When it comes to art, many of us know what we like, even if we can’t explain why. So what about the painting you see before you? Turn the page to find out what makes it so special.
EPSRC Leadership Fellow Dr Simon Colton (pictured left) takes his teaching responsibilities very seriously, and is encouraging one particularly gifted student to develop a mind of his own. Literally.

The student is a computer, named The Painting Fool, which Dr Colton has programmed to recognise human emotions and create original paintings, in a variety of styles, inspired by what it sees. The hope is that one day The Painting Fool will be taken seriously as an artist in its own right.

Some might say this is no more than painting by numbers – after all, everything a computer does is based on binary code: ones and zeroes. But one look at the art produced by The Painting Fool suggests it is considerably more than the sum of its parts.

But is it art?

Dr Colton’s work combines cutting-edge artificial intelligence (AI) methods and multimedia graphics with, crucially, the cognitive aspects of the painting process. It goes to the heart of the age-old philosophical question of whether machines can think independently and be truly creative.

The beauty of The Painting Fool is its unpredictability. Simon says: “We’re addressing the false assumption that software simply does what it is told. With our project, quite the opposite has been true. I have always programmed The Painting Fool to do things I would never have expected. I would expect nothing less of any creative soul.”

Practical philosophy

Dr Colton, a reader in computational creativity at Imperial College London, has highlighted the philosophical issues thrown up by The Painting Fool in a series of practical ways.

For example, he addressed the issue of autonomy and intentionality by enabling The Painting Fool to paint collages based on newspaper articles. So, after reading a Guardian article on the war in Afghanistan, The Painting Fool produced a collage of an aeroplane, an explosion next to a baby and its mother, a girl in regional headgear and a field of war graves.

The human touch

Simon says: “The biggest challenge right now is addressing the software’s ‘lack’ of humanity, when so much of art is a celebration of humanity.” He takes the view that we should simply accept this inevitability and instead celebrate its difference. To this end, he argues: “We will be encouraging creativity in new ways, making more of human creativity, not less.”

World Technology Arts Awards

Simon Colton’s work in artificial intelligence has been nominated for a prestigious World Technology Arts Award. As Pioneer went to press, we had yet to learn if he had won the award. If he does win, no doubt The Painting Fool will be painting the town Pantone 485.

www.thepaintingfool.com
Dr Simon Colton, EPSRC Leadership Fellow

Dr Simon Colton is Reader in Computational Creativity at Imperial College London where he is developing new artificial intelligence techniques to explore the possibilities of developing a computer’s capacity for creativity.

In October 2011, Simon was awarded an EPSRC Leadership Fellowship. The five-year fellowship recognises Simon’s talent and potential to develop into an international research leader. Simon was one of 13 outstanding UK researchers to receive a Leadership Fellowship.