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Responsible AI and the Arts: The Ethical and Legal Implications of AI in the Arts and Creative Industries

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ABSTRACT

This position piece starts to examine the ways in which AI-based autonomous technologies have begun to influence a range of human activities in the arts and creative industries. The rise of AI-generated art could potentially transform the act of creation and impact our understandings of creativity – from painting, writing, and music composition, to video animation. At the same time, there is increasing debate about the social, ethical, and legal implications of using these tools (eg copyright, biased data sets, devaluing artistic processes). Responsible Innovation (RI) could have a crucial role to play in understanding and responding to the complexity of debates.

We will explore and unpack how artists, AI developers and associated audiences/consumers of art have started to approach some of these issues. We will use these ideas as a starting point to explicate and further develop discourses surrounding the challenges associated with these technologies in the context of the creative industries. Finally, we will investigate how and if these challenges might be addressed.

CCS CONCEPTS

• Social and professional topics; • Applied computing → Law;

KEYWORDS

datasets, neural networks, creative industries

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1 INTRODUCTION

In recent years, advances in AI research have produced a plethora of algorithms applying Generative AI techniques. Companies have used these algorithms to create generative AI art-based platforms. The most popular of these are Stable Diffusion, DALL-E 2, Midjourney and Stability AI. Users enter text prompts into a text-based interface, and the model then produces content (video, image, text) based on its training dataset. At the end of 2022 ChatGPT arguably became a genre of tool in its own right, it is able to replicate ordinary language and can create a sense of conversation.

Since these generative tools can also produce high quality artwork from text prompts using artistic styles, keywords, subjects and concepts, creators have started using them. In February 2022, the winning photo in an Australian photography competition was created by AI generative tools.[12] A few months later, *The Crow*, an “AI-made” film won the Jury Award at the Cannes Short Film Festival[23]. In September 2022, an artist used text-to-image software to take the top prize in the Colorado Art Fair.[28] AI-generated art has been used for the covers of magazines, such as the Economist and Cosmopolitan, while stock image libraries, including Adobe and Dreamstime, have also started to accept AI-generated images. Contemporary artists are still discussing if using AI-generated work represents a massive cultural shift – this is linked to debates centring on how these developments will impact upon human creativity. Will such tools democratise the creative processes, as some AI supporters suggest, and will tools be developed that encapsulate humanity’s artistic flair?

Debates are also ongoing among artists, AI developers, policy-makers, and art audiences about the legality of the outputs from generative AI systems and their responsible development and use. How will these tools affect creative industries? Will they cost artists and illustrators their jobs? Are they fair? Were they designed with sufficient respect for people’s rights? Do they infringe copyright? Are they capable of other forms of harm? Are they trustworthy enough to be used by anyone who wishes to? Is the existing regulatory framework sufficient to confront these challenges? What is their future impact on art and upcoming artists? Is there something socially important at stake?

2 AI AND ART: THE POTENTIAL BENEFITS

Although the founders of AI platforms, such as Midjourney, claim that these tools will augment people’s imagination, the artistic community seems divided about using AI as a creative tool.[16] Some visual artists can clearly see the potential benefits. For example, Refic Anadol, has been exploring the use of computer-based

techniques developed as an artistic tool for years. In 2022 Anadol received a commission by American museum MoMa to create an artwork based on 138,000 artworks from the museum's collection. His work *Unsupervised* casts shapeshifting images of museum artworks curated in real time. Some critics characterised it as a costly and shallow screensaver.[35] Other artists are just beginning to experiment with these tools. Many artists enjoy the rapidity of the results. Danielle Baskin, who creates "alternate realities", used to work with Photoshop but now uses a system such as DALL-E 2 as a quicker way to realise her artistic vision.[18] The routine and repetitive tasks of creators such as video editing could potentially be performed more quickly and efficiently by algorithms, whilst artists who explore dystopian or sci-fi visions in their work find inspiration in AI aesthetics.[16]

Professor Ted Underwood believes these tools could be a powerful educational tool for artists as they give them the opportunity to explore the entire corpus of art in an active and creative way[34]. Some have characterised it as 'collective unconsciousness' or believe that it could be a fertile ground for a new aesthetic movement, similar to early 20th century surrealism.[20]. Others believe that it is a form of conceptual art.[10] Creative process has always been based on previous art for technical knowledge and inspiration. Using these systems can also become a new artistic process and change the focus from the mental and technical skills acquired through endless practice to creative ideation, skilful use of language, and curatorial taste. 'Prompting' could become a new artistic skill. For example, Jason Allen, who won the Colorado Art Fair with his work "Théâtre D'opéra Spatial" by experimenting with different text prompts, had no artistic background. Instead, he devoted time and energy to testing different scenarios, settings, and effects until he reached a result that he thought was a form of supernatural reality. His win was considered controversial, and to be a threat to human art and creativity. Despite this pushback, contest judge McKinley said that she would not change her judgement because she valued the concept and the vision of the artist as well as the artwork itself. She concluded that the AI was a tool with which to advance what an artist envisions.[17]

3 CHALLENGES FROM AI GENERATIVE ART

While some artists explore the artistic potential of using these tools as inspiration or enablers of their work, others considered that their rights have been violated, feel powerless to confront the tech companies and express concerns and fears about the impact of their use in art and human creativity.

3.1 Copyright infringement

Many artists and illustrators say that AI generators are often trained not only by public domain images but also by copyrighted images scraped from their portfolios on sites like Pinterest and Artstation without their knowledge or license. For example Greg Rutkowski, an established Poland-based digital creator, uses classical painting styles to create dreamy fantasy landscapes. Rutkowski's name has been used as a prompt around 93,000 times and when he discovered this, he realised the risks these systems posed.[3]

On January 2023 three artists (Sarah Andersen, Kelley McKernan, and Karla Ortiz) filed a class action against three companies offering

AI image generators (Stability AI, Midjourney, DeviantArt). In their complaint, the artists argue that the companies obtained access to their copyrighted works through web scraping. The outputs are derivative works of the images it draws from as they permit users to create works "in the style of..."¹. They also claim that the AI-created works could compete against their own existing work in the marketplace. In the following weeks, Getty Images initiated copyright infringement legal proceedings against Stability AI both in a US and an UK court, with similar claims².

3.2 Privacy concerns

In 2022 a California-based AI artist with the pseudonym, Lapine, searched "Have I Been Trained", a website created by artists to help other artists to find out if their work has been used to train algorithms. Instead of her artwork, Lapine uploaded a medical photo and found out that her photo, which depicted her rare medical condition, was included in the image set. The photo had been circulating on the internet without her knowledge and consent. LAION-5B does not host the images but simply points to other websites from which users can upload them. Lapine will need to discover the hosting website and ask to be removed. She is distressed by the fact that her photos have been used to train algorithms and possibly create AI-generated images without her consent, and her experience has changed how she will engage with these tools in the future. She feels reluctant to use AI art and hesitates to use generated photorealistic images of people for fear of unknowingly violating others' rights. [2]

3.3 Biased datasets

Fears are also expressed that as AI generators are trained by datasets that are not diverse enough, any work based on them could be amplifying or perpetuating racist and sexist prejudice and racial stereotypes. According to Tracey Spicer, a journalist and social justice advocate, if someone asks AI-generated art platforms for images of a CEO, it's generally an older white male. If the user search "nurses", the images are almost all females and if the user does not specify skin colour, the default image will be white people. [32] Also, these AI models shown bias against certain groups, like Muslims, whom it disproportionately associates with violence and terrorism[29].

3.4 Devaluing art

An AI-generated children's book that was created in a weekend caused strong reactions. [27] Children's book author and illustrator, Rob Biddulph, said that AI-generated art "is the exact opposite of what I believe art to be. Fundamentally, I have always felt that art is all about translating something that you feel internally into something that exists externally. And simply pressing a button to generate an image is not a creative process." Artists are concerned that these tools undermine artistic work and reinforce opinions that artists' work is easy, and they do not need to be well-paid.[30] In January 2023 a Nick Cave fan asked ChatGPT to create a song in the style of his favourite artist – he then sent it to Nick Cave.

¹ Andersen et al v. Stability AI Ltd. et al, N.D. Cal., No. 3:23-cv-00201, filed 1/13/23.

² Getty Images v Stability AI, Case No. 1: 2023cv00135 (D.DEL) and Getty Images v Stability AI (England) Case IL-2023-000007.

Cave responded, calling it a “grotesque mockery of what it is to be a human”. He explained his artistic process as following: “*it is the breathless confrontation with one’s vulnerability, one’s perilousness, one’s smallness, pitted against a sense of sudden shocking discovery; it is the redemptive artistic act that stirs the heart of the listener, where the listener recognizes in the inner workings of the song their own blood, their own struggle, their own suffering.*” [7] AI could convert art – an inner process of self-revelation, of asking deep questions about life, of creating a desire for truth and authenticity, of deep human communication – into a fast, fun, and shallow substitute.

3.5 Forging

Another ethical issue is whether the artist has the obligation to reveal if he used generative AI and under what circumstance. The Colorado Fair Contest’s winner explained that he decided to keep it a secret in an attempt to prove the artistic potential of AI. His decision was perceived as an attempt to cheat. People argued that he should return the award and post a public apology. [17] This suggests an unsettling feeling when one discovers that a work has been created by algorithm – as though something inauthentic has entered the relationship between the artist and the audience. It is a feeling of betrayal, cheating, or fraud. The experience instills the fear of being deceived in the future. The audience cannot easily distinguish AI art from human art and this confusion is expected to become even deeper. [37]

3.6 Social impact and fears for the future

AI platforms’ supporters claim that these platforms can ‘democratise’ the creative process, as such tools put the power of creativity into the hands of more people, enabling them to participate in high-value content creation. [14] Artists question whether this ‘democratisation’ will benefit society as whole or just a few private companies who can monetise the “essence” of living artists’ work and appropriate humanity’s collective imagination and knowledge. [9] As artists are not compensated, they fear that these technologies may have a detrimental impact on their income. Furthermore, up-and-coming artists could lose assignments for small projects, which they often rely on to build up their portfolio [30]. There is also a risk of artistic skills and forms of art atrophying. [3]

4 CONFRONTING THE CHALLENGES

4.1 Copyright law reforms

Generative AI tools rely on having access to and analysing large numbers of artworks in order to produce results. Although this text- and data-mining infringes copyright, there is wide disparity in the scope of exceptions in national copyright laws as regards fair use. [13]. [6] These exceptions are not clear and have not adequately taken into consideration the recent AI generative art paradigm. In June 2022 UK government announced a plan to introduce a new copyright and database exception which allows data mining for any purpose to foster AI innovation – with no opt-out for rights holders. After discussion with representatives of creative industries, the government decided to rethink this. [4] There is also

legal uncertainty about the copyright status of AI-created works. [8], [4] There are debates about who will be considered as the author of these works (prompter? investor? developer?) and under which conditions/ requirements. [5] [36], [25] [15] New legal provisions that would balance these conflicting interests and rights could result in more trustworthy and socially acceptable innovations.

4.2 AI Principles

Many experts agree that algorithms and AI should be “ethical by design” with no in-built bias, created in a way that guarantees the respect of citizens’ fundamental rights, and the avoidance of potential liability. [22] The main principles are: explainability, fairness, accountability, transparency. Of key importance is also the responsibility principle, to ensure the availability of measures to redress adverse individual or social effects of an algorithmic system and designate a person responsible for the timely remedy of these issues. [11]

Some generative AI platforms attempt to address these principles. They may publish terms of use, have AI ethics research teams, or cooperate to formulate best practice. [5] A few companies, such as Stability AI, accept that it is unfair to use the work of millions of artists without any credit or compensation and are willing to correct the injustice. [24] Some platforms inform users about which datasets they use and point out that other platforms, such as OPEN AI, do not. [2] It seems more difficult to comply with the principles of fairness and explainability. These datasets have in-built bias [29] and it is still difficult to explain how they work. [31] Some tech companies attempt to confront the legal and ethical challenges but these efforts vary and additional measures are needed [19].

4.3 AI regulation and rights

In recent years, agencies have sought to regulate AI – in the UK, policymakers are not currently considering regulation beyond the Online Safety Bill, but have not excluded the possibility. [6] The EU, USA and China have all proposed new AI regulation. Artists’ associations are suggesting a specific section in the EU AI Act dedicated to the creative arts, including safeguards requiring that rights-holders give explicit, informed consent before their work is used by AI tools. [21] [7]

Some governments and international organizations propose AI rights, principles and measures for the design and development of AI applications. Oversight and public consultation are considered important measures to protect human rights. [8]

4.4 Responsible innovation (RI)

RI’s purpose is to create processes that enable the exploration of innovation and its potential consequences in an open, inclusive, and timely way. Developers of new technologies should be trained to

⁵<https://openai.com/policies/terms-of-use>, <https://openai.com/safety-standards>

⁶<https://www.gov.uk/government/publications/establishing-a-pro-innovation-approach-to-regulating-ai/establishing-a-pro-innovation-approach-to-regulating-ai-policy-statement>

⁷<https://urheber.info/diskurs/call-for-safeguards-around-generative-ai>

⁸<https://www.whitehouse.gov/ostp/ai-bill-of-rights/>, <https://rm.coe.int/cai-2023-01-revised-zero-draft-framework-convention-public/1680aa193f>, <https://digital-strategy.ec.europa.eu/en/policies/digital-principles>

³<https://parliamentlive.tv/event/index/e20fa4c7-1405-4799-9e76-480de45d5241>

⁴<https://hansard.parliament.uk/commons/2022-12-01/debates/4AE6D1D0-7A3F-49A9-8634-AC7AED52BE15/OralAnswersToQuestions>

engage with stakeholders to anticipate pathways, reflect on impact, and respond accordingly. [33]

The researchers who developed Dramatron, an interactive co-writing tool, have followed such processes. They assessed possible risks, invited artists to write screenplays and theatre scripts using this tool and finally asked them to reflect on the process and their response to it.[26]

RI can provide an opportunity for people that are often excluded from these discussions to be heard and to influence legislation and policies. AI-generated art can challenge people's values and their perception of the world, but using RI principles to engage artists, critics and audience in the debate could contribute to identify social implications and potential risks of generative AI-based art. They could contribute to development of technologies responsible by design[1] This would provide an opportunity to the artistic community to be prepared for future development which may affect them directly. For example art schools could teach students about these new tools, and legal and ethical ways to use them⁹. Art contests could have a category purely devoted to AI art. Additionally, the public could learn how to identify content that is created by AI and what is best practice for using these tools.¹⁰

5 FUTURE WORK

The multiple legal and ethical implications discussed here threaten the trustworthiness and acceptability of these new technologies. Deployed in responsible ways, however, generative AI tools could not only enhance the work of artists, but be used to enable the creation of entirely new forms of art and expression. Artists accept the potential of this growing genre of tool and do not ask for them to be banned, but they want to control their level of involvement, and for their rights to be protected. Mostly they want to safeguard what they see as important aspects of human creativity, and be reassured that these will not be undermined or made redundant by potential AI technological storms. Initiating such discussions, discourses and debate is part of our future research goal, as part of our Responsible AI approach.

REFERENCES

- [1] Christine Aicardi, Lise Bitsch, Saheli Datta Burton, Kathinka Evers, Michele Farisco, Tara Mahfoud, Nikolas Rose, Achim Rosemann, Arleen Salles, Bernd Stahl, and Inga Ulnicane. 2021. Opinion on Trust and Transparency in Artificial Intelligence - Ethics&Society, The Human Brain Project. (Nov. 2021). <https://doi.org/10.5281/zenodo.4588648> Publisher: Zenodo.
- [2] Edwards Benji. 2022. Artist finds private medical record photos in popular AI training data set. *Arstechnica* (Sept. 2022). <https://arstechnica-com.cdn.ampproject.org/c/s/arstechnica.com/information-technology/2022/09/artist-finds-private-medical-record-photos-in-popular-ai-training-data-set/amp/?fbclid=IwAR2JUxsvbViz0b783SAum4HCcLEe0Do8IP5BpS4KuC0J4RImkr12txi90tU>
- [3] Vittoria Benzine. 2022. 'A.I. Should Exclude Living Artists From Its Database,' Says One Painter Whose Works Were Used to Fuel Image Generators. *Artnet News* (Sept. 2022). <https://news.artnet.com/art-world/a-i-should-exclude-living-artists-from-its-database-says-one-painter-whose-works-were-used-to-fuel-image-generators-2178352> Section: Science & Tech.
- [4] Enrico Bonadio and Nicola Lucchi. 2019. How Far Can Copyright Be Stretched? Framing the Debate on Whether New and Different Forms of Creativity Can Be Protected. <https://doi.org/10.2139/ssrn.3495223>
- [5] E. Bonadio and L. McDonagh. 2020. Artificial Intelligence as Producer and Consumer of Copyright Works: Evaluating the Consequences of Algorithmic Creativity. *Intellectual Property Quarterly* 2 (April 2020), 112–137. <http://www.sweetandmaxwell.co.uk/Catalogue/ProductDetails.aspx?recordid=380&productid=6791> Publisher: Sweet and Maxwell.
- [6] Dan Burk. 2019. Algorithmic Fair Use. *University of Chicago Law Review* 86, 2 (March 2019). <https://chicagounbound.uchicago.edu/ucirev/vol86/iss2/10>
- [7] Sian Cain. 2023. 'This song sucks': Nick Cave responds to ChatGPT song written in style of Nick Cave. *The Guardian* (Jan. 2023). <https://www.theguardian.com/music/2023/jan/17/this-song-sucks-nick-cave-responds-to-chatgpt-song-written-in-style-of-nick-cave>
- [8] Theodoros Chiou. 2022. Copyright ownership challenge arising from AI-generated works of art: A time to stand and stare. In *Research Handbook on Intellectual Property and Cultural Heritage*. Edward Elgar Publishing, 250–273. <https://www.elgaronline.com/edcollchap/book/9781800376915/book-part-9781800376915-21.xml> Section: Research Handbook on Intellectual Property and Cultural Heritage.
- [9] Gabriele Dente. 2023. Solar (the history of humanity drawn by machines). <https://www.gabrieledente.it/projects-6>
- [10] Ahmed Elgamal. 2018. AI Is Blurring the Definition of Artist. *American Scientist* (Dec. 2018). <https://www.americanscientist.org/article/ai-is-blurring-the-definition-of-artist>
- [11] European Union Intellectual Property Office. 2022. *Study on the impact of artificial intelligence on the infringement and enforcement of copyright and designs*. Publications Office, LU. <https://data.europa.eu/doi/10.2814/062663>
- [12] Evans. 2023. Is this Australia's most controversial photo? *news* (Feb. 2023). <https://www.news.com.au/technology/gadgets/cameras/man-or-machine-is-this-australias-most-controversial-photo/news-story/bfd17c03d661d7b1a41aba3e64205e31> Section: News.
- [13] Sean M. Fiil-Flynn, Brandon Butler, Michael Carroll, Or Cohen-Sasson, Carys Craig, Lucie Guibault, Peter Jaszi, Bernd Justin Jütte, Ariel Katz, João Pedro Quintais, Thomas Margoni, Allan Rocha de Souza, Matthew Sag, Rachael Samberg, Luca Schirru, Martin Senfleben, Ofer Tur-Sinai, and Jorge L. Contreras. 2022. Legal reform to enhance global text and data mining research. *Science* 378, 6623 (2022), 951–953. <https://doi.org/10.1126/science.add6124> eprint: <https://www.science.org/doi/pdf/10.1126/science.add6124>
- [14] Joss Fong. 2022. The text-to-image revolution, explained. *Vox* (June 2022). <https://www.vox.com/23150422/text-to-image-ai-deep-learning>
- [15] Katherine B. Forrest. 2018. Copyright Law and Artificial Intelligence: Emerging Issues. *Journal of the Copyright Society of the USA* 65 (2018), 355. <https://heinonline.org/HOL/Page?handle=hein.journals/jocoso65&id=409&div=&collection=>
- [16] Mitch Goodwin. 2022. Synthetic futures: my journey into the emotional, poetic world of AI art making. *The Conversation* (Oct. 2022). <http://theconversation.com/synthetic-futures-my-journey-into-the-emotional-poetic-world-of-ai-art-making-188533>
- [17] Drew Harwell. 2022. He used AI to win a fine-arts competition. Was it cheating? *Washington Post* (Sept. 2022). <https://www.washingtonpost.com/technology/2022/09/02/midjourney-artificial-intelligence-state-fair-colorado/> Section: Technology.
- [18] Aaron Hertzmann. 2022. Give this AI a few words of description and it produces a stunning image – but is it art? *The Conversation* (June 2022). <http://theconversation.com/give-this-ai-a-few-words-of-description-and-it-produces-a-stunning-image-but-is-it-art-184363>
- [19] Khari Johnson. 2023. Chatbots Got Big—and Their Ethical Red Flags Got Bigger. *Wired* (Feb. 2023). <https://www.wired.com/story/chatbots-got-big-and-their-ethical-red-flags-got-bigger/>
- [20] Jonathan Jones. 2022. Incoherent, creepy and gorgeous: we asked six leading artists to make work using AI – and here are the results. *The Guardian* (Dec. 2022). <https://www.theguardian.com/artanddesign/2022/dec/01/six-leading-british-artists-making-art-with-ai>
- [21] Molly Killeen. 2023. Generative AI keeps creative industries on their toes. *www.euractiv.com* (Jan. 2023). <https://www.euractiv.com/section/artificial-intelligence/news/generative-ai-keeps-creative-industries-on-their-toes/> Section: Artificial Intelligence.
- [22] David Leslie, Christopher Burr, Mhairi Aitken, Michael Katell, Morgan Briggs, and Cami Rincon. 2021. Human Rights, Democracy, and the Rule of Law Assurance Framework for AI Systems: A Proposal. <https://doi.org/10.2139/ssrn.4027875>
- [23] Theodore McKenzie. 2022. The Crow: An AI Film that Won Cannes Short Film Festival. (Sept. 2022). <https://80.lv/articles/the-crow-an-ai-film-that-won-cannes-short-film-festival/>
- [24] Rachel Metz. 2022. These artists found out their work was used to train AI. Now they're furious | CNN Business. *CNN* (Oct. 2022). <https://www.cnn.com/2022/10/21/tech/artists-ai-images/index.html>
- [25] Péter Mezei. 2021. 'You Ain't Seen Nothing yet' – Arguments against the Protectability of AI-generated Outputs by Copyright Law. <https://doi.org/10.2139/ssrn.3890051>
- [26] Piotr Mirowski, Kory W. Mathewson, Jaylen Pittman, and Richard Evans. 2022. Co-Writing Screenplays and Theatre Scripts with Language Models: An Evaluation

⁹<https://unesdoc.unesco.org/ark:/48223/pf0000385146.locale=en>

¹⁰<https://c2pa.org/>

- by Industry Professionals. <http://arxiv.org/abs/2209.14958> arXiv:2209.14958 [cs].
- [27] Nik Popli. 2022. He Made A Children's Book Using AI. Artists Are Not Happy. *Time* (Dec. 2022). <https://time.com/6240569/ai-childrens-book-alice-and-sparkle-artists-unhappy/>
- [28] Kevin Roose. 2022. An A.I.-Generated Picture Won an Art Prize. Artists Aren't Happy. *The New York Times* (Sept. 2022). <https://www.nytimes.com/2022/09/02/technology/ai-artificial-intelligence-artists.html>
- [29] Sigal Samuel. 2022. A new AI draws delightful and not-so-delightful images. *Vox* (April 2022). <https://www.vox.com/future-perfect/23023538/ai-dalle-2-openai-bias-gpt-3-incentives>
- [30] Sarah Shaffi. 2023. 'It's the opposite of art': why illustrators are furious about AI. *The Guardian* (Jan. 2023). <https://www.theguardian.com/artanddesign/2023/jan/23/its-the-opposite-of-art-why-illustrators-are-furious-about-ai>
- [31] Chris Smith. 2022. Coding and chatbot AI trump Turing test. (Dec. 2022). <https://www.thenakedscientists.com/articles/interviews/coding-and-chatbot-ai-trump-turing-test> Section: Interviews with scientists.
- [32] Tracey Spicer. 2023. AI art replicates inequity at scale. We need to learn about its biases – and outsmart the algorithm. *The Guardian* (Feb. 2023). <https://www.theguardian.com/books/2023/feb/24/ai-art-replicates-inequity-at-scale-we-need-to-learn-about-its-biases-and-outsmart-the-algorithm>
- [33] Jack Stilgoe, Richard Owen, and Phil Macnaghten. 2013. Developing a framework for responsible innovation. *Research Policy* 42, 9 (Nov. 2013), 1568–1580. <https://doi.org/10.1016/j.respol.2013.05.008>
- [34] Vox. 2022. Bonus video: What AI art means for human artists. <https://www.youtube.com/watch?v=sFBfrZ-N3G4>
- [35] Richard Whiddington. 2023. Digital Artist Refik Anadol Has Hypnotized the World With His Swirling A.I. Art Landscapes—Here Are 5 Essential Works to Know. *Artnet News* (Feb. 2023). <https://news.artnet.com/art-world/5-refik-anadol-works-to-know-2259071> Section: Art World.
- [36] Shlomit Yanisky-Ravid. 2017. Generating Rembrandt: Artificial Intelligence, Copyright, and Accountability in the 3A Era—The Human-like Authors are Already Here—A New Model. *Mich. St. L. Rev.* 2017 (Jan. 2017), 659. https://ir.lawnet.fordham.edu/faculty_scholarship/956
- [37] Kayla Yup, Jan 23, and 2023. What AI art means for society, according to Yale experts. *Yale Daily News* (Jan. 2023). <https://yaledailynews.com/blog/2023/01/23/what-ai-art-means-for-society-according-to-yale-experts/>