Creativity and Cognition conference 1999
Do Artists and engineers make good Love Objects?

Martin Rieser

Knowing the problems we would face we were aptly named. Ship of Fools are five Bristol–based artists who have been voyaging in search of an Engineers for the past six years. We should perhaps have also been named "All at sea" Loosely grouped around UWE Department Art Media and Design we recognise the importance of the Institutional support in the making of *Love Object* as part of the Dreamhouses Project. We remain thankful to the department of Engineering and Glen Easy at UWE.

But are engineers our friends ? The fact remains that we are embarked on different journeys. There are real difficulties in matching visions. There continues to be a fundamental difficulty in pursuading engineers of the value of the artist's concept.

To quote from Ken Feingold interviewed recently in New York:

"So these programs and hardware made by an artist are ways in which their ideas and aesthetics cohere and can be carried out within a computer–driven work. They should not be measured against scientific achievements or information systems, communication networks or educational methodologies. Without putting it on a higher level, or valorizing it as in any way more "advanced" than these other forms, it is still important to understand that art has a role in the culture which is different from those things that seek to accomplish some concrete aim"

History

In the early History of interactive computer art lies the first attempt to bridge this divide was Eat–Experiments in Art and Technology. It was set up by the Artist Robert Rauchenberg in the mid–sixties. In its heyday it boasted a joint membership of artists and technologists worldwide numbered in the thousands.

One of the most successful works of computer art of the late sixties and early seventies in terms of a fully realised interactive installation was produced by Edward Ichnatowicz. The giant public piece which performed a seminal role in the realisation of what was artistically possible with computing and robotics was

the Senster.1 It was an active metaphor playing on an audience's techno-fear and its simultaneous ability to control the products of nightmare remotely. Installed at the Phillips' industrial exhibition Evoluon at Eindhoven in 1971, it represented an extremely ambitious technical and artistic feat. About fifteen feet long and 8 feet high, the Senster consisted of six independent elecro-hydraulic servo systems based on the articulation of a lobster's claw , allowing six degrees of freedom. The Senster had a "head" with four sensitive microphones which enabled the direction of the sound to be computed and also a close range radar device which detected movement. . The robot was convincingly lifelike in its movements and would shy away from loud noises. Unlike the automata of earlier ages the Senster didn't try to conceal its inner workings, never the less the public's response was to treat it as if it were a wild animal. Ichnatowitz was a trained engineer as well an an artist, based at Imperial College. The resources required for his monumental endeavour were available at Phillips research and at his university. But he remains a rare exception.

Institutional Support

 Success stories in the UK are based on rare combinations either deliberately sought or happily found. One thinks of Gwent-CAIIA Roy Ascot's strategic alliance with CAIIA at Plymouth or IBM Research Labs and William Latham's prolonged collaboration with Stephen Wilson working on his evolutionary sculptures. My own experience with Research Centres –Createc and the New Media Lab at UWE –the politics pull in opposing directions. It was hard enough to keep Computer Science on the project, let alone the VR company Division and Hewlett Packard European Research Labs where if a project fails to project £30m revenue in one year it is often pulled.

 Internationally ZKM,MITand Banff all offer different models of institutional support for artists. At MIT the technologists use artists as experimenters, but the driving force is commercially and scientifically motivated and art remains as a useful form of illustration. At Banff in Canada a string of successful VR –artist experiments were conducted against a background of substantial government funding. But even that remarkable success for example Brenda Laurel and Placeholder project involved her own VR company in the £1m initiative which was compromised by politics and and commercial interests.

 ## Individual success

 Jane Prophet and the VR lab at Psychology department Edinburgh–Technosphere/Swarm

Swarm' is a multi-faceted interactive installation which draws much of its inspiration from ideas currently gaining ground within the scientific community regarding the 'emergent' behavioural properties exhibited by complex natural systems. she installed three life-size beehives, made not of wood but, instead, vaguely resembling the plastic housings of computers. In all three, at the core of the hive, is a cluster of electronic images. In the first, video footage from the inside of a beehive combines with fleeting images of correspondingly frenetic human activity (teeming rush-hour traffic, market-place jostling etc),

It took some research effort to find out about Martin Reddy who developed Swarm -it certainly wasn't top of the list on his website. He performed his PhD in the Department of Computer Science at the University of Edinburgh, Scotland. He also worked in collaboration with the Virtual Environment Laboratory at the Department of Psychology.

Jane Prophet's well known exploration of A-life worlds was very much a collaborative effort and the credits are there (if you search hard) but again the comment of Rycharde Hawkes- working out of the Virtual Environment Laboratory (VEL), University of Edinburgh-says it all:

" Filling the gap (and then some) between completion of Ph.D. and his new job was the redesign and implementation of the A-Life engine for TechnoSphere"

Artist's sometimes take the Kudos and the engineers/programmers often get the hard work.

Ken Feingold is a self -initiate programmer and leading electronic artist. I came across him while consulting on a public art commission for-Cardiff Bay Arts Trust. The Celtic Gateway Responsive environment is an ambitious repository of local narratives. Again Edinburgh University (The Institute of Perception, Action and Behaviour, Division of Informatics) features heavily in the speech recognition system designed to drive the giant animatronic head

In my own colloborations I have relied heavily on support from companies , engineers or individuals capable and willing to work alongside artists.

Examples include Electronic Rainforest: with Ed Williams and his Soundbeam device developed by an electronic engineer and marketed commercially. In the early 90s my first impression was one of entering an Analogue jungle. Ed's studio was a tangle of wires and visiting boffins

Another collaboration -The Orbit Project-Involved a complex collaboration with

Inscape Architects Amasis Laser specialists and Elektrodome the evolved studio of Soundbeam

In my newest work Understanding Echo- I intend using an off the peg system such as Big Eye (The package called "BigEye", written by Tom DeMeyer and his colleagues at STEIM, is one of the most recent video analysis environments explicitly designed for live artistic performance applications), but the difficult job of programming interactive DVD will be supported by 422 in Bristol

Conclusion

We need to actively promote creative synergy between artists and engineers working on projects collaboratively-the obvious candidates are universities, but in practice such alliances are fraught with the politics of two cultures and depend on quirks of personality and vision. Artists still survive by serendipity, find your engineer and stick together. You can always learn programming and electronics-the hard way, but someone out there always does it better than you

1 Science and Technology in Art today Jonathan Benthall ps80-83Thames and Hudson London 1972