culture

The Infinite Monkey Theorem Comes To Life

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December 10, 2013   11:23 AM

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It's called the infinite monkey theorem, and it goes something like this: Given enough time, a monkey randomly striking keys on a typewriter will end up banging out a copy of *Hamlet*.

Crazy as it seems, the infinite monkey theorem can be proved using basic probability (the trick is having either an infinite number of monkeys or an infinite amount of time, or both). What you could not do, of course, was experimentally verify the monkey theorem.

But that was before cheap supercomputers.

Just two years ago, Jesse Anderson used Amazon's cloud computing resources to create a virtual monkey army that quickly and randomly assembled works of the Bard. (Anderson has a nice visualization on his website of the way the words

emerged in Shakespeare's poem "A Lover's Complaint.")

The emergence of such intricate complexity from randomness is counterintuitive to brains that have evolved to see pattern and meaning everywhere. To digest the true significance of the infinite monkey theorem, it's best to turn from science to art (as is often the case).

Consider Signal to Noise, an installation from LAb [au] built from modern computers and old split-flap boards. *Signal to Noise* lets viewers watch as the machines cycle through random collections of letters. Potentially meaningful sequences are tagged red. You can watch as some of the red letters become full-blown words. (There is another, longer video of the installation over on Vimeo.)

Order emerging from chaos, meaning emerging from randomness, right before your eyes and not a banana in sight.

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