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## Picasso PCs: creative computers display their art at Imperial College London

Works of art created by computers are on display as part of the London Design Festival - [News](#)

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By Barry Gardner  
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Works of art created by computers are on display this week in Imperial's main entrance.

The exhibition, part of the London Design Festival, has been put together by Dr Simon Colton of the Department of Computing, who believes computers have the ability to be creative and will one day be able to produce their own masterpieces.

To demonstrate just how artistic computers can be, Dr Colton has designed software which enables PCs to paint pictures. Given a digital image, without any intervention from a human, his Triptych software can produce artistic versions of the image. Unlike most other graphics software, Triptych actually paints the picture stroke by stroke in front of your eyes, and can often take hours to produce an artwork.

Dr Colton will be exhibiting some of Triptych's creations - such as the sketch of the Swiss Re building and the re-interpretation of Vermeer's Girl with a Pearl Earring - at the 'Computer Generated Artworks' exhibition, hosted by Imperial in its main entrance until 29 September. It will include artworks by six artists, including Dr Colton, who use computers in novel ways to generate art.

Dr. Colton is fascinated by the role computers have to play in modern art. In an early experiment with his software, he used it to generate instructions in the form of shapes, their colours and positions on a canvas. He then asked an artist friend to paint the picture with real paints on a canvas. This reversed the usual roles of computer and human in the creative process: normally the human treats the computer merely as a tool, but this time, it was the other way around. Similarly following Triptych's instructions, Dr. Colton has himself produced a

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collage with over 500 pieces of coloured card, with the shape and position of each precisely specified by the computer. He says:



Triptych's version of Girl with a Pearl Earring is on display at Imperial's main entrance

"Most computer programs aren't creative because they lack either skill, appreciation or imagination. However, there are a number of programmes which we do call creative, and we have made great progress in the field of computational creativity, where we study such programmes. Most people are prepared to accept now that computers can perform many intelligent tasks, but the jury is out on whether computers can be creative - this may well be the last facet of intelligence we relinquish to the computer."

As a concrete example of how computers can aid human creativity, Dr Colton recently set up [www.craftbynumbers.com](http://www.craftbynumbers.com), which takes customer's digital photos and produces paint by numbers kits for them. Following the instructions in the kits on how to mix the paints and where to paint them, customers produce artistic, stylistic versions of their original photograph. Adding that creative computers are nothing for human artists to be afraid of, Dr Colton comments:

"Artists won't stop painting just because computers have suddenly become artistic. It will just add to the creative mix, and there will always be a premium paid for human blood, sweat and tears in art. The potential for creative computers is huge: maybe we could get to the point where computers will make up jokes, iPods will generate new tracks and the fridge will provide a new recipe for you based on its contents."

John Cass, Business Development Manager for Creative Industries at Imperial, adds: "We hope that staging events such as this will bring greater collaboration between the design industry and academia. We don't have an art faculty at the College, but we are very keen to forge links in this area."

Artists displaying their work at the 'Computer Generated Artworks' exhibition are:

William Latham  
 James Faure-Walker  
 James Tindall  
 Penousal Machado  
 Patrick Tresset  
 Simon Colton

They can be viewed all week in the main entrance of Imperial College London, South Kensington Campus.

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