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„AI-generated versus Human-made Art: The Impact of Consumption Purpose on Consumers' Preference and Perception“

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1 Abstract

1.1 EN

Artificial intelligence (AI) is expected to significantly change a broad spectrum of products and consumer behaviours in the future. The rise of AI technology has resulted in an increase in the prevalence of AI designed consumer products. Even the creation of products that typically require human imagination to be created, such as artworks. As a consequence, understanding consumer perceptions of such products has become a crucial component of consumer behaviour research. The majority of academic discourse argues towards a negative bias towards AI-generated art (e.g. Leung, Paolacci, & Puntoni, 2018; Freedberg & Gallese, 2007; Chamberlain et al., 2018). Paradoxically, AI-generated art not only attains substantial monetary value (Sotheby's, 2022) but also finds itself showcased in globally renowned museums (Museum of Modern art, 2023; Diel, 2022) and even began to win prizes (Roose, 2022). This study aims to elucidate the divergent outcomes of preference and perception of art by examining the underlying motivations, specifically self-consumption and investment, within the framework of hedonistic and utilitarian theories. I suggest that a utilitarian motivation can explain an increased preference for AI-generated art and the attribution of higher value to it. A hedonistic motivation, on the other hand, may result in a decreased effect, indicating a decreased preference for such artworks and decreased value assigned to it. Results revealed that, contrary to expectations, hedonistic motivation can explain an increased preference for AI-generated art and the attribution of higher value to it on a marginal level ($p=0.1$). In an exploratory analysis on possible differences in the perception, I found that the evaluation of trendiness was higher for the AI condition compared to the human condition, whereas attributes such as uniqueness, rarity, and time consumption received higher ratings in the human condition as opposed to the AI condition. This work contributes to the literature by challenging the prevailing notion of a negative bias towards AI-generated art and expanding the understanding of the influence of hedonic and utilitarian motivations on art preferences. In terms of practical implications, it provides valuable insights for marketing professionals and product innovators by highlighting the importance of understanding consumer perception, product attributes, and the evolving role of AI technology in the creation of products.

Keywords: *artificial intelligence, consumer research, AI-generated art, preference and perception, Hedonistic and utilitarian consumption*

1.2 DE

Künstliche Intelligenz (KI) wird voraussichtlich eine umfangreiches Spektrum von Produkten und Verbraucherverhalten in der Zukunft erheblich verändern. Der Aufstieg der KI-Technologie hat zu einer Zunahme von KI-gestalteten Verbraucherprodukten geführt. Sogar die Schaffung von Produkten, die normalerweise menschliche Vorstellungskraft erfordern, wie zum Beispiel Kunstwerke. Infolgedessen ist das Verständnis der Verbraucherwahrnehmung solcher Produkte zu einem entscheidenden Bestandteil der Verbraucherverhaltensforschung geworden. Der Großteil des wissenschaftlichen Diskurses spricht sich für eine negative Voreingenommenheit gegenüber KI-generierter Kunst aus (z.B. Leung, Paolacci & Puntoni, 2018; Freedberg & Gallese, 2007; Chamberlain et al., 2018). Paradoxerweise erlangt KI-generierte Kunst nicht nur erheblichen Geldwert (Sotheby's, 2022), sondern findet sich auch in weltweit renommierten Museen (Museum of Modern Art, 2023; Diel, 2022) und begann sogar Preise zu gewinnen (Roose, 2022). Diese Studie zielt darauf ab, die unterschiedlichen Präferenzen und Wahrnehmungen von Kunst durch die Untersuchung der zugrunde liegenden Motivationen, insbesondere des Selbstkonsums und der Investition, im Rahmen hedonistischer und utilitaristischer Theorien zu erklären. Ich schlage vor, dass eine utilitaristische Motivation eine erhöhte Vorliebe für KI-generierte Kunst und die Zuschreibung eines höheren Wertes erklären kann. Eine hedonistische Motivation hingegen könnte einen verringerten Effekt nach sich ziehen, der eine abnehmende Vorliebe für solche Kunstwerke und einen abnehmenden Wert zeigt. Die Ergebnisse haben gezeigt, dass entgegen den Erwartungen, hedonistische Motivation auf einer marginalen Ebene ($p=0,1$) eine erhöhte Vorliebe für KI-generierte Kunst erklären kann. In einer explorativen Analyse über mögliche Unterschiede in der Wahrnehmung stellte ich fest, dass die Bewertung von Trendigkeit für die KI-Bedingung im Vergleich zur menschlichen Bedingung höher war, während Attribute wie Einzigartigkeit, Seltenheit und Zeitaufwand in der menschlichen Bedingung im Gegensatz zur KI-Bedingung höhere Bewertungen erhielten. Diese Arbeit trägt zur Literatur bei, indem sie die vorherrschende Vorstellung einer negativen Voreingenommenheit gegenüber KI-generierter Kunst in Frage stellt und das Verständnis des Einflusses hedonistischer und utilitaristischer Motivationen auf Kunstvorlieben erweitert. In praktischer Hinsicht bietet sie wertvolle Erkenntnisse für Marketingfachleute und Produktinnovatoren, indem sie die Bedeutung des Verstehens von Verbraucherwahrnehmung, Produkteigenschaften und der sich entwickelnden Rolle der KI-Technologie bei der Produktentwicklung hervorhebt.

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List of abbreviations

AI	artificial intelligence
KI	Künstliche Intelligenz
H1	hypothesis 1
H2	hypothesis 2

2 Introduction

While AI-generated art has been met with a fair degree of skepticism and even animosity, it is becoming increasingly apparent that this type of art is gaining recognition. In 2022 the Museum of Modern Art in New York has invited the world to see „Unsupervised". An exhibition by the artist Refik Andol, who uses AI to show what a machine would dream about after seeing two centuries of art exhibited at the Museum of Modern Art (Museum of Modern art, 2023; Diel, 2022). AI art is not only making its way into one of the most prestigious museums in the world, but was also awarded for the first time in 2022 (Roose, 2022). To be more precise, the artist Jason M. Allen won the annual art competition of the Colorado State Fair in the category of emerging digital artists with his AI-generated artwork (Roose, 2022). The sale of AI-generated artworks at prestigious auction houses, such as the Portrait of Edmond de Belamy, has demonstrated the growing market for this type of work. This is not an isolated case. Currently, an AI-generated artwork estimated at $150,000-180,000 was sold for more than two and a half times that amount ($516.390,34) (Sotheby's, 2022). The high monetary value attached to AI art is not just limited to sales at auction houses but is also reflected in the prices commanded by galleries and art fairs that showcase AI art (Museum of Modern art, 2022).

Due to the rapid advancements in artificial intelligence, tasks that had been previously done solely by humans are moving to computers, robots, and algorithms (Granulo, Fuchs, & Puntoni, 2021). AI is now used in domains that were previously assumed to require human intellect (Mariani, Perez-Vega, & Wirtz, 2022). Despite the fact that AI design processes are starting to demonstrate creativity and originality, little research has been conducted on customer perception of AI-generated art (Chamberlain et al., 2018; Mariani, Perez-Vega, & Wirtz, 2022; Zhang, Bai & Ma, 2022). This investigation is also situated within this particular context. Whereby the use of AI in the creation of art is not new, but recent advancements in AI algorithms, particularly in deep learning, have brought new challenges and possibilities to the sphere of art (Poltronieri & Hänska 2019).

An in-depth understanding of AI art offers substantial advantages not only for researchers, artists, and curators, but also for all stakeholders in the creative and art industry. Such knowledge empowers researchers to uncover profound insights and promote theoretical advancements. From a managerial standpoint, grasping the perception of AI design is vital as it paves the way for the development of tailored marketing strategies aimed at specific target audiences. By comprehending

how consumers perceive and process information about a product or service, businesses can formulate marketing messages that resonate more effectively. Moreover, understanding consumer preferences enables the creation of goods and services that meet the needs and desires of customers, enhancing a business's competitive advantage. Furthermore, insights into consumer perceptions and preferences can assist companies in identifying potential areas for growth and development.
An intricate understanding of AI art can also equip companies with the ability to forecast and comprehend the evolving dynamics of the art market. As the field of AI art continues to advance, companies can leverage this knowledge to predict shifts in consumer preferences and behaviours over time.

The existing body of literature has delved into various aspects of AI in relation to art and consumer behaviour. For instance, studies by Cetinic & She (2022), and Chamberlain et al. (2018) have begun to analyze the intersection of AI with the creation and understanding of art, while Logg et al. (2019) and Longoni & Cian (2022) have explored the implications of AI on utilitarian versus hedonic contexts, as well as people's preference for algorithmic versus human judgment. Moreover, studies by Granulo et al. (2021) and Leung et al. (2018) have investigated how consumers' preference for human labor over robotic work manifests in different consumption contexts, and how resistance to automation is seen in identity-based consumer behaviour.

Despite these advancements, a critical gap remains in our understanding of how the public perceives and interacts with AI-generated art. Much of the previous research, such as the work of Zhang et al. (2022), focuses on consumer reactions and willingness to pay for AI-designed products in general, but the specific perception and preference for AI-generated art is still largely underexplored. This thesis aims to fill this gap by specifically investigating consumer perception and preferences towards AI-generated art, thus adding a unique perspective to the existing discourse.

This thesis embarks on an exploration and comparative analysis of human and AI-generated art, and the diverse perceptions they engender. It aspires to delve into the purposes behind art consumption, specifically focusing on the counteracting effects driven by hedonic (self-consumption) and utilitarian (investment) perspectives. In doing so, the research will illuminate the complex relationship between technology, art, and value perception, providing a more comprehensive understanding of these dynamics. It postulates that utilitarian motivations could potentially lead to

an augmented preference for AI-generated art, along with the attribution of a higher value to these pieces. Conversely, hedonistic motivations could engender a diminished effect, manifesting as a reduced preference for such works and a decreased perceived value. Surprisingly, the results diverged from initial predictions, indicating that hedonistic motivations marginally ($p=0.1$) influence preference for AI-generated art. In an exploratory analysis investigating possible variations in perception, the study observed that AI-generated artworks were perceived as more trendy compared to those created by humans. On the other hand, attributes such as uniqueness, rarity, and time consumption garnered higher ratings in artworks created by human artists as opposed to those created by AI. This study enriches the comprehension of consumer preferences for both AI-generated and human-made art from hedonic and utilitarian perspectives. It counters the prevailing assumption of a negative bias towards AI-created art and suggests that various consumption goals can influence these preferences. The need to consider diverse consumption objectives in studies related to art perception is underscored. The research findings indicate that while human-made art is deemed superior in attributes such as uniqueness, rarity, and time consumption, AI-generated art is perceived as more contemporary, thereby emphasizing the significance of temporal aspects. On a practical level, the findings advise marketers to gain an understanding of consumption purposes and meticulously evaluate product attributes and consumer perception to refine their strategies. Furthermore, the integration of AI in product innovation necessitates a comprehensive understanding of its impact on consumer preferences across different product categories and consumption contexts.

Theoretical part

3 Literature review

3.1 AI-generated Art vs. Human-made Art

3.1.1 Definition

AI has been one of the most transformative and rapidly advancing fields of technology in recent years. Its impact can be seen across various industries, from finance and healthcare to entertainment and art. As AI technology continues to evolve and become more sophisticated, its potential applications and consequences are becoming increasingly complex and far-reaching. It is therefore critical to examine and understand what AI actually signifies within the scope of this thesis. Kaplan & Haenlein (2019) describe the widely used way to define AI by referencing human intelligence. In a similar manner neuroscientist Minsky (1968) considers AI as the science of making machines do tasks that would require intelligence.

Kaplan & Haenlein (2019) conclude that AI refers to a system's ability to interpret external data correctly, learn from such data and use these learnings to reach specific goals and tasks through flexible adaptation. In the case of this paper, these specific goals and tasks are all those related to the process of making art. „AI uses external information […] input for identifying underlying rules and patterns by relying on approaches from machine learning, which, broadly speaking, describes methods that help computers learn without being explicitly programmed“ (Kaplan & Haenlein, 2019, 17). AI art or machine learning art, refers to artwork that has been created using AI techniques and algorithms. It combines principles from machine learning, computer vision, and natural language processing with artistic expression. AI art can take many different forms, including digital images, videos, music, and installations. It can be created using a variety of methods, such as machine learning algorithms that are trained on data sets of existing artwork, algorithms that are designed to create new content based on specific parameters or themes, or algorithms that are used to manipulate or transform existing artwork in novel ways (Poltronieri & Hänska 2019; Cetinic & She, 2022).

3.1.2 Process

Examining the process involved in the creation of AI art and traditional art is of utmost importance to be able to understand the underlying patterns in perception. This enables a comparative evaluation that can contribute to a more informed and nuanced discussion of the value and significance of AI art within the perception of consumers. In the process of creating traditional artworks, the artist is the primary agent responsible for the executing the final artwork which relies on the artists' skills, experience, and creative vision. AI art on the other hand is created through algorithms and mathematical models. In this process, the artist becomes more of a facilitator, guiding the machine learning models in their creation (Poltronieri & Hänska 2019). A comparison could be drawn here with using a photo camera to capture a moment rather than painting the moment in question. A machine takes over the execution, so to speak. Usually the process in creating AI artworks involves several steps that include the definition of the artistic objectives, the data collection, the model selection, the model training and finally the creation of the artwork (Cetinic & She, 2022). One example is the AI System DALL-E 2 which creates graphics from text input. The AI art creation process applied to DALL-E 2 involves several steps, which will be described in the following. The first step would be to gather a large dataset of images and other relevant information, which would be used to train the AI model. This data would need to be diverse and representative of the types of images that DALL-E 2 will be expected to generate. Next, the AI model would be trained on the collected data using a deep learning algorithm, such as a generative adversarial network. The training process would involve adjusting the model's parameters to minimise the difference between the AI-generated images and the real images in the training dataset. Once the model has been trained, it would be evaluated to determine its performance and accuracy. The evaluation process would involve comparing the AI-generated images to real images and evaluating the model's ability to generate images that are similar in style, content, and quality to the real images. If the model's performance is not satisfactory, it can be refined by adjusting its parameters and retraining it on the dataset. This process may need to be repeated multiple times until the model is able to generate images that are of sufficient quality and that meet the desired criteria. Finally, the consumer would interact with DALL-E 2 by providing input in the form of textual descriptions or other forms of data, and the AI model would generate an image based on this input. The consumer would then be able to evaluate the generated image and provide feedback to DALL-E 2, which would be used to further refine the model. Overall, the AI art creation process applied to DALL-E 2 involves training a deep learning model on a large dataset of images and other relevant data, evaluating its performance, and refining it through human

interaction. This process can be iterated multiple times until the model is able to generate images that are of sufficient quality and that meet the desired criteria. (openAI, 2022). AI art creation can range from fully autonomous systems to more collaborative models that involve human input and decision-making (Cetinic & She, 2022). However, it must be considered that even with fully autonomous systems the human is still involved in selecting the appropriate data sets, choosing the right AI model, and fine-tuning the model's parameters (Cetinic & She, 2022). Therefore, the process of AI made art cannot be seen completely isolated from humans. (Cetinic & She, 2022; Poltronieri & Hänska 2019).

3.2 Hedonistic and Utilitarian Consumption

According to the findings presented by Batra and Ahtola (1990), consumers engage in the purchase and consumption of goods and services guided by two core motives: consummatory gratification, primarily arising from intrinsic affective and sensory qualities, and instrumental reasons that pertain to outcome expectations. The former is linked to hedonic experiences, while the latter relates to utilitarian concerns. Consumers frequently encounter decision-making situations in which they must choose between hedonic and utilitarian alternatives that are, to some extent, influenced by emotional desires rather than purely cognitive processes (Khan, Dhar, and Wertenbroch, 2005). Due to their intrinsic capacity to provide enjoyment, amusement, and prompt satisfaction, hedonic experiences tend to evoke feelings of culpability and are often equated with vices and luxury (Botti & McGill, 2011). Conversely, utilitarian consumption experiences are characterised by their functionality, practicality, and usefulness (Botti & McGill, 2011). Accordingly, hedonic consumption is typically associated with a greater abundance of emotional experience when compared to utilitarian consumption (Pham, 1998). As such, attitudes and actions towards products and activities are more likely to be guided by emotional considerations in the case of hedonic consumption (Pham, 1998). The inclination towards hedonic tasks and goods is primarily influenced by emotional factors, while that towards utilitarian tasks and goods is mainly driven by cognitive factors (Mano and Oliver 1993; Shiv and Fedorikhin 1999). It is noteworthy that the consumptions of both utilitarian and hedonic nature are subject to individual discretion, with the distinction between them being a function of varying degrees or perceptions (Khan, Dhar, and Wertenbroch, 2005). In fact, a significant portion of our consumption evaluations is predicated upon the extent to which alternative options satisfy both utilitarian and hedonic goals, as asserted by

Batra and Ahtola (1990). When assessing a pair of jeans, an individual may consider both functional characteristics (e.g., durability) and hedonic characteristics (e.g., design). The determination of whether an object is primarily perceived as hedonic or utilitarian is largely contingent on usage and consumption motives, as outlined by Pham (1998). As an illustration, the act of obtaining a bottle wine with the aim of personal enjoyment and immediate consumption would be characterised as a hedonic product, whereas the acquisition of the same bottle of with the intention of utilising it as an investment would render it a utilitarian product. This passage highlights the discretionary nature of both utilitarian and hedonic consumption, with the distinction between the two being contingent upon varying degrees or perceptions, as posited by Khan, Dhar, and Wertenbroch (2005). Indeed, a significant portion of our consumption evaluations is predicated on the extent to which alternative options satisfy both utilitarian and hedonic goals (Batra &Ahtola, 1990). The evidence presented suggests a departure from a product-centric view of hedonic and utilitarian consumption and instead highlights the importance of hedonic and utilitarian motives underlying consumers' decision-making processes. As such, this shift in focus moves away from the traditional characterisation of products as strictly hedonic or utilitarian and towards a more nuanced understanding of how hedonic and utilitarian considerations guide choices in various contexts. This discourse of the hedonic and utilitarian consumption motives offers substantial implications when applied to the context of art. The cognitive shift from categorizing art pieces as solely hedonic or utilitarian objects towards considering the underpinning motives that guide consumers' decision-making processes unveils a complex, multifaceted relationship between art consumption and consumer choices. For instance, an artwork, typically considered as a hedonic product due to its capacity to evoke aesthetic enjoyment and emotional responses, could also serve utilitarian purposes, such as investment or prestige. These considerations underscore the significance of contextual influences on art consumption, as the same piece of art could be perceived and valued differently based on whether the consumer's motivation aligns more with hedonic enjoyment or utilitarian function. Thus, this evolved understanding transcends traditional paradigms and opens up nuanced interpretations of consumer behaviour within the art market.

3.3 Hypothesis Development

Entering this chapter, we face a curious contrast in the world of AI-generated art. While there appears to be a negative bias towards AI art, it's also widely appreciated, featuring on renowned platforms like Sotheby's (2022) and becoming increasingly common in today's society (Roose, 2022; Diel, 2022). In this chapter, I aim to explore this contrast, developing hypotheses that help explain this paradox.

When considering predictive models in comparison to human decisions, it became apparent early on that human decisions are inferior (Dawes, 1979; Grove & Meehl, 1996; Meehl, 1954). Such studies have focused on a broad range of outcomes, including the performance of employees, students (Dawes, 1979) or market demand (Sanders & Manrodt, 2003). Results from these investigations have consistently indicated that predictive models relying on statistics and actuarial science outperform human judgments, and that they offer an unbiased and reliable approach to decision-making in various fields (Longoni & Cian, 2022; Dietvorst, Simmons & Massey, 2016). Despite the superior accuracy of algorithmic models, people tend to avoid them (Longoni & Cian, 2022). Dietvorst, Simmons, & Massey (2016) offer evidence that supports the notion of algorithm aversion, which posits that people tend to reject algorithmic decision-making approaches, despite their superior performance relative to human judgment. While this tendency may appear illogical, it is nevertheless a pervasive phenomenon that has been well-documented in the literature. Individuals also hold the belief that algorithms presuppose the world to be organised, inflexible, and constant and, as a result, cannot accommodate ambiguity (Grove & Meehl 1996) or the uniqueness of individuals (Longoni, Bonezzi, and Morewedge 2019).

Freedberg & Gallese (2007) recognised the importance of embodiment in art with the conclusion that motion, empathy and emotion play a crucial role in aesthetic experience. Embodiment refers to the idea that our physical experiences and emotions are intimately connected, and that our bodies play an important role in shaping our perceptions and understanding of the world (Freedberg & Gallese, 2007). AI art mostly lacks embodiment and instead relies on algorithmic processes to create the work. From a consumer perspective, this absence of physical or sensory embodiment may result in a lack of meaning and affective engagement with the work. As Leung, Paolacci, & Puntoni (2018) highlighted, consumers are likely to resist automation when it threatens their sense of identity and control over their experiences. This resistance may extend to the realm of AI art, as the lack of embodied experience may lead consumers to perceive the work as lacking in meaning and

emotional significance. Chamberlain (et al., 2018) support the cruciality that the viewer can sense the artist's embodiment through their art for the esthetic response. This scenario is equally applicable when examining art from a consumer behaviour research standpoint. Fuchs (et al. 2022) shows that providing consumers with personal background information about a product's producer can increase consumer demand for the product, even when the information is not directly related to the product itself. Furthermore the authors contribute to the literature on interpersonal relationships in economic life, showing that personal information about the producer can facilitate a relationship between the consumer and the product, even if it is one-way and not a real social relationship (Fuchs et al., 2022). Additionally, the authors propose that the increased demand is due to a feeling of social connectedness between the producer and consumer, which is different from previous explanations that focus on changes in the way the product is perceived (Fuchs et al., 2022). Especially in the case of products such as art, which have a strong connection to the producer, such as the artist. Artists provide personal background information about themselves, consumers may form a relationship with the artist and have a higher demand for their work. This could increase the value of art in general by creating a feeling of social connectedness between the artist and the consumer. Chamberlain (et al., 2018) also exhibit a similar perspective and therefore suggest a negative bias against AI art. The authors conducted studies aimed to understand the perception of AI art and the extent to which it is considered as a legitimate form of artistic expression (Chamberlain et al., 2018). The findings of the study indicate that there is a widespread negative bias against AI art, with many participants expressing the view that it lacks creativity and originality, and is inferior to art created by human artists.

Consistent with this, Leung, Paolacci, & Puntoni (2018) presented empirical evidence highlighting the substantial impact of automation on consumer behaviour and the development of consumer identity. Based on the study's results, it appears that individuals tend to resist automation when it poses a threat to their perception of identity and control over their experiences (Leung, Paolacci, & Puntoni, 2018). Therefore, the adoption of automation in the creation of AI-generated art may have a significant impact on how this kind of art is perceived by consumers. It is plausible to suggest that the use of automation may pose a risk to consumers' sense of identity and control, leading to increased resistance and skepticism towards AI art.

Interestingly, Logg, Minson, & Moore (2019) explored the preference for algorithmic over human judgment in certain contexts, such as in the realm of decision-making. The findings suggest that consumers often trust algorithms to make objective, accurate, and unbiased decisions, as opposed to human judgment, which is perceived as subjective and potentially influenced by biases and emotions (Logg, Minson, & Moore, 2019). The distinction between tasks that seem subjective versus objective is a key concept for Castelo, Bos, & Lehmann (2019) who investigate the extent to which consumers are willing to accept or resist algorithmic decision-making. The findings suggest that consumers are more likely to accept algorithmic decision-making in tasks that are perceived as objective and less subjective, while they are more likely to resist algorithmic decision-making in tasks that are perceived as subjective and emotionally charged (Castelo, Bos, & Lehmann, 2019). In light of the differentiation drawn by Castello, Bos, and Lehmann (2019), which suggests that art may be regarded as a subjective artifact, it is plausible to posit that in certain instances, consumers may regard the task of creating art as a subjective endeavor that is best left to human judgement. Algorithms may not be capable of capturing the emotional and inventive facets of art generation, leading consumers to perceive AI-generated art unfavorably in contrast to art created by humans. However, the subjective nature of the creative process in art may engender a deficiency in the appreciation of AI art, due to the perceived absence of human imagination and the embodied experiences inherent in art.

Granulo, Fuchs, and Puntoni (2021) examine the differential preference for human labor versus robotic labor across various contexts, with a particular emphasis on the significance of symbolic consumption. The research demonstrates that consumers exhibit a heightened preference for human labor in contexts of symbolic consumption, such as the creation of artisanal products, in which the labor process is perceived as integral to the value and meaning of the product (Granulo, Fuchs, & Puntoni, 2021). Conversely, consumers evince a diminished preference for human labor in non-symbolic contexts, such as in the production of mass-manufactured goods, where the labor process is not viewed as impacting the value and meaning of the product (Granulo, Fuchs, & Puntoni, 2021). In such circumstances the efficiency and thus cost saving is perhaps a perceived advantage for constants. The results imply that consumers are more likely to ascribe value to human labor when it is linked to symbolic meanings, such as creativity, skill, and emotional expression, and that these symbolic meanings play a critical role in forming consumer preferences for human versus robotic labor. The authors underscore the necessity of considering the symbolic context of labor in comprehending consumer preferences and the ramifications of automation for different industries

and products (Granulo, Fuchs, & Puntoni, 2021). This suggests that negative perceptions only arise when there's an engagement with symbolic meaning. Consequently, the perception of AI art for investment purposes, devoid of symbolic and emotional expressions, should remain unaffected. This offers indirect support, bolstering the hypotheses advanced in this thesis. Another study conducted by Xu and Metha (2022) investigates how consumers respond to luxury products designed through AI in comparison to human designers. The findings suggest that when luxury products heavily rely on their emotional value, such as in the case of luxury fashion brands, using AI as a design source significantly diminishes the brand essence, leading to negative consumer response (Xu & Metha, 2022). The findings indirectly substantiate the theoretical argument posited in this thesis, especially pertaining to the motivation of self-consumption. Their study reveals that when luxury commodities, whose appeal is heavily tied to their emotional value, employ AI as a design element, it significantly undermines the brand's essence, prompting a negative consumer response. In a parallel vein, this could indicate that individuals motivated by self-consumption might exhibit a greater preference for human-made art, which often carries an inherent emotional value, over AI-generated counterparts and that the depreciation of emotional value may not significantly impact consumption motivations driven by investment purposes.

Zhang, Bai & Ma (2022) otherwise investigate how consumers react to products that have been designed using AI and whether they are willing to pay more for such products. The study found that consumers have a positive attitude towards AI-designed products and are willing to pay a premium for them, particularly in product categories where AI design is seen as particularly useful (Zhang, Bai & Ma, 2022). Nevertheless, the authors plead for a greater willingness to pay for utilitarian items produced by AI as opposed to those produced by professionals (Zhang, Bai & Ma, 2022). In the context of hedonic products, consumers displayed a significantly lower willingness to pay for products designed by AI compared to those created by professionals (Zhang, Bai & Ma, 2022). Overall, the study highlights the potential for AI to provide a competitive advantage for businesses by enhancing the design and value of their products in the eyes of consumers. Based on the study's results, consumers may have a positive attitude towards AI-generated art and may be willing to pay a premium for it. This is particularly true if the AI-generated art is perceived with having higher utilitarian motives. The proposition given by Zhang, Bai & Ma, (2022) withholding that the adoption of AI can be perceived as a valuable means of enhancing consumer acceptance and increasing their willingness to pay, the behaviour of AI concerning art is an intriguing topic of investigation. Although the positive instance of clothing may encompass utilitarian characteristics

that are deemed significant to a sizable proportion of consumers, it can be contended that the hedonic attributes of apparel are also substantial for numerous individuals. Consequently, it is not always unequivocal to classify commodities as either hedonic or utilitarian.

Another study conducted by Longoni & Cian (2022) investigates how AI recommendations are perceived in utilitarian and hedonic contexts. The findings reveal that AI recommendations are more likely to be followed in utilitarian domains, which involve practical items like printers, then in hedonic domains, which include entertainment options like movies. Moreover, individuals perceive AI recommendations as less biased than human recommendations in both contexts. These results suggest that AI has the potential to reduce bias in decision-making and can be trusted in specific contexts. These findings, when applied to the domain of art, may imply a negative perception of AI-generated art compared to human-made art. However, this thesis will explore the reasons for using explicit perceptual contexts rooted in the hedonic versus utilitarian perspective to elucidate the conflicting effects on art perception.

The conclusions drawn from the reviewed literature give rise to the subsequent hypotheses.

Hypothesis 1: Individuals who are motivated by self-consumption as a purpose for consumption will have a higher preference for human-made art compared to AI-generated art.

Hypothesis 2: Individuals who are motivated by investment as a purpose for consumption will have a higher preference for AI-generated art compared to human-made art.

3.4 Determinants of Art Perception

The features pertaining to art bear significant relevance to the present thesis. It is plausible that these art-related characteristics could offer valuable insights. By examining the potential disparity in perception related to the ensuing art-centric features, we can extend our understanding of how AI and human-made art are differentiated and evaluated by consumers. These features potentially act as determinants of preference and perception. By probing into the nuanced perceptions of these facets, I may unravel the cognitive processes that underpin the paradoxical appreciation of AI-generated art, thus enriching the theoretical underpinnings of this study.

3.5.1 Uniqueness

Newman & Bloom (2012) have posited that art is a unique form of human creativity. Perceived uniqueness has the ability to influence value judgements in a positive way. They argue that the level of uniqueness perceived in art is a critical factor in determining its value, and that a higher level of uniqueness is associated with a more positive evaluation of art (Newman & Bloom, 2012). Longoni, Bonezzi and Morewedge (2019) have demonstrated that individuals perceive AI-generated art as lack in the ability to replicate the uniqueness that is expressed by human creators. This idea dovetails with Freedberg & Gallese's (2007) acknowledgement of embodiment in art, indicating the vital function of motion, empathy, and emotion in shaping the aesthetic experience. Despite the uniqueness in its own right and that AI-generated art is becoming more widespread and accepted, some may still view it as a novelty or gimmick rather than a true form of artistic expression. Determining whether there is a difference in the perception of uniqueness between AI-generated and human-made art is critical as it could significantly influence both the investment based valuation of the art investment as well as the self-consumption based valuation.

3.5.2 Rarity

Original artworks are classified as scarce commodities (Newman & Bloom, 2012). The concept of rarity is crucial in determining the value of an artwork. This is evident in the decrease in value of prints as the number of copies increases, as outlined by Cialdini (1985). The condition of scarcity is a widespread feature of human existence and serves a fundamental precondition of economic behaviour (Lynn, 1991). Thus, the scarcity of original artworks is a defining factor in their perceived value, as their limited availability distinguishes them from reproductions and enhances their worth. In addition, the decease of an artist frequently results in an increase in the value of their creations, presumably due to the expectation of no future production (Newman & Bloom, 2012).

Given this context, understanding the concept of scarcity in art valuation can offer crucial insights into the divergent perceptions towards AI-generated art. As AI poses the potential for unlimited reproduction, its influence on the perceived scarcity and hence value of the artwork becomes a significant factor in understanding these varied perceptions. Hence, understanding how scarcity is perceived in AI-generated versus human-made art, for both investment and self-consumption perspectives, can offer crucial insights into the unique ways these factors influence art valuation.

3.5.3 Time consumption and Sophistication

Several characteristics play a role in the valuation of artworks, including the time required to produce the artwork. According to Kruger et al. (2003), artworks that obviously take more time to produce are perceived as more valuable. Artworks that took more time to create may be perceived as more valuable because of the time invested in their creation. Effort behaves in a similar way to time, in that particularly when artworks are perceived as having a sophisticated design, they are valued more highly by consumers (Kruger et al., 2003; Chamberlain et al., 2018). In this context, AI-generated art, while not reflecting traditional time and labor indicators of value, represents technological innovation and potential for scalability, factors that may be considered valuable from an investment-oriented perspective. Different perception of value, from different perspectives, could explain the different preferences for man-made and AI-generated art among different consumption-oriented individuals. Thus it is pertinent to investigate any perceptual differences between the two art forms to ascertain the degree to which this factor influences preference.

3.5.4 Trendiness

Im, Bhat & Lee (2015) emphasise the importance of trendiness in driving consumer perceptions of product creativity, coolness, and value. Some studies indicate that the combination of novelty and meaningfulness as elements of creativity may lead to greater perceived product value (Andrews & Smith, 1996; Kleinschmidt & Cooper, 1991). The impact of a product's novelty on its hedonic value is found to be mediated by product coolness which, for example, was surveyed with the "trendiness" property (Im, Bhat & Lee, 2015). While novelty is found to have a limited role in influencing these perceptions, the introduction of features that elicit feelings of excitement and trendiness is identified as key in generating perceptions of hedonic value and positive affective responses among consumers (Im, Bhat & Lee, 2015). Discerning the differences in perceived trendiness between AI-generated and human-created art is pivotal, given that trendiness contributes to the perceived creativity, value, and emotional resonance of a product (Im, Bhat & Lee, 2015).

The intertwining of novelty and meaningfulness can escalate the hedonic value, as these aspects are linked to a heightened product evaluation (Andrews & Smith, 1996; Kleinschmidt & Cooper, 1991). Therefore, from both the investment and self-consumption perspectives, the perceptual variations in the trendiness of AI and human-made art could elucidate their differing valuations, directly explaining the main effect on consumer preferences.

3.5.5 Novelty

Mukherjee and Hoyer's (2001) study suggests that the perceived value of a new product may be influenced by the consumer's inference of high learning costs associated with the product. Specifically, they found that this inference may have a greater impact on product evaluation than the inference of added value (Mukherjee and Hoyer, 2001). Mukherjee and Hoyer's (2001) study underscores how perceived novelty substantially influences the value attributed to products, a notion applicable to both AI-generated and human-made art. From an investment standpoint, AI-generated art's novelty could enhance its value, depending on perceived learning costs, which could tilt preferences for or against it. Conversely, from a self-consumption perspective, the inherent novelty in human-made art might be more appealing, consequently swaying preference, as consumers may derive greater personal satisfaction from its conventional, tangible craftsmanship. Therefore, differing perceptions of novelty in AI-generated versus human-made art can elucidate the divergent preferences observed across investment and self-consumption perspectives.

3.5.6 Surprise, Complexity, Ambiguity and Eccentricity

From an experimental aesthetics perspective surprise, complexity, ambiguity, and eccentricity are widely considered as the most influential stimuli in works of art (Berlyne, 1971). These characteristics are closely associated with the natural inclination of organisms to explore, and they possess a distinct threshold that offers the greatest impact in piquing curiosity and capturing attention (Berlyne, 1971). However, should the threshold be surpassed, the stimulus may turn exceedingly intricate or disorganised, thereby diminishing the overall pleasure or interest of the observer (Berlyne, 1971). Excessive levels of these characteristics may, however, diminish this perceived value. Following this, Berlyne's framework underscores the potential for these characteristics to shape preferences. In AI-generated and human-made art, the ways these characteristics manifest could illuminate the overarching preference patterns observed. Maintaining a fine balance of these elements is crucial; any disruption could shift preferences either way. Thus,

understanding these elements is essential for deciphering the dynamics of art preference, applicable to both investment and self-consumption perspectives.

This section discussed the valuable characteristics of art, focusing on exploring the factors that contribute to the perceived value of both AI-generated and human-made art. The research aims to identify any emerging effects in this context. Through this inquiry, the study aims to develop a comprehensive understanding of how consumers perceive different types of art. The exploratory phase of the research study generates a secondary research question, which is aimed at extending the understanding of the research topic, particularly with respect to the comparison of AI-generated versus human-made art.

The upcoming section will present a comprehensive overview of all research questions and hypotheses investigated in this study.

Primary research question:

How does the consumption goal, specifically self-consumption versus investment, influence the preference of AI-generated Art and human-made art?

Based on the research question "How does the consumption goal, specifically self-consumption versus investment, influence the preference of AI-generated Art and human-made art?", the following hypotheses can be formulated:

Hypothesis 1: Individuals who are motivated by self-consumption as a purpose for consumption will have a higher preference for human-made art compared to AI-generated art.

Hypothesis 2: Individuals who are motivated by investment as a purpose for consumption will have a higher preference for AI-generated art compared to human-made art.

The present study now proceeds to its more exploratory phase by posing a secondary research question. The purpose of this part is to identify specific indicators that facilitate a comprehension of the perceptual distinctions between AI-generated and human-made art.

Secondary research question:
What are the differences in the perception of AI-generated art and human-made art based on various characteristics, and how might these differences influence consumer preferences?

This part of the research aims to glean new insights, discern unforeseen relationships, and potentially identify novel patterns that could extend our understanding beyond existing theoretical confines.

Empirical part

4 Methodology

4.1 Conceptual Model

The following conceptual framework presents a comprehensive overview of the primary constructs under consideration in the analysis and the anticipated relationships among them. *Figure 1*.

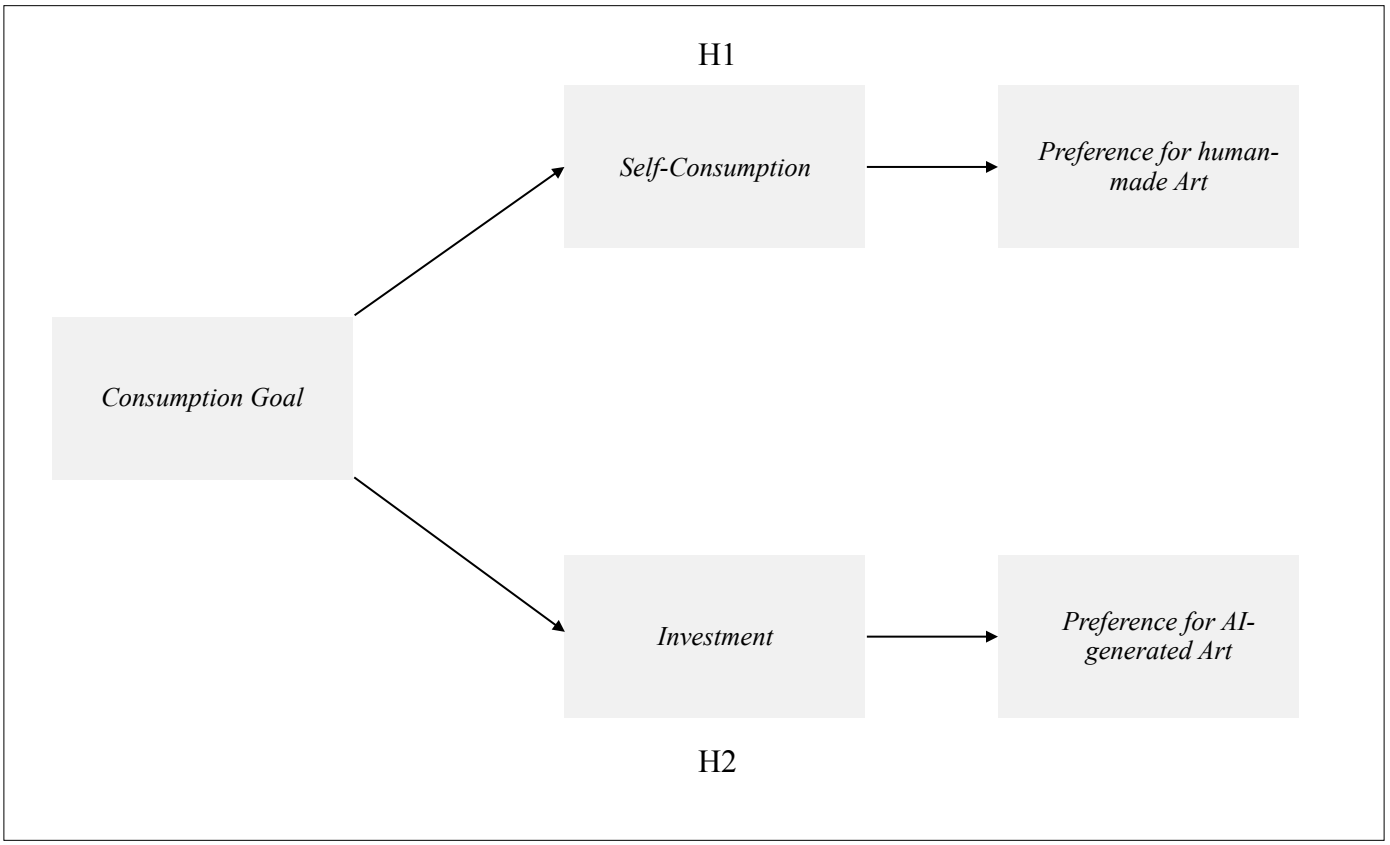

figure 1: conceptual framework

It is assumed that the consumption goal, with its characteristic features of investment and self-consumption, may exert an influence on the preference for either human-made or AI-generated art.

The construct of investment, in the context of consumption, is characterized by the utilitarian motivation that underlies the consumers' decision-making processes. It transcends the immediate usage of a product and is primarily guided by functionality, practicality, and usefulness (Botti & McGill, 2011). In the realm of art consumption, investment takes on a unique dimension. It entails

the acquisition of artworks with the intention of leveraging them expectations of future returns. In this context, art pieces become assets, their value determined not merely by their intrinsic qualities, but also by their potential for appreciation, influenced by various market dynamics which determine its value. The artwork's capacity to generate a return on investment becomes a crucial determinant of its perceived value. Therefore, I postulate that the consumption purpose of investment may be have a positive effect on the preference towards AI art (H1).

The construct of self-consumption is characterized by an individual's personal, intrinsic desire to experience and enjoy goods or services, driven primarily by hedonic motivations. Batra and Ahtola (1990) posit that consummatory gratification, the crux of self-consumption, arises from the intrinsic affective and sensory qualities a product or service offers. This consumption process, therefore, represents the pursuit of hedonic experiences, marked by enjoyment, amusement, and immediate satisfaction. In the realm of art consumption, self-consumption encompasses the acquisition and appreciation of artworks for their aesthetic appeal and the emotional responses they evoke, devoid of considerations for potential instrumental gains such as investment return or status elevation. The art piece serves as a source of personal enjoyment, a medium through which the individual experiences pleasure, stirs emotions, and appreciates beauty. The value of the artwork in this context is intrinsically linked to its ability to provide such hedonic gratification. The self-consumption construct, therefore, embodies the hedonic aspects of consumption decisions. Therefore, I also posit that the consumption goal of self-consumption may be positively associated with a preference for human-made art (H2). By testing these hypotheses, I aim to gain a deeper understanding of the role that consumption goals may play in shaping individual preferences.

Subsequently, this empirical study aims to ascertain perceptible discrepancies in the appreciation of AI-generated versus human-made art. Through comparative analysis of these perceptions, it is possible to shed light on potential underlying mechanisms that influence preference for one form of art over the other. While these variables are not tethered to predefined hypotheses, their consideration allows for a thorough comprehension of the dynamics at play, and their possible ramifications on consumer predilections for AI-generated art compared to human-made art.

4.2 Experimental Design

The purpose of the study was to test the stated hypotheses, and to do so, a quantitative research approach was employed through an online experiment using qualtrics survey software. The study aimed to investigate the effects of the consumption purpose (investment vs. self-consumption) as independent variable in the model on the preference for human-made versus AI-generated art. A between-subjects design was used, which means that participants were randomly assigned to one of the two consumption goal contexts (investment vs. self-consumption). The second part of the study required participants to assess their perception of a specific artwork based on characteristics that reflect the value of art, as identified in the existing literature. The artwork was presented in two distinct conditions, with participants randomly assigned to one of two groups. In the first condition, participants were informed that the artwork was created by a human, while in the second condition, participants were informed that the artwork was created by artificial intelligence. The chosen experimental design also aimed to mitigate the impact of spillover effects, which refers to the unintended influence that prior questions may have on participants' responses to subsequent questions (Field & Hole, 2013).

4.3 Procedure

The questionnaire employed in the present study was designed to be administered in both German and English languages. Participants were granted the flexibility to alternate between the two languages at their discretion throughout the duration of the study. This approach was deliberately adopted given the scientific nature of the study, whereby precise comprehension of the questions posed to the participants was deemed paramount. As such, the provision of both languages aimed to ensure that participants had access to a language they were comfortable with, thereby minimising the potential for misunderstandings or misinterpretations of the study's content. Prior to participating in the study, all participants were required to provide their informed consent. This statement served as a formal affirmation of the participants' willingness to participate in the study. Subsequently, participants were briefly introduced to AI-generated art through the presentation of the statement

„Currently, artwork can be generated by humans or by an artificial intelligence system (i.e., art in which the design is generated by an algorithm). In the next pages, you will have to answer a few questions regarding this context.“

This introductory segment aimed to provide all participants with a foundational understanding of the concept of AI-generated art, thereby fostering a common ground of knowledge and comprehension amongst the participant pool. Following the introduction to AI-generated art, participants were randomly assigned to one of two consumption goal context conditions, namely investment versus self-consumption. At this juncture, participants were required to indicate their preference between AI-generated art and human-made art. To assess participants' preference, a 7-point Likert scale was utilised in the survey. This 7-point Likert scale allowed respondents to express their degree of preference for either AI-generated art or human-made art by selecting a point on the scale ranging from 1 to 7, where 1 indicated a strong preference for AI-generated art and 7 indicated a strong preference for human-made art. By using this scale, participants could provide a clear and standardised indication of their preference for one type of art over the other. The second phase of the study involved a further random assignment of participants to one of two conditions, both of which featured the presentation of a singular painting. In one condition, the painting was attributed as being human-made, while in the other condition it was attributed as being AI-generated. The image used is shown in *figure 2*.

figure 2: stimulus material

Prior empirical research studies (e.g. Chamberlain et al., 2018) have demonstrated that individuals are not capable of reliably differentiating between human-made and AI-generated art. This feature was thus exploited in the present study to examine the manner in which individuals evaluate different characteristics of the artwork presented, given that participants were subsequently asked to evaluate the painting along eleven pre-identified characteristics that are considered to impart value to art, as identified in the extant literature. Following the evaluation of the artwork, participants were prompted to disclose whether they had previously seen the painting, with the aim of ensuring that the experimental conditions had not been detected or influenced by prior exposure to the painting. Notably, one participant reported recognising the painting, and thus, this particular case was excluded from the subsequent analyses. The final component of the study involved the collection of demographic information, specifically age, gender, education, and nationality, prior to the survey's conclusion.

4.4 Sample

Participants in the present study were recruited through a convenience sampling strategy, which involved embedding the survey link within the web service SurveyCircle. Furthermore, snowball sampling was utilised as an additional method to facilitate recruitment of further participants. It is important to acknowledge that the present study employed a non-probability sampling strategy, which was necessitated by practical limitations in terms of time and financial constraints. The data for the present study was collected over a span of two weeks, specifically from January 31st to February 14th, 2023. Following the designated data collection period, a total of 165 respondents were recruited for the study. However, it is noteworthy that out of the initial sample, only 156 participants completed the survey in its entirety (N=156, M_{age}=27.08, SD=6.87, Min_{age}=10, Max_{age}=61). The distribution of gender among the sample was as follows: 66.7% of the participants identified as female, 32.7% identified as male, and 0.6% preferred not to disclose their gender.). It is noteworthy that the educational level of the sample appeared to be above average, possibly due to the use of convenience sampling as a recruitment strategy. Specifically, 71.8% of the participants reported holding a university degree, 22.4% had a university entrance qualification, and 5.8% had completed an apprenticeship. The sample consisted participants from various nationalities, with the majority being German (68.6%), followed by Austrian (24.4%). Additionally, a small number of participants reported their nationality as Israeli, Luxembourgish, Swiss, and Turkish (grouped under "other", 7.1%).

4.5 Measures

In view of the experimental design comprising of two distinct conditions, two variables were derived to represent each of the two consumption goals under investigation. These variables were subsequently merged in preparation for the subsequent statistical analysis. Furthermore, a grouping variable was created to aid in differentiating the binary values of the merged variable, with the intent of categorising the values based on the respective groups they belong to. In the second part of the survey, participants were randomly assigned to one of two conditions, which had previously been mentioned, namely the evaluation of either an AI-generated artwork or a human-made artwork. In this part of the survey, participants were instructed to evaluate the artwork on characteristics, which ranged from 1 indicating strong disagreement to 7 indicating strong agreement. Moreover, all characteristic items were randomised within the questionnaire. This step enabled the collection of data on how participants evaluated the artwork based on specific characteristics, which would later be used for further analysis. Once more, the variables associated with the two distinct experimental conditions were integrated, and a grouping variable was established to facilitate the classification of the resulting composite variable's binary values based on the respective conditions. This procedure was carried out systematically across all the characteristics under investigation.

5 Results

5.1 Descriptive Statistics

Variable	*N*	*Mean*	*SD*	*Range*
Preference	165	6.24	1.07	1.00 - 7.00

table 1: descriptive statistics main prediction

The observed results demonstrate that the preference for human-made art is consistently higher than that for AI-generated art, across both consumption goal contexts. In addition to reporting the means, the standard deviations and ranges of the evaluations are reported.

Variable	*N*	*Mean (both conditions)*	*SD*	*Range*
Uniqueness	158	3.81	1.81	1.00 - 7.00
Rarity	158	3.34	1.52	1.00 - 7.00
Time-consumption	158	3.35	1.72	1.00 - 7.00
Sophistication	158	3.61	1.51	1.00 - 7.00
Trendiness	158	3.88	1.57	1.00 - 7.00
Novelty	158	3.03	1.52	1.00 - 7.00
Surprise	158	3.48	1.50	1.00 - 7.00
Complexity	158	3.46	1.51	1.00 - 7.00
Ambiguity	158	3.47	1.66	1.00 - 7.00
Eccentricity	158	4.01	1.40	1.00 - 7.00

table 2: summary of the t tests for both conditions

The means of the observed values offer insight into how the subjects overall rated the artwork based on the distinct variables under investigation. Along with these means, the standard deviations and ranges of the evaluations are also presented to provide a comprehensive understanding of the data's distribution and variability.

5.2 Analysis

An independent samples t-test was conducted to ascertain the presence of a significant difference between the two groups. Respondents in investment consumption goal condition (N = 82, M = 6.38, SD = 0.94) preferred human-made art as well as in the self-consumption goal condition (N = 83, M = 6.08, SD = 1.20). The t-test for independent samples yielded the following results: $t(154.75)=1.751$, $p=0.082$. Consequently, in light of these findings, Hypotheses 1 and 2 are rejected. Interestingly, I noted that the results are marginally significant in the opposite direction.

Building upon the prior focus on consumption goals, the study now shifts into an exploratory phase. The primary objective here is to discern specific attributes that elucidate the perceptual differences between AI-generated and human-made art, particularly their potential role in explaining the main prediction: the influence of self-consumption versus investment perspective on preference. Notably, the existing literature offers no definitive guidance for these attributes.

This section presents the results of the independent t-tests of the identified characteristics. All attributes denoted with an asterisk (*) demonstrated a statistically significant disparity.

*Uniqueness**

Respondents in the human condition (N = 78, M = 4.42, SD = 0.21) reported a higher mean than respondents in the AI condition (N = 80, M = 3.21, SD = 0.17). The t-test for independent samples yielded the following results: $t(148.04)=4.417$, $p=0.008$. These findings suggest that the difference in means between the two independent samples was statistically significant with a higher valuation of this characteristic in the human condition.

*Rarity**

Respondents in the human condition (N = 78, M = 3.67, SD = 1.61) reported a higher mean than respondents in the AI condition (N = 80, M = 3.03, SD = 1.52). The t-test for independent samples yielded the following results: $t(150.44)=2.705$, $p=0.008$. These findings suggest that the difference in means between the two independent samples was statistically significant with a higher valuation of this characteristic in the human condition.

*Time-consumption**

Respondents in the human condition (N = 78, M = 4.03, SD = 1.71) reported a higher mean than respondents in the AI condition (N = 80, M = 2.70, SD = 1.47). The t-test for independent samples yielded the following results: t(156.00)=5.224, p=0.001. These findings suggest that the difference in means between the two independent samples was statistically significant with a higher valuation of this characteristic in the human condition.

Sophistication

Respondents in the human condition (N = 78, M = 3.67, SD = 1.52) reported a mean similar to that of respondents in the AI condition (N = 80, M = 3.56, SD = 1.51). The t-test for independent samples yielded the following results: t(156.00)=5.224, p=0.666. These findings suggest that the difference in means between the two independent samples was not statistically significant.

*Trendiness**

Respondents in the human condition (N = 78, M = 3.63, SD = 1.45) reported a lower mean than respondents in the AI condition (N = 80, M = 4.13, SD = 1.64). The t-test for independent samples yielded the following results: t(156.00)=-2.014, p=0.046. These findings suggest that the difference in means between the two independent samples was statistically significant with a higher valuation of this characteristic in the AI condition.

Novelty

Respondents in the human condition (N = 78, M = 3.26, SD = 1.43) reported a higher mean than respondents in the AI condition (N = 80, M = 2.81, SD = 1.58). The t-test for independent samples yielded the following results: t(156.00)=1.854, p=0.066. These findings suggest that while the difference in means between the two independent samples was not statistically significant at conventional levels, there may still exist a possibility that such a difference exists.

Surprise

Respondents in the human condition (N = 78, M = 3.29, SD = 1.43) reported a lower mean than respondents in the AI condition (N = 80, M = 3.66, SD = 1.55). The t-test for independent samples yielded the following results: t(156.00)=-1.547, p=0.124. These findings suggest that the difference in means between the two independent samples was not statistically significant.

Complexity

Respondents in the human condition (N = 78, M = 3.42, SD =1.57) reported a slightly lower mean than respondents in the AI condition (N = 80, M = 3.51, SD = 1.47). The t-test for independent samples yielded the following results: t(156.00)=-0.370, p=0.712. These findings suggest that the difference in means between the two independent samples was not statistically significant.

Ambiguity

Respondents in the human condition (N = 78, M = 3.46, SD = 1.71) reported a slightly lower mean than respondents in the AI condition (N = 80, M = 3.49, SD = 1.62). The t-test for independent samples yielded the following results: t(156.00)=-0.098, p=0.922. These findings suggest that the difference in means between the two independent samples was not statistically significant.

Eccentricity

Respondents in the human condition (N = 78, M = 4.04, SD = 1.41) reported a slightly higher mean than respondents in the AI condition (N = 80, M = 4.00, SD = 1.41). The t-test for independent samples yielded the following results: t(156.00)=-0.172, p=0.864. These findings suggest that the difference in means between the two independent samples was not statistically significant.

6 Discussion

6.1 Summary of the Findings

The prevailing scholarly consensus on the perception of AI is somewhat fragmented, with certain studies indicating a more negative bias (e.g. Longoni, Bonezzi, and Morewedge 2019; Leung, Paolacci, & Puntoni, 2018; Freedberg & Gallese, 2007; Chamberlain et al., 2018; Granulo, Fuchs, & Puntoni, 2021) while others suggesting a more positive bias under specific conditions (e.g. Zhang, Bai & Ma, 2022; Longoni & Cian, 2022; Castelo, Bos, & Lehmann, 2019; Xu & Metha, 2022). A key insight emerging from this body of literature is the differentiation of products into hedonic (for pleasure or self-consumption) and utilitarian (for practical use or investment), which appears to be instrumental in explaining the contrasting biases observed across studies. This work investigates whether the consumption goals - self-consumption versus investment - exert influence on the preference for either AI-generated or human-made art. In particular, it was hypothesized that individuals motivated by self-consumption would demonstrate a greater preference for human-made art. Conversely, it was posited that individuals motivated by investment would have a higher preference towards AI-generated art (Granulo, Fuchs, & Puntoni, 2021; Xu & Metha, 2022; Zhang, Bai & Ma, 2022; Longini & Cian, 2022). Interestingly, the outcomes suggest a marginally significant effect, but intriguingly, in the reverse direction than anticipated. As a result, both hypothesis 1 and 2 were rejected. Alongside this focused exploration, the study ventured into a more exploratory realm, trying to uncover the differences in the perception of AI-generated and human-made art across a spectrum of characteristics. This exploratory endeavor was not only significant for offering a deeper understanding of the main effect but also for enriching our comprehension of art perception in a broader sense. Moreover, in the second part of the study significant differences had been observed in the way respondents perceived AI-generated and human-made art, regarding the characteristics of trendiness, uniqueness, rarity, and time-consumption. AI-generated art scored higher in terms of trendiness, whereas human-made art was perceived as more unique, rare, and time-consuming to produce. Interestingly, other characteristics such as sophistication, novelty, surprise, complexity, ambiguity, and eccentricity showed no significant differences in perception between AI-generated and human-made art. Specifically, trendiness surfaced as the sole characteristic that was rated higher for AI-generated art compared to human-made art. On the contrary, attributes such as uniqueness, rarity, and time-consumption were assessed higher in the human art condition. Yet, intriguingly, the data indicated a marginally higher

effect on the preference towards AI art amongst participants with a self-consumption perspective. This offers an interesting avenue for discussion. From the standpoint of self-consumption, the elevated valuation of trendiness in AI-generated art may signify that consumers within this perspective, evaluate this characteristic with is used to a higher degree to evaluate for preference than in the investment perspective. This is particularly interesting as it contradicts the initial hypothesis of a greater preference for human-made art in self-consumption situations. From an investment perspective, while higher ratings of uniqueness, rarity, and time-consumption traditionally favor human-made art, it was expected that the trendiness of AI art might be attractive for those seeking innovative investment opportunities. However, this did not translate into a higher preference for AI art amongst individuals with investment purpose, suggesting that factors beyond trendiness may play a more substantial role in shaping investment preferences within this sample. It could be conjectured that the respondents' risk aversion might influence their evaluations, particularly from an investment standpoint. Such a tendency might heighten the importance they attribute to characteristics like uniqueness, rarity, and time-consumption, given that these elements are often associated with a perceived increase in value and a reduction in investment risk.

6.2 Theoretical Implications

The theoretical implications of this study are multifaceted and provide a significant contribution to the literature on understanding the impact of different consumption purposes on consumer preference for AI-generated and human-made art from both a hedonic and utilitarian perspective. I contribute to creativity literature by exploring the interplay between artificial intelligence and art, a creative product category that is distinctive due to its unique capacity for both hedonic (self-consumption) and utilitarian (investment-driven) modes of consumption. By focusing on art, I have been able to offer a nuanced understanding of consumer perceptions in the complex interplay between technology and the realm of creativity.

Firstly, the study challenges the notion of a negative bias towards AI-generated art, as it further suspects that under certain circumstances, such as in a hedonic consumption goal context, there may be a positive effect on the preference for AI-generated art. Interestingly, this study disputes existing assumptions and throws a new light on the perceived bias towards AI-generated art. It unfolds the complexities inherent in such biases and reveals a nuanced landscape that is shaped significantly by the motivations underlying consumption - hedonic and utilitarian. This work pioneers in

investigating the differing roles of self-consumption (hedonic) and investment-driven (utilitarian) motivations within the context of AI-art. This unique angle offers a fresh perspective in comprehending consumer behaviours in creative markets.

Secondly, building upon the collective insights of Granulo, Fuchs, and Puntoni (2021), Xu and Metha (2022), and Longoni & Cian (2022), it can be underscored that symbolic and emotional value significantly shape consumer preferences, particularly within the sphere of self-consumption. Art, as a product category, is inherently imbued with symbolic and emotional value. Consequently, for self-consumption scenarios, these studies indirectly suggest a potential inclination towards human-made art. This is due to the perception that human labor contributes a unique, irreplaceable value to the creative process that cannot be emulated by AI. However, the results of this study suggest a marginally higher preference for AI-generated art in self-consumption scenarios, indicating a more intricate narrative. It seems that in the context of art, the element of trendiness associated with AI-generated pieces may offset the lack of human touch, particularly among consumers focused on self-consumption. The notion of owning something novel and avant-garde may indeed hold a distinct appeal for these consumers, enough to sway their preferences towards AI-generated art. In contrast, when viewed from an investment-driven perspective, traditional attributes such as uniqueness, rarity, and time-consumption appear to dominate preference formations. The findings did not support the assumption of an increased preference for investment driven customers for AI-generated art. This suggests that the investment perspective may be more resistant to the appeal of trendiness in AI-generated art, with traditional attributes of human-made art continuing to hold sway.

Thirdly, art, as a product category, appears to possess unique characteristics that differentiate it from other hedonic or utilitarian categories. Despite being a hedonic product, the marginally higher preference for AI-generated art within self-consumption contexts revealed in this study stands in contrast to the findings of Zhang, Bai, & Ma (2022), who reported a lower willingness to pay for AI-designed paintings as they classify them as uniformly hedonic. This discrepancy may suggest that the symbolic or emotional value often associated with art could be influencing consumer behaviour in ways that are not captured in traditional categorizations.

Finally, the findings resonate with the studies conducted by Zhang, Bai & Ma (2022) on that point where it was illustrated that curiosity - potentially linked with trendiness - can enhance consumer

preferences. Specifically, in the context of self-consumption, a marginally increased preference for AI-generated art was observed. This alignment between the studies underscores the complex role of curiosity in shaping consumer preferences, particularly within hedonic consumption scenarios. This serves as a significant implication that the anticipation or novelty attached to AI-generated art may act as a pivotal driver in hedonic consumption, potentially altering the consumers' conventional preference structure.

6.3 Practical Implications

The present study provides valuable insights for marketing professionals to make informed strategic and tactical decisions on AI-designed products. The findings suggest that marketers must carefully evaluate the product attributes they emphasise and the context in which consumers approach their products to optimise their impact on consumer behaviour. Given the nuanced landscape of consumer preferences towards AI-generated art, it becomes vital for marketers to understand the consumption goals of their target market. For instance, for self-consumption (hedonic) contexts, AI-generated art can be marketed emphasizing its trendiness and foster curiosity to attract potential consumers. On the other hand, for investment-driven (utilitarian) consumers, marketing efforts should focus on highlighting traditional art attributes such as uniqueness, rarity, and time-consumption, as these factors seem to hold sway over their preferences. Amatulli, De Angelis, & Donato (2020) also emphasise the importance to better understand whether and under what conditions they should highlight the hedonic rather than utilitarian benefits of their goods when designing their communication messages. Art's distinctive characteristics mean that the traditional approaches to marketing may not be as effective. Instead, strategic marketing efforts should take into account the emotional and symbolic value often associated with art.

Secondly, the study's findings underscore the power of curiosity in shaping consumer preferences, especially in self-consumption contexts. Marketers can leverage this by creating campaigns that stimulate curiosity and emphasize the novel, cutting-edge nature of AI-generated art. This could be particularly effective in attracting consumers interested in trendiness and the avant-garde, as they appear to have a marginally higher preference for AI-generated art. Investment-driven consumers may demonstrate risk aversion, favoring traditional attributes over the trendiness of AI-generated art. To address this, strategic marketing might need to focus on de-risking AI-generated art for these consumers. This could involve providing transparent information about the creation process,

emphasizing the rigor and sophistication of AI in generating art, showcasing successful sales or high-profile endorsements, and potentially offering guarantees or certifications of authenticity.

Finally, the study highlights the significance of carefully approaching product innovation decisions as AI technology advances. Traditionally, product innovation has been a human-driven process. However, with the advancement of AI technology, there is now an opportunity to use AI to aid in the process of art creation. This has the potential to revolutionise the art world by expanding the possibilities for art creation and making it more accessible to a broader audience. As with the use of AI in product innovation, the application of AI in art creation requires careful consideration of the role of human creativity and skill. Nonetheless, it is crucial for companies to contemplate utilising AI in product innovation while taking into account the effect this might have on the preference and perception in various product categories and consumption contexts.

6.4 Limitations and future research

The present study has several limitations that need to be considered when interpreting the results. First, one limitation is the use of a non-probability sample, which may limit the generalisability of the findings. The use of convenience and snowball sampling could have resulted in a biased sample as some members of the population are more likely to be included than others (Spilski, Gröppel-Klein, & Gierl, 2018). When examining the demographic data of the sample, a higher than average proportion of highly educated individuals can be detected, which may lead to a bias in the results. Moreover, respondents who are more involved in art or technology topics could be more inclined to participate in the current study, further affecting the representativeness of the sample. To address this limitation, future research could conduct a probability sample to ensure that the sample is more representative of the general population. Importantly, despite randomly assigning participants to either condition, selection bias (Spilski, Gröppel-Klein, & Gierl, 2018) might occur, and respondents' individual differences with regards to their art and technology involvement might affect the current results. Future research should consider using a more diverse and bigger sample to account for individual differences and to increase the statistical power of the study.

Another limitation of the present study is that it relied on participants' reports of what they intended to do rather than behavioural measures. Future research could include behavioural measures, to overcome this limitation. In addition, this study did not specifically examine the impact of

consumers' familiarity with or knowledge about AI on their preferences. It is plausible that consumers with more knowledge or experience with AI might have different perceptions and preferences towards AI-generated art. This could be another interesting direction for future research. Also, while the focus on a single product category like art allowed for an in-depth exploration of the influence of consumption goals on preference in this creative market, it may limit the generalizability of the findings to other product categories. It would be worthwhile for future research to examine whether and how different AI methods or levels of AI involvement affect consumer perceptions and preferences. Finally, the investigation is focused on a single product category, namely art. While this focus allowed for an in-depth exploration of the influence of consumption goals on preference in this creative market, it may limit the generalizability of the findings to other product categories. Future research could explore the influence of AI on consumer preference in different product contexts.In conclusion, the limitations of the present study should be considered when interpreting the results. Future research should address these limitations by using probability sampling, recruiting participants from different populations, using larger sample sizes, using more objective measures, and investigating differences in other specific product domains.

7 Conclusion

The advent of artificial intelligence (AI) technology promises significant transformations across a wide range of products and consumer behaviours. Its burgeoning role in the creation of traditionally human-crafted products, such as artworks, is particularly noteworthy. As AI-designed consumer products proliferate, comprehending consumer perceptions of these offerings has emerged as a pivotal aspect of consumer behaviour research. Although the majority of the academic literature leans towards a negative bias regarding AI-generated art (e.g. Leung, Paolacci, & Puntoni, 2018; Freedberg & Gallese, 2007; Chamberlain et al., 2018), the reality seems more nuanced. AI-generated art has not only fetched considerable monetary value (Sotheby's, 2022) but has also found a place in renowned museums worldwide (Museum of Modern art, 2023; Diel, 2022), winning accolades along the way (Roose, 2022). This study embarked on an exploratory journey to illuminate the divergent outcomes concerning the perception and preference of art. It sought to investigate the underlying motivations - specifically, self-consumption and investment, situated within the hedonic and utilitarian theoretical framework. Contrary to the initial hypothesis, the study revealed a marginally increased preference ($p=0.1$) and higher value attribution for AI-generated art under hedonic motivations. Meanwhile, an exploratory analysis on the differences in perception of AI-generated and human-made art indicated a higher evaluation of trendiness for AI art, whereas human-made art surpassed in attributes such as uniqueness, rarity, and time consumption. This research contributes to the discourse by interrogating the prevalent notion of negative bias towards AI-generated art, offering a more nuanced perspective. It extends our understanding of how hedonic and utilitarian motivations can differentially influence art preferences. From a practical standpoint, the findings serve as valuable inputs for marketers and product innovators. It underscores the importance of cognizance of consumer perception, the relevance of different product attributes, and the evolving role of AI technology in product creation. As we journey into an increasingly AI-integrated future, such insights could prove instrumental in shaping successful products that resonate with consumer preferences, regardless of the creative domain. However, this study is just a starting point in a rapidly developing field. Further research is needed to continue to unravel the intricate dynamics of AI and consumer behaviour.

8 References

Amatulli, De Angelis, M., & Donato, C. (2020). An investigation on the effectiveness of hedonic versus utilitarian message appeals in luxury product communication. Psychology & Marketing, 37(4), 523–534. https://doi.org/10.1002/mar.21320

Anderson. (1974). Paintings as an investment. Economic Inquiry, 12(1), 13–26. https://doi.org/10.1111/j.1465-7295.1974.tb00223.x

Andrews, J., & Smith, D. C. (1996, May). In search of the marketing imagination: Factors affecting the creativity of marketing programs for mature products. Journal of Marketing Research, 33, 174–187.

Batra, Rajeev and Olli T. Ahtola (1990), "Measuring the Hedonic and Utilitarian Sources of Consumer Attitudes." Marketing Letters, 2 (April), 159–70.

Berlyne. (1971). Aesthetics and psychobiology. Appleton-Century-Crofts.

Botti, & McGill, A. L. (2011). The Locus of Choice: Personal Causality and Satisfaction with Hedonic and Utilitarian Decisions. The Journal of Consumer Research, 37(6), 1065–1078. https://doi.org/10.1086/656570

Burton, & Jacobsen, J. P. (1999). Measuring Returns on Investments in Collectibles. The Journal of Economic Perspectives, 13(4), 193–212. https://doi.org/10.1257/jep.13.4.193

Castelo, N., Bos, M. W., & Lehmann, D. R. (2019). Taskdependent algorithm aversion. Journal of Marketing Research, 56(5), 809–25. https://doi.org/10.1177/0022243719851788

Cetinic, & She, J. (2022). Understanding and Creating Art with AI: Review and Outlook. ACM Transactions on Multimedia Computing Communications and Applications, 18(2), 1–22.

Chamberlain, Mullin, C., Scheerlinck, B., & Wagemans, J. (2018). Putting the Art in Artificial: Aesthetic Responses to Computer-Generated Art. Psychology of Aesthetics, Creativity, and the Arts, 12(2), 177–192. https://doi.org/10.1037/aca0000136

Cialdini, R. B. (1985). Influence: How and why people agree to things. New York, NY: Quill Books.

Coslor, & Spaenjers, C. (2016). Organizational and epistemic change: The growth of the art investment field. Accounting, Organizations and Society, 55, 48–62. https://doi.org/10.1016/j.aos.2016.09.003

Dawes, Robyn M. (1979), "The Robust Beauty of Improper Linear Models in Decision Making," American Psychologist, 34 (7), 571–82.

Deci, Edward L. and Richard M. Ryan (1985), Intrinsic Motivation and Self-Determination in Human Behavior, New York: Plenum.

Desmet, & Hekkert, P. (2007). Framework of product experience. International Journal of Design, 1(1), 57–66.

Field, & Hole, G. (2013). How to design and report experiments. Sage.

Freedberg, D., & Gallese, V. (2007). Motion, emotion and empathy in esthetic experience. Trends in Cognitive Sciences, 11(5), 197-203.

Fuchs, Kaiser, U., Schreier, M., & van Osselaer, S. M. J. (2022). The value of making producers personal. Journal of Retailing, 98(3), 486–495. https://doi.org/10.1016/j.jretai.2021.10.004

Diehl, T. (2022, December 15). MoMA's Daydream of Progress. *The New York Times.* https://www.nytimes.com/2022/12/15/arts/design/refik-anadol-unsupervised-moma-review.html

Dietvorst, B., Simmons, J. P., & Massey, C. (2016). Overcoming Algorithm Aversion: People Will Use Imperfect Algorithms If They Can (Even Slightly) Modify Them. Management Science, 64(3), 1155–1170. https://doi.org/10.1287/mnsc.2016.2643

Granulo, Fuchs, C., & Puntoni, S. (2021). Preference for Human (vs. Robotic) Labor is Stronger in Symbolic Consumption Contexts. Journal of Consumer Psychology, 31(1), 72–80. https://doi.org/10.1002/jcpy.1181

Grove, William M. and Paul E. Meehl (1996), "Comparative Efficiency of Informal (Subjective, Impressionistic) and Formal (Mechanical, Algorithmic) Prediction Procedures: The Clinical-Statistical Controversy," Psychology, Public Policy, and Law, 2 (2), 293–323.

Gutman, J. (1982). A Means-End Chain Model Based on Consumer Categorization Processes. Journal of Marketing, 46(2), 60. https://doi.org/10.2307/3203341

Hsee, K. C. and Rottenstreich, Y. (2004) "Music, pandas, and muggers: On the affective psychology of value," Journal of Experimental Psychology: General 133 (March): 23–30.

Im, Bhat, S., & Lee, Y. (2015). Consumer perceptions of product creativity, coolness, value and attitude. Journal of Business Research, 68(1), 166–172. https://doi.org/10.1016/j.jbusres.2014.03.014

Kaplan, & Haenlein, M. (2019). Siri, Siri, in my hand: Who's the fairest in the land? On the interpretations, illustrations, and implications of artificial intelligence. Business Horizons, 62(1), 15–25. https://doi.org/10.1016/j.bushor.2018.08.004

Khan, Uzma, Ravi Dhar, and Klaus Wertenbroch (2005), "A Behavioral Decision Theoretic Perspective on Hedonic and Utilitarian Choice," in Inside Consumption: Frontiers of Research on Consumer Motives, Goals, and Desires, ed. S. Ratneshwar and David Glen Mick, New York: Routledge, 144–65.

Kleinschmidt, E. J., & Cooper, R. G. (1991, August). The impact of product innovativeness on performance. Journal of Product Innovation Management, 8, 240–251.

Kroeber-Riel, & Gröppel-Klein, A. (2019). Konsumentenverhalten (11. vollständig überarbeitete, aktualisierte und ergänzte Auflage). Verlag Franz Vahlen.

Kruger, J., Wirtz, D., Van Boven, L., & Altermatt, T. W. (2004). The effort heuristic. Journal of Experimental Social Psychology, 40(1), 91-98.

Leder, Belke, B., Oeberst, A., & Augustin, D. (2004). A model of aesthetic appreciation and aesthetic judgments. The British Journal of Psychology, 95(4), 489–508.

Leung, E., Paolacci, G., & Puntoni, S. (2018). Man versus machine: Resisting automation in identity-based consumer behavior. Journal of Marketing Research, 55(6), 818–31. https://doi.org/10.1177/0022243718818423

Logg, J. M., Minson, J. A., & Moore, D. A. (2019). Algorithm appreciation: People prefer algorithmic to human judgment. Organizational Behavior and Human Decision Processes, 151, 90–103. https://doi.org/10.1016/j.obhdp.2018.12.005

Longoni, C. & Cian, L. (2022). Artificial Intelligence in Utilitarian vs. Hedonic Contexts: The "Word-of-Machine" Effect. Journal of Marketing, 86(1), 91–108. https://doi.org/10.1177/0022242920957347

Longoni, Chiara, Andrea Bonezzi, and Carey K. Morewedge (2019), "Resistance to Medical Artificial Intelligence," Journal of Consumer Research, 46 (4), 629–50.

Lynn. (1991). Scarcity effects on value: A quantitative review of the commodity theory literature. Psychology & Marketing, 8(1), 43–57. https://doi.org/10.1002/mar.4220080105

Mariani, M. M., Perez-Vega, R., & Wirtz, J. (2022). AI in marketing, consumer research and psychology: A systematic literature review and research agenda. Psychology & Marketing, 39(4), 755–776.

Ma, L., & Sun, B. (2020). Machine learning and AI in marketing - Connecting computing power to human insights. International Journal of Research in Marketing, 37(3), 481–504.

Meehl, Paul (1954), Clinical Versus Statistical Prediction: A Theoretical Analysis and Review of the Literature. Minneapolis: University of Minnesota Press.

Minsky, M. L. (1968). Semantic information processing. Cambridge, MA: MIT Press.

Mukherjee, A., & Hoyer,W. D. (2001). The effect of novel attributes on product evaluation. Journal of Consumer Research, 28, 462–472.

Museum of Modern Art. (2021 February, 20). Refik Anadol: Unsupervised [Exhibition]. The Museum of Modern Art, New York, NY, United States. https://www.moma.org/calendar/exhibitions/5535

Newman, & Bloom, P. (2012). Art and Authenticity: The Importance of Originals in Judgments of Value. Journal of Experimental Psychology. General, 141(3), 558–569. https://doi.org/10.1037/a0026035

OpenAI. (2022, 6. April). DALL·E 2 Explained [Video]. YouTube. https://www.youtube.com/watch?v=qTgPSKKjfVg

Pham, Michel Tuan (1998), “Representativeness, Relevance, and the Use of Feelings in Decision Making,” Journal of Consumer Research, 25 (September), 144–59.

Poltronieri, & Hänska, M. (2019). Technical Images and Visual Art in the Era of Artificial Intelligence. Proceedings of the 9th International Conference on Digital and Interactive Arts, 1–8.

Roose, K. (2022, September 2). AI-Generated Art Won a Prize. Artists Aren’t Happy. *The New York Times.* https://www.nytimes.com/2022/09/02/technology/ai-artificial-intelligence-artists.html

Ryan, Richard M., Richard Koestner, and Edward L. Deci (1991), “Ego-Involved Persistence: When Free-Choice Behavior Is Not Intrinsically Motivated,” Motivation and Emotion, 15 (3), 185–205.

Sotheby’s (2022, December 26). Machine Hallucinations: Space Metaverse. Lot 4. https://www.sothebys.com/en/buy/auction/2021/machine-hallucinations-space-metaverse/machine-hallucinations-galaxy-infinite-ai-data

Spilski, A., Gröppel-Klein, A., & Gierl, H. (2018). Avoiding Pitfalls in Experimental Research in Marketing. Marketing ZFP, 40(2), 58–94. https://doi.org/10.15358/0344-1369-2018-2-58

Verganti, R., Vendraminelli, L., & Iansiti, M. (2020). Innovation and design in the age of artificial intelligence. Journal of Product Innovation Management, 37(3), 212–227.

Zhang, Bai, X., & Ma, Z. (2022). Consumer reactions to AI design: Exploring consumer willingness to pay for AI-designed products. Psychology & Marketing, 39(11), 2171–2183. https://doi.org/10.1002/mar.21721

9 Appendix

9.1 Survey

English

Introduction

Dear participants,

this study is being conducted at the Institute of International Marketing at the University of Vienna as part of a Master's thesis.You will answer some questions about your preferences. Your data is completely anonymous at all times. Results may include summary data, but you will never be identified. The data controller will store the data in password-protected computers and will analyze this study's data for scientific purposes, such as publishing articles in scientific journals or conferences, which is a lawful basis for data processing.

It will take 5 minutes to answer the questions. Please note: It is important that you read the questions carefully and follow the information carefully. There are no right or wrong answers. We are only interested in your personal assessment.
Your participation in this study is completely voluntary. You have the possibility to withdraw from the study at any point in time.

Before we start, we need your explicit consent to take part in this study. I have read the consent form and agree to participate in this research study.

- ○ Yes
- ○ No

Info

Currently, artwork can be generated by humans or by an artificial intelligence system (i.e., art in which the design is generated by an algorithm). In the next pages, you will have to answer a few questions regarding this context.

B1

Imagine you want to buy a painting for investment purposes. Would you rather buy a painting made by artificial intelligence or a human.

AI Painting ○ ○ ○ ○ ○ ○ ○ Human Painting

B1

Imagine you want to buy a painting to hang in one of your rooms at home. Would you rather buy a painting made by artificial intelligence (AI) or a human.

AI Painting ○ ○ ○ ○ ○ ○ ○ Human Painting

B2_AI

The graphic above shows a work of art created by artificial intelligence. Please rate it on the following characteristics. This AI Artwork is...

	Strongly disagree						Strongly agree
Aesthetic	○	○	○	○	○	○	○
Sophisticatedly crafted	○	○	○	○	○	○	○
Rare	○	○	○	○	○	○	○
Time-consuming to make	○	○	○	○	○	○	○
Ambiguous	○	○	○	○	○	○	○
Surprising	○	○	○	○	○	○	○
Trendy	○	○	○	○	○	○	○

Unique	○	○	○	○	○	○	○
Eccentric	○	○	○	○	○	○	○
Something new	○	○	○	○	○	○	○
Complex	○	○	○	○	○	○	○

Have you ever seen this painting before?

- ○ No
- ○ Yes

B2_human

The graphic above shows a work of art created by a human. Please rate it on the following characteristics. This human-made Artwork is...

	Strongly disagree						Strongly agree
Trendy	○	○	○	○	○	○	○
Time-consuming to make	○	○	○	○	○	○	○
Unique	○	○	○	○	○	○	○
Eccentric	○	○	○	○	○	○	○
Aesthetic	○	○	○	○	○	○	○
Complex	○	○	○	○	○	○	○
Sophisticatedly crafted	○	○	○	○	○	○	○
Surprising	○	○	○	○	○	○	○
Ambiguous	○	○	○	○	○	○	○
Something new	○	○	○	○	○	○	○
Rare	○	○	○	○	○	○	○

Have you ever seen this painting before?

- ○ No
- ○ Yes

Demographics

Please tell us your age.

Please choose your gender.

- ○ Male
- ○ Female
- ○ Non-binary / third gender
- ○ Prefer not to say

Please choose your highest degree of education completed.

- ○ High school
- ○ Apprenticeship
- ○ Undergraduate
- ○ Postgraduate
- ○ [ ] Other

Please choose your nationality.

- ○ Austrian
- ○ German
- ○ [ ] Other

Powered by Qualtrics