Here's something my robot made earlier — the new age of digital art

Eboy's pixel art Pixorama cityscapes started evolving in 1997

Eboy

Eboy's pixel art Pixorama cityscapes started evolving in 1997

Eboy

From a 1970s video game to a dynamic medium that has liberated artists, a landmark show charts the rise of digital art

Look around you. Everywhere that you turn you will find digital art. It's there in the games you play on your smartphone, in the photographs you edit on your laptop, in the books you download to your Kindle and the films you stream on your tablet. It's on your computer, your TV, your radio. It's all over our galleries, in our cinemas and in our concert halls. It won't be long before you are wearing it and, at the rate at which developments are going, it's anyone's guess as to whether we next might be eating it.

This is the result of a ubiquitous shift that the Barbican will celebrate in its forthcoming exhibition Digital Revolution — a show that looks at the transformation of our culture by digital technology. A venue with a long history of engagement with digital creativity — not least with its unprecedentedly popular Rain Room, installed in The Curve last year by artist/designers rAndom International — is about to stage its most ambitious project in this field to date. Bringing together artists and film-makers, architects and musicians, designers and game-developers, Digital Revolution goes back over the history of the key individuals and seminal moments that have come to define our new digitalised age.

It promises to be a landmark show. Digital art marks a generational divide, suggests its curator Conrad Bodman. Those in their forties and fifties will of course be aware of it, but they may not fully understand it, nor have a clue how to design their own programs. Yet digital developments, he believes, have reached a tipping point. A whole new code-literate generation has grown up. They don't need intermediaries to put their ideas into practice and their work is transforming our cultural milieu.

So, what exactly is digital art? “It's art made with codes,” Bodman says. “Artists familiar with computer programming languages can use these codes creatively and often in an interactive way.” The dream conceived back in the Twenties when Walter Gropius, the founder of the Bauhaus (a school which, bringing together a utopian community of creators, sought to combine old-fashioned craftsmanship with innovative new techniques), first coined the slogan “art and technology: a new unity” has come almost a century later to fruition.

Digital art as we know it traces its history back to the Fifties, to a time when hardware and software limitations imposed some sort of unity upon the pieces that a computer could produce. Computer artists, their work connected by similar visual and philosophical concerns, came close to forming what they saw as a coherent movement. However, this Barbican show begins in
1972 with the game *Pong*. It was this rudimentary interpretation of table-tennis, played on screen with blocks for ball and bats, that spawned the multibillion-dollar video game industry.

Digital art has moved a long way since. Several pieces will premiere at this show, among them the 2013 *Laser Feast*, created by design studio Marshmallow: an interactive “woodland” environment of laser rods, each of which has an acoustic component, activated when touched, so that the visitor wanders through it to the accompaniment of constantly changing notes.

The visual and the sonic combine and this blurring of distinctions between disciplines and media — perhaps the most salient characteristic of digital art — has liberated artists, who now work across a wide range of forms. “Once you have understood the language of codes,” Bodman says, “you can apply it anywhere from the gallery artwork through the pop concert to the ballet.”

The digital artist breaks free to explore possibilities that more traditional practitioners can only dream of, as the “Sound and Vision” section of the show will explore.

Among other pieces will be a new commission by the musician will.i.am in collaboration with the entrepreneur Yuri Suzuki, in which three mechanically animated analogue instruments (guitar, keyboard and drums) will play a selection of songs. Robotics and projection mapping are brought together to create a completely enveloping audio experience.

Digital art offers an increasingly collaborative experience. The Romantic notion of the individual genius, which for so long has held sway, rolls over to make room for such creative collectives as Antirom which, formed in 1994, set out to explore interaction as a form of media in its own right. Matt Pyke presents a radical new installation that expands on his interest in the relationship between the hand-drawn and the digital (digital art began by encouraging programmers to blur long-held distinctions between art and graphics). It allows visitors both inside the venue and online to submit a hand-drawn artwork that will be mounted on a huge wall of screens in the form of a looped animation. His *Together* will serve as a sort of archive of creativity from across the country.

The distant spectator, once standing apart, becomes a participant, a part of the art piece. Umbrellium’s *Assemblance* — specially commissioned for this exhibition — pushes this interactive system to intriguing limits. It motion-tracks the visitor who moves into its theatrical realm of colour lasers. The spectator becomes the artist as he sculpts ephemeral light into constantly shifting forms. (It would be wonderful if the Barbican were able to push this collaborative spirit further by inviting, say, a dancer to interact with Assemblance; fingers crossed.)

Via digital technology, we are moving towards a future in which art, as the performance artist Marina Abramovic (currently working in the Serpentine gallery) sees it, becomes less an object but an energy. Quintessentially ephemeral, it slips free of the financial markets that seek to commodify it. It discovers its purest form.

In our contemporary art world, the computer is likely to play a more prominent role in the studio than the palette or brush. It has become an indispensable partner in myriad creative projects that quite simply could not be achieved without its help. And as this Barbican exhibition casts an eye to the future, we find it complicit in the creation of anything from photovoltaic clothing to sophisticated robotic pets.

But can a computer be truly creative? Will this century see paintings signed “Microsoft”? Since 2006, Dr Simon Colton, professor of computational creativity at Goldsmiths, has been working on a project called the Painting Fool. Its stated aim: to one day be taken seriously as an artist in its own right.

“But can a computer be truly creative? Will this century see paintings signed “Microsoft”? Since 2006, Dr Simon Colton, professor of computational creativity at Goldsmiths, has been working on a project called the Painting Fool. Its stated aim: to one day be taken seriously as an artist in its own right.

“Art is 99 per cent cognitive, 1 per cent making marks on paper,” Colton says. So after studying the psychological aspects of art making — the intention of the painter, for instance, or his mood — he sets out to challenge the idea that a computer program can’t be imaginative. The Painting Fool, operating by what he describes as artificial neural networks and using a grammar similar to that of a language, can paint portraits that are influenced not only by the “mood” of the computer (formed by its “reading” of newspaper articles which it extracts and cross references) but also by the mood of the sitter (detected via its software).

Learning, accountability and appreciation have all been programmed into it over the years. It can be stubborn, Colton says; telling a sitter to go away (sometimes repeatedly) when it’s not inclined to work. It can comment upon and interpret its pieces. And each time it makes something it gathers more information and learns from it.

There is still much to develop, Colton admits. He doesn’t think of the Painting Fool as a “living being”; he describes it rather as a disembodied intelligence. Nevertheless, he has, over the course of its ever-growing sophistication, come to consider it as genuinely creative: “Because I can’t think of any reason why it’s not any more. And the whole point of it,” he adds, “is that you can never predict it. You can never know what its going to do next. It’s independent. And it can sure as hell piss me off. I have given it that independence, but still it frustrates me.”

Even as it ventures into unexplored territories, digital technology returns us to the fundamentals: in this case, it would seem, to such time-honoured philosophical conundrums as free will. And what more can we ask of art than it offer us a vision that is as fundamentally human as it is technically fresh? Art history describes the course of this very narrative. So turn to the current chapter and study the *Digital Revolution* if you want to get up to date with the story — and discover what will happen next.
Here’s something my robot made earlier — the new age of digital art | The Times