

# “Is Reality Digital or Analog?”

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By: Mary M. Bates

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**Abstract: The nature of reality is both digital & analog in the sense that it is both continuous and discrete. The two conceptions can be fully reconciled as follows: Space-time as a whole is continuous, though wrapped up with in this continuum are the extra spatial dimensions which are both digital and discrete. These extra spatial dimensions are separate and distinct parts, though being wrapped up in a continuous space-time they are continuous in a sense that they grow with space-time.**

The nature of space being both continuous and discrete expands without the discreteness becoming evident, because space-time is expanding partly due to the dark energy which is asserting a force causing our universe to grow. Some of this dark energy exists within a universe parallel to ours. As the universe expands it does not become immediately evident due to the extra spatial dimensions, which we are currently unable to view though they are continually being created by the expansion. If we could view the extra spatial dimensional this would become evident. The implication of a minimal length, time, or energy is the wrong way to view fundamental discreteness because the extra spatial dimensions exist at different energies and within them time exists only as an illusion.

A universe which is infinite in various ways is very compatible with a digital description only because of the kaleidoscope of the extra spatial dimensions which are intertwined within the fabric of space-time. This digital description is consistent with a flow of time, because time itself is an illusion within our 3 dimensional view of the universe; which is only a small piece of the dimensional puzzle.

If you can imagine that we exist within each extra spatial dimension as we exist in our 3-D view, we exist in a sense as digital holograms. Together the extra spatial dimensions form together (become continuous) to create the pixels which create us and the world we see around us. What happens in one dimension subsequently effects what happens in the next. For example, when I'm running in this

dimension, I'm also running in the next; however, the rate of time would seem different in each- Time being an illusion in which the rate of time appears different based on the number of extra spatial dimensions. This is an example of how causality works in an extra spatial dimensional view of the world. The illusion of time flows from one dimension to the next, appearing to speed up as we move through each. This picture leads us to an eternal and holographic universe where reality is stranger than fiction and is not exactly what it seems.

So the nature of reality using this view is that the nature of reality is both analog and digital. Analog on the larger scale and digital when dealing with the infinitely small, but to reach the extra spatial realm, I believe that we need to take a digital approach.