News

FIRST PERSON **The computer that paints emotions**

Move over David Hockney. The future of painting could be cybernetic if a team from Imperial get their way.

25 Jan 2008 Matt Brown <u>0 comments</u>

Computers might be able to spew out facts and tally your accounts, but could they ever make great art? Simon Colton from Imperial's Department of Computing thinks so. With colleagues Maja Pantic and Michel Valstar he's created an award-winning system called <u>The Painting Fool</u>, which paints stylised portraits after analysing facial expressions.
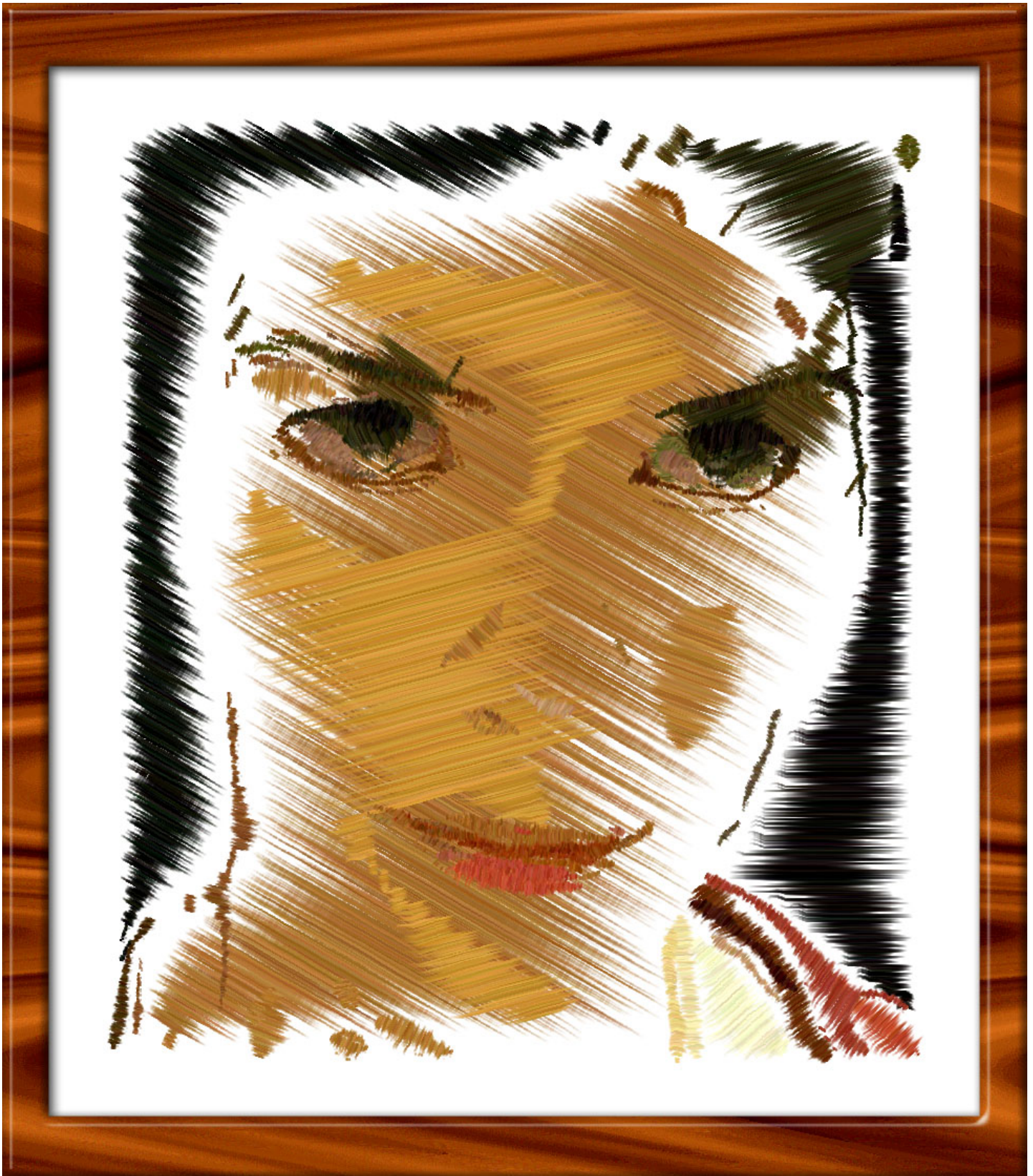
If, for example, it sees an angry face, the portrait might incorporate strong brushstrokes in fiery colours, while a depressed person might be rendered in dismal hues.

The results are impressive and last month bagged the team a prestigious award for machine intelligence at a British Computer Society conference.

Encouraged, the group are looking at robotic systems to take the portrait off screen and directly onto canvas. They're also pursuing business opportunities, believing there may be a market in bespoke paintings at cheaper prices than a human artist could offer.

Colton takes up the story in his own words:

> I'm a keen digital photographer, and about 5 years ago, I decided that Photoshop wasn't giving me exactly what I wanted, so I decided to write my own graphics software.

As the software got more sophisticated, I saw the potential for using the software in my research on computational creativity, and so I decided to write an automated painter. Things

have snowballed since then.

We organised an exhibition of computer generated artworks in late 2006 here at Imperial. Pieces from The Painting Fool and five other artists were exhibited.

Ralph Rugoff , the director of the Hayward Gallery…pointed out that in the art world, the rules are constantly changing. He posed the question of whether computers would ever be able to be playful.

This actually had a profound effect on me, and has influenced the development of The Painting Fool since. In particular, I actually cherish the lack of rules in art – this makes it a far more interesting application domain for Artificial Intelligence research.

I'm going to use The Painting Fool as a platform for my core research, which is into computational creativity. I believe that software has the potential to be creative partners in art projects, rather than mere tools. However, there are a lot of people who seriously disagree with this, so we need to build and test lots of programs like The Painting Fool in order to convince them.

Development of this software has influenced my overall theory of creativity in software—that it has to exhibit skill, appreciation and imagination in order to be taken seriously as creative. I'm writing these ideas up for a paper right now.

I'm very interested in applying [the technology] to produce very artistic animations. A consortium of European researchers (myself included) submitted an EU project proposal a few years ago on computational creativity. Sadly, it wasn't funded, but one of the main applications we came up with was automated storyboarding for short films and animations. This requires the computer to work with text, video and music, so it was a very challenging idea.

I would like to see software being used to develop characters, plot lines and dialogue (as well as producing beautifully rendered animations).

All images courtesy of The Painting Fool and Simon Colton.

all tags   simon colton   imperial college   painting fool   ralph rugoff   artificial intelligence   computer generated art   computer arts   sciart   ai

Comments

There are no comments on this post

log in to add your comment