

## KNOWLEDGE NUGGETS



### Can You Tell Rembrandt From AI?

Today, algorithms produce images and texts that can compete with great art and literature. Or can they?

Link: <https://lab.sapienship.co/can-you-tell-rembrandt-from-ai/>

### Can you guess which Rembrandt was painted by AI ?



Mimicking an old master is no easy task. This AI artistic project involved data scientists, developers, engineers and art historians. After analyzing 168,263 works by Rembrandt, the algorithm produced an image that was sent to a 3D printer which then copied Rembrandt's style – even down to the individual brushstrokes.

If that sounds too much of a hassle, you'll be happy to hear that with advances in generative AI tools, with a little bit of practice you too can create your own Rembrandts, Van Goghs, and Monets. Today, new AI tools allow the general public to generate images based on a simple textual prompt, in almost any visual style imaginable.

And the visual arts are not the only battlefield. Novel tools such as GPT-4 (which is an autoregressive language model that uses deep learning to produce human-like text) can write poems and stories in famous writers' styles. It even writes original material, prompted by a human introduction (all you have to tell the algorithm is something like "This is an award winning short story from the 1950's" and it will do its magic).

But is this magic benevolent or malevolent? Up until now humans were the only entity able to produce images and stories and turn imagination into reality; this ability helped us build networks of cooperation resulting in cities, organizations, companies, empires and nation states. What would happen if this ability was no longer unique to us?

## Questions

1. AI-generated art has become so impressive that we can't necessarily distinguish poems, paintings and even musical pieces made by computers from those made by humans. But do you think AI-generated art is art?
  - a. To answer this question, we first need to answer the basic question: "What is art?". It is a very complicated subject that has been debated for at least 2,500 years. Merriam-Webster defines art as "something that is created with imagination and skill and that is beautiful or that expresses important ideas or feelings". Does AI generated art meet the criteria?
  - b. Article 1: I Got an Artificial Intelligence to Write My Novel. Electric Literature, June 2021  
<https://electricliterature.com/i-got-an-artificial-intelligence-to-write-my-novel/>
  - c. Article 2: Is AI art any good? Art Basel  
<https://artbasel.com/news/artificial-intelligence-art-artist-boundary>
  - d. Article 3: AI is about to shake up music forever – but not in the way you think. BBC Science Focus, June 2021  
<http://www.sciencefocus.com/science/ai-music-future/>
2. Let's say that someday in the not-so-far future computers could write novels equally as good as our own authors. Would it matter to you if the novel you'd be reading was written by a human being or a computer program?
3. Will there be human artists in the age of AI? What could be different about being an artist in this age?
4. In the 1810s in England, a group of workers known as Luddites rebelled against the introduction of industrial machinery as it threatened their jobs. With the advent of robotics and artificial intelligence, it is clear that many more jobs are now threatened by an automated workforce. Should we halt or regulate the development of these technologies to save those jobs? Or should we trust the economy to produce other jobs?
  - a. Article 1: Don't fear AI. It will lead to long-term job growth. World Economic Forum, October 2020  
<https://www.weforum.org/agenda/2020/10/dont-fear-ai-it-will-lead-to-long-term-job-growth/>
  - b. Article 2: Silicon Valley Is Using Our Own Intelligence to Make Us Obsolete. Medium, October 2020  
<https://medium.com/team-human/silicon-valley-is-using-our-own-intelligence-to-make-us-obsolete-813c7a4ac2fd>
  - c. Article 3: If We Don't Regulate Automation, It Could Decimate the U.S. Economy. Futurism, April 2017  
<https://futurism.com/if-we-dont-regulate-automation-it-could-decimate-the-u-s-economy>