning with Wingström et al. (2022, p.187), consciously creating something is understood as an inherent human ability.

Art Directors perceive the need of balancing AI's efficiency with their own creativity, paying close attention the quality of creative outputs. This ensures that AI serves its users valuably in a way that complements and enhances the most human-like stages of their creative process. It is evident that the dynamics of human-AI collaboration are still evolving, with excitement equally as present as caution, as well as the need to balance human creativity with AI-creativity. Furthermore, AI systems are evolving the professional landscape of the advertising industry. In regard to the creative process, the development of new skills is a necessary endeavour creative professionals must undertake. In the following section, the influences of AI on the evolution of creative roles as perceived by Art Directors are highlighted.

## 4.3 Theme 3: AI's Role in the Evolution of Creative Skills and Jobs

The new media landscape of AI is bound to lead to further restructuring of creative workflows in advertising. The need to adapt was acknowledged as crucial to remain relevant in

the industry as the changes in the professional environment of Art Directors are only at an early stage. Past restructuring due to digitisation in the advertising industry gave rise to new roles and the loss of jobs (Derda, 2023, p.16). Although patterns of excitement were found at the face of AI advancements and their ability to enhance workflows, concerns relating to the professional environement of Art Directors exist. The inevitable change AI brings to their professional lives was frequently acknowledged:

“There's no escaping [AI] touching our professional lives… in some way within the next two or three years. I think you've got to start, you've got to… get on the horse” (Interviewee 8, Age 47)

It was found that Art Directors aren’t currently heavily concerned with losing their jobs as they recognised the importance of human creativity and human-truths as essential for successful ad campaigns. Concern was mostly found for other creative roles in the industry which are further emphasised in chapter 4.3.2. Conscious and gradual implementation of AI by the advertising industry was highlighted. In parallel, adapting to the era of AI can be achieved by developing the necessary skills to use the technology effectively. Taking the time to learn about AI systems and how they can best be used in their creative process necessary, but in a fast-paced industry where efficiency is highlighted and crucial, doing so may seem counterproductive. Still, patterns in the data revealed Art Directors recognise the need to adapt, specifically in learning how to prompt AI systems.

### 4.3.1 Adapting to the era of AI by developing AI knowledge and skills

Wu et al. (2021, p.177) AI-Human Co-Creation Model ephasizes the need for humans to learn how to collaborate effectively with AI tools. Art Directors also recognise the need to learn and adapt to AI tools to stay competitive. The predominant initial reactions of AI revealed that Art Directors were enthusiastic to experiment with this new tool. Some Art Directors discontinued their active learning of AI, while still using AI daily, but others focused on staying updated with new AI tools and updates. What persists is the active implementation of AI in their creative workflows. Art Directors still emphasised that acquiring knowledge and skills of AI is crucial for effective implementation in their creative workflows and offers a competitive advantage:

> “When AI get better, it's for sure gonna be something that's going to be more in the process more daily, on more regular things. They always say this, AI is going to replace creators bla bla. But I think the creative who knows how to use AI will replace creators who don't” (Interviewee 5, Age 31)

Prompting knowledge was also perceived as essential when collaborating with AI. Effective prompting mitigates the frustrations attached with using AI tools that was previously discussed in chapter 4.1.2. Developing this knowledge informs the Preparation stage of the creative process as new AI skills allow Art Directors to benefit from the previously discussed advantages of implementing AI in the creative process. With efficiency as an important indicator of creativity in the advertising industry and the expected widespread use of AI in the industry, adapting and developing prompting skills is crucial. There is potential of enhancing the Verification stage of the creative process and speeding the process of building and testing ideas. The democratization of certain skills were also evident in the perceptions of Art Directors, as AI allows them to engage in skills they previously did not have:

> “I use AI for Storyboarding, things like that, just to sort of get it out also because I'm not a graphic designer at all. I don't have that skill…I felt a bit underconfident. So I thought let me just try to prompt well” (Interviewee 2, Age 32).

There was a large acknowledgement that despite AI being more frequently used in the advertising industry, the progress is slow. Art Directors who were more proficient in their use of AI acknowledged that advertising agencies are lagging in their integration of AI because of their attachments to traditional methods as a consequence of their lack of time to stay updated and learn new AI skills. Furthermore, some clients were also perceived as reluctant towards the use of AI because of privacy concerns. The perception was that these concerns exist due to a lack of understanding of how AI works, and that this can be limiting to those who are more proficient in using these tools:

> “The other day I was speaking with a client and they were scared that we were going to leak information about the brand inside Midjourney. You don't speak to Midjourney like a brief, you speak to Midjourney like a baby and then you change it, then you mix it and then you have the final result but it's quite difficult to understand what I mean, prompting

with Midjourney or with any of the tools. It's difficult. It's not simply A to B” (Interviewee 1, Age 35)

“One big advertising agency asked me if I had a portfolio of AI landscapes. I said yes, I prompted and generated a bunch of images and then sent it to them. This means they don't understand what AI is. You're not looking for a portfolio, you need someone that knows the tool and can control the tools” (Interviewee 3, Age 41)

Clear communication and an increase of understanding of AI tools are the best ways to fasten the integration of AI advertising in order to leverage its benefits, especially for Art Directors. Knowledge of effective AI prompting is crucial as it enhances and mitigates frustrations in the Preparation and Verification stages of the creative process. The new skills allow Art Directors to express using various mediums previously inaccessible to them due to a lack of skills and it opens up opportunities for creative growth. In parallel to developing new skills to leverage AI, Art Directors also noted concerns in navigating job security and changing roles in the era of AI.

### 4.3.2 Navigating Job Security and Role Changes in an AI media landscape

The findings show that Art Directors raise concerns over the obsolescence of certain roles as a result of the emergent technology. Despite the exciting possibilities of using AI for creative outputs, the threat of jobs being lost as a result is largely existent and their implications on the creative process. Nonetheless, because Art Director’s creative process involve inspiration based on insights from human-truths, most don’t feel directly threatened by the rapid advancements of AI tools at the moment. Instead, the concern for other creative roles in the industry such as in music, writing and even production were discussed as well as ethical concerns:

“I do think the curve is gonna become steeper and steeper, so [AI’s] going to rapidly improve. I already know that for things like music and writing, it might end up replacing a lot of jobs and positions…unfortunately, that's where technology is going. I do have a feeling that people need to get on board with it apart from all the unethical things that are going on with it, that's something I'm not behind” (Interviewee 2, Age 32).

Natale & Henrickson (2022, p. 1991) emphasize ethical considerations that need to be acknowledged when using AI in creative fields, the awareness of such ethical and social implications are understood by Art Directors which is crucial for responsible AI integration in the creative process, but this requires continuous education and awareness. However, this active learning may be counterproductive to the rapid industry culture discussed in chapter 4.3.1. While AI tools offer challenges to job security, it offers opportunities to those willing to adapt to changing roles. In 2022, when AI tools such as Midjourney were launched, the initial reaction of some advertising agencies were to fire people. This initial hype and trendiness of AI was largely frowned upon by Art Directors:

> “You even had agencies that fired many people because AI started. I thought, whoa, chill. It's just four months that you know that Midourney is there and that's a big life change if you fire people from your agency, and if you make a huge agency way smaller. I think that you need to wait more to see what happens in the future and make that process a bit longer instead of doing it directly”. (Interviewee 6, Age 28)

This notion emphasizes the need for a gradual process of adaptation which resonates with Wu et al.’s (2021, p. 177) model of evolving human roles in AI collaboration. A rushed implementation of AI might not allow sufficient time for creative professionals to adapt to roles and integrate AI tools in their responsibilities and roles effectively. Natale & Henrickson (2022, p.1921) point out the ethical need for management of AI integration in creative fields, mitigating the adverse effects on employee’s livelihoods. Furthermore, the initial reactions to AI tools involve a period of exploration and learning which inform the Preparation stage of the creative process. Not giving enough time for Art Directors and other creative professionals to appropriately integrate AI impacts the foundation of the creative process and naturally its outputs. Disruptions to Verification are also evident as forced, premature creative decisions, leading to a mismatch between AI-generated ideas and the human touch result in a decreased quality of creative outputs. There was a predominant belief that due to this notion, craftsmanship and human-created work would increase in value:

> “I think in the end, humans will still look for humans so I think it's gonna be a tool… probably in the beginning it can replace a lot of people but then people will figure out that we still need humans to survive” (Interviewee 9, Age 40)

While AI offers a wide range of opportunities for the creative process, there is an existing threat of negative consequences to the industry, especially with the loss of jobs. The gradual and ethical integration of AI tools is necessary to ensure it complements and enhances the creative process rather than undermining it. Such considerations must be acknowledged if the industry wants to adapt to this new media landscape while offering stability and security to creative professionals.

# 5. Discussion & Conclusion

The purpose of this research was to answer the question: ‘how do Art Director’s perceive changes in their creative process through human-AI co-creation?’ The research was based on semi-structured in-depth interviews with ten Art Directors in Amsterdam. The data collected from the interviews was analyzed using a thematic analysis that mixed a deductive and inductive approach. The thematic analysis revealed three key themes that were used to answer the research question. The result is layered, but provides new insights to the academic debate on AI and the creative process due to its inductive approach. The paradoxical findings point towards the existing tension between perceived enhancements of the creative process with AI co-creation and the awareness of its limitations and implications to the advertising industry at large.

Before beginning the discussion of such findings, it is important to reiterate the complexity of studying creativity as a phenomenon (Gunkel, 2021, p.385). The belief that human creativity is unreplicable still exists, and perhaps rightfully so as generative AI is only aware of things that exist in the real world (Brisco et al., 2023, p. 1837). Innovation through artistic and problem-solving solutions is highly valued. With computational creativity our ability to innovate is expanding and redefining how we think about creativity. There are, however, efforts to be made in bridging the gap in understanding human-AI co-creativity (Brisco et al., 2023, p. 1843). Chen et al. (2019, p.8) also raised questions in regard to the relationship between human creativity and AI creativity and if the two complement or replace each other. The results of this study provide further insights to the such questions and the gaps in academic literature.

The phenomena documented in this study was at times similar to the exisiting academic research which focuses on the general human collaboration of AI users, or roles such as new media artists, designers or the advertising industry in a broad sense (Natale & Henrickson, 2022; Oh et al., 2018; Wingström et al., 2022; Wu et al., 2021; Yu, 2022). Unlike such previous studies, this research particularly hones in on an understudied demographic; Art Directors There was limited research on the perspectives of these creative professionals in their experience of collaborating with AI. This demographic is largely responsible for engaging in the creative process to produce advertising campaigns that are meaningful to both businesses and audiences (Derda, 2023, p. 13). New insights on these perspectives are crucial to understanding the effects of AI in the creative process. Previous research had emphasized the need to understand co-creativity in various domains, arguing that co-creativity can explain the complexities between human-AI relationships, in ways that support creatives (Wingström et al.,

2022, p.189). The results of the study as well as previous research, demonstrate that AI is indeed affecting the stages of the creative process, as perceived by Art Directors in advertising.

Co-creativity has been mostly studied in the domain of computer science, in controlled environments which are not particularly applicable to the phenomenon that is creativity and co-creation (Wingström et al., 2022, p.187). This study demonstrated that AI can be leveraged to innovate advertising campaigns in a number of ways, outside of these controlled environments by investigating the user-perspective.The responsibilities of Art Directors are largely interlaced with the use of technology that facilitates the production of creative ideas. Understanding how and when AI is used in the creative process is as important, if not arguably more than the technology itself. After all, the user perspective allows us how to construct AI systems that are focused on enhancing human-creativity. Focusing on how users perceive AI allows us to build systems that are perceived as useful, trustworthy and engaging which contribute to their adoption (Natale & Henrickson, 2022, p.1911). As the existing academic research and this study has revealed, for Art Directors, AI is serving its purpose of streamlining workflows in the creative process. However, the results have also demonstrated a growing tension between AI resistance, in some cases even scepticism, and its potential to undermine creativity.

In regard to positive perceptions of AI's influence in the creative process, and aligning with previous research, AI tools were perceived to enhance creativity through co-creation (Karimi et al., 2020; Koch et al., 2020; Wingström et al., 2022; Wu et al., 2021). However, such research lacked scrutiny regarding where and when AI influences the creative process, focusing more on the degree to which users deem AI creative. Karimi et al.(2020 p.230) called for further investigation regarding the influence of the interactions between users and AI systems to enhance creativity. Adding to the existing body of literature, this study demonstrated that leveraging AI for inspiration and experimentation enhances the stages of Intimation, Illumination and Verification in the creative process. This means that AI co-creation is successfully enhancing the emergence of creative ideas, their discovery and the conscious work required to finalize these ideas into tangible outcomes.

Sun et al. (2019, p.1654) emphasised the importance of understanding how humans can learn and develop the abilities that enable new opportunities for human-AI co-creation in creative tasks. Art Director's perceived influences of AI implementation on the stages of the creative process, allows us to deepen this understanding by discovering the skills required for successful co-creation. The findings of this study suggest that combining human creativity with computational systems allow Art Directors to engage more efficiently in the creative process by

expanding the amount of conceptual spaces available to them, as predicted by Boden (1992, p.215). Additionally, AI allows Art Directors to navigate conceptual spaces more creatively resulting in innovative idea development. AI's unpredictability was sometimes perceived as a positive influence on emerging ideas, aligning with previous research that suggests AI helps with overcoming creative blocks (Karimi et al., 2020, p.223). Adding to this notion, this study uncovered new insights that suggest errors or surprises in AI outputs can lead to previously unthought-of directions for advertisement ideas.

Furthermore, effective communication between advertising agencies and clients is highly valued and time is a critical factor. After meeting with clients, debriefing, and facing the problem that requires creative solutions, Art Director's engage in the creative process. In the Verification stage, where they are evaluating their ideas, the production of moodboards or prototypes is often used. Co-creation of these tasks with AI offers Art Directors the ability to present high-quality prototypes or storyboards, not only at a lower cost, but in a more efficient way (Wu et al., 2021, p.177). This capability allows their teammates and clients to more accurately envision how their campaign ideas can be produced. Previous studies found that AI users expect these systems to assist them in meeting their goals more quickly and delegating time-consuming tasks, which was found to be true in these results (Koch et al., 2020; Oh et al., 2018; Sun et al., 2019). Instead of spending hours looking for specific references to aid the communication of ideas, Art Directors are able to do in minutes what would have taken them hours through co-creation.

Despite the growing evidence that AI co-creation enhances the efficiency of the creative process, we are still in an era where the widespread access of AI is new. The technology is perceived as still underdeveloped and its implications for the future of advertising are uncertain and often questioned. While the efficiency of AI is highly regarded, Art Directors remain cautious about its use. The Human-AI co-creation model demonstrates how humans and AI can collaborate by enhaching each other's proficiencies. However, its important to note that AI is subject to improve (Wu et al., 2021, p.185). Although errors in the systems can lead to surprising and welcomed results, they are also perceived as frustrating by Art Directors. Balancing human creativity with AI-creativity is crucial, as these systems require specific knowledge and skills and are often perceived as incapable of replicating human-truths, which are imperative to meaningful advertising campaigns (Derda, 2023, p. 13).

To continue answering the research question, the concerns posed by Art Directors regarding AI's influence on their creative process provide new insights into how AI outputs are perceived. There are exisiting fears that creatives may become too dependant on AI for

creativity, potentially limiting innovation. Therefore, higher awareness and engagement in the Verification stage of the creative process is necessary in AI co-creation. Research shows that more creative advertisements can lead to enhanced attention, processing and greater recall and favourable improvements to ad wear-in, brand, ad and product evaluations (Chen et al., 2014, p.347). Mitigating AI's perceived "soulessness" with human vision is essential when creating advertisements for human audiences. Otherwise, both clients and agencies risk producing lower-quality work that fails to meet creativity standards and may not reach reaching target audiences meaningfully or efficiently.

Yu (2022, p.193) emphasised the need for further research that addresses how AI may be affecting jobs in the advertising industry. Although this study does not focus on answering that question, it offers insights on the perspective of creative professionals in the industry. The new media landscape of AI also poses a threat to creativity as Art Directors revealed concerns of unregulated AI and its misuse in replicating systemic biases and copyright issues, as well as the obsolescence of some creative roles in the industry. Recognising AI's role in the evolution of creative skills and jobs is crucial to understand the perceived fears and concerns of Art Directors related to creativity and AI. Learning how to collaborate with AI offers a competitive advantage and is necessary, especially with its rapid advancements. This acquired knowledge results in an enhanced Preparation stage of the creative process, which is foundational to the remaining stages. If AI is to enhance the creative process, those who use it must know how to do so effectively.

Notably, AI is perceived as an enhancer of the creative process and simultaneously as a threat to creativity and the livelihood of creators. The findings align with existing research that claims non-human AI collaboration poses an inherently "competitive relationship" between humans and AI (Gioti, 2020, p.25). However, the findings also highlight that Art Directors aren't currently directly threatened by AI's capabilities. This however, may change as the technology continues to improve. Wu et al. (2021, p.186) explains that education is imperative in leveraging these systems, knowing how and when to use these systems demands critical thinking and experimentation. The more academia, the advertising industry, and Art Directors learn about these systems the more they are able to mitigate these concerns and enhance the creative process by understanding how to leverage AI and human strengths. Doing so paves the way for a future where AI is perceived as a trustworthy collaborator instead of competition, enabling human vision to prevail as the driving factor of creative work.

## 5.1 Limitations

Despite delivering valuable results to the research question, like every research, this study is subject to limitations. Although based on appropriate methods of qualitative research and deep scrutinisation of the analyzed data, complete objectivity of the study cannot be guaranteed due to the subjective interpretations of the researcher. There is also an existing complexity inherent to thematic analysis. Analyzing large volumes of data has the potential of overlooking other insights. Furthermore, the operationalization is informed by Wallas' (1926 p.80) foundational four-stage model of creativity which remains relevant among current creativity researchers, yet there are still existing debates on the number of stages in the model (Vuichard et al., 2023, p.3). This is potentially limiting to the scope of this research as different views on the stages of the creative process may affect the applicability of the results.

Although the sample size was informed by saturation, it is possible that without time limitations, more Art Directors could provide new insights unknown to the researcher. Additionally, not all Art Directors used AI to the same degree of proficiency, potentially limiting the data. This may influence the perceptions and attitudes of the participants, resulting in a difficulty to draw clear themes and patterns. This appeared to be the case with only two participants who reported extensive AI experience. Despite having semi-structured in-depth interviews, with additional follow-up questions prepared, the study is subject to bias as interviewees may provide socially desirable answers, and the interviewee may unwillingly probe responses.

Although this research aimed to reach data saturation, the small sample size may not be representative of the full range of perceptions within Art Directors in Amsterdam based agencies. Furthermore, the findings of qualitative research are often non-generalisable in other locations. Lastly, the results of this study suggest that there is a slow adoption of AI in the advertising industry. It can be predicted that this is bound to change as the technology improves, and these considerations are not covered by the conclusions of this paper. With new AI systems emerging, and increasing integration of AI in advertising, the industry is likely to experience major changes in the next years.

## 5.2 Future Research

The findings described in this study can be used to be redirected in future studies of similar nature focusing on the user-experience of AI co-creation in more in-depth interviews or focus groups. The themes discussed can be used as a framework to show researchers in the domain of co-creativity where to direct their line of questioning. It is recommended that future studies focus on the long-term understanding of AI co-creation in specific and various AI systems. What about these systems enhance the stages of the creative process, and where do they fall short? Answers to these questions can be greatly useful for updates to the specific systems themselves, ensuring they meet the needs of users. Furthermore, the development in perceptions of Art Directors about AI and its long-term influence on creativity can be researched in relationship to the advertising industry and using societal models of creativity as the technology continues to become standardised and developed. Additionally, some issues addressed in the academic literature and the results regarding the ethical and social considerations of AI can be furthered studied.

This paper shed light on some explanations, explaining the necessity of human involvement in the production of creative work. It would be useful for the advertising industry to further their understanding of these implications and a framework must be developed to mitigate the concerns of creative professionals. Despite its limitations, this research has succeeded in revealing the perceptions of Art Directors towards the influence of AI co-creation in the creative process. It is encouraged that future researchers continue to develop this framework as AI becomes increasingly standarised in creative professions.

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# Appendix

## Appendix A. List of Interviewees

Interviewee names are kept private for confidentiality purposes.

| Interviewee | Age | Years of Experience | Interview Date | Approx. length of interview |
|---|---|---|---|---|
| 1 | 35 | 20 | April 9, 2024 | 60 min |
| 2 | 32 | 3 | April 17, 2024 | 50 min |
| 3 | 41 | 15 | April 18, 2024 | 60 min |
| 4 | 30 | 1.5 | April 23, 2024 | 45 min |
| 5 | 31 | 3.5 | April 25, 2024 | 45 min |
| 6 | 28 | 3 | April 30, 2024 | 60 min |
| 7 | 26 | 4 | May 6, 2024 | 45 min |
| 8 | 47 | 6 | May 8, 2024 | 45 min |
| 9 | 40 | 8 | May 9, 2024 | 60 min |
| 10 | 33 | 2 | May 15, 2024 | 45 min |

# Appendix B. Interview Guide

### General Questions

- Do I have your consent to record and use this information for this study?
- What is your full name and date of birth?

### Building Rapport & Setting the Scene

### Art Director

- How long have you been working as an Art Director?
- Where are you working now?
- What is a visual art director to you?
- How has your experience been?
- What is it like working in Amsterdam?
- What are your responsibilities at work?
- Could you describe what happens on a regular work-day?

### Creativity In Advertising

- How do you define creativity in advertising campaigns?
- How do you define effectiveness in advertising campaigns?
- What makes an ad successful to you?
- What makes an ad creative and meaningful?

### Creative Process

*Preparation, Incubation, Intimation, Illumination, Evaluation, implementation*

- What do you normally do before ideating for a project?
    - What tools do you use and why?
- Could you describe what happens when you are ideating for a project?
    - Do you prefer to ideate alone or with other people? Why?
    - What tools do you use to ideate?
    - What are some challenges?
    - What is the most important aspect of ideation?
- Before selecting a final idea, how do you evaluate the options generated?
    - What criteria do projects have to meet to be selected?

    - Why are certain ideas not selected compared to others?
    - What are some challenges?
    - How do you feel after an idea is selected?
    - What comes next?
- How do you make decisions when producing the idea selected?
    - Who are your collaborators when executing an idea?
    - Could you describe what occurs when executing an idea?
    - What are some challenges?
- Can you describe a recent project that you considered was a success?
    - What made it successful?
    - Did you use AI? How?

**Implementation of AI: Human-AI Co-Creation Model**

- How often do you use AI in your work?
- When did you start using AI?
    - Why did you start?
- Could you give me an example of when you use AI at work?
    - Why do you use it now?
    - What are you thinking, or feeling when using AI?
- What platforms do you mostly use?
    - Why these?
- What are your predictions for the future regarding working with AI?
    - How does that make you feel?
- How do you see AI impacting the advertising industry?

**Feelings and Attitudes towards AI**

- What were your thoughts and feelings when you first learned about generative AI?
    - Why do you think that is?
- How did other people in the industry react?
    - How about other art directors?
- What do you think are the potential challenges and opportunities of this technology?
- How do you feel about the latest advancements in AI technologies that are used for generating images?
    - i.e. Video AI

- Is there anything else you might like to add that I didn't ask about?

**Follow up questions**

- Can you give me an example?
- Can you elaborate more on…?
- How does this translate into…

# Appendix C. Coding Book

## Coding Examples

| Deductive Codes | Inductive Codes | Final Coding | Sub-theme | Theme |
|---|---|---|---|---|
| Idea testing with AI | Ease of Exploration with AI for ideas | Enhanced Intimation with AI<br><br>Enhanced Verification with AI<br><br>Enhanced Illumination with AI | Leveraging AI for Inspiration and Experimentation | Innovative Ideation with AI Co-creation |
| Innovative solutions and creations with AI | AI produces interesting results<br><br>AI as a conceptual tool | | | |
| Higher quality and lower costs with AI | AI Democratizes creativity | | | |
| Thinking deeper and wider with AI | AI for References and Moodboards | | | |
| Wider Inspiration and exploration with AI | Experimentation with AI Tools | | | |
| AI for Visualizing Concepts | Element of Surprise in AI-Assisted Creativity | | | |
| Leveraging AI for Emerging Ideas | Making Ideas Tangible with AI | | | |
| Using AI for co-creation | AI as a Supporting Tool | Enhacing Verification with AI<br><br>Enhacing Illumination with AI | Improved Efficiency in Creative Workflows with AI co-creation | |
| Value of Time in Advertising | AI as a Time-Saving Tool | | | |
| Empowerment through AI | AI as a Conceptual tool | | | |

| | | | | |
|---|---|---|---|---|
| AI for Basic Content Creation | AI Potential for Creative Innovation | Being more efficient with AI | | |
| | AI is Simplifying Production | | | |
| | AI Enabling Focus on Other Activities | | | |
| AI's Inability to Capture Human Truths | Concerns About Quality of AI Outputs | Preserving Human Vision in AI-Driven Projects<br><br>Concerns about Reliance on AI for Creativity<br><br>Essential Human Involvement in AI | Mitigating AI's 'soullessness' by preserving human involvement and creativity | Balancing the tensions between human and AI creativity |
| Need for Critique and Awareness in AI Use | Frustration with AI Results | | | |
| AI results lack human creativity | Fear of AI Replacing Creativity | | | |
| Human-centred AI | Aligning Human Intent and AI Output | | | |
| Long-Term Need of Human Involvement | Value of Human-Created Work | | | |
| Bias in AI Training Data | AI results are soulless | | | |
| | Lack of Emotional Connection to AI Outputs | | | |
| | AI's Unlimited Output | | | |

| | | | | |
|---|---|---|---|---|
| | Impact of AI on Diversity and Inclusion Efforts | | | |
| | Excitement About AI Potential | | | |
| | Human Responsibility for AI Taste | | | |
| | Essential Human Involvement in AI | | | |
| | Fears of AI Replacing Creativity | | | |
| | Craftsmanship as a valuable asset | | | |
| Enhanced perception of information | Acknowledgment of Inevitable Change | AI Proficiency as a Competitive Advantage<br><br>Balancing rapid adoption with resistance of AI<br><br>Cautious Approach to AI<br>Call for AI Regulation<br><br>Necessary Gradual AI implementation | Adapting to the era of AI by developing AI knowledge and skills | AI's Role in the Evolution of Creative Skills and Jobs |
| Rapid Advancements in AI | Initial Excitement About AI | | | |
| Concerns about job loss due to AI | Importance of Effective AI Prompting | | | |
| Concerns About AI Misuse | AI is still underdeveloped | | | |
| Division in Acceptance of AI | Client Resistance to AI | | | |
| Obsolescence of Certain Roles Due to AI | Resistance to AI Adoption | | | |

| | | | | |
|---|---|---|---|---|
| Ethical and Social Implications of AI | Importance of Knowledge of AI | | Navigating Job Security and Role Changes in an AI media landscape | |
| | Concerns about job loss due to AI | | | |
| | Fear of AI Replacing Creativity | | | |
| | Challenges in Prompting AI | | | |
| | Anxiety About AI's photorealism | | | |
| | Fear of AI Replacing Creativity | | | |
| | Concerns About AI Ethics | | | |
| | Concerns About AI Misuse | | | |
| | Concerns About Unregulated AI | | | |
| | Potential Emergence of AI Prompting Roles | | | |

# Appendix D. Consent Form Example

## CONSENT REQUEST FOR PARTICIPATING IN RESEARCH

**FOR QUESTIONS ABOUT THE STUDY, CONTACT:**

Brunei Deneumostier, 694013bd@eur.nl

**DESCRIPTION**

You are invited to participate in a research about the creative process in the age of AI. The purpose of the study is to understand how AI may be influencing the stages of the creative process.

Your acceptance to participate in this study means that you accept to participate to be interviewed. In the case of the interview my questions will be related to your creative process in creating advertisement campaigns, AI use, and your perceptions of this technology.

Unless you prefer that no recordings are made, I will make a video recording of the interview. I will use the material from the interviews and my observation exclusively for academic work, such as further research, academic meetings and publications.

As far as I can tell, there are no risks associated with participating in this research. I will not use your name or other identifying information in the study. Participants in the study will only be referred to with pseudonyms, and in terms of general characteristics such as age and gender, etc.

You are always free not to answer any particular question, and/or stop participating at any point. Your participation in this study will take 45-60 minutes of your time. You may interrupt your participation at any time.

**PAYMENTS**

There will be no monetary compensation for your participation.

**PARTICIPANTS' RIGHTS**

If you have decided to accept to participate in this project, please understand your participation is voluntary and you have the right to withdraw your consent or discontinue participation at any time without penalty. You have the right to refuse to answer particular questions. If you prefer, your identity will be made known in all written data

resulting from the study. Otherwise, your individual privacy will be maintained in all published and written data resulting from the study.

**CONTACTS AND QUESTIONS**

If you have questions about your rights as a study participant, or are dissatisfied at any time with any aspect of this study, you may contact –anonymously, if you wish— contact Dr. Kim Jinju Muraro at kim@eshcc.eur.nl

**SIGNING THE CONSENT FORM**

If you sign this consent form, your signature will be the only documentation of your identity. Thus, you DO NOT NEED to sign this form. In order to minimize risks and protect your identity, you may prefer to consent orally. Your oral consent is sufficient.

I give consent to be recorded during this study:

| Name | Signature | Date |
|---|---|---|

I prefer my identity to be revealed in all written data resulting from this study

| Name | Signature | Date |
|---|---|---|

This copy of the consent form is for you to keep.

# Appendix E. AI Declaration Form

Erasmus School of
History, Culture and
Communication

## Declaration Page: Use of Generative AI Tools in Thesis

**Student Information**
Name: Brunei Deneumostier
Student ID: 694013
Course Name: Master Thesis CM5000
Supervisor Name: Jinju Muraro
Date: 26.06.2024

Declaration:

**Acknowledgment of Generative AI Tools**
I acknowledge that I am aware of the existence and functionality of generative artificial intelligence (AI) tools, which are capable of producing content such as text, images, and other creative works autonomously.

GenAI use would include, but not limited to:
- Generated content (e.g., ChatGPT, Quillbot) limited strictly to content that is not assessed (e.g., thesis title).
- Writing improvements, including grammar and spelling corrections (e.g., Grammarly)
- Language translation (e.g., DeepL), without generative AI alterations/improvements.
- Research task assistance (e.g., finding survey scales, qualitative coding verification, debugging code)
- Using GenAI as a search engine tool to find academic articles or books (e.g.,

☒ I declare that I have used generative AI tools, specifically Chat GPT, Otter.AI (transcriptions) and Atlas.ti (coding) in the process of creating parts or components of my thesis. The purpose of using these tools was to aid in generating content or assisting with specific aspects of thesis work.

☐ I declare that I have NOT used any generative AI tools and that the assignment concerned is my original work.

Signature: [digital signature]
Date of Signature: [Date of Submission]

**Extent of AI Usage**
☒ I confirm that while I utilized generative AI tools to aid in content creation, the majority of the intellectual effort, creative input, and decision-making involved in completing the thesis were undertaken by me. I have enclosed the prompts/logging of the GenAI tool use in an appendix.

**Ethical and Academic Integrity**
☒ I understand the ethical implications and academic integrity concerns related to the use of AI tools in coursework. I assure that the AI-generated content was used responsibly, and any content derived from these tools has been appropriately cited and attributed according to the

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guidelines provided by the instructor and the course. I have taken necessary steps to distinguish between my original work and the AI-generated contributions. Any direct quotations, paraphrased content, or other forms of AI-generated material have been properly referenced in accordance with academic conventions.

By signing this declaration, I affirm that this declaration is accurate and truthful. I take full responsibility for the integrity of my assignment and am prepared to discuss and explain the role of generative AI tools in my creative process if required by the instructor or the Examination Board. I further affirm that I have used generative AI tools in accordance with ethical standards and academic integrity expectations.

Signature: Bruno Denoumostier

Date of Signature: 26.06.2024

**Examples of prompts used in ChatGPT:**

1. "Could you help me improve the phrasing of this sentence…"
2. "I've come up with some theme names for data analysis could you give me some ideas of ways to improve them… my current ideas are…"
3. "Could you help me understand this complex wording? …"