

ixi zine



Rand Interview

I'll write a little introduction to rand()% first and here are some questions:

Generative sound

One can reason that generative music has been with us for centuries and some examples include wind chimes, water music, Mozart's dice rules for composing and other such systems. However, traditionally composers have not been thinking in these terms (although improvisation has many things in common with generative methods) when composing music and one of the reasons might be the lack of tools for such creations. How has the computer technology changed this situation and what are the implications of this new way of working with audio?

Tom: Traditional instruments nearly always demand a high degree of manual skill to allow the player the chance to experiment with either improvisation or to

explore the limitations of the instruments range.

One can argue that traditional jazz improvisation is generative, but the player must be very skilled to be able to play at this level, and even then it is difficult for one musician to play more than a small set of instruments. Computer technology has expanded the role a musician/composer can occupy, allowing them to perform in more complex and diverse ways than ever before. The format of computer playback (where elements can be changed within a composition at any time) also questions the tradition of the fixed score. This is tied into a historical desire to document and 'fix' the contents of a composition or performance. Computers are often seen as static tools with fixed outputs, however many current software tools allow for variable expression in both composition and performance. Although this is unlikely to unseat the tradition of fixed scores and static recordings. It will undoubtedly effect the practice of contemporary composition and performance.



You have now works by circa 30 artists on your site. Do you find there is a certain aesthetic emerging there or are the works too varied to find any aesthetic similarities amongst them?

JOE: There is certainly some aesthetic which emerges from rand()%. We are currently putting together a compilation CD of some of the recordings and it makes a surprisingly good compilation as a whole. I'm not sure why this is, we certainly haven't selected the content of rand()%, we don't get sent a lot of material. I wouldn't say that it all sounds the same though, there is a lot of variation; take Tom's ambient piece 'Crystal Sargasso' which is sweet and melodic and then listen to Pix's 'tabfight2k-r4nd1'. I

guess you could say it's pretty much all experimental / sound art but then we wouldn't turn down a piece of generative pop.

TOM: There seems to be different levels of engaging with the idea. Some people (probably the majority) use a single random/generative concept and create simple modulating peices. These are variable in their own scope but can sound quite similar on each execution because the possible outcomes are always different but within a subtle range. Other people take a more complex combination of functions which result in more chaotic and variable peices. Within the creation of any generative art there is always this struggle between signal and noise. I also think that long scale performance peices (like generative installations) are often designed to be listenable over a long duration rather than too detailed or harsh for listeners to enjoy for too long, this approach has influenced much of the more 'soundscapey' peices we have.

On random numbers

The radio is called Rand()% and random generators are one of the methods used to get varied and unexpected results, but there are other tools, as you mention on your website, ready at hand such as genetic algorithms, neural networks, artificial intelligence and life, etc. Do you find artists interested in those fields and do you believe they can be of any good use in music?

Tom: There is always a fascination with randomness in art and music. The use of random functions poses many questions about authorship, originality and expression. Again there can be a valuble struggle between the artist and the mathematics, where some artists prefer more thematic and detailed control of a system and some aspire to let much of the control go to the mathematic system. I think while many artists can have a passing interest in the use of randomness but a few people will become more involved in the actual concepts of randomness/ artificial systems and the sources that can drive them.

Joe: Yes definitely. There are many artists interested in these fields. Once you scratch the surface you start to find all sorts of people, not just musicians - but academics, scientists - doing all sorts of amazing experiments with the sonification of DNA, fungal growth algorithms, weather data, L-systems, Feigenbaum Systems etc. I think all this is worth investigating and broadcasting because it adds fresh ideas and approaches to what music and sound can be.

The relationship between the human and the machine has been illustrated in many ways and often the machine becomes something cold and scary. Computers and music have always had a symbiotic and creative relationship, but can they be as expressive as human performers playing instruments, or is this perhaps a totally irrelevant question? Is something else happening?

Joe: For me i never had the problem some people have, between watching a guitarist and watching a person per-

froming with a computer. It's irrelevant, the argument is so out-dated now. Like i do not equate sweating and gesticulating with artistic expression. Some listeners bring too much baggage to music, too much expectation, projection. Sound is like 100 years behind visual art for some people, it's like Duchamp never existed.

Tom: The computer-human performance relationship is both a liberating force and also a limited one. The interfaces with such technology obviously carry with them their own restrictions. Much is spoken about the loss of virtuosity and how physical expression translated to audio performance. However computers can allow physically less able to perform complex music and allow expert users to exploit the multi-processing nature of programming. There are many traditions of non physical performance such as tape based performance or even DJing so I think it is not really a viable comparison to compare computer based performances to more physical instrumentation.

Freedom and software

Since the 90's we're witnessing an incredible growth in digital audio technologies. Hardware is becoming fast and sophisticated enough, and we've got programming environments such as Pure Data, Supercollider, CSound, Max/MSP and others for creating generative audio. How do you find the situation in regards to production tools for musicians?

Joe: There are many tools and some tools which are so open they allow users to really create new systems for making music. I think it's very exciting. With rand()% we are interested in broadcasting a wide variety of pieces. At the moment we have pieces programmed in Max/MSP and Pure Data of course, Flash, Director, C++, Perl, Javascript and now even a new piece written in BBC Basic!

Related to the question above, we have loads of high level commercial production tools in the forms of sequencers, VST instruments and samplers, and arguably these tools are di-

recting and limiting the musician in the way he or she can work, but the same can be said with the lower level tools or programming languages, although the limitations are on a different level and of another nature. Where is the gap, where are things lacking in terms of ease of composing and performing music (as opposed to the activity of programming)?

Tom: It often becomes a question of interface.. The hand to key interface of a piano is very direct and instantly expressive whereas programming interfaces can be complex and slow to produce an outcome. It is also about the expectation of the user and the music they want to produce. I would argue that in many ways Cubase is as difficult to master as Max/Msp and both tools have specific benefits and limitations. More people use Cubase because it allows them to create the sort of music they want to hear, it becomes a cultural issue. Programming allows realtime creativity at runtime which interests some people, however most people are happy to create fixed finite music so they use the tools that suit this form best. Also limitations (such as Time-

line etc in Cubase) are actually liberating for some people because they don't have to deal with the parameters they aren't interested in and can concentrate on those they are.

Streaming and mp3

You are using mp3 as the chosen format for streaming your radio. Is that by choice or necessity? Mp3 is arguably a proprietary format and one has to buy a license to stream mp3 unless it is a non-commercial activity.

Tom : Basically we use it because Ogg wasn't really available when we set up the early test servers and because we can run Shoutcast for free on linux. Mp3 is of course a very common format and so it can reach a wide audience which is good for us.