

EDITORIAL

## Activating the Creative Arts and Technology for a Global Digital Economy: Provocations and challenges for a new philosophy

The global digital economy is offering unheralded creative opportunities for new techno-languages and new ways of being human. Web-3.0 cultures are opening the potential for new thought and reason, and reformulated logics. Coupled with this, the creative industries sector is growing apace with new formulations of technologised aesthetics and design technologies both intrinsic and extrinsic to physical place, objects, sounds, images, movements and cultural practices.

Access to digital technologies is a major issue for a global world of uneven economic distribution, political instabilities and social inequalities. How can we develop a philosophy of arts and technology to take account of this? And how would cultural knowledge figure in such a philosophy? How may we activate digital and creative innovations in the arts and ICT, without losing sight of cultural meanings, human rights and aesthetic values? How would a philosophy of arts and technology articulate creativity outside of instrumentalised language to activate a radical formulation of learning, living and being for a global digital economy?

### Creativity in ICT and the Arts

'Creativity' is a slippery word. It is readily applied, yet, so easily, it can be emptied of meaning. From creative enterprise and innovation in the digital sphere, creative ideas and practices in the work of designers and other creative workers, creative approaches to teaching and learning, creative solutions in finance and business, creative management, creative industries and creative funding models, creative is coupled with enterprise to drive productivity. 'Creative' is the term that once 'belonged' to the realm of artists and is now a common term of generalised meaning to do with being innovative.

No one owns it; everyone talks about it, but what does it really mean to 'be creative' and what space does creativity inhabit in the fast-expanding digital environment?

### Cyberspace

To be creative is to 'make new', and to make new is to innovate, and to be innovative is the mission of the enterprise culture we inhabit in the educational and cyberspheres of life. Cyberspace is offering an ever-expanding frontier of intelligence systems for maximising information and knowledge recognition, storage and transmission in the creative industries and education sectors. The term *cyberspace* is a blend of *cybernetics* (based in information theory) and *space*.<sup>1</sup> A coded, stratified, dynamic, virtual space, cyberspace is the 'fifth common space, after land, sea, air and outer space' (Schjølberg, 2014). It is an informational environment unlike Euclidean geometry or relativistic space (Wertheim, 2000).

It all seems highly transformative, yet heightened capacities for data mining, convergence, computation, cryptography and automated reasoning are often beyond the ken of everyday thought and reason. New ways of understanding and approaching information, creativity and knowledge generation arise. Michael Peters canvassed this territory in his recent EPAT editorial and

aply pointed out that ‘we need a philosophy that explores the Web as the universal medium for education’ (Peters, 2016, p. 1098).

In the rise and rise of the digital economies, how may the university foreground its position of knowledge leadership in and through digital technology, without losing sight of critical approaches to cultural and aesthetic knowledge? The Internet’s speed of growth is a magnet for creative interests; it offers a scale of connectivity unparalleled in human endeavour. Smart thinking, smart concepts, smart technologies all come into play in information sharing and learning. What opportunities does this afford for education—and for the economy?

## **Creative Industries**

The arts and technology are driving productivity in the creative and cultural industries. The creative industries sector, writ large, includes film, television and video production, post-production and distribution, photography, fashion, creative writing, literature and publishing, computer gaming, information innovation systems, creative advertising and marketing, architecture, design and technologies, as well as visual arts, media arts, craft, music, dance and drama. Not only is this sector of crucial importance to human living and wellbeing in that it enables aesthetics, creativity and innovative ideas to flourish, but through technological innovations and enterprise it also contributes billions a year to national economies.

For example, in Australia the creative industries sector is growing faster than the wider economy. The sector makes significant contributions to the Gross Domestic Product, larger than some of the more traditional industry groups of agriculture, forestry and fishing. In 2013, an inter-departmental report was developed to position future growth for creative and cultural industries. It brought together planning and policies from the Attorney-General’s Department of Broadband, Communications and the Digital Economy, Department of Industry, Science and Research, Department of Foreign Affairs and Trade, and Department of Education, Employment and Workplace Relations (Australian Government, 2013). The National Cultural Policy for Australia was released in 2013 affirming, ‘the centrality of the arts to our national identity, social cohesion and economic success (Gillard cited in Parliament of Australia, 2013). However, political commitments to the arts and creative sectors tend to wax and wane with competing political agendas, and the Australian commitment has waned rather in 2016. The National Association of Visual Arts (2016) establishes the cultural industries economic contribution at \$50 billion a year, yet over the past two years there have been significant funding cuts to the creative and cultural industries sector.

Similar to the forestry sector in economic productivity, the creative industries sector in New Zealand contributes about \$3.5 billion a year to the GDP, about half the size of sheep and cattle and grain (Bracewell, 2016). Statistics New Zealand records the screen industry (television, film and video, production, post-production, distribution) as contributing \$3.22 billion in 2015, an increase of \$66 million since 2014 (Statistics New Zealand, 2016). UK has long-held a decisive creative industries strategy for a sector that contributes over £84 billion a year to the economy (CIC, 2014).

## **Access to Digital Technologies**

The creative industries grow in line with digital access. Globally, in 2016, there are approximately 3.9 billion Internet users (a 33% increase since 2015), profoundly changing the way we live, learn and do business. However, the much-heralded inter-connections of global populations in the digital economies of Web 2.0 and Web 3.0 start to reveal the same limitations as other forms of knowledge distribution. Access becomes a major issue.

Global statistics show uneven distribution in usage and rates of Internet growth. In the interests of universal access to education as a basic human right, UNESCO works towards maximising

Information and Communications Technologies to serve teaching and learning communities wherever they may be (UNESCO, 2016b). As well, UNESCO dedicates its efforts to ensure equal access to the creative arts in education. There seems to be an interconnection of function, intention and approach to ICT and the arts, each exhibiting creativity and innovation as their guiding principles and practices, and each requiring digital connections to maximise their effects in and through education.

If digital technology is a driver for creativity and innovation in today's world then an important step in appreciating the potential for inter-connective creative pedagogies is to recognise and understand the levels of Internet penetration of populations in different parts of the world. Inequalities of resources and interests quickly become apparent.

In New Zealand today there are over 4 million Internet users in a population of 4.7 million, with 89.5% penetration of population, and a plan to bring broadband to 97.8% of the population by 2019. Internet usage in Australia evidences an 85% penetration of population, a similar percentage to Singapore, Canada and USA. European countries reveal similar percentages, although United Kingdom and Scandinavian countries show a higher Internet penetration of population, 92% to 98%. Japan and United Arab Emirates are also high at 91–92% (Internet Live Stats, 2016).

But not all countries fare so well. China is as low as 52.2% penetration of population; and India lower at 34.8% of 1.3 billion population. There is a mere 13.0% penetration of Internet usage in Iraq, and variable access in the African continent. South Africa is 52%, close to Kenya at 45%, and Nigeria 46%. Other parts of Africa are low: Ghana 28% penetration, Zimbabwe 21%, Uganda and Zambia 19%, Democratic Republic of Congo 3.9%, Sierra Leone with 2.4%, and Somalia 1.7%.

These variable statistics show that UNESCO's aim of improving both the quality of ICT teaching and learning, and equality of access to resources has inherent difficulties. Patterns emerge of Internet access being dependent on national infrastructure, capital resource base, political, social and economic attitudes and stability. As UNESCO relies upon nation state governments to promote access to digital technologies and to resource the education sector, capacity building for disadvantaged populations remains a challenge.

## UNESCO and the Arts

As with ICT, the UNESCO Arts Education Programme seeks to improve access to creativity in teaching and learning, and to establish a 'common ground of understanding' for arts education and its role in knowledge exchange. Arts events, objects, ideas and practices define the kinds of knowledge that the arts create, instil and transmit (UNESCO, 2016a).

UNESCO codified its policy for the arts in education in a *Road Map for Arts Education* at the UNESCO World Congress for Arts Education, *Building Creative Capacities for the twenty-first Century*, in Lisbon, 6–9 March 2006. The *Road Map* aims:

to communicate a vision and develop a consensus on the importance of Arts Education for building a creative and culturally aware society; encourage collaborative reflection and action; and garner the necessary financial and human resources to ensure the more complete integration of Arts Education into education systems and schools. (UNESCO, 2006)

The *Road Map* provides a framework of global strategies for mobilising the arts in education and community, in formal and non-formal settings. It seeks a common understanding for meeting the needs of creativity and cultural knowledge exchange in the twenty-first century. UNESCO places emphasis on 'the strategies required to introduce or promote Arts Education in the learning environment' and advocates sharing research and good practice towards this end (UNESCO, 2006, p. 3).

## The Role of Non-Governmental Organisations (NGOs) in Furthering the UNESCO Agenda

Some background to the UNESCO strategies for building creative capacities shows an ideological response to globalisation, and the need for cultural protection and the upholding of human rights. This response was framed by United Nations as a global political agenda in the interests of world peace in the aftermath of World War Two. The rhetoric of world peace continues to be relevant in terms of intercultural understanding and human rights, and is strongly identified in the work of NGOs in the arts: International Society of Education through Art (InSEA), International Society for Music Education (ISME), International Drama/Theatre Education Association (IDEA), and the World Dance Association (WDA).

Together these associations form a strong voice for advocating, networking and researching in arts education through the World Alliance for Arts Education (WAAE). The World Alliance was formed at the first UNESCO World Congress on Arts Education, held in Lisbon, 2006, after several years of planning and advocacy by InSEA, IDEA and ISME. Two years later WDA joined the Alliance. Today there is a wide network of arts educators in around 90 countries, with participation of educators, researchers, policy-makers and administrators, artists, performers, academics, community and educational leaders. This network creates a collective ecology of creative thinkers whose energies are making a difference for the arts in both local and wider communities.

WAAE Regional summits have been held in Hong Kong (2007), Taipei, Taiwan (2008), Newcastle, UK (2009), Rovaniemi, Finland (2012), Brisbane, Australia (2014), and Hangzhou, China (2016) (WAAE online). Each summit builds on the knowledge base for the arts and promotes cultural networks and understandings. Importantly the summits develop strategies to lobby governments, influence policy for the arts in local environments, and strengthen alliances for arts education around the world. Stakeholders are encouraged to work with national UNESCO commissions for these purposes. However, just as access to digital technologies is a pressing issue, so is access to the arts in education. This remains a challenge for the work of WAAE and the relevant NGOs.

### National Curriculum

With the aim of bringing an arts education within reach of every child globally as a basic entitlement, UNESCO encourages national governments to implement arts education policy. The 2014 WAAE Summit in Brisbane made the following recommendation to government, overtly declaring *The Australian Curriculum's* connection with UNESCO's goals:

The international community of the WAAE recognizes the *Australian Curriculum: The Arts*, in its current form (published 2013), as world-leading and informed by the principles of the UNESCO Developmental Goals for Arts Education (2011): specifically, in its endorsement of access for all, implementation of quality arts learning opportunities, and consideration of the ways in which the arts address social transformation for individuals and communities (WAAE, 2016).

At the first planning meetings of Australian Curriculum and Assessment Reporting Authority (ACARA, 2016a, 2016b) for shaping the *Australian Curriculum: The Arts*, the advisory group declared a priority position that every Australian child is entitled to a full arts education, an entitlement that would include visual arts, dance, drama, music, and media arts. Underpinning the curriculum would be learning in the arts and learning through the arts, in keeping with UNESCO's approach to creative and cultural education (UNESCO, 2016a). These aims have been achieved. Cross-curriculum priorities were formulated as, 'Aboriginal and Torres Strait Islander histories and cultures', 'Asia and Australia's engagement with Asia', and 'Sustainability' (ACARA, 2016b)—unmistakably reflective of Australia's cultural, political and economic agendas.

There will always be issues arising from a national curriculum in terms of teacher training, resourcing, and local government or institutional commitments. In the latest issue of *Australian Art*

*Education*, there is an article addressing a gap between espoused quality provision of the arts in the *Australian Curriculum* and the lack of specialised knowledge, skills and experience in on-the-ground practices (Wade-Leeuwen, 2016, pp. 140–162). This gap is a common problem in specialist areas of learning and one that is faced in many other countries. A critique of some of the inherent problems of a nationally authorised arts curriculum was published in New Zealand over a decade ago (Grierson & Mansfield, 2003). The issues arising from the formulations and assumptions of curriculum documents continue to be addressed by arts education stakeholders.

An interesting observation of the instrumentalisation of curriculum is the reductive language used to describe learning areas, and the consequential similarities between learning areas. Consider ‘the arts’ and ‘technology’ learning areas in *The New Zealand Curriculum* (Ministry of Education, 2016). If ‘arts’ were substituted for ‘technology’ there would be little shift of meaning, particularly for today’s enterprise culture. For example, the technology area states: ‘Adaptation and innovation are at the heart of technological practice. Quality outcomes result from thinking and practices that are informed, critical, and creative’ (Ministry of Education, 2014a). Substitute ‘*the arts*’ and the meanings are equally relevant: ‘Adaptation and innovation are at the heart of *arts practice*. Quality outcomes result from thinking and practices that are informed, critical, and creative’.

The description continues: ‘Technology makes enterprising use of its own particular knowledge and skills, together with those of other disciplines’ (2014a). Substitute *the arts* and it becomes: ‘*The arts* make enterprising use of *their own* particular knowledge and skills, together with those of other disciplines’. There is no loss of meaning.

The next sentence transposes with ease to the arts: ‘Technology is never static. It is influenced by and in turn impacts on the cultural, ethical, environmental, political, and economic conditions of the day’ (2014a). ‘*The arts are* never static. *They are* influenced by and in turn impact on the cultural, ethical, environmental, political, and economic conditions of the day’.

Instrumentalised language prevails. The pastiching of some of the arts descriptors onto technology would activate the technology area, with words like ‘powerful forms of expression’, and reference to ‘bicultural and multicultural character of Aotearoa New Zealand’ and the ‘enrichment’ of lives (Ministry of Education, 2014b). Notwithstanding these specific descriptors, and both areas claiming particular knowledge and skills, the two curriculum learning areas have similarities as shown above. The semiotics of the arts and technology give rise to instrumentalised outcomes once they have been codified in reductive terms.

## Challenges

Where lies the challenges for the arts and technology in today’s digital economy? How can the goals of arts and technology learning and practices come together to activate and inform each other? There appear to be two key aims out of this. Firstly, the aim of universal access must be to go beyond the worthy rhetoric of UNESCO to ensure the goal of access is not lost in ideological positioning, and not divorced from the quotidian struggles of time, space and resources. This calls for local and regional advocacy for access to digital technology and the arts in education. Micro-political action in policy and practice can make on-the-ground differences. Through a new philosophy of the arts and technology there is the potential for the radicality of today’s digital economy to take any ideological account beyond its founding roots and move learning into new possibilities of exchange and reformulation in terms of interconnected networks.

Secondly, an aim of displacing instrumentalisation is relevant. This requires an intervention into the reductive language and priorities of economic productivity, reconfiguring them in a way that maintains expressive, aesthetic and cultural potentials of the arts and technology. In working towards a philosophy of arts and technology for a digital economy, the provocation here is to challenge the arts to come together with the potentials of ICT, to find common ground by activating similarities and differences. Likewise the challenge for ICT is to maximise the potentials of creative



learning through the arts. They make a great marriage. But the marriage brokers, the teachers, institutions, administrators, policy makers and resource managers must be able to perceive these potentials and possibilities. They must be mindful of the deleterious effects of overemphasising technologies of quick inputs and over-measured outputs to meet institutional demands—in both the arts and technologies. That we are in a global system determined by rationalist decision-making and accountability in a world transformed by global capitalism is not in doubt. However, too often the centralised or dominant view determines the auditable outcomes and the arts, and technology, can fare badly when such imperatives prevail. Keeping in play the possible meanings of ‘creativity’ will activate new approaches to arts and technology.

The work being undertaken at local levels is a crucial factor towards the realisation of UNESCO goals. There is an interdependence of micro- and macro-politics of power. The local works through the global, and the global exists only so far as the local exercises its ideological frameworks. Each implicates the other. If one is to be political in approaching the events and transactions of power as a productive site of knowledge, the arts cannot be presented, articulated or legitimated as disembodied forms of knowledge. The same with technology. The arts and technology are already embedded as markers of discursive practices in their times and place; and they are already implicated in both the micro- and macro-political strata of political, institutional and individual subjectivity.

As Manfred Steger writes, ‘we must not fall into the idealist trap of treating political ideas as metaphysical entities floating above material practices and social institutions’ (Steger, 2008, p. x). Already embedded as agents, in the discursive, provocateur and receptor sense, as educators we are activating the discourses of creativity by our networked actions and practices—socially, materially, institutionally and pedagogically. A philosophy of the arts and technology for a digital world ought to take account of these factors.

## Contributors

To this end, this issue of ACCESS brings together articles that variously address and work towards a philosophy of the arts and technology. Through critical, philosophical and practical enquiries, the writers activate different ways of approaching the arts, aesthetics and technology, supervisory and research practices, cultural knowledge and educational policy-making.

Mark Jackson begins with his article, ‘Artwork as Technics’, activating aesthetics in educational contexts through an examination of philosophical approaches to the arts and technology by presenting and questioning on-the-ground practices and priorities. In the situation of encountering education instrumentally and technologically, Jackson seeks a revision of ways the relations between aesthetics and technology may be understood. He works through the enquiry with reference to Bernard Stiegler, French theorist of technology, and the German philosopher, Martin Heidegger, and thereby raises many of the challenges that a philosophy of the arts and technology may present.

Neil Harrison, Susan Page and Leanne Tobin consider issues of ‘country’ for Aboriginal and Torres Strait Islander people in Australia. In ‘Art has a Place: Country as a teacher in the city’, the writers draw from the teaching and learning priority of ‘Aboriginal and Torres Strait Islander histories and cultures’ in *The Australian Curriculum* (ACARA, 2016a). They critique the confusing situation between ‘country’ and ‘city’ as they question ‘authentic’ Indigenous identity and knowledge. The writers search for a new approach to teaching and learning about Aboriginal Sydney, and in so doing they raise important issues to do with historical conflict and conflicted relationships that make up identity formations. The projects under discussion move the reader from abstract cultural concepts to actual on-the-ground practices for teaching and learning. They advocate learning about Aboriginal Australia through contextualising country in urban areas for pre-service teachers and a new generation of learners.

A narrative inquiry is adopted in 'Teachers' Curriculum Stories: Perceptions and preparedness to enact change' by Abbey MacDonald, Georgina Barton, Kay Hartwig and Margaret Baguley. Raising issues to do with teaching and learning with specific reference to *The Australian Curriculum: The Arts* (ACARA, 2016c), the writers focus on quality teaching, learning, assessment, and definitions and interpretations of these requirements by educators. Tensions arise for teachers in following the arts curriculum as a mandated plan. The writers advocate for story-telling as a way to make meaning out of one's educational experience. Through narrative methods they are activating ways to address issues of curriculum change. The activation resides here in the way teachers may incorporate their own curriculum stories into navigating and enacting change.

In 'Connecting the Space between Design and Research: Explorations in participatory research supervision', Glenda Amayo Caldwell, Lindy Osborne, Inger Mewburn and Anitra Nottingham take a case study approach to consider creative research supervision based in a design studio model of collaboration. The aim is to critically reflect on the practices of research supervision and to discover how the design studio signature pedagogy might provide answers for an innovative and effective approach to research. Out of this study the writers advocate for the transferability of design studio pedagogy to other disciplines for creative and connected learning.

Angela Romano, in 'Ethical Review as a Tool for Enhancing Postgraduate Supervision and Research Outcomes in the Creative Arts', activates the ethical review process with higher degree students. The article investigates processes of imagination, articulation, creative visualisation, dramatic rehearsal and interaction with other disciplines. The aim is to work creatively and reflexively with the demands of ethical reviews and to find ways to bring new possibilities and approaches to light. If creativity is of value in the arts then here is a creative way of displacing existing perceptions of the ethical demands in creative education. Such demands are seen to be unwieldy or restrictive for creative researchers. To this extent, by meeting identifiable challenges, the author offers a dynamic and innovative approach to research supervision.

Jasmine B. Ulmer, in 'Diffraction as a Method of Critical Policy Analysis', examines how diffraction activates difference through its approaches to policy-making. Focusing the analysis on the work of teacher leaders, who are involved in educational policy work, Ulmer engages Jane Bennett's 'vibrant ecologies' and Gloria Anzaldúa's 'borderlands'. The aim is to see how teacher leaders navigate their roles within the multiple layers of community, governance and identity. Diffraction is offered as a method for bringing broader perspectives to critical policy analysis, and activating the ways different stakeholders, technologies, group practices and theories collectively shape policy. Understanding through diffraction opens the possibilities of difference to more effective educational policy-making.

## Conclusion

The themes raised in this editorial seek to bring together the creative and innovative potentials of the arts and technology in the light of a global digital economy. The aim is to provoke thoughts about working towards a philosophy of arts and technology by drawing from policies and practices of creativity in education and the economy.

The political drive to 'be creative' for economic productivity, or the universalising drive to find a common ground for creative innovation, may overwhelm other cultural and aesthetic concerns. A robust way of bringing together the arts and technology considers how to think about innovative approaches to knowledge and learning in the interconnected systems of twenty-first-century ecologies, without instrumentalising them. A philosophical approach would give due attention to the ways creative principles and practices may activate aesthetic sensibilities.

A new philosophy of arts and technology would take account of these challenges and more. It would address problems of access to education and digital technology in different parts of the world. It would provoke further critical action and develop an approach to the arts and technology

that meets the needs of those out of access, and addresses the inalienable right to knowledge and information for all, as espoused by UNESCO. The aim must be to find ways to build creative imaginations through the arts and technology. This building acts as a way of revealing more about arts and technology in education. It would activate a working philosophy for enhancing attitude, approach and understanding. The aim is to open innovative networks to learning and teaching, without losing sight of cultural and aesthetic values for a global digital economy.

## Note

1. William Gibson, science fiction writer, coined the term cyberspace as a dystopian virtual world of human habitation in *Burning Chrome* (Victor Gollancz 1986; first published by Omni, 1982) and popularised through his novel *Neuromancer* (1984). Online Etymology Dictionary <http://www.etymonline.com/index.php?term=cyberspace>.

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Elizabeth M. Grierson

*Royal Melbourne Institute of Technology (RMIT) University, Australia*

 [elizabeth.grierson@rmit.edu.au](mailto:elizabeth.grierson@rmit.edu.au)

#### ARTICLE HISTORY

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