

The Value of Creativity: Human Produced Art vs. AI-Generated Art

Johnathon Hall, Damian Schofield

Department of Computer Science, State University of New York (Oswego), Oswego, NY, USA

Email: damian.schofield@oswego.edu

How to cite this paper: Hall, J., & Schofield, D. (2025). The Value of Creativity: Human Produced Art vs. AI-Generated Art. *Art and Design Review*, 13, 65-88.

<https://doi.org/10.4236/adr.2025.131005>

Received: January 11, 2025

Accepted: February 25, 2025

Published: February 28, 2025

Copyright © 2025 by author(s) and Scientific Research Publishing Inc.

This work is licensed under the Creative Commons Attribution International License (CC BY 4.0).

<http://creativecommons.org/licenses/by/4.0/>



Open Access

Abstract

This study involves an exploration of the evolving dynamics between Artificial Intelligence (AI)-generated and human-created artwork with a focus on consumer preference, perceived value, and emotional impact. Experiments were undertaken where participants were asked to evaluate and compare a series of human and AI-produced images without knowing the origins of each. Quantitative data revealed that although human artwork was preferred overall, AI-generated pieces were selected at a rate of nearly 45%, indicating a growing acceptance. Also, the experimental participants consistently assigned a higher monetary value to human art, suggesting that human-created pieces offered some perceptibility to an increase in perceived worth despite a lack of knowledge about the origin of the artwork by participants. Qualitative responses further highlighted the nuanced views of AI's role in art, acknowledging its potential as a creative tool but cautioning against its use as a replacement for human-driven creativity. This study opens avenues for further exploration into how AI's integration into creative fields could reshape artistic practices, valuation, and consumer perceptions/practices, and suggests a need for ethical considerations as AI continues to blur the lines between human and machine creativity.

Keywords

Artificial Intelligence (AI), Generative Art, Consumer Preference, Human-Driven Creativity, Perceived Value, AI Ethics

1. Introduction

The convergence of Artificial Intelligence (AI) and art represents one of the most interesting and important technical developments of contemporary times. The advent of AI-generated art has expanded the boundaries of creative expression,

while also generating discussions about authorship, originality, and the very nature of art itself. With algorithms capable of producing complex and aesthetically pleasing pieces, AI has emerged as both a tool and a collaborator in the artistic process (Boden, 2016; Elgammal, 2017; Ko et al., 2023).

AI-generated art relies on a number of machine learning techniques, including Neural Networks (NNs) and Generative Adversarial Networks (GANs), to create visual artworks that can mimic or even potentially surpass human creativity (Goodfellow et al., 2014). The importance of these technologies is further evidenced by the growing acceptance and integration of AI-generated art in galleries, auctions, and digital platforms, demonstrating its growing influence in the art world (Christie's, 2018; Cetinic & She, 2022).

However, AI-generated art continues to raise a number of profound questions about the role of human creativity and the implications of machine-generated works. Critics argue that while AI can emulate the technical aspects of art, it lacks the subjective experience and emotional depth that characterize human-driven creativity (Bellaïche et al., 2023). This highlights the fundamental question arising from the use of AI-generated art: what constitutes artistic merit in the age of digital innovation?

AI's foray into the arts has triggered significant societal implications. The democratization of art creation through AI tools has made artistic expression more accessible to a wider audience, allowing individuals without formal training to produce sophisticated artworks. This accessibility challenges traditional notions of artistic elitism and opens up new avenues for creative exploration (Padgett, 2024). However, it also raises concerns about the devaluation of human artistry and the potential loss of cultural heritage as machine-generated art becomes more prevalent.

The use of AI in art production also has ethical implications related to copyright and intellectual property. The question of who owns the rights to AI-generated art (the creator of the algorithm, the user who inputs data, or the AI itself) remains a contentious issue. This ambiguity necessitates the development of new legal frameworks to address the ownership and distribution of AI-generated content.

In addition to the societal impact, there is also an economic impact. The economic impact of AI-generated art is multifaceted. On one hand, the proliferation of AI tools has lowered the barrier to entry for art creation, potentially leading to an oversupply of artworks and driving down prices. On the other hand, AI-generated art has created new markets and opportunities for monetization, such as digital art platforms, NFTs (Non-Fungible Tokens), and personalized art services (Wang et al., 2021). The need for a balanced approach that leverages AI's capabilities while preserving the value of human creativity is essential to ensure a sustainable and inclusive future for the arts.

As we delve deeper into the potential and pitfalls of AI-generated art, it is crucial to consider the ethical and economic dimensions, as well as the societal impacts, of this technological evolution. The integration of AI in creative fields may

reshape artistic practices, consumer perceptions, and the economics of art production, necessitating a thoughtful examination of its long-term consequences (Boden, 2016).

1.1. The Economics of AI-Generated Art

A large proportion of the previous research is based on the potential monetary value of AI applications. Many articles identify the concern over the loss of creative jobs in the workforce (Webb, 2022; Mikrut-Majeranek, 2024; Zeng & Chen, 2024). On the corporate side, there are many examples of the application of AI technology to improve the flow and efficacy of workplace functionality (Wilkins, 2020; Tung, 2024).

There are many different examples of economic risk attached to the use of generative AI (Boukherouaa et al., 2021). Reviews of the use of generative AI in the creative sector have identified the following key issues (Cetinic & She, 2022; Gonzalez-Brizuela & Garrido-Merchan, 2023; Bird et al., 2023):

- Digital models can be trained using artwork created by specific users. These models can then be used to generate work similar to the original artwork.
- Marginalized artists will not have the resources necessary to defend the copyright of their work in a court of law and to ensure that representative artworks are not being used by generative AI system.

Economically speaking, the creation of AI-generated art is a complex issue (Gillette, 2019; Murray, 2023). If a copyright is deemed to have been breached, legal teams will have to take time to determine where and who is at fault for the reproduction of the artwork; does it fall to the person inputting the prompt, the person selling the work, the person creating the tool to generate work, or the person who trained the AI system?

Other studies in the video game industry showcase a fear of efficiency and cost-effectiveness by participants due to the focus on company profit. Employees believe the introduction of AI systems would inevitably result in job losses and a changed marketplace (Yakan, 2022; Vimpari et al., 2023).

In all creative industries, there is a concern about market saturation and devaluation of the artistic skill sets that these employees have. The introduction of AI systems into these industries could lead to a diminishing return on value that artists would be able to gain, regardless of the quality of their work (Zeng & Chen, 2024; Cetinic & She, 2022; Bird et al., 2023). This, in turn, could result in a reduction in the professional identity and value of working artists, leading to a reduction in the wages they would be paid as the market changes (Yakan, 2022; Jiang et al., 2023).

A number of previous studies have focused on the efficacy of including AI text-to-image generation as part of the ideation phases of the artistic process helping to speed up and increase efficiency of those artists using it (Cetinic & She, 2022; Zhou & Lee, 2024). The research demonstrated that humans who utilized AI without an artistic background would eventually reach a “plateau” of sorts where the

artistic items would appear quite similar with little to no variation within the creation of new ideas. This, in turn, led to a conclusion that trained artists who utilize these tools could end up breaking the barrier of generalization, and use AI to improve upon their creative processes (Zhou & Lee, 2024).

1.2. The Ethics of AI-Generated Art

The concept of AI ethics is complex and difficult to separate from the economics of AI systems (Kazim & Koshiyama, 2021; Coeckelbergh, 2020). AI art cannot be simply classified as ethical or unethical, there is a complicated spectrum, where any single instance of AI-generated art can have multiple ethical issues and implications (Hagendorff, 2020).

One example of this was the Sony World Photography competition held in 2023. The first prize for best photograph was awarded to an AI-generated image. This work was intentionally submitted, and the award was ultimately declined by the winning “photographer”, who claimed he was “trying to shine light on the dangers of AI within the marketplace of artistic endeavors” (Glynn, 2023).

Recently, a number of lawsuits have been brought against companies building AI image-generation systems, mostly involving copyright infringement (Murray, 2023; Shoemaker, 2024). These lawsuits challenge the ethics of creating art with AI systems by highlighting the lack of consent, credit, or compensation for the artists whose artworks are used to train these systems (Gillotte, 2019).

Many academics have claimed that “generative AI art systems exploit humans within the industries associated with creative works and licenses” (Goetze, 2024). The ethical issues described here again focus on the controversy of the livelihood of artists functioning in many different industries, and the exploitation of the artist and their works. Much of the academic analysis in this area concludes that AI art is unethical primarily due to the reliance on unpaid and unauthorized works that humans have made and posted online (Glynn, 2023; Shoemaker, 2024; Goetze, 2024).

Other academic studies have concentrated on the concept of the detectability of AI artwork, assessing the relationship between AI detectors as well as human detection (Cozzolino et al., 2025, Yan et al., 2024). Previous studies have demonstrated that the rate of human accuracy for a general user is close to 50% in determining AI art, while artists (even those with limited experience) were close to 75%. Professional or expert artists tested were more accurate in identifying AI-generated artwork than others, with around an 83% accuracy rate (Ha et al., 2024).

The professionals were able to break down their logic of determining which pieces were AI- or human-created based on four factors (Ha et al., 2024):

- Consistency in medium;
- Intentionality in details;
- Limitations of medium;
- Domain knowledge.

Experimentation has also shown that commercial AI art detection software is

accurate at identifying AI-generated art at a rate of around 98% (Ha et al., 2024).

1.3. The Biases Surrounding AI-Generated Art

Biases of AI-generated art can significantly impact consumer perceptions and the valuation of such art in various ways.

The perceived authenticity of any artwork plays a crucial role and can have a large effect on consumer perception of the artwork. Consumers may view AI-generated art as lacking the human touch and emotional depth that traditional artworks embody, which could lead to the perception that AI art is less authentic or meaningful.

Due to the relatively recent introduction of AI-generated art, a novelty factor may also influence consumer perceptions. Some individuals might see AI-generated art as a novelty or gimmick rather than a serious art form, leading to skepticism about its artistic value and reducing its acceptance in traditional art circles.

Furthermore, there is an established tension between innovation and tradition that is evident in the art world. Art enthusiasts and collectors who value traditional art forms might resist embracing AI-generated art, perceiving it as a threat to conventional artistic practices. This resistance shapes consumer preferences and impacts market demand.

From an economic standpoint, market demand for AI-generated art might initially appeal to a niche market of tech enthusiasts and early adopters. This could lead to fluctuations in demand and pricing as the market matures. Provenance issues also arise, as the lack of clear provenance in AI-generated art (such as the creator's identity and creative process) can severely affect its valuation. Collectors and investors often place high value on the artist's background and story, which could be absent or less compelling in AI art.

AI-generated art can be produced more quickly and at a lower cost compared to traditional art, potentially leading to an oversupply of artworks and driving down prices. Economic accessibility is thus another concerning bias, or market factor. The rapid evolution of AI technology means that what is considered innovative today may become obsolete tomorrow, impacting the long-term value and desirability of AI-generated artworks.

The ethical concerns discussed above can also play a significant role. Ongoing ethical debates about the use of AI in creative fields, including concerns about copyright, intellectual property, and the potential displacement of human artists, can influence and bias consumer perceptions and the art market.

Additionally, cultural representation is important. AI models trained on datasets that predominantly feature certain cultural styles or themes may produce artworks that reflect those biases, resulting in limited diversity in AI-generated art. This limitation can make AI-generated art less relatable or appealing to consumers from underrepresented cultures.

Specific examples of gender bias within generative AI systems have been well-documented in multiple studies (Wellner, 2020; Hall & Ellis, 2023; Wan et al., 2024).

A number of previous studies have clearly identified implicit differences when related to generating images using girl, boy, man, or woman (Mannering, 2023; O'Connor & Liu, 2024).

In one particular study. Over a thousand images were generated by an AI system using vague terms instead of specific. Almost all of the prompts seemed to reinforce stereotypes of both men and women showcasing women with more domestic items in hand and men with objects associated with traditional male culture (Mannering, 2023).

Another study noted social bias in relation to gender when related to professions. The research demonstrated that men were generated by AI image generation systems more often than females for nearly all professions. Also, when a profession was predominately marked by being a typical male or female profession, the AI image generators would more likely than not generate a male in the role (Cho et al., 2023).

There has also been research work undertaken in the particular area of non-binary and gender-diverse depictions within AI systems. Researchers have attempted to retrain AI image generation systems, using biosemiotics, to remove evident gender bias with images that were deliberately non-binary. The researchers were unable to remove the gender biases with the AI systems (Rosenbaum, 2022).

Racial biases are another area of concern within AI image generation systems (Schlesinger et al., 2018; Intahchomphoo & Gundersen, 2020; Livingston, 2020; Banerjee et al., 2021). In one particular study, researchers tested the three leading AI text-to-image generators in relation to the field of the surgical profession and the trainees within that field alongside their specific geographic regions. From their findings, 98% of all depictions of surgeons were white males, in all examples of the surgical specialties. However, when referencing trainees of those surgical specialties, white women became far more prominent (Ali et al., 2023).

Other research has demonstrated the inherent bias of skin tone among AI-generated images. It has been determined that this was due to models having learned specific biases from web image-text pairings. Utilizing the Monk Skin Tone Scale to illustrate this, researchers found that almost all individuals created using the studied text-to-image generators were around a five on the scale, which means they were typically white (Intahchomphoo & Gundersen, 2020; Cho et al., 2023).

Other research studies have targeted multiple AI biases including: gender, race, age, location, as well as subjects: person, occupations, traits, and situations (Schlesinger et al., 2018; Naik & Nushi, 2023; Anand et al., 2023). These studies found that bias was heavily prevalent in both DALLE-v2 and Stable Diffusion AI image generation models, in every one of the listed categories. The models demonstrated an underrepresentation of demographics, a reinforcement of stereotypes regarding occupations and personality traits, and a lack of certain countries being present within the images that were created (Naik & Nushi, 2023).

Studies examining an array of professions within Stable Diffusion found an overly large segmentation of white and Asian individuals. Approximately 85% of prompts

related to crime generated depictions of men. Other prompts, such as “playing basketball”, perpetuated stereotypes of black people. And 95% of prompts containing the words “studying” or “math” resulted in Asian individuals being generated within the images (Anand et al., 2023).

When asked to generate images of Indian men, 75% of the images generated by Meta’s AI image tool depicted an Indian man wearing a turban. In reality, less than 2% of Indian men regularly wear turbans. Also, the images generated often depicted Indian men as having lower socio-economic status than their white counterparts (James, 2024).

These experimental results are easy to replicate using any of the popular AI image generation tools available. Despite many AI image generation providers attempting to put guardrails into place, the problem of bias continues to exist. This is a serious area of concern moving forward with AI generation in the Art industry, which has a direct effect on both the perceived and economic value of AI-generated art (Bianchi et al., 2023; Ferrara, 2024).

By understanding and addressing these biases, creators, curators, and marketers of AI-generated art can better navigate the evolving landscape of consumer perceptions and the art market. This approach can help ensure that AI art is valued and appreciated as a legitimate and impactful form of creative expression.

2. Methodology

The research experiment undertaken examined the ways in which people can engage with text-to-image work, the ways in which it can be biased or unethical, and the ways in which artists feel that they are being impacted by this new technology. One of the key areas missing from the current body of research is that of the perceived value of the AI-generated artwork to the potential customers and clients of artists around the world. It is important that a study is undertaken comparing the value of human-generated art to its AI-generated counterpart.

This study employed a survey-based, mixed-methods design to explore preferences and perceptions regarding AI-generated and human-generated artwork. The primary focus was on determining how participants evaluated the artistic merit and monetary value of a number of individual artworks, and their broader perceptions of AI within the creative process. The design utilized both quantitative and qualitative data collection, allowing for a comprehensive analysis of participants’ responses.

2.1. Experimental Participants

Twenty-seven participants (N = 27) were recruited via various social media posts and a large-scale group chat found across the social media platforms of Instagram, Facebook, and Reddit. The participants represented a diverse range of ages, genders, educational backgrounds, and cultural experiences.

The inclusion criteria required participants to be above 18 years of age and to have prior exposure to visual art, in any form. No specific knowledge of AI or art

expertise was required. Demographic information, including age, gender, education level, and cultural background, was collected to explore potential correlations between these factors and participants' preferences throughout the study.

2.2. Experimental Materials

The stimuli used in the experiment consisted of five pairs of visual art images. Each pair included one artwork generated by a human and one by an AI model. The AI-generated images were created using Midjourney, while the human-generated images were sourced from various human artists.

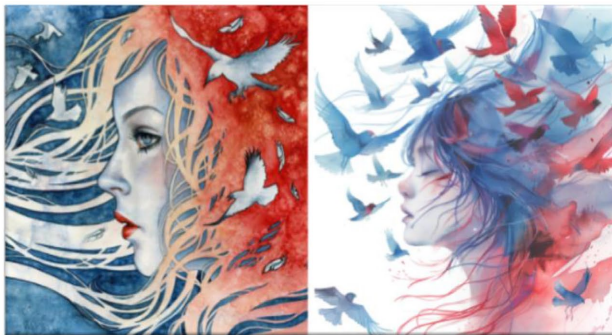


Image 1 : Human Artwork on Left, AI Artwork on Right



Image 2 : Human Artwork on Left, AI Artwork on Right



Image 3 : Human Artwork on Top, AI Artwork on Bottom



Image 4 : Human Artwork on Left, AI Artwork on Right

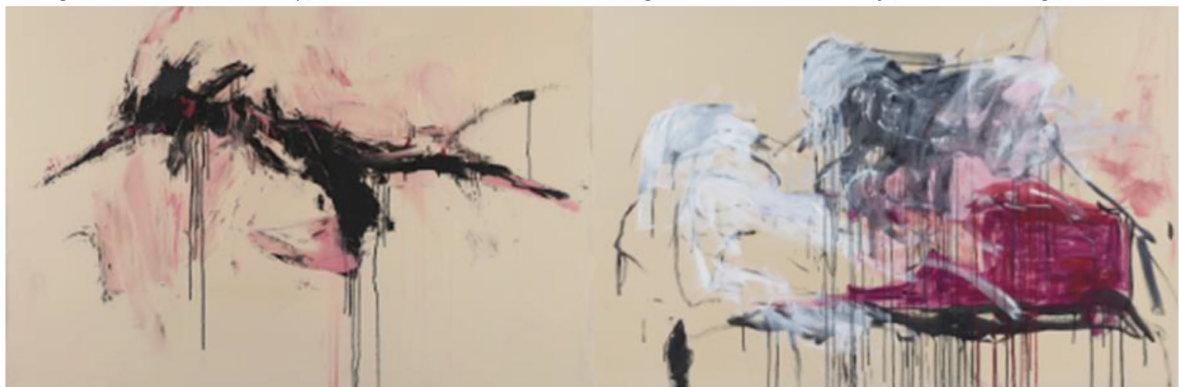


Image 5 : AI Artwork on Left, Human Artwork on Right

Figure 1. The five pairs of AI and human-generated artworks used in the experiment.

The artworks selected for this experiment were based on artworks similar to some of those involved in the legal copyright disputes mentioned above. These works of art are shown in their respective pairs in **Figure 1**.

The artworks used in this experiment were selected based on a number of subjective criteria:

- *Genre and Style Diversity*: The artworks selected came from a variety of genres and styles to account for the individual participant's different aesthetic preferences.
- *Quality and Aesthetic Appeal*: High-quality images were selected, in particular ones that are visually appealing and well-composed. An attempt was made to ensure that both AI-generated and human-created artworks had a similar level of technical proficiency and aesthetic value.
- *Medium Consistency*: The artwork image pairs were created with similar mediums and styles (e.g. watercolours, oil painting) to avoid bias introduced by different artistic techniques.
- *Theme and Subject Matter*: A range of themes and subject matter (e.g. portraits, fantasy, abstract) were covered across the artworks to ensure a fair comparison. Artworks with explicit or controversial content that might influence participants' choices were avoided.
- *Variety of Complexity*: The artworks selected included varying levels of complexity and detail to assess how participants respond to different degrees of artistic intricacy.
- *Cultural and Contextual Relevance*: Artworks that may have strong cultural or historical significance were avoided, since they could skew the results.
- *Artist Anonymity*: The identity of the artists (whether human or AI) was kept anonymous to avoid any preconceived biases.

Participants were presented with each pair of images for comparison. Each participant was presented with the images in a random order, and with random positioning of the AI- and human-generated images. The participants were then asked to evaluate each image pair based on style, composition, and emotional impact, and select the image they considered to be the "better" artwork.

2.3. Experimental Procedure

Participants were instructed to view the image pairs and answer a series of questions about each pair of images. Considering aspects such as style, composition, and emotional impact, the participants were asked to select their preferred image based on each of these aspects. Participants selected either the left and right or top and bottom image, depending on the arrangement of the image pair.

The participants were then asked to assign a monetary value to each image, by indicating how much they would be willing to pay for each of the images in every image pair.

The participants were then asked a series of questions regarding their general engagement with visual art. These questions included such topics as their perceptions

of AI's role in art, and their emotional responses to AI-generated versus human-generated art.

The survey concluded with a number of open-ended questions inviting participants to share further thoughts on the value of creativity and the role of AI in artistic production.

Although the participant pool was predominantly Caucasian, an attempt was made to include as many diverse participants as possible, to capture multiple perspectives and lower the likelihood of biased interpretations from a homogeneous sample. Experimental participants were also engaged in verifying interpretations and conclusions to ensure that their perspectives are accurately represented.

In an attempt to effectively minimize biases in the qualitative data analysis, the researchers endeavored to triangulate the multiple data sources, methods, and participant responses to cross-verify findings, to minimize individual biases. A strong understanding of relevant theories, concepts, and literature in this field, also allowed the researchers to recognize and account for biases arising from theoretical predispositions.

Throughout the analysis process, findings and interpretations were shared with peers or colleagues for fresh perspectives and to identify any potential biases that may have been overlooked. Detailed records of the data collection and analysis processes were also kept to maintain transparency, allowing others to repeat the experimental procedure and verify the findings.

2.4. Experimental Metrics

This project aims to question the value of AI-generated art, based on a number of rating mechanisms. In particular this project examines whether emotional responses differ depending on the artwork's source.

To achieve this a number of metrics were determined:

- *Artistic Preference*: The primary dependent variable was participants' selection of the image they considered better from each pair (AI vs. human-generated).
- *Monetary Valuation*: Participants indicated the amount they would be willing to pay for both their preferred and non-preferred images from each image pair. This measure provided insight into the perceived value of AI-generated vs. human-generated art.
- *Perception of AI in Art*: Additional survey questions explored participants' broader attitudes toward AI in creative endeavors. This included whether the participants believed AI-generated art could be as valuable as human-created art, and whether their emotional responses differed depending on the artwork's source.

To effectively compare AI and human artworks, it is important to use a number of established art evaluation metrics, a combination of subjective and objective evaluation criteria. Firstly, technical skills and execution can be assessed by examining the quality of brushstrokes, lines, and overall execution. Additionally, the

composition and layout should be analyzed for balance, symmetry, and use of negative space. Secondly, creativity and originality can be evaluated based on the uniqueness and innovation of the artwork, as well as the complexity and depth of the underlying concept or message (Brunner, 1975).

Emotional impact is another crucial criterion, measuring the expressiveness of the artwork and its ability to evoke emotions and engage viewers. The mood and atmosphere created by the artwork should also be evaluated. Aesthetic appeal can be analyzed through the use of color, including harmony and contrast, as well as the overall visual harmony and coherence of the artwork.

Interpretation and meaning can also be assessed by examining the use of symbols and metaphors within the artwork and their effectiveness in conveying deeper meanings. The ability of the artwork to tell a story or communicate a narrative should also be considered.

By using these evaluation criteria, a comprehensive evaluation can be made of any artwork, considering both its technical and expressive qualities. This approach allows for a balanced assessment that acknowledges the unique strengths and characteristics of each type of artwork.

2.5. Data Analysis

Quantitative data from the image comparison questions were analyzed using descriptive statistics and comparative methods to assess preferences between AI and human-generated images. Response distributions were then analyzed to determine which image type (AI or human-generated) was preferred overall, and whether there were significant differences in monetary valuation between the two types of art.

For the qualitative data, thematic analysis was employed to categorize and interpret participants' open-ended responses regarding the value of AI in creative processes and its emotional impact. To minimize bias in the image comparison task, the image sequences were randomized and the positioning of AI and human-generated images alternated between top/bottom and left/right arrangements. This helped reduce any potential order effects that might influence participants' selections. Additionally, all participants were asked to evaluate the images based on the same criteria (style, composition, and emotional impact) to ensure consistency in the comparison process.

To effectively merge these two types of data, the data sets were combined during the analysis phase. In particular an attempt was made to identify areas where the quantitative and qualitative data converge, diverge, or complement each other.

Findings from both data types were compared to identify consistencies and discrepancies. In particular the qualitative data was used to provide context for the quantitative findings, explaining the underlying factors influencing the numerical trends and offering a richer understanding of the results.

The qualitative data was also used to explain unexpected or ambiguous quantitative results, filling in gaps where the measured data alone could not provide a

comprehensive understanding of the underlying selection process. Both quantitative and qualitative data were cross-checked to validate and corroborate the results, ensuring that the conclusions drawn from the data are robust and not merely artifacts of a single data source.

3. Experimental Results

Participants were asked to evaluate five pairs of visual artworks, one created by AI and the other by a human in different artistic styles. The comparisons were structured in different formats, either left-right or top-bottom, to determine which artwork they preferred based on factors such as style, composition, emotional impact.

Participants were also asked to assign monetary values to the artworks and to provide feedback on the emotional depth and perceived value of AI-generated art.

Table 1 illustrates the participants' preference for AI- or human-generated art. **Table 2** illustrates the amount the participants were willing to pay for AI- or human-generated art.

Table 1. Participants' preference for AI- or human-generated art.

Preference	AI-generated Art	Human-generated Art
Image 1	45%	55%
Image 2	40%	60%
Image 3	52%	48%
Image 4	50%	50%
Image 5	37%	63%

Table 2. Amount participants' willing to pay for AI- or human-generated art.

Monetary Value	AI-generated Art	Human-generated Art
Image 1	\$50	\$60
Image 2	\$40	\$65
Image 3	\$55	\$50
Image 4	\$53	\$53
Image 5	\$43	\$70

Table 3. Percentage of participants who believed AI could be emotionally impactful.

Emotional Impact	Belief
Image 1	40%
Image 2	35%
Image 3	42%
Image 4	38%
Image 5	30%

For the qualitative data, thematic analysis was employed to categorize and interpret participants' open-ended responses regarding the value of AI in creative processes and its emotional impact.

Table 3 illustrates the participants' preference for AI- or human-generated art. These results can be summarized as follows:

- *Image Preferences:* Human-generated art was generally preferred, with participants generally favoring human-created works in four out of five of the comparisons. However, AI-generated art was selected about 40% - 50% of the time, indicating that it is increasingly accepted, or at the very least not easily distinguishable from human-generated art.
- *Willingness to Pay:* Participants were consistently willing to pay more for human-generated artwork than for AI-generated art. On average, human-created pieces were valued 15% - 25% higher than AI art.
- *Emotional Impact:* A minority of participants (35% - 42%) believed that AI-generated art could evoke emotions comparable to human-created art. However, the majority still associated human art with greater emotional depth.

4. Data Analysis

None of the participants selected AI-generated content as their preferred image from each pair. However, three of the twenty-seven participants selected human-created images as their preference from each image pair.

Segmenting the preference data into age groups offers an insight into the choices of the participants. A Pearson correlation on age values against the percentage preference of human-created images over that of AI-generated ones was undertaken. The results of this correlation calculation for all of the twenty-seven participants are shown in **Table 4**.

Table 4. Pearson correlation on age values against the percentage preference.

Preference	Human over AI
20 - 29	64%
30 - 39	70%
40 - 49	60%
50 - 59	100%
60 - 69	70%

Figure 2 illustrates this information and highlights specific ages as well as their preference trend for human-created artwork in this study.

There is an undeniable trend of increasing preference for human-generated artwork with increasing age. However, the obtained t-statistic from the Pearson correlation calculation was 1.181, with a degree of freedom (df) of 25. This demonstrates a lack of statistical significance between the variables of age and preference of human-created or AI-generated artwork.

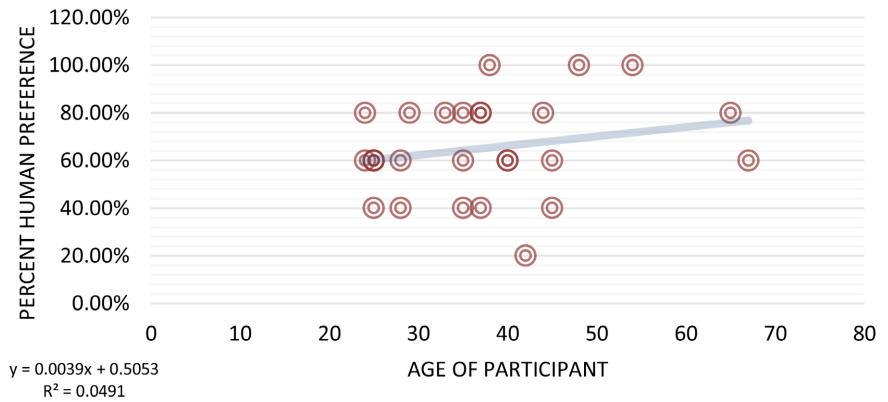


Figure 2. Graph of preference for human over AI artwork against participant age.

An examination of the dollar amount individuals was willing to pay is shown in **Figure 3**. Since the participants were unaware of whether or not an image, they had chosen was AI-generated or human-created, the results are noteworthy. Human-created art was almost always evaluated at a higher dollar value than the AI-generated pieces.

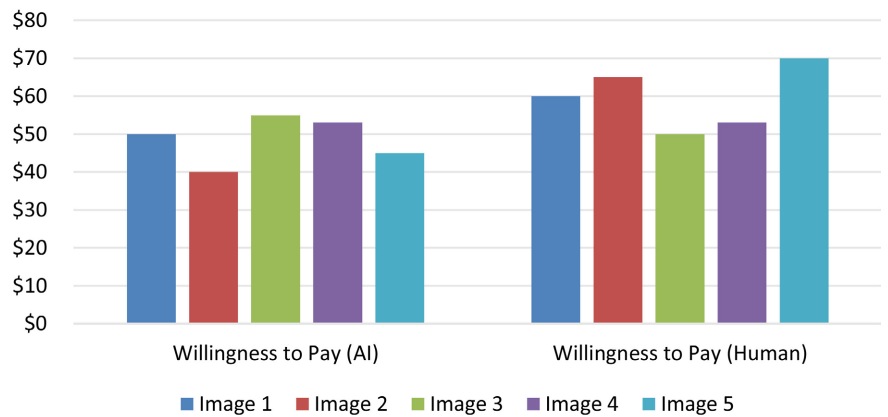


Figure 3. Graph of willingness to pay for AI against human-generated art.

When the willingness to pay (value) data and AI/human art preference data are aggregated, immediate correlations become apparent (**Figure 4**). A higher rate of payment is always associated with images that were created by humans than that of AI. It is also worth noting that the two images with the highest preference towards the human-created versions as well as the highest discrepancy for dollar amounts were both images that contained portraits of humans.

Qualitative data was collected from the participants at the end of the survey through open-ended questions. This yielded diverse feedback that addressed several areas of interest relevant to this study.

From the responses, six key themes emerged: AI as a Tool vs. Replacement, Ethical Concerns, Human Connection, Perception of Value, Creative Process, and Criticism of AI Art. Although these themes were not the original focus of the study, they provide valuable insights into how users engage with and perceive art in the

context of AI integration and replacement.

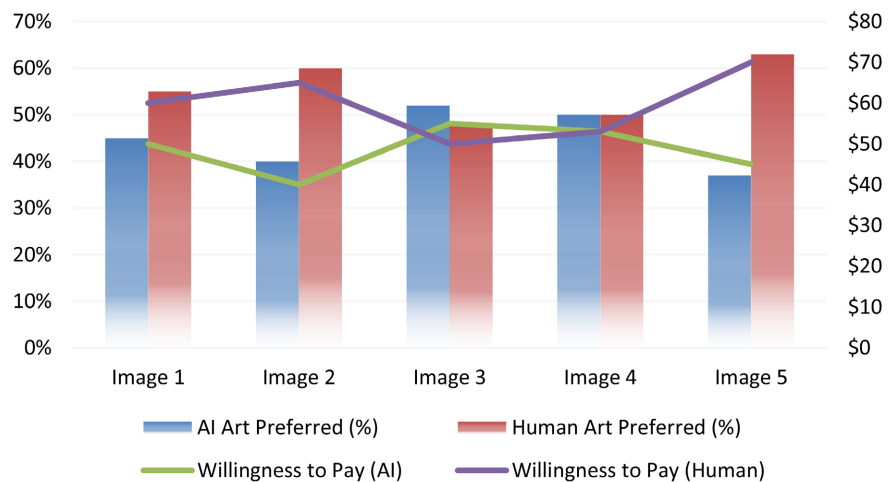


Figure 4. Graph of willingness to pay for AI.

Selected summarized responses from the participants are listed in **Table 5**.

Table 5. Selected quotes from qualitative data collection by category.

1. AI as a Tool vs. Replacement

- “I see AI as another tool in an artist’s toolkit... It’s a good way to get inspired, but it should not be passed off as your own work.”
- “AI can be a wonderful tool to come up with patterns/shapes you wouldn’t otherwise have come up with.”
- “AI should not be used to replace artists in the industry.”
- “We need safeguards in place to preserve art as a human medium of expression.”

2. Ethical Concerns

- “I would have less of an issue with AI if the current models ethically sourced their learning material.”
- “If there are resources available to point people in the direction of alternatives, I would love to hear about them.”

3. Human Connection

- “I expect some element of human touch to art I consume.”
- “Creating art is a process including intent. Experiencing art is a process of connecting with the artist.”
- “AI art has neither intent nor carries a possibility of human connection.”
- “The creativity from a human-made artwork seems more soulful.”
- “AI art completely devalues creativity because it steals from different artists of the same medium.”

4. Perception of Value

- “The thing most influencing the ‘value’ of art is the ability to self-promote and gather proper connections of the creator.”
- “What people will pay is often an issue modulated by the level of disposable income & perceived investment/profit.”

Continued

5. Creative Processes

- “Intentional synergism between human creativity & AI could expand the expression of art.”
 - “End of the day— everyone will have their own opinions and definitions regarding what constitutes creativity/art/emotions.”
-

6. Criticism and Concerns about AI Art

- “Creativity comes from human minds and AI art... has no heart or emotion behind it.”
 - “AI art can be beautiful, but...the thing that influences its ‘value’ is often not the art itself.”
-

5. Discussion

The findings from this research study offer important insights into the evolving relationship between AI and the creative arts, particularly in terms of preference and economic valuation. Although human-created artwork was generally preferred throughout the survey, with participants favoring these pieces in most comparisons, the fact that AI art was selected nearly 45% of the time leads to two possible conclusions:

- AI-generated art has reached a point where it is indistinguishable from human-generated art.
- There is a significant acceptance and interest in AI-generated works.

It should be assumed that this statistic demonstrates that the advancements in generative AI capabilities enable these systems to emulate artistic styles and potentially evoke human-like emotions, but also reflect a shifting perception of AI within the wider community. As AI technology continues to develop, its ability to produce visually appealing and conceptually engaging art is destined to improve. This, in turn, will lead to audience preferences changing over time and eventually one can imagine a world where there is no difference between AI- and human-generated art.

Despite this noteworthy level of acceptance, the data revealed a consistent trend in the current perception of AI-generated artwork. The human-created artworks were consistently assigned higher monetary values compared to their AI-generated counterparts. This observation raises important questions about the underlying factors that contribute to the perceived value of a particular artwork. Participants were not informed of the origins of each of the artworks they were shown (human or AI-generated), yet the disparity in dollar amounts suggests that the economic value associated with art is influenced not only by aesthetic appeal but also perhaps by the perceived authenticity and creative process behind the artwork.

These findings indicate that while AI-generated art can achieve a degree of likability comparable to human-created pieces, it still currently lacks the intrinsic value tied to human intent and craftsmanship which is somehow perceptible to humans when viewing artworks side-by-side, in comparison to one another.

When experiencing and enjoying more traditional art forms, viewers often appreciate the time, effort, and skill required to produce a particular piece of art. In contrast, the ease with which AI can generate art may lead to questions about the depth and rigor of the creative process. This perspective aligns with broader ethical concerns about the potential devaluation of artistic labor in a landscape increasingly populated by AI.

The conclusions being drawn from the experimental data align with much of the previous research on the economic impact of AI-generated art, which has demonstrated that the issue is multifaceted. As noted by [Webb \(2022\)](#) and [Mikrut-Majeranek \(2024\)](#), there are significant concerns about potential job losses in creative fields due to AI integration. This echoes the findings of [Zeng and Chen \(2024\)](#), who highlighted the fear of market saturation and devaluation of artistic skills.

The quantitative analysis based on data collected from this study reveals that while AI-generated art is gaining traction and acceptance, it still faces challenges in achieving the same economic valuation as human-created art. This challenge is still present even when it is uncertain whether or not the art was created by AI. Currently, there remains some level of perceptibility towards the human nature of the artwork's origin. As society continues to explore the intersection of art and technology, understanding these dynamics will be crucial for shaping the future of creative expression and the role of AI within it. The boundaries between human-created artworks and those created by an AI are destined to become increasingly difficult to interpret.

In the qualitative responses there is significant interplay between the interpretation of the artistic processes involved in creating the artwork and the resulting perceived value of any particular work of art. A recurring theme emphasizes that the process of creation is often valued more than the final product itself, particularly when estimating pricing and potential value. This sentiment highlights a critical tension in the art world: while technology facilitates the ease of reproduction, it may inadvertently devalue the work of traditional artists. A number of participants expressed concerns that the commodification of art through AI-generated works undermines the unique contributions of human creativity, particularly regarding the emotional and experiential aspects inherent in traditional art-making processes.

One notable response from a participant who worked as an art trader and purchaser underscored their personal sense of offense caused by AI-generated art being misrepresented as solely human-created. This perspective highlights again the ethical dilemmas surrounding authorship and authenticity in the age of AI. Such sentiments align with the findings from previous research studies, suggesting that many within the artistic community are grappling with similar issues regarding the integrity of art as it becomes increasingly entwined with AI technology. The respondent acknowledges the utility of AI as a tool for enhancing artistic processes, a viewpoint echoed by others who see AI not as a replacement but as a complementary

instrument that can facilitate creativity and innovation.

A number of participants articulated concerns about the ethical implications of AI art generation, particularly regarding the sourcing of training materials. Many expressed a desire for greater transparency in how AI models are trained while calling for ethical standards to ensure that artists' works are not exploited without due credit. This call for ethical considerations resonates with the broader discourse on AI in the creative industries, highlighting the need for a framework that respects the contributions of human artists while harnessing the potential of AI technology for the betterment of the creative arts moving forward.

The ethical implications of AI-generated art are closely intertwined with its economic aspects, as noted by [Kazim and Koshiyama \(2021\)](#) and [Coeckelbergh \(2020\)](#). The recent lawsuits against AI image generation companies, as reported by [Murray \(2023\)](#) and [Shoemaker \(2024\)](#), underscore the ethical concerns surrounding consent, credit, and compensation for artists whose work is used to train AI systems.

The issue of copyright infringement, as discussed by [Cetinic and She \(2022\)](#) and [Bird et al. \(2023\)](#), remains a significant challenge. The complexity of determining liability for AI-generated art that potentially violates copyright aligns with the observations made by [Gillotte \(2019\)](#) and [Murray \(2023\)](#).

The detectability of AI-generated art, as studied by [Ha et al. \(2024\)](#), provides interesting insights into the human ability to distinguish between AI and human-created art. Their findings of professional artists achieving an 83% accuracy rate in identifying AI-generated artwork based on factors such as consistency in medium and intentionality in details offer a valuable benchmark for future research.

Some participant comments touched upon the theme of human connection in art. These participants believe that genuine artistic expression involves a level of intention and emotional depth that AI cannot replicate. There is some of this visible within the findings of the qualitative areas of the study when users are frequently preferring human-created pieces and offering higher dollar amounts with value related to those pieces. The lack of human connection in AI-generated art raises questions about the essence of creativity and the role of the artist in society underscoring the necessity for ongoing dialogue about the implications of AI in creative fields, as the erosion of personal connection could fundamentally alter how art is experienced and valued within society.

Conducting an experiment to determine whether participants prefer AI-generated or human-created artworks involves several confounding factors that could affect the results. Some of the key confounding factors in this experiment include:

- *Participant Bias*: Participants may have preconceived notions about AI and human creativity. This bias can influence their preferences and responses, regardless of the actual quality of the artworks.
- *Cultural and Societal Influences*: Cultural background and societal values can play a significant role in shaping participants' perceptions of art. These influences might affect how participants view AI-generated versus human-created

artworks.

- *Familiarity with AI:* Participants' familiarity with AI technology can impact their judgments. Those with more exposure to AI may have different perceptions compared to those who are less familiar.
- *Presentation Format:* The way artworks were presented (e.g. digital screen versus physical prints) can influence participants' preferences. Differences in format could affect the perception of details, colors, and overall impact.
- *Artistic Style Preferences:* Individual preferences for certain artistic styles or genres can confound the results. For example, a participant who prefers abstract art might favor AI-generated abstract pieces over realistic human-created artworks.
- *Emotional State:* Participants' emotional states at the time of the experiment can influence their responses. Factors such as mood, stress levels, and personal experiences might affect their judgments of the artworks.
- *Order of Presentation:* The sequence in which artworks are presented could introduce order effects. Participants might show a preference for artworks shown earlier or later in the experiment due to primacy or recency effects.
- *Environmental Factors:* External factors such as lighting, room temperature, and noise levels during the experiment could impact participants' focus and perception of the artworks.

The biases present in AI-generated art, as identified in this study, align with previous research in this area. The gender biases observed in our experiment are consistent with the findings of [Mannering \(2023\)](#) and [O'Connor and Liu \(2024\)](#), who noted the reinforcement of gender stereotypes in AI-generated images.

Our results regarding racial biases in AI-generated images corroborate the findings of [Ali et al. \(2023\)](#), who found a significant overrepresentation of white males in depictions of surgeons. Similarly, our observations on skin tone bias are in line with the research of [Intahchomphoo and Gundersen \(2020\)](#) and [Cho et al. \(2023\)](#), who used the Monk Skin Tone Scale to demonstrate the prevalence of lighter skin tones in AI-generated images.

The comprehensive study by [Naik and Nushi \(2023\)](#) on multiple AI biases, including gender, race, age, and occupation, provides a broader context for our findings. Their observation of underrepresentation of certain demographics and reinforcement of stereotypes across various categories aligns with our results, suggesting that these biases are pervasive across different AI image generation models.

This experiment attempted to address as many of these confounding factors as possible. Any future experimentation should include careful experimental design, including randomization, blinding, and controlling for external variables, to ensure the validity and reliability of the findings.

The experimental findings from the experiment conducted in this paper largely corroborate and extend the existing literature on the economic, ethical, and bias-related aspects of AI-generated art. However, further research is needed to address these challenges and develop more equitable and ethical AI art generation

systems.

Finally, it should be noted that the participants' varied perspectives illustrate the evolving landscape of art and AI technology. While some view AI as a threat to traditional artistic values, others see it as an opportunity for growth and exploration. This dichotomy reflects the broader ongoing societal debates about the role of technology in creative practices (as well as other areas of life) and the future of art in an increasingly digital world. As this conversation continues to evolve, it is crucial to consider how these qualitative insights can inform policy and educational frameworks that support both human creativity and technological advancement in the arts.

6. Limitations and Future Research

The research presented in this paper itself contains a range of limitations that were beyond the scope of this experimental project. These aspects of the research could be improved within future studies:

- *Sample size:* The small sample size ($N = 27$) limits the generalizability of the findings. It would be better to significantly expand the sample size in future studies to hopefully achieve more statistical significance in the results.
- *Diversity:* Within this experiment, there was an inability to diversify the participant demographic, and most respondents were Caucasian. The results would be validated if a more expansive diverse sample population was used.
- *Lack of Context for Artwork:* While the artwork in this experiment was generated by both AI and humans, the lack of knowledge of origin may dramatically affect user preference and valuation. Based on the qualitative responses from this experiment, knowledge of the original of each artwork, and by implication the nature of the creative process, could significantly affect the perceived value of the artworks.
- *Limited Scope of Artwork:* The experiment undertaken and described in this paper focused on digital visual art. The experiment did not cover the full range of visual art styles, nor did it consider art within other mediums such as music, literature, sculpture, etc.
- *Art Expertise of Participants:* This experiment relied on a randomly selected set of participants. Having the ability to segment the sample pool based on the participants' level of knowledge relating to specific pieces of art under consideration would give much deeper insights into the process of selecting and assigning value to AI- and human-generated artworks.

Future research accounting for these limitations could result in more profound results and highlight a range of perspectives that were not considered in this study.

7. Conclusion

The experiment described in this paper emphasizes the interplay between human-generated and AI-generated art. The project revealed critical insights into public perceptions and valuations of these two distinct creative processes, particularly when

knowledge of the creative process behind an artwork is unknown.

Despite a general preference for human-created artwork, the experimental participants' significant selection of AI-generated pieces demonstrates the increasing acceptance and potential of AI as a legitimate player in the artistic landscape. This, in turn, indicates a growing acknowledgment that AI can emulate aspects of human creativity and is beginning to bridge the gap with regard to emotional depth and intent attributed to human artists.

Furthermore, the willingness of the participants to pay more for human-generated art underscores the distinction between preference and economic value. Participants consistently assigned a higher monetary value to human-generated works, suggesting that while AI art may be comparable in likability, it still carries less perceived economic worth even if the original artist (AI or human) is unknown. This discrepancy points to an inherent bias that values the creative process and the human touch, elements that AI-generated art struggles to replicate. It appears that many of the participants were able to perceive this difference, in some way, within this study.

Similarly to other research in this field, this experiment seems to suggest that humans working together with AI to detect AI seems to be the best solution for all situations. This is crucial when considering the ethical impacts that potential fraudulent art pieces could produce (Jiang et al., 2023).

The qualitative responses gathered at the end of the experiment further enrich the understanding of the dynamic thought processes undertaken by the participants when selecting and valuing the artworks. The comments covered a wide range of views, from seeing AI as a valuable tool for enhancing artistic expression to raising ethical concerns about the implications of AI art on traditional artistry and the creative industry. Notably, the emphasis on process over product among many participants highlights a critical aspect of art appreciation that transcends mere aesthetics. Unfortunately, this is not fully addressed within this study, but could be covered in future research.

As the role of AI in creative practices continues to evolve, considerations arise for both artists and consumers as navigating the challenges and opportunities presented by AI integration into the creative process is crucial. Policymakers, educators, and industry stakeholders must engage in thoughtful discussions regarding the ethical implications of AI in the arts and the importance of fostering an environment that values human creativity alongside technological innovation.

Ultimately, the research presented in this paper underscores the need for ongoing dialogue around the role of AI in creativity. Future research can build on this work by employing similar methods to those presented here, while hopefully developing a narrower focus with regard to genre, potential value, and process. Through this lens, society can navigate the complexities of art and its relation to AI, ensuring that both human artists and technological advancements coexist and enrich the creative landscape rather than harm one another as further technological advancements occur.

Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

References

- Ali, R., Tang, O. Y., Connolly, I. D., Abdulrazeq, H. F., Mirza, F. N., Lim, R. K. et al. (2023). Demographic Representation in 3 Leading Artificial Intelligence Text-to-Image Generators. *JAMA Surgery*, 159, 87-95. <https://doi.org/10.1001/jamasurg.2023.5695>
- Anand, T., Chauhan, A., Jauhari, T., Shah, A., Singh, R., Liang, B. et al. (2023). Identifying Race and Gender Bias in Latent Diffusion AI Image Generation. *SSRN Electronic Journal*.
- Banerjee, I., Bhimireddy, A. R., Burns, J. L., Celi, L. A., Chen, L. C., Correa, R., Dullerud, N., & Gichoya, J. W. (2021). *Reading Race: AI Recognises Patient's Racial Identity in Medical Images*. <https://arxiv.org/abs/2107.10356>
- Bellaiche, L., Shahi, R., Turpin, M. H., Ragnhildstveit, A., Sprockett, S., Barr, N. et al. (2023). Humans versus AI: Whether and Why We Prefer Human-Created Compared to AI-Created Artwork. *Cognitive Research: Principles and Implications*, 8, Article No. 42. <https://doi.org/10.1186/s41235-023-00499-6>
- Bianchi, F., Kalluri, P., Durmus, E., Ladhak, F., Cheng, M., Nozza, D. et al. (2023). Easily Accessible Text-to-Image Generation Amplifies Demographic Stereotypes at Large Scale. In *2023 ACM Conference on Fairness, Accountability, and Transparency* (pp. 1493-1504). ACM. <https://doi.org/10.1145/3593013.3594095>
- Bird, C., Ungless, E., & Kasirzadeh, A. (2023). Typology of Risks of Generative Text-to-Image Models. In *Proceedings of the 2023 AAAI/ACM Conference on AI, Ethics, and Society* (pp. 396-410). ACM. <https://doi.org/10.1145/3600211.3604722>
- Boden, M. A. (2016). *AI: Its Nature and Future*. Oxford University Press.
- Boukherouaa, E. B., Shabsigh, M. G., AlAjmi, K., Deodoro, J., Farias, A., Iskender, E. S., & Ravikumar, R. (2021). *Powering the Digital Economy: Opportunities and Risks of Artificial Intelligence in Finance*. International Monetary Fund.
- Brunner, C. (1975). *Aesthetic Judgment: Criteria Used to Evaluate Representational Art at Different Ages*. Ph.D. Thesis, Columbia University.
- Cetinic, E., & She, J. (2022). Understanding and Creating Art with AI: Review and Outlook. *ACM Transactions on Multimedia Computing, Communications, and Applications*, 18, 1-22. <https://doi.org/10.1145/3475799>
- Cho, J., Zala, A., & Bansal, M. (2023). DALL-EVAL: Probing the Reasoning Skills and Social Biases of Text-to-Image Generation Models. In *2023 IEEE/CVF International Conference on Computer Vision (ICCV)* (pp. 3043-3054). IEEE. <https://doi.org/10.1109/iccv51070.2023.00283>
- Christie's (2018). *Obvious and the Interface between Art and Artificial Intelligence*. <https://www.ainave.com/tech-bytes/obvious-and-the-interface-between-art-and-artificial-intelligence>
- Coeckelbergh, M. (2020). *AI Ethics*. The MIT Press.
- Cozzolino, D., Poggi, G., Nießner, M., & Verdoliva, L. (2025). Zero-Shot Detection of AI-Generated Images. In *Lecture Notes in Computer Science* (pp. 54-72). Springer. https://doi.org/10.1007/978-3-031-72649-1_4
- Elgammal, A. (2017). *Can: Creative Adversarial Networks, Generating "Art" by Learning about Styles and Deviating from Style Norms*. <https://arxiv.org/abs/1706.07068>
- Ferrara, E. (2024). The Butterfly Effect in Artificial Intelligence Systems: Implications for AI Bias and Fairness. *Machine Learning with Applications*, 15, Article ID: 100525.

<https://doi.org/10.1016/j.mlwa.2024.100525>

- Gillotte, J. L. (2019). Copyright Infringement in AI-Generated Artworks. *UC Davis Law Review*, 53, Article 2655.
- Glynn, P. (2023). Sony World Photography Award 2023: Winner Refuses Award after Revealing AI Creation. *BBC News*. <https://www.bbc.com/news/entertainment-arts-65296763>
- Goetze, T. S. (2024). AI Art Is Theft: Labour, Extraction, and Exploitation: Or, on the Dangers of Stochastic Pollocks. In *The 2024 ACM Conference on Fairness, Accountability, and Transparency* (pp. 186-196). ACM. <https://doi.org/10.1145/3630106.3658898>
- Gonzalo-Brizuela, R., & Garrido-Merchan, E. C. (2023). *ChatGPT is Not All You Need. A State of the Art Review of LARGE Generative AI Models*. <https://arxiv.org/abs/2301.04655>
- Goodfellow, I., Pouget-Abadie, J., Mirza, M., Xu, B., Warde-Farley, D., Ozair, S., Courville, A., & Bengio, Y. (2014). Generative Adversarial Nets. *Advances in Neural Information Processing Systems*, 27, 1-9.
- Ha, A. Y. J., Passananti, J., Bhaskar, R., Shan, S., Southen, R., Zheng, H. et al. (2024). Organic or Diffused: Can We Distinguish Human Art from AI-Generated Images? In *Proceedings of the 2024 on ACM SIGSAC Conference on Computer and Communications Security* (pp. 4822-4836). ACM. <https://doi.org/10.1145/3658644.3670306>
- Hagendorff, T. (2020). The Ethics of AI Ethics: An Evaluation of Guidelines. *Minds and Machines*, 30, 99-120. <https://doi.org/10.1007/s11023-020-09517-8>
- Hall, P., & Ellis, D. (2023). A Systematic Review of Socio-Technical Gender Bias in AI Algorithms. *Online Information Review*, 47, 1264-1279. <https://doi.org/10.1108/oir-08-2021-0452>
- Intahchomphoo, C., & Gundersen, O. E. (2020). Artificial Intelligence and Race: A Systematic Review. *Legal Information Management*, 20, 74-84. <https://doi.org/10.1017/s1472669620000183>
- James, A. (2024). Generative AI Bias May Be Far Worse than We Thought. Here's What It'll Take to Fix It. *TechRadar*. <https://www.techradar.com/computing/artificial-intelligence/do-nearly-all-indian-men-wear-turbans-generative-ais-seem-to-think-so-and-its-only-the-tip-of-the-ai-bias-iceberg>
- Jiang, H. H., Brown, L., Cheng, J., Khan, M., Gupta, A., Workman, D. et al. (2023). AI Art and Its Impact on Artists. In *Proceedings of the 2023 AAAI/ACM Conference on AI, Ethics, and Society* (pp. 363-374). ACM. <https://doi.org/10.1145/3600211.3604681>
- Kazim, E., & Koshiyama, A. S. (2021). A High-Level Overview of AI Ethics. *Patterns*, 2, Article ID: 100314. <https://doi.org/10.1016/j.patter.2021.100314>
- Ko, H., Park, G., Jeon, H., Jo, J., Kim, J., & Seo, J. (2023). Large-Scale Text-to-Image Generation Models for Visual Artists' Creative Works. In *Proceedings of the 28th International Conference on Intelligent User Interfaces* (pp. 919-933). ACM. <https://doi.org/10.1145/3581641.3584078>
- Livingston, M. (2020). Preventing Racial Bias in Federal AI. *Journal of Science Policy & Governance*, 16, 7 p.
- Mannering, H. (2023). *Analysing Gender Bias in Text-to-Image Models Using Object Detection*. <https://arxiv.org/pdf/2307.08025>
- Mikrut-Majeranek, M. A. (2024). Digital Art and the Job Market (R)evolution. *Rozprawy Społeczne*, 18, 281-298. <https://doi.org/10.29316/rs/187871>
- Murray, M. D. (2023). Generative AI Art: Copyright Infringement and Fair Use. *SMU Science and Technology Law Review*, 26, Article 259. <https://doi.org/10.25172/smustr.26.2.4>

- Naik, R., & Nushi, B. (2023). Social Biases through the Text-to-Image Generation Lens. In *Proceedings of the 2023 AAAI/ACM Conference on AI, Ethics, and Society* (pp. 786-808). ACM. <https://doi.org/10.1145/3600211.3604711>
- O'Connor, S., & Liu, H. (2024). Gender Bias Perpetuation and Mitigation in AI Technologies: Challenges and Opportunities. *AI & Society*, 39, 2045-2057. <https://doi.org/10.1007/s00146-023-01675-4>
- Padgett, A. D. (2024). *The Challenge of Artificial Intelligence to the Art World*. In *Co-operative Education, Politics, and Art* (pp. 122-131). Routledge.
- Rosenbaum, J. E. (2022). *AI Perceptions of Gender*. Doctoral Dissertation, RMIT University.
- Schlesinger, A., O'Hara, K. P., & Taylor, A. S. (2018). Let's Talk about Race. In *Proceedings of the 2018 CHI Conference on Human Factors in Computing Systems* (pp. 1-14). ACM. <https://doi.org/10.1145/3173574.3173889>
- Shoemaker, E. (2024). Is AI Art Theft? The Moral Foundations of Copyright Law in the Context of AI Image Generation. *Philosophy & Technology*, 37, Article No. 114. <https://doi.org/10.1007/s13347-024-00797-x>
- Tung, T. M. (2024). Opening Up the Workplace: The Way AI Tools Are Changing Productivity. *Educational Administration: Theory and Practice*, 30, 480-491.
- Vimpari, V., Kultima, A., Hämäläinen, P., & Guckelsberger, C. (2023). "An Adapt-or-Die Type of Situation": Perception, Adoption, and Use of Text-to-Image-Generation AI by Game Industry Professionals. *Proceedings of the ACM on Human-Computer Interaction*, 7, 131-164. <https://doi.org/10.1145/3611025>
- Wan, Y., Subramonian, A., Ovalle, A., Lin, Z., Suvarna, A., Chance, C., Pattichis, R., & Chang, K. W. (2024). *Survey of Bias in Text-to-Image Generation: Definition, Evaluation, and Mitigation*. <https://arxiv.org/abs/2404.01030>
- Wang, Q., Li, R., Wang, Q., & Chen, S. (2021). *Non-Fungible Token (NFT): Overview, Evaluation, Opportunities and Challenges*. <https://arxiv.org/abs/2105.07447>
- Webb, A. (2022). Artificial Intelligence and Digital Innovation in the Cultural Sectors: Technology, Sustainability, and New Creative Jobs. Are We Ready? In *The Relevance of Artificial Intelligence in the Digital and Green Transformation of Regional and Local Labour Markets Across Europe* (pp. 77-94). Nomos Verlag. <https://doi.org/10.5771/9783957104113-77>
- Wellner, G. P. (2020). When AI Is Gender-Biased. *Humana. Mente Journal of Philosophical Studies*, 13, 127-150.
- Wilkens, U. (2020). Artificial Intelligence in the Workplace—A Double-Edged Sword. *The International Journal of Information and Learning Technology*, 37, 253-265. <https://doi.org/10.1108/ijilt-02-2020-0022>
- Yakan, S. A. (2022). Analysis of Development of Artificial Intelligence in the Game Industry. *International Journal of Cyber and IT Service Management*, 2, 111-116. <https://doi.org/10.34306/ijcitsm.v2i2.100>
- Yan, S., Li, O., Cai, J., Hao, Y., Jiang, X., Hu, Y., & Xie, W. (2024). *A Sanity Check for AI-Generated Image Detection*. <https://arxiv.org/pdf/2406.19435>
- Zeng, C., & Chen, X. (2024). Will Creative Labor Lost Their Jobs? A Social Informatics Study of the "No to AI Generated Images" Campaign. In *Communications in Computer and Information Science* (pp. 93-105). Springer. https://doi.org/10.1007/978-3-031-64359-0_8
- Zhou, E., & Lee, D. (2024). Generative Artificial Intelligence, Human Creativity, and Art. *PNAS Nexus*, 3, pgae052. <https://doi.org/10.1093/pnasnexus/pgae052>