

(Notes and quotes on the fabric of reality)

'We all agree that your theory is crazy; the question is whether it's crazy enough to have a chance of being correct' (Niels Bohr to Wolfgang Pauli)

A stands to B as C stands to D. An analogy: a non-binary philosophic way to compare relevance and meaning.

And in this train of thought, a 'humble' approach to the 'cosmogony problem'. No juggling chicken and egg here, moreover artists creating matter out of nothing, and nothing-creating multiverses out of 'big bang's'...

Ehh, sounds fun?!

God relates to the Universe as the Artist to his Artwork

Still, 'The cosmogony problem'. Can matter arise from nothing and, if so, doesn't that have ideological repercussions like... 'idle hands are the devils play things' And what's so wrong with being depressed anyway...!

Following that 'trail', god must have been utterly lethargic and for good reason!

There's also a whole scientific approach to this anomalous quest: strange quantum laws that challenge classical intuition- 'Schrödinger's cat', 'the dual slit experiment', and Heisenberg's 'uncertainty principle'. In short these equations are about contradictory 'wave-particle dualism'; an object can be in 2 states at the same time (dead and alive as in the case of the cat), - like an information bit (zero and one). The state of matter, wave or particle, is determined by the absence or awareness of 'the observer'.

Note that Einstein dismissed this 'quantum behavior' as 'spooky action at a distance'. Niels Bohr stated; 'If you're not shocked by quantum physics you have not understood it.' And Richard Feynman, would redirect his students' critical questions by the famous words 'Shut up and calculate'.

Yet non-understanding, led to MRI-scanners, computers, lasers, fiber optics, GPS-systems, the atomic clock etc.

Classic Newtonian and Maxwellian physics sees our reality as entirely matter based. That led to a common 'zeitgeist' worldview in which the universe is like a giant clock. That perspective still maintains the assumption that everything is matter based and sentient beings are some kind of biological machine.

But... does it hold true in our emerging digital, quantum, weightless, gravitation free, worldview? And, how does art relate? Has its inspirational, free thought mindset slowly gone astray, after alchemical times?

In the 1930's Konrad Zuse, way ahead of his time, built the first programmable electronic computer. It led him to think of the universe as a computer program. His physics colleagues took him for a nutcase: end of career and thus, interestingly enough, he became a painter and started representing his digital world vision in his art!

Edward Fredkin, a later pioneer in digital physics, independently from Zuse, asked himself a similar question: 'Is the reality we experience, programmable?' It turned out to be a yes! Reality, as we perceive it, *can* be a totally information based virtual matter reality. So is the universe the ultimate computer? And would that lead to a better explanation of anomalous 'quantum dualism'.

According to Fredkin it solved the cosmogony problem in that 'the computer is somewhere else', somewhere outside of this universe, a place that he called *other* and this *other* might have set our reality to work in a nonphysical *other*. Or it could have emerged by a bug in that nonphysical system, with this 'Big Bug' leading to an evolving virtual reality. It kind of asks for a new historical timeline: BM or AM before or after 'The Matrix'. So then, what is *other*? According to Nick Bostrom in his 'simulation argument' it very well may be that our future self, is simulating ancestor situations on the computer of the future.

And then there is professor S. James Gates who found strange computer codes concealed in 'superstring equations', equations used to describe the cosmos. Bits of ones and zeros: very special kind of codes, so called 'dual linear binary error-correcting block codes', codes that are commonly used to remove errors in computer transmissions. Strangely enough, these codes are known (invented in the 1940's by Claude Channon). According to Gates 'These unsuspected connections suggest that these codes may be ubiquitous in nature' and that 'these codes, in some deep and fundamental way control the structure of our reality'. (*Adinkra matrixes*)

Nobel Prize laureate Eugene Wigner came forward with this notion: 'The very study of the external world leads to the scientific conclusion that the content of consciousness is the ultimate universal reality'.

Can the ultimate random or non-causal event be better explained in a digital rather than an analog world set? Entropy in cosmic microwave background radiation is a great example. Think, for instance, of static noise here.

So then, could the universe itself be the *ultimate computer* with consciousness as a digital information system where mind transcends brain, programmed in a probability mode to juggle elementary particles instead of chicken and eggs?

Fotini Markopoulou Kalamera states that '*the exchange of information or interactions are more fundamental than space-time*'. She defines 'space-time' as '*a manifestation of all physical interaction in the world*'. This macro and micro rule- set amplifies the significance of 'soft' sciences like psychology and philosophy.

And how does art and the artist relate to this? According to Einstein, 'after a certain high level of technical skill is achieved, science and art tend to coalesce in esthetics, plasticity, and form'. Subsequently, 'reality is merely an illusion albeit a very persistent one'. *When a tree falls in a forest and there is no one around to hear it, would it make a sound?* NASA physicist Thomas Campbell answers this question with 'there is no tree, and there is no forest, as long as there is no one to render the data for'. Is the physical matter reality (PMR) of an artwork, in the process of being created, also determined by the grace of a sentient observer or is it merely the context in which it is brought forward?

A wave stands to information as a particle to Matter.

Is creative intention also in two states at the same time? As a wave particle probability in momentum (0) hence determined in material form (1) when shown (or published, played, heard, tasted, smelled, felt) it behaves like a wave. Until its information is perceived by an observer and thus formalizes as art. Imagine Duchamp's 'ready made' *Fountain* as a great example.

Bits of Information relating to the cosmos as creative intention to a piece of art.

The artist, intuitively hacking the conscious, entropic, virtual universe in order to generate one.

Déjà vu, bug, glitch, or Groundhog day !?!

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