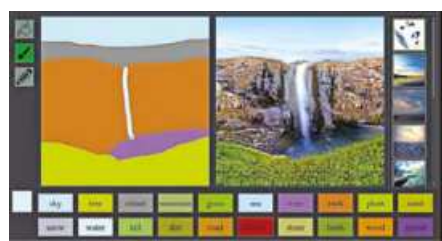'Colourised scene from Satyajit Ray's Pather Panchali'

AI now shaping the world of creative arts

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The second industrial revolution gifted us with photographic films which paved the way for the rise of photography as a creative art. As we stand at the doorstep of the fourth industrial revolution, artificial intelligence is taking centre stage. Here's four instances AI has changed how we experience creative arts.

1 - Breathing in new life to old movies
Based on the work of researchers from the University of California, Berkley many independent researchers and film enthusiasts have started using deep AI, to colourize many classic black and white films. The entire movie is upscaled and then digitally colourized using deep neural networks known as CNNs. A recent upscaled and colourised clip from Satyajit Ray's masterpiece *Pather Panchali* has taken the netizens by storm. The work was uploaded on YouTube by a professor of AI at the University of Maryland. This technology is still in early stages of development, but the promise showed by its application already has film lovers at the edge of their seats.

2 - From doodles to landscapes
Using Nvidia's prototype AI software called GauGAN, you can create a realistic landscape in seconds just by doing a rough outline of a scene, doodling some trees or hills, and filling them in with natural textures such as clouds, water, grass, or rocks. It is a very intuitive tool and can be used by designers in different capacities, but Nvidia hasn't said anything about releasing it commercially.

3 - Reimagining dance choreography
Wayne McGregor, a multi-award-winning British choreographer, is working with Google regarding how artificial intelligence can be used to help choreographers bring in variations to come up with new dance styles. The project is called Living Archive. The AI uses dance videos uploaded to the archive to come up with thousands of iterations of its own. It's not about hiring robot choreographers, rather the idea is to diversify dance moves by taking inspiration from a particular performer's style or even combining multiple ones to generate a hybrid.

4 - Classical music using machine learning
Artificial intelligence is being increasingly used in the music industry. But Aiva Technologies has broken all barriers by becoming the first AI in the world to receive the status of Composer in classical music. The company can create its own copyrighted music under SACEM. The technology uses deep learning algorithms and reinforcement machine learning techniques to read through a vast database of classical music pieces. From Bach to Beethoven to Mozart, Aiva can capture the essence of classical music theory using its algorithm upon existing musical works. Some of Aiva's creations have already been used in films and advertisements.

The incorporation of artificial intelligence is a promising leap towards the digitization of art as we know it today, but there is still a lot of room for development. With time, AI and technology could very well reshape our entire way of practising creative arts.