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By Peter Carty

Net artists are using data corruption to create work from chaos. But is it really chaos, asks Peter Carty

[IMAGE]

> NEST: Example of corrupted data

Noise – or random data, or interference – has long been an obsession of digital artists. That obsession reflects the Nietzschean idea of a creative tension between the Apollonian and Dionysian. First outlined in *The Birth of Tragedy*, the idea is that Dionysus represents fundamental primal energy, while Apollo stands for rationality, logic and structure. Noise is unbounded dissonance; it is Dionysian. Information which is structured and rendered directly meaningful by IT protocols is Apollonian. But NEST, the new project from C6, raises the question of whether noise can sometimes be a little bit Apollonian too.

NEST has a certain amount in common with the children's game of Chinese Whispers but it is a fearsomely technical set up – so concentrate hard for the next few paragraphs. Its basis is a group of participants passing an audio file around a ring. They are connected by an unreliable link (UDP), so that the messages become corrupted. (UDP is a connectionless protocol that, like TCP, runs on top of IP networks. Unlike TCP/IP, very few error recovery services are provided by UDP/IP so that data integrity is not guaranteed.) NEST feeds off the kind of network fallibility and vulnerability which is usually overcome through the systematic verification of integrity to be found with secure protocols. 'NEST works against the conventional belief that technology must be used for the improvement and streamlining of communication', says C6. Unless, of course, NEST itself is seen as an alternative kind of improved and streamlined communication, but more of that later.

Simultaneously NEST is also a collaborative work, relying on a wide network of participants. It is a networked generative art application with strong Peer-to-Peer components. P2P involves pooling resources to get faster results than those delivered by centralised IT resources. Well known P2P-orientated programs include Gnutella, Napster, and Kazaa, which make very little use of central servers. NEST does run a central server, but also relies on the processing power of its network of participants.

As well as exploiting insecure protocols, the project turns the technological limitations of low bandwidth to its advantage. Though users on all bandwidths can participate, home users connecting via modems can make the biggest contribution. This is a very democratic collaboration – assuming you have at least a modem at your disposal.

Still with me? There's a bit more techie stuff to come but you can relax after that, so stick with it. NEST's software has two main elements. The first is a server dedicated to users within the ring, the second a client program which feeds the audio data through users' machines and updates the server with the output.

The mutated data is used to generate audio and visual content, which is transformed by each corrupted data packet. The visuals are cartographic – the entire network of users is captured on a world map which allows participants to monitor the progress of their data around the globe. The server measures connection strengths between users to map transfer speeds within the ring and the continuous – and continuously warping – Mexican wave can be intercepted and uploaded to the NEST site by the public. 'The data is never re-sent,' says C6, 'it is a true stream: continually flowing in a single

direction and altered by the medium it travels through.'

NEST has several direct inspirations. One of them is SETI@Home (the Search for Extraterrestrial Intelligence at home), a scientific experiment that uses the collective downtime of internet-connected computers. Participants run a free program which downloads and analyses radio telescope data. SETI@Home is not an artwork but it has become a seminal project for artists. It might or might not come up with intelligent communication from elsewhere in the galaxy but in the meantime it is both a beautiful looking site and an endless exercise in distributed data crunching which almost any computer owner can join in with – in other words, it's a nerd's wet dream.

Another inspiration is 'Japanese Whispers' by Usman Haque; a performance/installation of 20 cell phones in a circle creating a feedback loop. A diverting mutation of Zen rock gardens and wind chimes and perhaps a similar invitation to commune with nothingness. There's a close tie in here between Buddhist principles and the use of boredom as an aesthetic tool in avant garde art. Buddhist meditation techniques direct attention inwards from the outside world to emphasise subjective constructions of reality. Avant garde art confronts viewers with an 'emptied out' and retinally unstimulating work, placing the onus on them to create meaning for themselves.

[IMAGE]

[IMAGE]

> 'Japanese Whispers' by Usman Haque

And, of course, the general ongoing post-modern practice of mapping is relevant. If in our pomo times there are no grand narratives left for artists to insert themselves into, is it any surprise that they resort to endless spatial metaphors to orientate themselves in the sublime cultural fluxes that threaten to swamp them? Perhaps that's why, nowadays, there is as much mapping as crapping in the artistic community. Or maybe what all those mappers really want, (in a big, fat, unconscious revolt against the disappearance of the subject, against being a mere dot on a map), is to be the villain in a James Bond film, stroking a cat in front of a big map of the world full of lots of flashing lights. NEST's mapping visuals are pretty, it has to be said, and worth a gander (you'll have to supply your own pussy, though).

In a sense, projects like NEST want to have it both ways. We might not find the traffic of (ostensibly) meaningless data interesting; we might want to mine it out and find our own meaning in it. OK, if not then we can admire the dramatic visuals. And vice versa.

The fundamental danger with NEST and its ilk is that both their undeniable technical ingenuity and the undeniably interesting concepts they deal in overshadow the end results, the works themselves. In simple terms, should nerd plus theory equal net art?

But let's have a look at that theory. NEST's manufactured entropy is intended to imply a re-evaluation of the nature and function of data. 'NEST is a resistance to the control that insists on purity and so negates the chance of random serendipitous moments', says C6. Maybe.

But one net artist's noise is another's carefully generated random data. It is this distinction that raises the question of whether NEST is true anarchy or a carefully replicated simulacrum of anarchy. NEST poses this diverting problem because its entropy is manufactured – in inimitable anarchic fashion, C6 is dancing on the boundary between bounded and unbounded data, on the boundary between the Apollonian and the Dionysian. 'In the virtual space of strict rules of exchange,' says C6, 'the corruption of data can be seen as a form of electronic terrorism.' Or is NEST itself a new and alternative system of exchange? If you can't make up your mind you can always check out those lovely maps at c6.org

URL: <http://c6.org/nest/>