## Artist Process: Exploring Creativity and AI #ED2123AIART

DEFI's annual event explored the rapid changes following creativity and AI. This included keynote speakers exploring topics surrounding how global AI systems could influence humanity's cognitive frameworks (Wisakanto from the Leverhulme Centre) and how emerging AI language modules will impact school level assessments of creativity and research (Homer from International Baccalaureate). Additionally, Rosen from BrainPOP talked about both cultivating children's capacities for creative thinking and integrating AI into this process in a positive manner.

Throughout these keynote talks, I utilised six different AI art generators: D-ALLE 2, Craiyon, Deep AI, Shutterstock, Artbreeder, and Deep Dream followed by prompting Chat GPT. AI art generators use machine learning algorithms and deep neural networks to produce art. I utilised these AI platforms to ask concepts mentioned in the keynote speakers. These ranged from very simple concepts to abstract intellectual questions. AI art generators all produced vastly different results. For those not familiar with the process in generating visual images from AI algorithms see Figure 1.



Figure 1 - How to produce AI generated Art

Starting with the prompt "What is creative thinking" in Figure 2 shows the differences that each AI art generator produced. These differences range from undecipherable words, children with extra body parts, ice cubes with brains, to very colourful 3D renderings of shapes with people scattered around. I thought it curious that none of these provided a very clear graphical representation of what creative thinking may be. Given the algorithm these AI art generators had access to in March 2023, I would have predicted the generators would have been able to produce a better image, possibly one with cohesive words and images that depict the many outliers associated with creative thinking. Given that this is a very broad, abstract question, it is not surprising that the generator produced a wide range of unintelligible visuals. However, as an artist I could see how some of these visuals could be woven together into a cohesive image to spark creativity for visual designers.



Figure 2- Prompt" What is creative thinking?" into five different AI art generators.

Moving on to what I thought the AI generators would be more successful with, was the prompt "Traditional Decision Making vs. Machine Decision Making, digital art" as shown in Figure 3. It was my hope that specifying two concrete ideas in a specific art style would result in a tangible visual. Unfortunately, this provided a mix of robot humans, clipart objects, cartoons with scattered text, and most concerning of all, a furry creature with a giant eye. This unquestionably exhibits the wide-spread depth that AI generators can produce art from. It is also disturbing that this prompt across six AI generators in March 2023 generated predominantly masculine imagery.



Figure 3 - Traditional decision-making prompt depicted in six different Ai art generators.

It is very clear that AI art generators are currently largely unintelligible for intellectual discussions. Additionally, there appears to be clear biases in the current algorithms used for generating AI art. These art generators appear prone to producing white males, humans with distorted body parts, camouflage military outfits, and western culturally relative ideas. Whilst new releases are occurring at a rapid rate, these do not presently appear to be addressing the mentioned biases.

The question perhaps we should be asking moving forward in relation to assessing and exploring creativity's relationship with AI, is how to address the current prejudices that are seeping through the generators. How will this influence the younger generation that will use AI platforms for educational purposes? Furthermore, we should be exploring how to harness and incorporate these developing tools both positively and ethically into education.