AI and Art Creation: Imitation or Plagiarism?

Why?
This lesson prepares students for a future where they may themselves be creators or consumers of art in an increasingly digital world. It not only introduces them to the intersection of technology and creativity, discussing AI in art, but also encourages critical thinking about the ethical and cultural implications of this technology. This understanding is essential for students who may pursue art, or another creative field, providing them with a background to navigate and contribute to a landscape where traditional and digital art forms coexist and interact. Furthermore, the lesson fosters an appreciation of diverse perspectives and the importance of responsible innovation, skills that are invaluable in our technologically-evolving society.

Materials Needed	Time needed
● (Optional) Simulation Handout printed out for students ● Computer with projector to show AI generated art	● Approximately 45 - 60 minutes

Objectives
● Students will be able to analyze and discuss the ethical implications of using AI in art creation, including issues of authorship and originality. ● Students will be able to articulate various viewpoints in the debate over the inclusion of AI-generated art in traditional art competitions and exhibitions. ● Students will be able to develop and defend their own stance on whether AI-generated art should be categorized separately from traditional art forms. ● Students will be able to engage in reflective discussion, synthesizing information from the lesson to form and express their opinions on the integration of AI in the art world.

Key Concepts & Vocabulary
● **Artificial Intelligence (AI):** Computer systems able to perform tasks that mimic human intelligence. ● **Authorship:** The origin or creator of an artwork or content.

Lesson Components
1. **Before You Watch**: Connect lesson to background knowledge of AI in visual arts and get students' attention 2. **Video**: Show the pedagogy.cloud video explaining the ethical considerations in the topic of AI art generation 3. **Case Study**: Detail a real-world scenario that relates to the issue of AI art 4. **Simulation**: Lead students through an interactive activity exploring the possible ethical considerations

5. **Discussion**: Ask whole-class questions to reflect on experience and consider perspectives.
6. **Assessment**: Verify student understanding with an exit ticket

1. Before You Watch

Creative AI Demonstration: Start with a live or recorded demonstration of an AI program creating art, showing its process from start to finish.
A simple site to use is https://ideogram.ai/ which just requires a Google account to create a login. Type a description into the text field and generate. (You could give it an art style in the prompt, such as "painting" or "in the style of Salvador Dali".)
Ask students for their responses. Do they like the image that is created? Do they have any prompt ideas?

While You Watch: Mention these topics and questions for students to look out for as they watch the video:
- How would you define the term "AI art"?
- Identify examples in the video about how AI "learns" to create art.
- Describe a scenario in which AI-generated art might struggle with cultural sensitivity.

2. Video Summary

This video explores how Artificial Intelligence (AI) is revolutionizing the art world, blending creativity with technology. It discusses the concept of AI as a tool for art creation, capable of learning and combining various styles to produce unique pieces, thereby making art more accessible and diverse. The video raises significant questions about authorship in AI-generated art, the originality of AI creations, and the ethical implications of AI's understanding of different cultures. It also ponders the impact of AI on traditional artists and the importance of recognizing the source of artistic creations, whether human or AI, in appreciating art.

3. Case Study

Distribute or read Case Study handout.
Summary: In a prominent New York art exhibition, a renowned artist challenges the inclusion of AI-generated art alongside traditional human-created pieces, igniting a debate on AI's role in art. The artist raises concerns about AI's ability to achieve authentic emotional depth, originality, and the potential negative impact on the art industry and intellectual property rights. Proposed solutions include using AI as a collaborative tool and establishing clear distinctions between AI-generated and human-created art, emphasizing the need for ethical guidelines and transparency.

4. Simulation

The County Fair Art Dilemma
Students are part of the County Fair Committee tasked with organizing the art

competitions for the upcoming fair. A petition has been received to include a division for AI-generated art. The committee must decide whether to include AI art and how to categorize it - either within traditional categories like paintings, drawings, and photography, or as a separate category altogether.

Roles
- **County Fair Committee Chair** (Teacher's role): Leads the discussion and ensures all voices are heard.
- **Traditional Art Representatives**: Advocate for the interests of traditional artists.
- **AI Art Advocates**: Support the inclusion of AI-generated art in the fair.

Tasks
1. Start by putting students into two groups – Traditional Art Representatives, and AI Art Advocates. In these groups, students work together to craft their reasons for their positions.
   a. If the class has too many students to form two groups, they can be in smaller groups, with an equal number of groups assigned to each position.
   b. If students need help in coming up with ideas to help them support their group positions, the Simulation Handout has some helpful questions and statements.
   c. Alternately, students could be given time to search positions online.
2. When students have developed arguments to support their side, put them into new groups of 4-6 students, with close to equal numbers representing each of the two sides of the debate.
3. Each side should have the chance to present their reasoning for their side.
4. The other students in the group should have the chance to ask questions to clarify points or point out limitations.
5. Teacher asks a sequence of questions to have the groups discuss. The groups may vote on these questions to get an overall Yes or No answer.:
   a. Should AI art be included at all?
   b. If yes, Should AI art be included in traditional art categories?
      i. (For example, AI art that looks like paintings would be included in the Painting category; art that looks like photos would be included in the Photography category)
   c. Should AI art be put into its own category?
   d. What do you say to people who strongly oppose your viewpoint in an attempt to get them to see it your way?
6. After going through all group questions, engage the whole class in discussion:

5. Discussion

These questions are designed to be used in whole-class discussion. Ask questions that relate most effectively to the lesson.
1. How did the committee balance the interests of traditional and AI art forms in their decision?

2. What were the key arguments for and against including AI art in the fair, and how did you address them?
3. How did the role you played affect your view on the categorization of AI art?
4. What ethical considerations did you encounter, and how did they influence the decision?
5. Should AI-generated art be considered a separate genre, or can it be integrated with traditional art forms?
6. How can we ensure that AI respects the intellectual property and creative effort of human artists?

6. Assessment

Exit Ticket: Provide a prompt for students to reflect on their learning, such as:
1. Do you believe AI-generated art should be considered as its own art form, separate from traditional human-created art? Why or why not?
2. What is one ethical concern that arises from the inclusion of AI-generated art in traditional art competitions, and how might this concern be addressed?
3. Reflecting on the role you played in the simulation, how did it influence your perspective on the integration of AI in the art world?

Sources to Learn More

- Harvard Gazette feature on how AI and art relate - https://news.harvard.edu/gazette/story/2023/08/is-art-generated-by-artificial-intelligence-real-art/
- Review of studies of AI in fine arts - https://www.sciencedirect.com/science/article/pii/S294988212300004X
- Is AI creativity actually art? ARTicle - https://now.tufts.edu/2023/04/14/algorithms-have-put-ai-painting-it-art

Case Study: AI vs Artists

In the bustling city of New York, renowned artist Elena Ramirez, known for her expressive landscape paintings, faces a new and unexpected challenge. A local art exhibition, "Future Canvas," decides to feature AI-generated art alongside traditional human-created pieces. AI art generators use algorithms to create images by analyzing thousands of art pieces from history. Elena, a firm believer in the human touch in art, finds herself at odds with this decision, sparking a debate about the role and value of AI in the art world.

Elena's opposition to AI-generated art at "Future Canvas" brings several ethical and philosophical challenges to light:

Authenticity and Emotional Depth: Elena argues that AI lacks the authentic emotional depth that human artists infuse into their work. She believes that art is not just about the visual outcome but the journey and emotional experience of the artist.

Originality and Creativity: There's a concern that AI, which generates art based on existing styles and images, may not be capable of true originality or creativity. Elena fears that AI art might just be replicating or remixing human creativity.

Impact on Artists: Elena worries about the impact of AI on the art industry, particularly on emerging artists. She fears that AI-generated art might oversaturate the market, making it harder for human artists to gain recognition and sell their work.

Intellectual Property: A major concern is the source material AI uses for learning and creating art. Elena questions whether using elements from existing artworks for creating new AI-generated pieces infringes on the original artists' intellectual property rights.

Possible Solutions: In response to the challenges posed by AI-generated art, several solutions are proposed. One approach suggests using AI as a collaborative tool, allowing traditional artists to explore new creative avenues while maintaining their unique human touch. Another solution advocates for clear distinctions between AI-generated and human-created art, possibly through separate exhibition spaces or categories, coupled with the establishment of ethical guidelines and transparency regarding the use of source materials in AI art creation, to address concerns about originality and intellectual property rights.

Conclusion: Elena Ramirez's stance against AI-generated art in "Future Canvas" underscores the tension between traditional art practices and emerging technological innovations. It highlights the need for a balanced and ethical approach to incorporating AI into the art world.

Questions
- How important is originality in art? Can AI-generated art be truly original since it learns from existing human-made art?
- Is it better to have AI as a collaborative tool or to keep AI and human art separate?

Simulation Handout

The material on this page is designed to help you craft your arguments supporting your position. Work with a group of like-minded group members at first before you form discussion groups that include people with opposing roles.

Information for AI Art Advocates

Innovation and Technology in Art:
- AI represents the forefront of technological innovation in art.
- History of art includes the adoption of new tools and methods (e.g., oil paints, photography).

Democratization of Art:
- AI art tools make art creation accessible to people without traditional art training.
- Encourages broader participation and diversity in the art world.

New Artistic Possibilities:
- AI can create styles and visual combinations that might not occur to human artists.
- Expands the boundaries of creative expression.

Collaborative Potential:
- AI can work as a collaborator with human artists, enhancing creativity rather than replacing it.
- Offers a new dimension to artistic expression, blending human and machine creativity.

Information for Traditional Art Representatives

Value of Human Touch:
- Art is deeply rooted in human emotion, experiences, and perspectives.
- The human touch in art conveys depth and emotion that AI cannot replicate.

Originality and Creativity Concerns:
- AI-generated art often relies on existing artworks and styles, raising questions about originality.
- The creative process of human artists involves spontaneity and intuition beyond algorithms.

Economic Impact on Artists:
- The rise of AI in art could devalue human-created art and impact the livelihood of artists.
- Important to protect the market and opportunities for human artists.

Ethical and Authorship Issues:
- Questions around the authorship of AI art - who is the real artist, the programmer, the AI, or the user?
- Ethical concerns about using existing artworks to train AI as they are "stealing" the work of existing artists

Video Script for Animator

Hello Young Innovators! Today we're discussing the ethics of AI and Art Creation.
Title slide - Socrat holding a paintbrush, title: AI and Art Creation: Imitation or Plagiarism?

Welcome to the world of art and technology! Artificial Intelligence, or AI, is changing the way we create and think about art. Get ready to explore a fusion of creativity and code!

Visuals: Socrat narrating throughout, facing viewer. [Animation of Socrat painting with a paintbrush on a canvas, making a circuit board pattern. Example: https://i.imgur.com/87yjOLP.png]

AI in art involves using computer programs that can learn, adapt, and even create artwork. It's like having a robot artist in your computer! AI artists can mix different styles and ideas from countless artworks, creating new and unique pieces that push the boundaries of traditional art.

Visuals: [Socrat next to a computer monitor showing an animated AI character painting on a digital canvas, with code snippets floating around. Example: https://i.imgur.com/r8J7VPp.png]

The cool thing about AI in art? It lets more people express themselves, even if they're not traditional artists. Art becomes more accessible to everyone, democratizing the process of creation and allowing for a diverse range of voices and styles to be heard in the art world.

Visuals: [Socrat standing by a group of people using computers to create art, showcasing a variety of styles. Example: https://i.imgur.com/Uealid5.png but the users should turn their heads and smile at the viewer.]

One major question about AI in art is the source of the artwork. Imagine a person creates a stunning painting using AI. Who is the artist? Is it the person who gave the AI the prompt? Is it the person who wrote the AI's code? Is it the AI itself, or someone else? It's a big question in the art world!

Visuals: [Three-panel split screen showing a computer artist, an AI 'thinking', and a coder. Socrat points to them as he mentions each person. Example: https://i.imgur.com/jDXtJjT.png although there could be more division between the parts of the image.]

Even more significant is the source of the material used in the AI creations. AI learns from existing art to make new pieces. But is this copying or being creative? Sometimes, it's hard to tell the difference.

Visuals: [AI analyzing famous artworks https://i.imgur.com/bBMw3eT.png, then creating a unique piece that resembles them. https://i.imgur.com/omk5SO6.png]

In some art competitions, AI-generated artworks have won prizes! This sparked debates about creativity and technology's role in art. Our existing definitions of artistry don't necessarily encompass the new dimensions introduced by AI.

Visuals: [Animation of an art gallery, showing a competition with AI entries alongside human artists. Example: https://i.imgur.com/MHSJA9x.png people could be walking by and looking at the paintings. Have Socrat standing next to a sign that says "Art Competition Today!"]

Another issue concerns cultural sensitivity. AI might not understand different cultures, leading to insensitive artworks. It's important for AI to "learn" about diversity and respect to ensure that the art it produces is not only innovative but also culturally aware and considerate, avoiding any unintended offense or misrepresentation.

Visuals: [Second AI robot character (in addition to Socrat) looking confused at various cultural symbols Example: https://i.imgur.com/grsF9r3.png, then learning and understanding them. Socrat is watching the second robot learn.]

One remaining question, but it is a big one. Think about the work that human artists do. What does AI art mean for them? Will AI replace them, or can they work together? Would it affect our appreciation of art, knowing whether it was made by a human or by AI?

Visuals: [Human artist and AI character painting on the same canvas, each adding unique elements. Loose example: https://i.imgur.com/pK5gNEW.png but have a robot artist on the right side. These do not need to be the things they are painting.]

AI in art is about balancing creativity, ethics, and technology. It's a new frontier, blending the brush and the byte for tomorrow's masterpieces!

Visuals: [Continue previous scene. Socrat picks up a paintbrush and makes some modification to the middle of the painting so that they merge together.]

Let's discuss: What impact will AI in art have on traditional artists and the art industry?
[Discussion Question: What impact will AI in art have on traditional artists and the art industry?]

Question text appears on screen

Video Script for Narrations

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