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Art Network Discussion

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In greater connectivity do emergent network technologies also deny spatial difference? What is the abstract space of the network.

I have been interested in networks since 1983 when Media-Space, a Perth based art research group, proposed a national arts network that would confront the 'tyranny of distance' experienced by artists working in Western Australia. The Media-Space group was one of the first to be linked through a global art network called ARTEX. ARTEX had succeeded in focusing a number of artists from around the world into developing thematic networked art projects using the IPSharp's ARTBOX. The early network group projects created a euphoric feeling of connectivity which I still experience today. ARTEX linked me with artists like Roy Ascott who founded in 1994 the Centre for Advanced Inquiry in the Interactive Arts (CAiA), which was a world-wide trans-disciplinary research community. Its innovative structure involves collaborative work and supervision, both in cyberspace and at regular meetings around the world. Nearly 20 years after the initial online discussions, Ascott was a key partner in the Biennale of Electronic Arts Perth 2002

One of the first of Ascott's art works in this area was 'world in 24 hours' (1982), in which he created a planetary throw of the I CHING. He wrote, 'computer-mediated networks in my view, offer the possibility of a kind of planetary conviviality and creativity which no other means of communication has been able to achieve. One reason may be that networking puts you, in a sense, out of body, linking your mind into a kind of timeless sea' (Ascott 1984 p 29).

There is now serious attention being paid to networks for purposes of research. The Australian Research Centre, Research Networks discussion paper (2003) is a timely move to instigate and develop innovation within this area. What I want to do in this paper is compare Roy Ascott's 1984 vision with the ARC Research Networks document to see what can be discovered about our changing understanding of networks.

The discussion paper states 'At present, the program elements in the National Competitive Grants Program (NCGP) tend to under-emphasise the importance of network formation, with insufficiently strong support and incentives for individual researchers and small research teams to extend their connections with other researchers and those involved in innovation more widely' (ARC 2003).

So by way of contrast, in 1984 Roy Ascott had written:

Telematics has arisen an ethos of cross-disciplinary science and is set within a cybernetic perspective of the world. Numerous writers have attempted to describe the enormous changes they see occurring in human awareness, which some see as a kind of planetary consciousness. Teilhard de Chardin imagined a noosphere, a thinking layer, enveloping the biosphere of the earth. Peter Russell has more

recently advanced the hypothesis of the emergence of a planetary brain (Ascott 1984 p 50-51).

These comment some two decades ago illustrated the potential of the network. The ARC Research Networks' document now indicates that there is a need to extend research teams so that they make more meaningful and innovative connections. However there are also concerns that need to be addressed about the network momentum today. Is it just becoming a platform for e-commerce or an online learning environment? What was suggested in 1984 was that 'information exchanges shuttling through the networks at any one time can create patterns of coherence in the global brain, similar to those of the human brain' (Ascott 1984 p 51). The network seems to have stalled in regards to the ideas of our expanded consciousness and education in the arts has not yet grasped the potential of this medium.

Writing for one of the first Australian publications 'Art and Telecommunications', which was published in 1984, Ascott said:

To the unconvinced, the artist who commits himself or herself to networking as a primary medium is playing with dreams (Ascott 1984 p 52).

That I would see as the grand aspiration of networking in art, where the art work, the transformations of 'creative data', are in perpetual motion, an unending process. In this sense art itself becomes not a discrete set of entities, but rather a web of relationships between ideas and images in constant flux, to which no single authorship is attributable and whose meanings depend on the active participation of whoever enters the network. In a sense there is one wholeness, the flow of the network in which every ideas is a part of every other idea, in which every participant receiver is such that a mirror image is exchanged in which sender is receiver and receiver sender (Ascott 1984 p 56).

He also asserted that "Telematics [computerised telecommunications systems] does not generate a new order of art discourse but demands a new form of criticism and analysis" (Ascott 1984 p 44).

Don Foresta, a contemporary of Ascott who developed network projects working in Paris in the early 80's, stated recently that the

organizational space is at the same time a communication space, a visual space, an intuitional space, the space we call imagination and the way we see things operating. It will probably be at least another generation or two before we have consensus on the shape of that space, but if we are to believe what art and science have been saying, it is probable that that space will exist in time, be an interactive process and organised horizontally with a geometry quite different from the Euclidian geometry of renaissance perspective (Foresta 1997).

This statement was written in 1997 as part of The Souillac Charter for Art and Industry, where a small group of specialists met in Souillac, France, to draft a charter proposing a dialogue between artists and the telecommunications industry with governments and international organisations on the importance of artistic creativity and the new forms of expression available through advances in telecommunications.

I was interested to see if the euphoria, which I had first experienced in the 1983 project "Australia 2003", and which Ascott and Foresta also feel, still exists¹ where Tom Klinkowstein demonstrated the Artist's Electronic Exchange System (ARTEX) to the experimental art group Media-Space, still existed within networking. The "Australia 2003" project organised by Eric Gidney in Sydney, linked up "an exchange of telefax images which took place in April 1983 between students in Sydney, Adelaide and Perth" (Gidney 1984 pg 16). Ascott, for example, spoke of the total experience of working with the new technologies when he stated that

Work at the interface of the network, at a console with keyboard. VDU, printer or plotter is, in itself sensuously satisfying: the rhythm of the printer, the unrolling of the paper, the glow of the CRT, the secret stillness and precision of the software, immaculately delicate responsiveness of the keyboard, the whirring and bleeping of control signals can induce moods which can excite enthusiastic expectancy or a meditative tranquillity (Ascott 1984 p 54).

Under the Objectives, Selection Criteria & Performance Measures in the ARC document it states:

ARC Research Networks will assist groups of researchers to coordinate and communicate their research activities across disciplinary, organisational, institutional and geographical boundaries. The program will encourage and fund open exchange of information and sharing of resources, development and implementation of coherent and integrated research plans among researchers working independently on topics of common interest, and efforts to nurture the careers of young investigators and research students by promoting a sense of community and strong, effective mentoring (ARC 2003).

This is in stark contrast with some of the thoughts of Ascott and his contemporaries. The euphoria connected with networking seems to have given way to the politics of cyberspace. In order to make it part of a corporate and educational system, it denies its own spatial potential for a redefinition of our consciousness' spatial understanding.

The thought that 100,000 students listening to the same lecture is again a common idea that is used to negate the real research needed to be done in the area of creativity within networks. The misunderstanding predicates the one on one learning environment as being more important than this form of mediated knowledge, without looking into what is constituted through virtual studio spaces. There seems to be a lack of research into the space of the network: "...few theorists have yet studied networks because they are evanescent, ebbing and flowing around issues, ideas and knowledge" (Ascott 1984 p 52).

There is a desire to define rules that can be placed on and within the network. The context is based in the network's relationship to the arts, where the unpredictable and unmanageable are part of its very nature of being. The use of 'normalise' in connection with the network places the emphasis back on the users to define for themselves their social status.

¹ Roy Ascott has recently developed the Planetary Collegium <http://www.planetary-collegium.net>

The question of innovation in networking was part of the strategy to determine the relationship art has with researching the network as a creative medium for expression.

The concept involves seeing the network as having a connection to a collective memory which is its database. The consumption of the database memory is developing forms of consciousness. These concepts put the networks in a space of needing to develop new ideas of visualising memory, with the problem being that spatial metaphors, in fact, are not about space they are key indicators to a spatial discussion but they are not the space.

To give an example: online educational environments seem to ignore questions concerning the spatial potential of a research network. To explore the environment of the network, it is difficult if not impossible, "to fully appreciate the importance of telecommunications, not only as space and time transcending technologies, but as technological networks within which new forms of human interaction, control and organisation can actually be constructed" (Marvin 1996 p 54).

The architectural structure, the physical presence of educational facilities has been potentially under threat with independent soft skilled people using convergent networked technologies to bypass the system. The innovation that could happen within the research network area needs to be given more research time to explore the questions of spatiality within the arts agenda.

There are many reasons for this focus but the main one relates to Roy Ascott's description of a planetary consciousness. With wearable wireless networks, students can link into this 'noosphere, a thinking layer', 'a planetary brain'. The main concern is that the network has become an immersive screen of text which, when linked to the computer's ability to cut and paste, can reproduce itself endlessly without any critical dimension. The 'thinking layer' that could be the networked world is not being researched in an art context beyond its practical display of information between nodes and e-learning. What Ascott referred to in 1984 was the potential of exploring concepts of network art.

To 'understand' what is going on in the transactional process of network art is to merge the waves of planetary inputs, the modulation of ideas passed around the multiplicity of terminals, and to identify with the patterns of change which surge through the lines of communication (Ascott 1984 pg 36).

The network has not discovered its own spatiality, and the flat space of the screen in which it appears only camouflages this spatiality. The screen with its inherent relationship to perspectival space only allows the viewer a privileged understanding of a paradigm of seeing. Paul Virilio "mourns the destruction of distance, geographic grandeur, the vastness of natural space, the vastness which guaranteed time delay between events and our reactions, giving us time for the critical reflection necessary to arrive at a correct decision" (Manovich 1996). The destruction of distance has happened; we are connected, the organic thinking layer is waiting and in its place is the institutional layering. Questions need to be asked how this network affects our understanding of the world? How do we develop critical reflection in the area with this new spatial fabric that lacks the distancing of conventional critical creative space?

According to Michael Heim, "Besides function, another aspect of the formal definition of 'world' is that it is a context or weaving-together of things. World makes a web-like totality. The web gives context to anything that happens within it. World is a total environment or surround space" (Heim 1998 p 91).

There is renewed interest in research networks in Australia and possibilities of the network are there still there to be explored. These possibilities that were envisaged by Ascott are not necessarily gone. I think the need for spatial research of the network and the human conscious experience issues referenced through Ascott and Foresta are where the primary work needs to be done. Foresta stated that "It will probably be at least another generation or two before we have consensus on the shape of that space."

There is the possibility that the digital network has served its short time, and will be replaced with Nano technologies, which will generate much more invasive networks – giving a darker meaning to Ascott's hope that the "engagements of creative minds in telematic systems will effect human consciousness and transform our culture" (Ascott 1984 p 52).

The work by artists within the SymbioticA research studio in the human biology department at the University of Western Australia are exploring some of these concerns through their MEART project.

We recorded the electric signals (neural activity) from the culture in Atlanta. These neurons are cultured over 60 electrodes fitted on a glass substrate. These electrodes pick up 60 channels of activity from the neurons.

The data received from the neural activity is processed both in Atlanta & Perth to control in real time the robotic (drawing) arm. The feedback loop is closed by stimulating the neurons (again, 60 electrodes, 60 different areas in the culture) when various events in the gallery space occur. In biofeel we had MEART "draw portraits". Each morning we captured an image of a visitor in the gallery. Then we degraded it to 60 Pixels that correlated to the 60 electrodes that stimulate the neurons. We used this blue print to constantly stimulate the neurons (SYMBIOTICA 2003).

This is a clear link to what Ascott was talking about when neurons were stimulated through the network to drive robots. Ascott said "The creative use of networks makes [robots] organisms" (Ascott 1984 pg 56). The work of SymbioticA shows an expansion of consciousness in what the network might become.

The interesting concept is that objects will be smart and networked as part of their construction, linking via wireless technologies to the global. This will change the nature of how we react and what we react to in our everyday experience. The network may inevitably move to what Ascott talked about, where the very nature of our existence will be mediated through emerging technologies.

I want to conclude by saying that I feel there is still time left to explore the space of the network. It is not over but there is little time. The global network that Ascott wrote about I think will become more a series of local nodes pulling together bigger concepts whilst

working on the local distribution networks. Network will evolve like the development of the brain through sympathetic senses.

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Paul Thomas is currently the Director of the Biennale of Electronic Arts Perth 2004. Paul has been working in the area of electronic arts since 1981 when he co-founded the group Media-Space which met weekly and developed a series of artistic resources fitting an Artslab concept. Media-Space was part of the first global link up with artists connected to ARTEX. From 1981-1986 the group was involved in a number of collaborative exhibitions and was instrumental in the establishment a substantial body of research. In 1995 he founded the group Terminus= an online research group and in 2001 he developed the forums for electronic arts research (FEAR). Paul is also president of Media-Space Perth Inc., he is the coordinator of the Studio Electronic Arts (SEA) in the Department of Art at Curtin University of Technology and is currently studying for his PhD researching a reconfiguration of spatial attitudes. Paul is also a practicing electronic artist whose research can be seen on his website 'VisibleSpace'. <http://www.visiblepace.com>