“Business and education use the computer, but art is finding a place for it as well. ”The ability of computers to get creative has come a long way, while there’s little chance of them usurping artists any time soon. What does this change mean in a long term for those working in the creative industries? And the future of these industries destined to be more imitation or innovation?

“I think the exciting world AI will play is kicking us out of the behaving like machines and perhaps being more creative humans again. ”

How AI is transforming the creative industry

These portraits might look like paintings from centuries gone by or digital law created by human hands but they are not. Each one has been imagined and created by an artificial intelligence. It’s the brainchild of Mario klingamann. He’s leading a group of artists who are pioneering the use of AI in the world of visual arts. “As an artist, you’re always in this interplay between accident and control. So at one side, you want to have control over your work, but at the same time you also want interesting accidents to happen. Using AI allows me to find a good balance between the two.” This art work is created using neural networks. Computer programs that mimic the structure of the human brain. Mario has trained the systems on thousands of portraits, from the 17th to the 19th centuries. The AI learns from them, and creates a never ending stream of unique portraits.

In the past decade, the use of AI has expanded into numerous creative fields and its role is continuing to grow. Marcus du Sautoy is a professor of mathematics at the university of Oxford. “I think a lot of people think that all AI could possibly do is to produce more of the same, to produce pastiche. I think that’s really missing an opportunity because this AI is really beginning to push the boundaries, change things or disrupt things. So I think we’ve really seeing something very special happening at this moment. ”

“Before they take over the world, many experts saying they will take over your job. ” Technological disruption is often assumed to lead to job losses, but such anxieties have frequently overblown. Research into the impact of automation in England shows a relatively low risk of job losses in several professions including artists. For those working in creative fields, AI is more likely to emerge as a collaborator than a compteitor. “I think it’s going to change jobs, and that’s the point. So this is a new collaborator, a new tool a bit like the arrival of the camera on the scene that really changed at all. So I think they’ll be just the same as it ever was, but they will be new jobs out there, are some jobs will go, but for example, I think there’ll be something like the data curator, the person who curate the data that the AI will learn on, (it) will be a very creative role in the whole process. ” By working as an ever more sophisticated collaborator, AI could also help to overturn another stereotype--the machines can never be as creative as humans. “I think it’s creative, so we can often end up kind of repeating behaviors that worked in the past, that should be more like a machine than a human. So I think one of the exciting roles AI will play is kicking us out of that rather mechanistic way of thinking and perhaps making us more creative as humans again. ”

But alongside its potential to broaden the creative pallette, AI could also have some negative consequences for the creative industries. In the world of music, AI has resulted in new tracks mimicking artists in every conceivable genre. Take the world famous Jazz singer Ella fitzgerald, AI technology is advanced enough to learn from her back catalogue to produce this: ... On an original track in the same style. It’s unlikely to become a new Jazz standard, but it does highlight the potential the technology holds--to copy artists on an industrial scale.

Concerning about the long term impact of AI, a shared by musicians like Holly Herndon who composes by collaborating with one. She calls it spoon. ‘”She is my AI baby. We’ve been teaching her how to sing, how to make music with us. ” Holly’s worried that there are no intellectual property laws or other regulations in place to protect artitst from AI powered imitations. “Just from this conversation that we’ve had today, you would have enough audio material to be able to make a model of my speaking voice and kind of do whatever you want with it. We simply cannot have this whole sale taking of each other’s work. And so I think we have to move past some of our 20th century logics around IP and in the way that we dealt with that and come up with a new framework for that for the 21 century. ” This legal gray area was exposed last April.

When the rapid Jay Z reportedly tried and failed to have this track taken down from youtube, it used AI to make him appear to rat lines of Shakespeare. But Holly has a more optimistic vision for the future of AI in the creative arts. One characterized less by imitation and more by originality. “So by layering this, they are able to kind of get the AI singing with the kind of real world singing and instrumentation, the kind of meld together and occupy the same space. ”

AI’s capacity to help humans make new kinds of art seems likely to have the most impact on the creative industries and the livelihoods of those working in them in the years ahead. But what then? How far does AI’s potential to disrupt human creativity stretch? “I think that will come a moment when we have to regard the AI as a sort of independent entity that is being creative. Maybe that’s when it has its own internal world, when perhaps AI becomes conscious in its own right, which I believe will happen at some point. There is an interaction that AI can have with the art of the past, which is at a speed that we could never achieve. So I think there is some possibility for AI to reach a state of creativity much faster than we do as humans.”