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reflective hybrids®

Beware of Art: ARTificial Intelligence Challenging Organizations and Society

Edited by Claudia Schnugg and Andrea Schueller

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The Opportunities of Artificial Intelligence and Art for Creativity and Society

Abstract

In this article I explore the value of intertwining art and technology, which goes beyond the sum of its parts. I illustrate the different ways in which Artificial Intelligence (AI) and machine learning bring new opportunities to artistic expression. I discuss how AI and art can help us unveil biases embedded in our society, expand human creativity, develop better technology to serve society, and spark innovation in other creative fields.

Keywords: Art, Artificial Intelligence, creativity, bias, society, neural networks, creative technologies.

1. Introduction

I am co-founder and director of Cueva Gallery, an online gallery, first of its kind in Ireland, devoted to art inspired and made by Artificial Intelligence. The gallery, a *Libre AI*[1] project, has been created to work toward bridging the gap between technical and creative communities, bringing to life a new space to nurture collaborations. One of its goals is to make AI art approachable also for those who are not tech savvy, and an essential element in doing so is a blog where I interview artists who use AI in their practice. The blog has given me the opportunity to chronicle my exposure to different forms of AI art and the

1 https://libreai.com/

artists who produce them. In this article I would like to discuss some common themes that arise around AI art and give examples that illustrate my views on its impact:

- the function of AI art as a mirror of our society
- the expansion of human creativity
- the possible role of creative technologies in society via artistic practice
- the new opportunities for the creative industry

I have done about 20 interviews since June 2019. I choose the artists to feature for their vision and ideas, after having studied them in depth and gathered information from their website, previous interviews, exhibitions, and collaborations. I provide the artists with a list of questions that I find relevant for our blog, with the intention of highlighting aspects that have not been discussed yet.

My point of view, therefore, is based on examples and vignettes taken from my interviews, iterations with artists, a personal study in the artistic field of AI, called Creative AI, a research project/exhibition that took place in Milan in 2019, the discussion about creative technologies in the field of Computational Creativity, and some first attempts at cross-collaboration within the creative industry.

2. AI Art as a Mirror of Ourselves and Our Society

As a mediator between the tech and the artistic communities, I find that AI art shows a convincing ability to detect potential dangers embedded as prejudices in our culture and at the same time to offer a cathartic opportunity for the creation of a more inclusive future. In the artistic practice, indeed, Artificial Intelligence can be at the same time a subject of study and a tool. AI art could help us to know more about ourselves and open our eyes on several issues, including social ones. I present here three examples where AI art can

act as a mirror of our society. Two of them relate to interviews with artists who critically engage with AI, and the third one is about a project/experiment which unveiled biases contained in a famous database used for the training of AI algorithms.

Several artists I spoke to, for example Jeroen van der Most and Harshit Agrawal, believe that AI art can unveil some of the problems that our society is facing. These artists often combine traditional ways of making art with algorithms, AI and data, and they critically explore the interplay between art and technological progress. According to van der Most, Artificial Intelligence is changing not only our ideas of what an art object is, but also how we define ourselves. The relationship we are forging with technology is shaping a new identity for us and urges us to reflect on our inner selves, opening opportunities for growth at a personal level (Jochim, 2019a).

Agrawal, a self-described cyborg artist, on the other hand focuses on the creation of experiences where people are pushed to think about how technology impacts their lives. He is particularly interested in how AI can help us discover patterns and be a reflection of us as a society, offering a mirror and drawing insights about ourselves (Jochim, 2019b).

In September 2019, an exhibition about AI and biases took place at the Milan Osservatorio – Fondazione Prada in Milan, Italy. *Training Humans* was introduced by Fondazione Prada as the first major photography exhibition realised so far which explores how humans are represented and codified by training datasets used by computers to make sense of the world. The show was designed by Kate Crawford, AI researcher and professor, and Trevor Paglen, artist and researcher, who are concerned about understanding the politics within AI systems. The latter, in fact, are increasingly used within our society and are having a great impact in many sectors, ranging from facial recognition to job interviews, etc. The artistic project aims to point out how databases used to train the algorithms can contain biases regularly passed on to machines through the humans who label the data and through those

who design the AI models (Crawford & Paglen, 2019). In particular, the show focuses on the ones embedded in ImageNet (Deng, Dong, Socher, Li, Li, & Fei-Fei, 2009), a visual database organised according to WordNet (Miller, 1995) hierarchy which contains 14,197,122 images and which is widely used in visual recognition software research. Generally speaking, a system recognises images of "foxes", for example, after being trained on a very high number of images labelled as "fox". Among other categories, ImageNet was also trained on thousands of images of people divided into descriptive categories and manually labelled. While some labels are ordinary, others appear to reflect the prejudices of the labellers in terms of age, sex, race, gender, and more: for example, a woman in a bikini is a *slut*, a young man drinking a beer an *alcoholic*, and so on (Rea, 2019). While the discovery of biases in ImageNet has been shocking somehow, it is of great importance because it has pushed the scientific community to face this issue and invest in education.

3. AI Can Expand Human Creativity

How Artificial Intelligence is redefining the concept of human creativity is widely debated (Marks, 2019). In the Creative AI field, artists consider Artificial Intelligence as a tool, a medium, and even a creative collaborator, but not a creator in its own right. AI has brought new aesthetics, expanded the collective imagination and involved the public at a level that goes beyond any expectation (Miller, 2019). AI can create work of great depth, shift attention to issues that are sometimes little discussed but of social interest, and promote a new vision and way of thinking. It also pushes the boundaries of the concepts of art and creativity, triggering an interesting dialogue between humans and machines. I think all these motivations make AI Art an interesting *niche* to watch very closely for the foreseeable future. I analyse here three examples that support the idea of Artificial Intelligence as an opportunity to expand creativity.

As an AI art gallery, we think AI can augment human creativity in different ways and could also be used by traditional artists. One of the obstacles to working with AI is learning to code, so we decided to explore new ways to incorporate the technology in the artistic practice. In the summer of 2019 we conducted an experiment with Mas, a self-taught Italian artist who painted on porcelain tiles *The Triptych* [Fig. 1] inspired by the AI pieces of *Residual*, a collection made by the artist collective diavlex about endangered wildlife.

[Fig. 1] *The Triptych* (2019), work in progress. A turtle painted by Mas and inspired by AI images by diavlex. This is one of the three tiles that compose the final artwork. Courtesy of the artist and Cueva Gallery.

At the beginning the artist was disoriented because she was looking at images of animals painted by a machine that learnt to paint using brush strokes. The pieces catch the main features of the animals, but differ from a full painting. Our goal was to find a way to use the output of the machine with respect to the artist. After several discussions, Mas decided to change her approach and not to copy something the human eye could not recognise. Inspired by AI,

her work got a twist in composition and palette, using colour in a freer way (Jochim, 2019c).

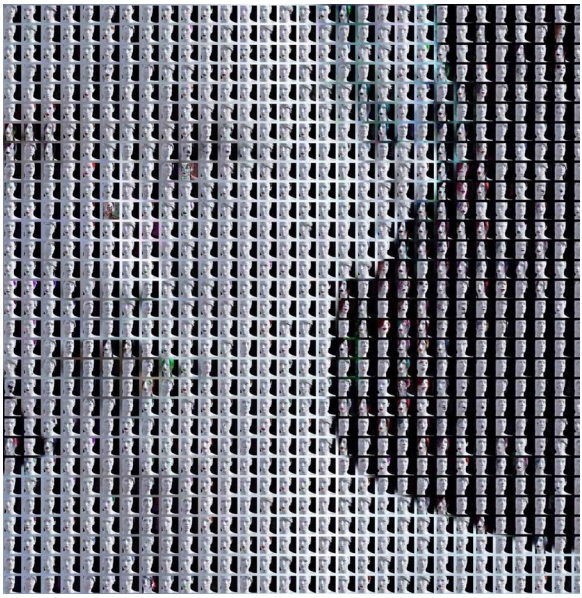
Looking at artists with a technological background, an example of Artificial Intelligence inspiring human creativity can be found in the art of Fabin Rasheed. He is an India-based creative technologist and artist who uses different technologies, including virtual reality (VR), augmented reality (AR) and AI. Investigating the concept of creativity, together with his colleague Sleeba Paul (an engineer from Kochi), he has created *Auria Kathi* (anagram for *AI Haiku Art*), defined by the artist himself as *the first Artificially Intelligent poet-artist living completely in the cloud* (Rasheed, 2019). Auria creates short poems and images that can be used as inspiration for humans. And it is precisely with Auria [Fig. 2] as a muse that Rasheed has pushed this project further and hand-painted a collection called *The Augmented Artist* [Fig.3]: an exclusive work inspired by an AI, and then reinterpreted by the artist to create his own physical versions of the art in a true collaboration with Artificial Intelligence (Jochim, 2020d).

[Fig. 2] AI-generated image used as raw material for inspiration.
Image Credit: Auria Kathi. Credits for Auria Kathi to Fabin Rasheed and Sleeba Paul.

[Fig. 3] *Differential*, part of *The Augmented Artist* collection (2019). Hand-painted artwork. Credit: Fabin Rasheed.

Computational and figurative artist J. Rosenbaum, while sometimes missing the materiality of drawing and painting, has chosen to pursue art using technological tools because the machine-generated works have greater depth and potential (Jochim, 2019e). To ground a digital practice, the artist recognises the importance of having an understanding of art history and art creation, but AI allows a different level of expressiveness and investigation, focusing the attention on aspects that traditional art could not surface in the same way. For instance, Rosenbaum's recent work *Set in Stone* explores gender, non-binary gender, and bias, and reaches a new narrative thanks to the use of AI. Through this conceptual artwork, which evolves over time, the artist explores how machines create images of gender and whether in so doing they keep or challenge the bias contained in the training dataset. The artwork is a series of AI-generated marble faces where the neural network learns to create and update its bias on gender [Fig.4]. The system, at first trained on generating masculine marble faces, then adds feminine faces and it learns to change: it becomes a *transgender neural network* which keeps updating its knowledge.

Rosenbaum trains bias into the machine on purpose and then tries to un-bias it in order to understand how the work progresses and if the machine finally learns that there are non-binary genders. (Rosenbaum, 2020).



[Fig. 4] *Set in Stone* (2020). Credit: J. Rosenbaum.

4. A Possible Role for Creative Technologies in Society

AI technology is widespread; indeed, in the last few years, AI has been disruptive and advanced numerous fields and industries, including transport, healthcare, finance, and so on (Davenport & Kalakota, 2019). Based on my interaction with artists and researchers, I am convinced that the interweaving of Artificial Intelligence and art could lead to a deeper comprehension of technologies, and in so doing create a chance for society to improve as a whole. Through art generation we could understand more clearly how

technology works and consequently grasp several aspects of our human being in a world of machines. This is particularly appealing if we think that even researchers sometimes do not entirerly understand how machines function as, for example, in the case of an AI black box (i.e., a device or system whose internal operations are not accessible to the user).

As a practitioner in the AI field, I am wide open to its different aspects. Therefore, I borrow from academia a perspective that illustrates how we could improve our understanding of AI through artistic practice. Computational Creativity[2] is the research field that intersects AI, philosophy, cognitive psychology and the arts. It regards philosophical aspects around the notions of human and machine creativity, and the idea that software could become autonomously creative. Simon Colton – Professor of Computational Creativity in the Game AI Research Group at Queen Mary University of London, UK and in the Sensilab at Monash University, Australia – has written an essay entitled *From Computational Creativity to Creative AI and Back Again*, where he envisions a future in which technology takes some steps away from humans to serve society (Colton, 2019). He thinks comprehension of humans would grow with that of machines if software were allowed to record *its own life experiences*, and if these experiences, which differ from human ones, were used in a creative practice. Following this idea, software should be enriched with *intrinsic motivation, empowerment and intentionality* and stop mimicking human behaviours. This could make computer processing easier to understand. An interesting example provided by the scientist is DeepDream, a computer vision programme designed by Alexander Mordvintsev, engineer at Google (Mordvintsev, Olah & Tyka, 2015). DeepDream creates a dream-like hallucinogenic appearance using a convolutional neural network (or CNN, a class of deep neural networks used to analyse visual imagery) to detect images via pareidolia. Originally generated to help people understand how images were processed, these visualisations very soon came to be

2 https://computationalcreativity.net/home/about/computational-creativity/

appreciated for their artistic qualities, pushing the research into generative neural networks (or GAN, a class of neural networks designed by Ian Goodfellow and his colleagues, in which two neural networks compete) (Goodfellow, Pouget-Abadie, Mirza, Xu, Warde-Farley, Ozair, Courville & Bengio, 2014). Although Computational Creativity and Creative AI somehow oppose each other, as the first focuses on the big picture of AI, while the second on the quality of the output, for the future Colton hopes the two fields will be able to work together.

5. AI Art is an Opportunity for the Creative Industry

At Cueva Gallery we have become progressively convinced of the great chance that AI art can represent for the creative industry. AI Artists bring to their work a personal touch and vision, exactly like artists in traditional settings, and for this reason every collaboration would be different and unique. In art, AI brings potentially infinite image generation and new aesthetics, with which a human could hardly compete. This happens not only because there is no limit to the new images a neural network can generate, but also because the aesthetics generated by the neural network can vary a lot. This depends on the dataset used to feed the neural network, the algorithm chosen, and other decisions the artist can make. While the final output is somehow unpredictable because the work of neural networks cannot be fully controlled, behind an AI artwork there is always a human mind that curates the work and makes sense of it. I think that promoting a dialogue between AI Artists and other creative industries could lead to new visions, problem-solving and novelty.

Computational artist Robbie Barrat, for example, who is a pioneer in AI art, has also taken a few steps into fashion. Barrat boasts a past collaboration with the Spanish luxury fashion house Balenciaga and a more recent one with Acne Studios. He teamed up with its creative director Jonny Johansson and

worked on the AW20 collection, training a neural network on a dataset with the Swedish fashion house's previous four seasons' collections (Boddington, 2020). His collaboration has also focused on the creation of tools for the designers to use directly, allowing them to modify the garments. While at the beginning Johansson planned to copy the suggestions created by the neural network, he ended up translating Barrat's work into clothes to wear. Acne Studios' identity has been respected and enriched with new features, showing the potential of AI for expanding both the creativity of designers and the realm of possibilities for future collections (Wilkins, 2020).

6. Conclusions

The vignettes stemming from the interviews I conducted with artists have shown that great potential can emerge from the interaction between art and technology. The fact that art based on AI and machine learning mirrors our society offers the chance, first on a personal level and then on a social one, to understand how we interact with technology and how the latter impacts our lives. Having knowledge of how computer systems are trained, make sense of the world, process data and learn can not only help us to spot biases and prejudices embedded in the technology we build, but also potentially offer the opportunity to make better machines and create a more inclusive society. Human-machine interaction also pushes the boundaries of creativity by augmenting the imagination of both the artists and the viewers, offering a chance to create immersive experiences and new ways of thinking. Artificial Intelligence and art, together, can leverage each other's complementary strengths and become an opportunity for creativity and society.

References

Boddington, R. (2020), "These are important visual moments": artist Robbie Barrat pushes, tests and breaks AI in his works. https://www.itsnicethat.com/features/ones-to-watch-2020-robbie-barrat-digital-240220 (Accessed June 2020).

Colton, S. (2019), From Computational Creativity to Creative AI and Back Again. https://www.interaliamag.org/articles/simon-colton/ (Accessed June 2020).

Crawford, K., Paglen, T. (2019), Excavating AI: The Politics of Images in Machine Learning Training Sets. https://www.excavating.ai/ (Accessed June 2020).

Davenport, T., Kalakota, R. (2019), The potential for artificial intelligence in healthcare. Future healthcare journal, 6(2), 94–98. https://doi.org/10.7861/futurehosp.6-2-94.

Deng, J., Dong, W., Socher, R., Li, L.-J., Li, K., & Fei-Fei, L. (2009), Imagenet: A large-scale hierarchical image database. In: 2009 IEEE conference on computer vision and pattern recognition.

Goodfellow I., Pouget-Abadie J., Mirza M., Xu B., Warde-Farley D., Ozair S., Courville A., Bengio Y. (2014), Generative adversarial nets. In Advances in neural information processing systems.

Jochim, E. (2019a), Experiencing Generative Art with Dutch artist Jeroen van der Most: Towards the Discovery of the Inner Self. https://medium.com/the-ai-art-corner/experiencing-generative-art-with-dutch-artist-jeroen-van-der-most-towards-the-discovery-of-the-c554b34a5ee2 (Accessed September 2020).

Jochim, E. (2019b), The Creative Dialogue Of Human And Machine In The Work Of AI Artist Harshit Agrawal. https://medium.com/the-ai-art-corner/the-creative-dialogue-of-human-and-machine-in-the-work-of-ai-artist-harshit-agrawal-3cdf04068c (Accessed September 2020).

Jochim, E. (2019c), When a Traditional Artist meets AI for the First Time: An Experiment. https://medium.com/the-ai-art-corner/when-a-traditional-artist-meets-ai-for-the-first-time-an-experiment-881d880f7e58 (Accessed September 2020).

Jochim, E. (2020d), Digital Artist Fabin Rasheed presents "The Augmented Artist". https://medium.com/the-ai-art-corner/digital-artist-fabin-rasheed-presents-the-augmented-artist-48f640676b81 (Accessed September 2020).

Jochim, E. (2019e), Exploring Gender through the Lens of Computer Vision with Artist J. Rosenbaum, https://medium.com/the-ai-art-corner/exploring-gender-through-the-lens-of-computer-vision-with-artist-j-rosenbaum-8682a91e0577 (Accessed September 2020).

Marks, A. (2019), How AI is radically changing our definition of human creativity. https://www.wired.co.uk/article/artificial-intelligence-creativity (Accessed June 2020).

Miller, A.I. (2019), The Artist in the Machine – The world of AI-powered creativity. The MIT Press, Cambridge MA.

Miller, G.A. (1995), WordNet: A Lexical Database for English. Communications of the ACM Vol. 38, No. 11: 39-41.

Mordvintsev A., Olah C., Tyka M. (2015), Inceptionism: Going Deeper into Neural Networks. https://ai.googleblog.com/2015/06/inceptionism-going-deeper-into-neural.html (Accessed June 2020).

Rasheed, F. (2019), Auria Kathi – An artist in the clouds. https://towardsdatascience.com/auriakathi-596dfb8710d6 (Accessed June 2020).

Rea, N. (2019), How ImageNet Roulette, an Art Project That Went Viral by Exposing Facial Recognition's Biases, Is Changing People's Minds About AI. https://news.artnet.com/art-world/imagenet-roulette-trevor-paglen-kate-crawford-1658305 (Accessed June 2020).

Rosenbaum, J. (2020), Set in Stone. https://www.jrosenbaum.com.au/2020/01/set-in-stone (Accessed June 2020).

Wilkins, A. (2020), Will we all be wearing clothes designed by artificial intelligence? https://metro.co.uk/2020/03/04/will-wearing-clothes-designed-artificial-intelligence-12342122/ (Accessed June 2020).

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