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Go with the creative Flow

Professor Atau Tanaka, Director of Culture Lab Newcastle, examines how technology is revolutionising creativity

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CREATIVITY is the often elusive magic that is an essential part of what makes us human. Captured, sculpted and retransmitted by artists, creativity brings beauty and a critical eye to daily life.

Creative acts also play an important role in life beyond the arts. Creativity leads to innovations in research and can also be therapeutic, increasing our health and well-being. For example, research has shown that listening to music can help patients suffering from Parkinson's disease to regain balance and motor control.

The magic of creativity has not gone unnoticed by the business world which has often tried to gain economic benefit from it. Terms such as the creative class have been coined to refer to the socioeconomic sector of professionals who contribute to the economic regeneration of post-industrial cities by buying industrial properties, renovating them as living spaces and paving the way for mainstream populations to follow.

In the same way, terms such as the experience economy categorise creativity and creative output as elements of a post-service era economy where a monetary value is placed on lived experience.

While it is important to recognise the value of creativity, there is a fundamental contradiction in objectifying it. Creativity is not a commodity in the way that natural resources, industrial output or services can be considered commodities. However, although creativity itself cannot be sold and traded, the result of creative acts does represent a formidable economic force.

The creative industries broadly sit at the intersection of cultural activity and business, and include television, film, the music industry, and recent emerging fields of new media and digital industries. The British economy is one of the most highly developed creative sectors worldwide, accounting for 6.2 per cent of the GVA (Gross Value Added) and employing nearly two million people.

How then do we go from recognising the economic importance of creativity to preparing future generations to take part in the creative sector? And how can we encourage the public at large to engage with the creative possibilities of digital technologies?

The idea to engage the end user in the creative process is not new.

Navigating the moral maze of embryo science

Should demand for donor eggs be satisfied?

DR JOAN HARAN at the ESRC Centre for Economic and Social Aspects of Genomics has been researching media representations of embryo science in Britain since 2004. Central to both embryonic stem cell research and infertility treatment, embryology has been consistently newsworthy over the last decade.

In March 2010, a London-based fertility clinic was the subject of Radio 4's live debating programme *Moral Maze* when it offered a donated human egg and a free cycle of IVF as a raffle prize. The controversial contest was open to potential clients who attended a promotional seminar for a prominent US genetic profiling and fertility clinic; this international collaboration appears to have been a way to circumvent the regulation to which infertility treatment is subject in Britain under the terms of the Human Fertilisation and Embryology Act (HFEA) 2008.

The existence of such collaborations, the media storm they create and an alleged surge in fertility tourism are used to justify calls for an increase in compensation for the provision of donor eggs in Britain by those who believe this is the way to tackle their scarcity.

Despite its planned demise, the HFEA is to conduct a public consultation on its policies relating to donation of eggs, embryos and sperm in early 2011. In spite of a press statement which claims that 'the Authority has not made any decisions about which options to undertake consultation on', the policy review is understood to be considering whether to increase the 'compensation' paid to egg donors.

Indeed an unnamed spokesman for the HFEA was quoted in the *Daily Mail*

Manifestos and calls to action for mass participation in culture date back to radical Situationist politics of the 1960s. In the 1990s the arrival of multimedia encouraged a first generation of products including interactive music CD-ROMs by well-known musicians like Peter Gabriel and David Bowie. There was something compelling in the concept of an interactive rock album CD which made listening an active process.

With multimedia came an invitation for the consumer to become creator, and in so doing, began to democratise creativity. Ultimately all these products had limited success – it was questionable what was really being created and whether at the end of the day the consumer wanted to be creator at all.

This highlights the important distinction between creator as a role and being creative as a quality. Focusing directly on creation and actively encouraging creative output can ultimately inhibit creativity because it can make people feel uneasy or out of their depth.

This can be explained by the notion of Flow, proposed by Mihály Csíkszentmihályi, that plots skill versus challenge. The state of Flow is defined as the zone in which the mastery of a task is balanced with the level of challenge. If a task is too easy, people get bored; if a task is too difficult, people become anxious about their ability to accomplish it. The state of Flow occurs when people are locked into a productive upward spiral of challenge and reward, finding inspiration and feeling creative.

Advances in digital technologies combined with the democratisation of interaction techniques can create Flow and therefore creativity. Research carried out ten years ago in areas such as embodied interaction, sensor-based musical instruments and collaborative systems are implemented today in consumer technology. But the multi-touch screens and tilt sensors on today's mobile phones do a lot more than just rotate photos: they can capture gesture and map movement to produce sound and image.

Today, young people do not need recording studios full of equipment to create. They can do it with their home computer or mobile device

At the same time there is a high level of familiarity and interaction with these technologies and a desire for them that is fuelled by consumer culture. Although the iPod is an iconic symbol for the consumption of music, the actual technology carries a far greater potential. The challenge is not to engineer more powerful technologies but to find compelling cultural contexts for existing technology. For example, free software such as RJDJ transforms the iPhone from being a device for the consumption of MP3 files to a synthesiser that generates musical streams that are context-sensitive, personalised, and 'reactive', becoming an expressive extension of the user.

The challenge is to find compelling cultural contexts for existing technology

We can harness the avid interest in technology amongst young people to raise awareness of the creative process. Partnerships between Research Councils UK-funded projects like Social Inclusion through the Digital Economy (SiDE) – taking place at Culture Lab and cultural sector outreach organisations like Generator Music – have created workshops for young people that bring interactive technologies out of the lab and into the wild. They make innovative use of everyday objects to create social and creative situations so that, for example, moving one's finger across the touchscreen on an image of a turntable scratches the music and tilting the device from side to side slows down or speeds up the tempo.

This is just the starting point into more sophisticated forms of interaction with sound that borrow techniques from traditions of electro-acoustic music and apply them to the young person's popular music. Participants are not only more aware of the creative potential of digital technology but also become more sophisticated consumers, gaining an increased appreciation of the arts, and ultimately learning employable skills that are valued in the creative industries.

More important, young people from all walks of life gain self-esteem and a sense of empowerment that leads to participation in the advancement of society. To mobilise creative acts that enhance well-being in this way creates a compelling form of social innovation. ■

www.ncl.ac.uk/culturelab
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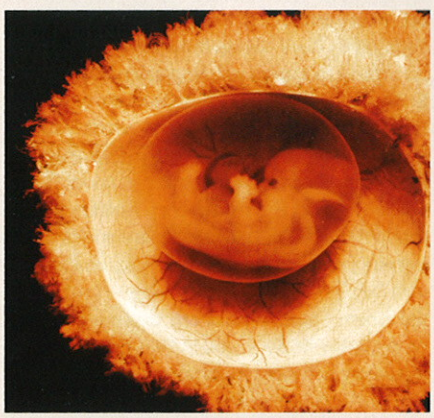

The importance of embryo science means that it is rarely out of the news

as speculating about whether it might be appropriate to increase monetary compensation to the level of benefits in kind – said to be worth several thousand pounds – received by women who 'share' their eggs in exchange for free or discounted fertility treatment.

One of the key arguments raised in support of such an increase is the risk to the health – and potential knock-on costs to the NHS – of British women who travel abroad for fertility treatment to countries where it is easier to obtain donor eggs. By increasing the compensation to British donors, the argument goes, these health risks will be minimised.

Less consideration is extended to the overseas egg donors who may be risking their health to donate eggs for more affluent women. Important issues which need to be addressed include whether positioning the limited supply of eggs for infertility treatment as a question of consumer – and indeed producer – choice limits serious debate about the commodification of reproduction and the potential harms to donors and their offspring.

Further, will a focus on the 'choice' of women to donate eggs, for the benefit of infertile women or couples, obscure the professional and financial interests of the infertility clinics – the key beneficiaries of this donation or trade? ■

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