

Towards the art led recovery

by Christian Kerr

Professor Donald Horne, Chairman of the Federal Government's arts funding body the Australia Council, has a catchcry: "Think - or perish."

We're all aware of Australia's economic problems, and in particular, our huge international balance of payments difficulties.

We know we have to make some very big economic changes, and quickly, if we are to turn the problem around.

The problem will be cured only when we begin to export a much larger quantity of knowledge and skill-based products.

More wool and wheat, more mining, won't solve the problem.

The prices we get for wool and wheat and coal are too low, and beyond our power to control.

But countries that have invested in industries that require brain power, creativity, knowledge and skill have done very well, producing goods and services of high value and maintaining a large measure of control over their prices.

In these knowledge based economies, the most precious resource is intellectual property.

The development and nourishment of intellectual property, together with its commercialisation, has been behind the success stories of Japan and Sweden.

Intellectual property can be as wide ranging as the limits of our intellects and creativity.

Commercialising this into goods and services that can be sold is something we do badly in Australia.

The products of our manufacturing sector are all too often the products of overseas intellectual property, rather than our own.

Australians have considerable home grown technology and intellectual property, but we don't do the right things with them. We ignore many of the major contributions of intellectual property in Australia, including all the intellectual property contributions of our creative artists.

Put simply, "Australia's wealth isn't on the land, or underground. It's between our ears."

That's the opinion of Dr Peter Ellyard, the Director of the Commission for the Future and the Chairman of ANAT, the Australian Network for Art and Technology.

He was speaking at an open day during the Second National Summer School in CAD/CAM organised by ANAT for artists, craftworkers and designers at Regency College of TAFE.

The four-week long school aimed to introduce artists to the possibilities of contemporary computer technologies, providing access to a variety of equipment ranging from interactive video to textile design software.

ANAT began in 1985 as a six-month research programme based at Adelaide's Experimental Art Foundation, looking at the issues involved with art and technology in Australia and overseas.

ANAT has grown into a separate organisation, aiming to foster, promote and develop the idea of interaction between the arts, sciences, and technology, backed up by a National Referral Group comprised of people with backgrounds in these fields.

Dr Ellyard continued: "The visual arts have always seen themselves as somewhat separate from the world of economic development.

Artists are some of the most economically disadvantaged members of the community. Art administrators talk about funding sources, but don't consider the economic value of their creativity beyond traditional limits, spending less time thinking about generating revenue from new sources than trying to get their grants increased.

"This is the same problem that plagues most of our manufacturers who, when they face economic difficulties, merely think of cutting costs to produce their existing ranges of goods more cheaply rather than thinking of new products and services they could provide.

"We have to think more about innovation - doing new things with existing resources.

"Our most precious resource is intellectual property, our knowledge and our skills. To innovate with these resources is our real challenge.

"Australians are good inventors. We are one of the best countries in having good ideas. We have one of the highest production rates of scientific papers per head of population in the world.

"However, we are pathetic innovators, bad at doing something useful with those ideas, hence our balance of payments.

"Technology itself is a major means of translating intellectual property into wealth. The creators of new technology get wealthy. New technology can then assist even more intellectual property to generate wealth, provided the right people use the technology.

"Technology is a product of creative minds and actions. Often, however, the most advanced technologies are used for limited purposes.

"Many private companies have advanced CAD/CAM technology to design and make products. These products, though, are often limited by the lack of vision of managers and workers, and an unwillingness to explore new possibilities and directions.

"In other words, it is limited by a lack of innovation.

"Just because people have fancy new technology does not mean that it will be used creatively and innovatively. That requires people who are creative and innovative, including our artists, who have invaluable intellectual property to contribute.

"Like our scientists, our artists are creative and innovative in their work. They produce fine work of arts, the artist's equivalent to scientific papers. They are very creative, but within a very limited range of technological options.

"So on one hand, we have some people such as artists, who could use modern technology creatively if they were sufficiently interested, and capable of doing it. On the other hand, we have many people in industry sitting on these potentially creative tools who are not utilising these technological tools to their fullest.

"We need to bring the artists and technology together in order to enable art to better help our drive for innovation. I believe something exciting will then happen, something synergistic. First of all, we will have a new body of exciting art. Second, I believe the outcome will be of considerable economic importance to the country, and after a while our balance of payments figures will reflect this.

"One of the classic cases of industry being resurrected by creative artists is the history of Marimekko in Finland.

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Here, a few artists made an astonishing contribution to the revitalisation of a textile industry by developing a series of wonderful new designs.

"I believe the same thing can happen in Australia. We need to put in place the facilities to enable artists to be introduced to and become familiar with modern technology so they can go into the workplaces of Australia and contribute both to their own artistic growth and to the national economy.

"Eventually, I hope that many artists will be helping to utilise computers, lasers, holograms and a whole host of other advanced technologies, not only to create a new body of art, but also in doing so, work in the economic mainstream. If an artist, for example, can use CAD/CAM to develop television commercials, the artist will derive economic independence and be rewarded for the creative skills he or she possesses.

"If we don't use our creative artists better than we have in the past I believe we will have no major future as an economic power.

You don't have to tell the average Swedish or Italian industrial leader about the importance of art, in all its forms, in a modern culture in a modern economy.

"That's what ANAT is all about. Australia has a divide between the wealth creating and creative sectors wider than any other country I know about in the world. Our artists, our scientists and our technologists are all marginalised from the mainstream economy where wealth is generated.

"Most Australians accept this, including most artists. We want to discover a whole new series of possibilities, to get mainstream industry and, in many cases, the art schools to recognise this interface between modern technological advancement and creative art.

"The Commission for the Future has had a program called Creative Futures running for some time, which comes out of a program funded by the Australia Council called Creative Australia. It's been looking at the issues raised here.

"Interestingly, perhaps we've turned the corner. At the end of February, the Australia Council will conduct what has been called an 'Ideas summit', the brainchild of Donald Horne, to try to drive home the important point that there is a relationship between a nation's prosperity and the ideas of the nation," Dr Elyard said.

Dr Jane Gilmour, a consultant to the Commission for the Future, spoke on some of the practical applications and implications of ANAT's work: "It seems to me that we have a chance to become involved in a massive development opportunity in the application of arts to industry through the visualisation area.

"Computer graphics have application in a huge range of fields, including science and medicine. Visualisation is a massive growth industry, and we have the opportunity to get into this field and become world leaders now.

"There's another angle to this. Computer generated images are becoming an important part of our visual environment. Unless we start getting some really creative artists into the business, we will be confronted with poor images, with a kind of visual pollution.

"Art schools must become involved in this sort of area, or else we will be left further and further behind.

"Creativity is important in a wider sense. There is no point in Australia sending imitated products out to the

rest of the world. We should aim to produce products that reflect us and our land, our sense of colour, our sense of being, the priorities we have as Australians.

"We must work to make the connections between ideas and innovation, to overcome the problems that make it difficult for us to leap from the good idea to the commercial product.

"Anyone who has tried to do this knows what the difficulties are. It's hard for artists or craftworkers to convince banks that they are reliable people to be lent money. It's hard to get assistance from the government, or to get access to technology.

"The SA Council on Technological Change has been doing a lot of work on innovation and product development, and trying to overcome the barriers.

"The Commission for the Future sees groups like this and ANAT as very much a part of the Creative Futures program, and sources of the intellectual and creative resources, and ways to use them that we're talking about", Dr Gilmour added.

The open day also featured talks by artists working with advanced technologies. One of these was Rhonda O'Meara, a textile designer working with CAD/CAM to produce designs for architects and interior designers.

Rhonda said the value of the ANAT school was that it introduced artists to new technologies. "We have a little crack. It's up to the artists to open it up as wide as they can, and apply what they learn.

"But there are no answers out there. People have to fall back on their creative talents to make things happen.

"There are no simple solutions, so people will need to compromise to find access to funds, to equipment, in finding time for training and learning terminologies. But the bases of contacts is established, so artists begin to find the people they need to work with.

"When working with advanced technology, artists have to identify their skill base. They're not there to re-invent the wheel. If you're a designer, you let the technicians do the technical work. That's what they enjoy.

"Artists have to turn things to their own use and application. They have to find the resources, the expertise they need to operate them, and then use them.

"People participating in programmes like ANAT have an advantage. They could be the first in the world to find and develop new areas of art and technology.

"And the compromise may only be to create a manufacturable product", she added.

Another speaker, multi-media artist Stelarc, had recently returned to Australia after fifteen years in Japan. He spoke about the differences between the Japanese and Australian attitudes to research and development.

"In Japan, there is often no real gap between the research and application sides. Ideas are not valued very highly unless they can be applied.

"The large companies often sponsor ideas for their business purposes from the original model. That way the time from research to application comes down."

Stelarc said artists should not have problems working with and applying new technologies: "New technology creates new paradigms, new shifts of awareness. And new technology gives you the power to conceptualise as you have not done before.

"Artists are used to working with different materials.

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They are sensitive to notions of form versus function. Above all, they have imagination, they have different ideas."

Stelarc came to the open day equipped with a third hand - a robotic hand controlled by electrodes connected to individual muscles - he'd built to use in performances.

He told the audience about how, in the United States, he had taken his hand along on visits to robotics experts at NASA's Johnson Space Centre and the Jet Propulsion Laboratory.

"They were very interested, especially a team working on space suits for extra vehicular activity," Stelarc said. "They had developed a mechanical hand for these suits operated by normal hand movements. The only problem was that when the astronaut became tired and relaxed his grip, the mechanical hand would also let go.

They were particularly interested that my hand relied on the use of just one muscle to trigger and hold each movement, and asked if I had any plans to develop and market the idea. I replied no, and told them I had developed the hand really just as a piece of art. They were appalled, and said "You can't do that, it's un-American."

And back home, failing to develop the ideas of our artists may mean failing to develop Australia.

LEADING EDGE HAS A NEW EDITOR

by Kerry Allen

Glen Heinrich has finally found a willing replacement for the task of editing the monthly newsletter. Before I introduce myself let me express on behalf of the South Australian branch of ACS thanks and appreciation to Glen for the many years he has devoted to the magazine and for the high standard he has maintained over those years. Glen has set a precedent that will be hard to follow.

My name is Kerry Allen and I work for the Australian Submarine Corporation. I am not a native of Adelaide or a South Australian but have decided to make my home here and be part of the new Submarine Project.

My pet subject is "Communication" and how to overcome the lack of it. My interest in this subject has acted as the incentive to tackle the job of editor "putting my money where my mouth is" as the saying goes.

The 1980's heralded the arrival of the "information revolution", driven by advances in computer technology and the reduction in cost to the user of computer hardware, information on a myriad of subjects became available. The "information revolution" has brought about changes in the traditional ways that we store and communicate knowledge.

The 1990's I believe, will see a revolution in communication of knowledge. This will be led by the rapid advances in network communication. Network communication boundaries are currently dictated by cost and the cost is rapidly falling. Soon international communication of large amounts of information electronically will be as cheap as posting a letter.

All revolutions bring in their wake mixed blessings, some problems are solved and some new ones are created. One of the problems that technology cannot solve is how well we communicate. This newsletter is a means of communication for the use of, the national body, state branches, the individual members and the various special interest groups associated with ACS. I see my role as that of a flannel through which the communications flow but the information must come from the sources mentioned above. It is in this light that look forward to assisting in the production of "LEADING EDGE".



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