

Entropy and Immortality

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In computer science, there is a concept of **cloning** objects. What this amounts to is a DFS (Depth First Search) of the abstract-tree which represents a concrete object and the value-for-value copying of each node of the original object tree into a newly (constructed) object tree. A true clone amounts to a 'deep copy'. A deep copy is considered to be an equivalence relationship between the original object and the new one. Deep copies are considered real clones.

Shallow copies also exist. These are cases where (either because of laziness or because of the complexity of the object) references are copied, but not values. In these cases, if the original 'dies' - the copy becomes incomplete and usually fails to behave correctly.

Shallow copies exist in other arenas as well. Sometimes we model environments (a very shallow copy indeed) and draw conclusions based on this. We must be parsimonious (the real world is too complex), we must reduce the number of applicable variables for a given problem and we accept the responsibility and risk that this reduction of the problem is not in reality a mutilation of the model. Ceterus Paribus - we make and develop concepts, models and paradigms that must by their nature filter and exclude information that is either too complex or is assumed irrelevant. There is a problem - 'relevancy' is not static. The relevance of a variable (or sub problem) changes over time.

It would seem inconceivable to propose this, but what if the true version of ourselves is a pure copy - complete duplication down to the quantum state of fundamental particles? Maybe its enough to attribute this view to the brain. To 'copy' the brain, in this context, would mean to copy the state of every sub-atomic particle recursively building more complex structures. Of course this is currently impossible, but could quantum computing change this?

In the typical faire of science fiction, we often see the re-telling of Mary Shelly's mythic tome - Frankenstein. It is still, after almost 200 years, the predominant meme in sci-fi. But Dr. Frankenstein's version of immortality was based upon 'scrapping together' bits and pieces of many broken machines (human body parts) to build a new one. What I am proposing is that IF you had access to a quantum computer, you might be able to model and reverse (using probability) the last 'living' state of a decaying life form. The simplest starting point, for experimentation, would be single-celled organisms or bacteria. But if you could 'kill' a paramecium and then reverse the arrow of time (entropy) to the last active state, then you could bring the creature back to life.

Here are the caveats of immortality through entropy reversal:

1. If you wait too long, information is lost. The longer you wait to reverse entropy, the more 'error prone' the probability models become. At some point, a lump of slime is just too decomposed to be reversible to a specific human being. If this technology existed, it would most likely need to be applied very soon after death.
2. None of the technology exists to do this yet. IBM has been fiddling with quantum computing and quantum teleportation for years -- but I think they are still putting out press releases when they 'teleport' a boron atom across the room. But, conceivably, if you had reliable/scalable quantum teleportation and a powerful enough computer, you could simply 'fill in the blanks' with respect to the past states of a dead life form.

These musings are not intended to illicit any action. Its hard to imagine how such a technology would impact people's lives. Is it immortality? No. Not really. But it is a way

to cheat death. And isn't that the first step to
immortality? Or, maybe it is just a silly cheat.