

# Enhancing Art History Education with AI: Accessibility, Engagement, and Skill Development

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## **Abstract**

The integration of Artificial Intelligence (AI) in the art history classroom offers transformative opportunities for students through accessibility, engagement, and skill development. This paper explores how AI can democratize access to art history education by providing cost-effective tools that eliminate traditional barriers, such as expensive textbooks, inaccessible archives, or costly field trips. AI-powered platforms like visual recognition software and adaptive learning tools enable students to engage with material more deeply, allowing for personalized learning pathways and interactive explorations of art and its contexts.

Beyond content delivery, incorporating AI fosters critical digital literacy, equipping students with the skills to navigate and critique emerging technologies responsibly. Students learn to analyze biases in AI algorithms and develop ethical frameworks for using AI in academic and professional contexts. These capabilities are vital in an era increasingly defined by digital scholarship.

This presentation will include case studies of successful AI implementations in art history courses, such as AI-assisted analysis of visual motifs, the use of generative AI for creative reinterpretations of historical works, and digital field trips using Google Arts and Culture. It will conclude with best practices for educators seeking to integrate AI tools effectively, ensuring that technological innovation enhances rather than overshadows the discipline's rich humanistic core.

**Keywords:** AI, art history, artificial intelligence, education

## Introduction

As a field, art history has often been constrained by its inherent materiality. Precious works of art, grand museum collections, costly textbooks, and location bound archives can all create financial and logistical barriers for students and educators. Concurrently, global culture is shifting towards a technology driven society. Information can be communicated in the blink of an eye, aggregated just as quickly, and then used in a wide variety of applications. While some of the more traditional scholars may be hesitant of the incorporation of technology into their pedagogy, they should be more fearful of the consequences of not doing so. By continuing to use analog methodology, art historians risk being left behind as the world moves on. Losing intellectual (and sometimes physical) access to the world's culture, history, and creations would be a tragedy.

One of the best opportunities to prevent this from happening is the use of artificial intelligence, also known as AI. These programs “pervade our daily lives” (Maniyka, 2022, p.22) and can therefore be incorporated into many different avenues of learning. In the case of art history, educators can use these AI applications to help students understand the material in new ways through accessibility, engagement, and skill development. AI-powered platforms like visual recognition software and adaptive learning tools enable students to engage with material more deeply, allowing for personalized learning pathways and interactive explorations of art and its contexts. This is a revolution in art history education and will shape how the discipline survives, and thrives, going into the future.

## Literature Review

To fully understand how artificial intelligence can be utilized in art history, it is important to have a foundational understanding of AI itself. However, defining AI is a difficult task. This is because artificial intelligence encompasses a wide range of technologies, goals, and philosophical questions. But, at its core, AI refers to the ability of machines to perform tasks that typically require human intelligence. This includes things like learning, reasoning, problem-solving, perception, and language understanding. By using its environment and inputted information, the AI system finds the best path for the requested answer. (Maniyka, 2022, p.8) However, it is important to note that what constitutes "intelligence" itself is a matter of debate, and the boundaries of AI shift over time as technologies evolve and humanity learns to interact with it.

In art history and the humanities, AI represents a transformative potential for research, education, and artistic analysis. For historians, educators, and students, the last point on the list is especially important. Although each person has their own interpretation of a work of art, there are essential facts and historical context that help shape the lens the work is viewed through. This is one way that AI can be incorporated into the subject. For example, computational methods are being applied for tasks such as the identification of significant elements in paintings, highlighting the use of such techniques for analyzing artistic works. This includes multimodal AI models, like LLaVA-docent, which are presented as tools to support art appreciation education. (Lee et al, 2024, p.3) These types of tools were developed to assist students, specifically K-12, with understanding how to look at art, interpret its meaning, and form their own opinions about it.

Eventually, it is reasonable to assume, these programs will be expanded to be used outside of the classroom, such as in museums and art galleries, demonstrating their broad applicability.

AI generated works of art can also be an excellent avenue for helping students with formal analysis skills. A compelling case study highlighting this was conducted at Lindenwood University in St. Charles, Missouri. (Hutson, 2024, p. 8) In this instance, an art history course on Ancient Art incorporated AI art generators as an interactive learning tool. To begin the assignment, students were asked to select an AI platform and explore its functions. Once familiar, they chose a specific work of art to analyze, conducting a traditional formal analysis that examined elements such as material, composition, subject matter, lighting, line, form, and structure. Notably, students were instructed to avoid using the artwork's title in their prompts to prevent the AI from being alerted to the original piece's title. Based on their analyses, students crafted prompts aimed at generating images that could plausibly belong to the canon of Ancient Mesopotamian or Roman art. Once they achieved a satisfactory result, students reflected on the process by writing a 750-1000 word essay discussing their experience and the insights gained.

The student reflections revealed both the strengths and challenges of using AI in this context. One student struggled to generate a satisfactory image, suggesting that the complexity of their chosen artwork exceeded the capabilities of the AI tool they selected. (Hutson, 2024, p. 10) This outcome underscores not only the current limitations of AI image generators but also the learning curve involved in using them effectively.

Conversely, another student succeeded in producing a convincing image but observed that the AI-generated artwork lacked the emotional resonance of the original piece. (Hutson, 2024, p. 11) This insight points to a crucial distinction: while AI can mimic the formal qualities

of art, it falls short of capturing the emotional depth and human expression that artists infuse into their creations.

Another method of incorporating AI into art history education involves the use of text generation and analysis tools. Rather than banning AI writing assistants, some educators are leveraging them to help students develop stronger critical thinking and writing abilities. For instance, Professor Mark Rosen from the University of Texas at Dallas encouraged students to use ChatGPT in a writing assignment for one of his courses. (Friedenthal, 2023) Students began by composing a visual analysis of Louise Bourgeois' bronze spider sculpture *Maman*. Afterward, they prompted ChatGPT to produce its own version of the analysis based on the same instructions. Students then compared their original essays with the AI-generated response to examine how artificial intelligence interprets and writes about human-made art.

Professor Rosen described the AI-generated essay as “a computer word salad” (Friedenthal, 2023), a mix of basic internet-sourced information, filler phrases, and a few factual errors. Despite these shortcomings, he noted that the AI's essay would likely receive a passing grade. This observation highlights the significant shifts in how educators assess student learning and suggests that teaching methods must evolve to remain effective. Importantly, Professor Rosen used this exercise as a teaching moment, demonstrating to students that AI is prone to mistakes. Through this process, students learned how to identify inaccuracies and use AI tools to refine their own writing skills.

These two assignments represent a small sample of what the incorporation of artificial intelligence has to offer art historical education. As this paper will explore, the opportunities to

create a more inclusive and impactful space for all learners. This is essential for the continued study of art history.

## **Accessibility**

In recent years, the conversation around accessibility in education has grown exponentially. Students are not all built from the same mold and therefore educators must find ways to support their style of learning. One of the most innovative ways to do this is through the incorporation of artificial intelligence. This is because AI tools have the potential to create flexible, inclusive, and personalized learning environments.

The first example of this concept is the significant cost reduction that AI offers. Many AI-based educational tools are open-access or low-cost, helping replace or supplement expensive materials like traditional textbooks and software. For example, one platform is seeking to change the way that educators have access to quality materials. It is called “[AI Campus](#)” and is based out of Germany. The goal of AI Campus is to leverage open access learning with artificial intelligence to help students in all subjects. While the platform doesn’t just focus on art history, it is important to note that it is the idea of the application of AI that is the focus.

The effectiveness in this idea can be shown by a study conducted last year by a group of researchers. 260 educators were surveyed about their use of the platform. Because AI Campus is based in Germany, these educators were from Germany, Austria, and Switzerland. (Rampelt et al., 2025, pg 52) Their survey answers revealed some interesting feelings about the potential uses of AI in the classroom. Most compellingly, this group of educators seemed enthusiastic

about the potential of using AI to create educational resources for a fraction of the cost of traditional methods. However, the study does highlight how these teachers had different opinions on how they believe it should be implemented. (Rampelt et al., 2025, pg 58) Overall, studies like the one referenced here show “unprecedented momentum”(Rampelt et al., 2025, pg 57) that AI has in our world today.

The next way that AI can help with accessibility efforts is through remote access to museum collections. One of the most popular examples of this is Google’s Arts and Culture platform. Although it is not entirely driven by artificial intelligence, it does use machine learning to help curate collections, learn user preferences, and increase engagement with the wide variety of objects cataloged on the platform. On the user’s side, the process is quite easy. Once the website has loaded, they can visit a specific museum’s page, curate collections with items from around the world, or take a virtual tour using Google’s maps technology. The history of the world’s art and culture is literally at a user’s fingertips, thanks to the power of AI and machine learning.

Additionally, accessibility comes into play another way with remote access. Because platforms like Google Arts and Culture are online, it can reduce geographical, economical, and socio-cultural barriers to education and engagement. (Lee, et al., 2024, pg 2) No matter where a person is located in the world, if they have an internet connection, they can access an almost limitless collection of artistic objects. This, in turn, empowers the user with knowledge they wouldn’t have access to without AI or machine learning.

Finally, another way that AI can be used in art history education is through language translation tools. For many scholars, historical archives hold a plethora of valuable information. But, for many, the handwriting, language, and access to the documents serve as barriers to that information. While the last several decades have seen large, archival, digitization efforts (Toth et al., 2025), it has only been recently that AI and language models have been employed to help with understanding the material.

One great example of these efforts is from a group of scholars working on documents from early modern Europe, specifically from the Medici court in Florence. The Medici Archive Project has worked to digitize records onto a platform called MIA. The group describes this project's aim as "to allow scholars to organize, store, share, qualify, and preserve the millions of documents pertaining to the Medici: not just the circa three million letters in the Mediceo del Principato, but also the more than seven million other types of documents housed in other collections, which include *avvisi*, inventories, contracts, wills, account books, maps, recipes, horoscopes, passports, maps, memoirs, tax records, and newsletters. With MIA, scholars are now able to upload and store their digitized documents from any of the five Medici archival collections; assign to a Medici digitized document its specific documentary type; qualify Medici digitized documents either with basic meta- data or advanced metadata; access and work with their libraries of Medici digitized documents anywhere in the world."<sup>1</sup> With access to the records now digital, scholars can now implement programs, like Chat GPT, to help understand them.

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<sup>1</sup> <https://www.medic.org/mission/>, accessed May 21, 2025

In the study by Toth and their colleagues, they primarily used AI programs to help increase searchability and access to the documents digitized by the Medici Archive Project. This allows the collection to “speak for themselves” (Toth et al., 2025) because scholars can more easily access the materials. Instead of sifting through thousands of pages of records, AI can be used to search for, translate, and summarize the information in a fraction of the time.

As shown with the studies above, AI is more than just a program. For many in art history, the humanities, and education as a whole, it is a lifeline. From accessing remote collections to reading long lost records of a Renaissance court, educators and scholars can learn from newly unlocked information to help better understand our past and pass that knowledge onto the next generation.

## **Engagement and Personalitation**

Another of the most exciting affordances of AI in the classroom is adaptive learning. This is the ability to tailor educational experiences to individual students' needs, interests, and learning styles. (El-Sabagh, 2021) Rather than offering a one-size-fits-all approach, AI can help educators meet students where they are, creating more personalized and effective learning environments.

For example, AI-powered recommendation systems can suggest specific artworks, readings, or multimedia content based on a student’s progress, performance, or areas of interest. This means that a student struggling to understand Byzantine iconography might be guided

toward foundational materials, while another curious about comparisons with Western medieval art might be directed to more advanced or thematic resources. It is important to note that the history itself is not going to change, but the way that students can access it will. This has the chance to not only deepen their own understanding, but by meeting them where they are most comfortable, could result in new discoveries being made.

Moreover, generative AI platforms such as ChatGPT, when integrated thoughtfully and used under faculty guidance, can assist in ideation, outlining arguments, or modeling comparative analysis tasks. This program has frequently been in the news with the media touting it as a way for students to cheat on assignments or take the easy way out of school. But when used responsibly, something that will be discussed later in this paper, it can be highly beneficial.

For instance, students might ask the AI to help brainstorm connections between two artworks from different cultures or time periods, which can serve as a jumping-off point for deeper critical thinking. ChatGPT can also be used to create outlines of potential projects, helping students to narrow their focus and allow for more time to employ their own ideas within the scope. The goal is not to replace academic or critical thinking skills (Xu, 2025, pg 2), but rather to allow more mental space for those things while reducing or eliminating the “busy work” that is a natural part of the process.

Again, the key here is not to allow AI to dictate or replace the curriculum, but to use it strategically as a pedagogical support. Artificial intelligence tools can enrich the learning experience by fostering curiosity, interactivity, and critical inquiry. When used with ethical intention, AI can help make art history education more responsive, engaging, and inclusive without sacrificing academic rigor or creativity.

## Digital Literacy and Ethical Responsibility

This brings the paper to a crucial point: the integration of AI in education must go hand-in-hand with an emphasis on digital literacy. As educators, we are not just helping students engage with content—we are also preparing them to navigate an increasingly complex and digitally mediated world. Classrooms are no longer isolated from the broader technological landscape. They are embedded within it, almost becoming one in the same.

Students are not only learning about art history and the humanities. They are also learning how to critically engage with the digital tools that shape their understanding of the world. Integrating AI into teaching practices presents a unique opportunity to foster both content knowledge and digital fluency. Part of the job of educators is to prepare students for the world after they leave. By incorporating AI into the curriculum, they can do just that.

For example, educators can teach students to identify and critique algorithmic bias, such as racial, gendered, or cultural misrepresentation AI programs. These conversations can be linked to broader discussions in art history about representation, power, and the politics of visibility, or lack thereof. Or teachers can have students explore questions of authorship, ownership, and intellectual property by examining generative AI art platforms. What does it mean to create something "original" in a digital age? How do we assess the line between inspiration and imitation? These are not only questions for computer science, they are deeply relevant to art history, aesthetics, and ethics. Finally, it is an educator's responsibility to build ethical frameworks that guide students in the responsible use of AI in both academic and

professional contexts. As future scholars, educators, curators, or digital creatives, students will be expected to make thoughtful choices about how they use emerging technologies. The classroom can be a space where those values are developed and debated.

In this sense, AI is both a tool and a topic. It's a means of teaching art history, and other subjects. At the same time, it's an object of critical inquiry. By embracing this dual role, we can better prepare students to think historically, act ethically, and engage critically in a digital world.

So, how do educators accomplish this? The answer is quite simple. By teaching students the correct way to utilize artificial intelligence, it is far more likely that they will understand its implications. Striking fear about AI only makes it more tempting, more forbidden. Instead, teachers can use education and open communication to instill a sense of responsibility and curiosity about the subject.

Firstly, educators should set clear parameters with the use of AI in the classroom. It is essential to clearly define when, how, and to what extent students are permitted to use AI tools. Establishing transparent guidelines helps distinguish between assistive use, such as brainstorming, summarizing, or finding sources, and academic dishonesty, such as submitting AI-generated text as original work. These boundaries not only uphold academic integrity but also ensure that students are learning the intended skills, not bypassing them. This also helps reduce confusion and promote a culture of trust and responsibility.

Next, educators need to teach their pupils the importance of maintaining their creativity and individuality. While AI can be a powerful tool for content generation or idea exploration, it should never replace critical thinking, interpretation, or creative insight. For example, an AI-generated comparison between two artworks can be a useful provocation, but the student must

still evaluate its validity, add contextual depth, and articulate their own analytical voice. In this way, AI should be used as a support structure, not a crutch.

Finally, AI can be used to create reflexive assignments. These are assignments that ask students to evaluate the strengths and limitations of AI tools foster metacognitive awareness and digital literacy. Students might be prompted to ask: What perspectives are missing from this AI-generated text? What cultural assumptions is the algorithm making? Where does the tool fall short in interpreting ambiguity, symbolism, or historical nuance? These kinds of reflexive exercises deepen engagement and invite students to see technology as something they can question and critique, not something that should be taken at its word.

Ultimately, the goal is not just to teach students how to use AI efficiently. Instead, it is to teach them to think both with and about AI. In doing so, we prepare them to navigate a future in which artificial intelligence will increasingly shape the production and interpretation of knowledge. By foregrounding ethics, critical thinking, and self-reflection, we ensure that AI integration enhances, rather than erodes, the humanistic foundations of our discipline.

## **Challenges**

As with any innovation, there are challenges associated with the integration of artificial intelligence into the art history classroom. It is important to note that These issues are not peripheral. Instead, they sit at the heart of how knowledge is produced and how educators and students can access it. This also calls into question inherent bias and how teachers can be trained

to utilize these tools. However, it is important to realize that any limits are self-imposed and with the correct training and understanding, the educational opportunities are limitless.

The first, and perhaps most obvious, challenge is training teachers how to use artificial intelligence. After all, it seems counterintuitive to advocate for their use of the programs without showing them how to do so properly. In fact, many teachers cite lack of proper training or access to platforms as one of the main reasons why they don't use AI in their classrooms. (Filiz et al., 2025). Thankfully, this is easily fixable. Websites like NextGen Humanities<sup>2</sup> strive to take the guesswork out of using AI. They offer training tools and ready made resources for educators to start this new style of teaching.

Another of the most pressing concerns is that many AI systems are trained on datasets that lack cultural and geographic diversity. (Mohamed et al, 2020, pg 660) As a result, these tools often reinforce Western-centric narratives, privileging European art and historical frameworks while marginalizing global traditions. This can have the unintended consequence of narrowing, rather than expanding, students' exposure to diverse visual cultures. Which is exactly what educators should be avoiding in their classrooms.

Without critical interrogation, AI can replicate the very exclusions that many educators are working to dismantle. Addressing this requires not only awareness but active intervention through curating more inclusive data sources, raising these questions explicitly in class, and encouraging students to challenge what is shown and what is left out. Once again, it is critical to

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<sup>2</sup> <https://sites.google.com/view/nextgen-humanities/home>

understand that using AI isn't meant to eliminate humanity, but simply to enhance its understanding of itself.

Another huge challenge with this is a tendency towards an overreliance on the automation that AI provides. AI tools are designed for speed, synthesis, and pattern recognition. But what happens to the subtlety of visual analysis, the time spent with a single object, the layers of meaning uncovered through quiet observation, when a student can prompt a machine to deliver a summary in seconds? (Zhai et al, 2024) While AI can certainly support learning, it must not replace the embodied, reflective, and sensory aspects of engaging with art. Educators must be intentional about preserving the space for sustained inquiry, cultivating the patience and attentiveness that art history uniquely teaches.

The final challenge concerns intellectual property. The question of authorship and ownership is particularly complicated in the realm of generative AI. When an AI tool produces a reinterpretation of a historical artwork, who owns that new creation? The platform? The user? The original artist's estate? These questions are not just legal. They are philosophical, touching on ideas of originality, creativity, and appropriation. They also raise pedagogical issues: What are educators teaching their students about authorship in the age of remix culture? How do we honor the historical context and integrity of the works while also studying while exploring new modes of engagement? These are questions that are being worked on across the world (Pichet et al, 2023), but they likely won't be answered quickly because of how rapidly the technology is evolving. However, that doesn't mean that educators and students stop trying to use these tools to deepen their understanding.

These challenges do not mean that AI should be rejected in the classroom. However, they do demand that it is approached critically, ethically, and with a humanistic mindset. Scholars and educators have a responsibility to guide students through these complexities, modeling how to use emerging technologies not just skillfully, but thoughtfully. In doing so, teachers can ensure that the integration of AI strengthen, not dilutes, the intellectual and ethical foundations of art history.

## **Conclusion**

To conclude, the integration of AI in art history education offers more than mere efficiency or technological novelty; it presents a transformative opportunity to reimagine the discipline in ways that are more inclusive, engaging, and critically reflective. When implemented with care, AI technologies can expand access to visual culture, diversify the canon, and support a broader range of learning styles and pedagogical approaches.

At the same time, this potential is accompanied by an ethical imperative. Scholars in the digital humanities are uniquely positioned to guide the responsible development and application of these tools. Their role extends beyond adoption to include the critical evaluation of AI's impact on interpretive practices, academic equity, and disciplinary values.

Technological innovation should not be equated with progress unless it upholds the core humanistic principles that define the field of art history. The integration of AI must serve to enhance—rather than displace—the interpretive rigor, cultural awareness, and ethical reflection that are central to humanistic inquiry. In doing so, art history can continue to thrive as a vital, responsive discipline within the evolving landscape of digital education.

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