



Text: Rudy Rucker, *The Lifebox, the Seashell, and the Soul: What Gnarly Computation Taught me About Ultimate Reality, the Meaning Of Life, and How To Be Happy*, (New York: Thunder's Mouth Press, Fall, 2005). Even if not in print yet, the book available in the SJSU bookstore.

Recommended reading: Stephen Wolfram, *A New Kind of Science*, (Urbana, Ill: Wolfram Research, 2002).

Philosophy 115: Computers and Philosophy, Fall 2005

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Course website: www.cs.sjsu.edu/faculty/rucker/philosophy115.htm

Text website: www.rudyrucker.com/lifebox

Class meets once a week, 4:00 - 6:45 PM on Thursdays.

I'd like to have as many people as possible enjoy this class, so even if you're not a fulltime SJSU student, consider taking the course through the SJSU Open University. Maybe you can get off work a little early on Thursdays this fall! And I know it overlaps with supertime, so feel free to bring a sandwich.

In this course we'll discuss the philosophical meaning of computers. The presentations will be non-technical. We'll use in-class lectures and demos, and about a third of each meeting will be devoted to group discussion.

We're presently in the midst of a third intellectual revolution. The first came with Newton: the planets obey physical laws. The second came with Darwin: biology obeys genetic laws. In today's third revolution, we're coming to realize that even minds and societies emerge from interacting laws that can be regarded as computations. I'm going to argue for the position that everything is a computation.

Does this, then, mean that the world is dull? Far from it. The naturally occurring computations that surround us are richly complex. A tree's growth, the changes in the weather, the flow of daily news, a person's ever-changing moods --- all of these computations share the crucial property of being gnarly. Although law-like and deterministic, gnarly computations are --- and this is a key point --- inherently unpredictable. The world's mystery is preserved.

Mixing together anecdotes, graphics, computer demos and fables, we'll tease out the implications of this new worldview, which is called "universal automatism." The analysis will reveal startling aspects of the everyday world, touching upon such topics as chaos, the internet, fame, free will, and the pursuit of happiness.