Metathoughts

Jonathan THALER

December 11, 2016

Abstract

I started this document on 10th of August 2016 because I wanted to write down meta-thoughts which formed during my PhD studies. These thoughts, which I termed metathoughts du to their nature, touch upon the very basic nature of computation, how it connects to reality, whether computation can produce conciousness, whether computation can produce intelligence, about the the whole existence as a computational model (to achieve what?), about the whole existence as a simulation (to simulate what?), about the future of humankind in connection with it's computation tools, the future of science and a new way of science. The intention of this document is mainly to give the thoughts a clearer structure, to refine and clarify them in the process of writing them down and to be able to share those thoughts and ideas.

"Thou shalt not make a machine in the likeness of a man's mind" - Dune (Book 1)

1 Philosophical thoughts on computation and existence

- What connects our view of computation to reality? Where does computation occur in reality? is our notion of computation even applicable to reality? what is computation? what is computation in nature? does computation even occur in nature? is reality discrete or continuous?

- I have the feeling that the way we regard computation works well for our very limited computer tools but has absolutely no connection to reality and that we must look at computation from a complete different approach to connect it to reality.

- The way we look at reality is not suitable to touch the most fundamental questions. We look at it separated from it. We must look inward ourselves, there we will find answers. This is contrary to existing scientific approaches. Thus a new way of scientific working has to be established.

The problem of existing science is that it piles up endless heaps of complexity which is tractable only for specialcases and leads to further distance and separation from reality.

- When we have conceived a new way of science and a new way of thinking of computation which has actually a connection to reality this will bring us closer to the concepts of "reality", "the creation", "self-conciousness", "existence", "truth" and "god".

- I believe the future of simulation is that at some point we will create our own creation to run simulations thus ascending to gods. Maybe this is what god is: an entity which created this creation (within a much bigger context/universe) with the intention of "simulating" "something". But what is it that is simulated? A few religions and tell about a cicle of creation and destruction, which would amount to running replications of the same simulation...

- calculating device (brain) and conciousness (soul) = true intelligence

2   New Kind of Science

TODO add table 4 in black swan book from position 5578

3   My own expectations about my Ph.D.

I will be clear about the expectations about my Ph.D.: It won't change the world. It will add another minor note to the ever increasing amount of science produced in this field. With a bit of luck I will find (literally find) something of minor importance but I am realistic enough to not expect my Ph.D. to have any serious impact in the classical scientific community as it exists yet (except with a bit of luck with my ideas about equilibrium processes but that is a different topic). That doesn't matter, I don't really want it. What I really want and what I expect about my Ph.D. is simply a fascinating and funny adventure, a short tour into the strange scientific community, which takes itself but so too serious.
I expect to advance my skills in english, formal working, precise thinking and so on... But what really drives me is the by-product of the Ph.D.: the meta-thoughts, which come up during reflecting about my research and results. I hope that I can publish them one day and that they maybe change the world. I will pursue interesting and fascinating ideas and theories in my Ph.D. but I cannot predict their impact nor do I plan it.

4 Idea for a "philosophical computer science" paper

All sciences have their genesis-model (how did the world come into existence, what is the reason for existence?) but computer science has not, so I want to set out to develop such from a computer science perspective - actually I want to disguise deep spiritual truths in scientific cloak, that would be really fun.
Thus the idea is to write a paper with the title "Reality as an agent-based simulation of free will" in which I motivate that the world and humankind is a simulation to see free will in action in a sandboxed environment (as opposed to spirit, which is an outer level of simulation). Thus I need to develop then a model of free will from a computer science perspective and give an answer WHO implemented the simulation.
free will on a machine is a contradiction. the machine works according to very strict rules. free will can be completely unpredictable. or is free will just an imagination? if one confronts a decision maker within short time with too much information then the outcome it is unpredictable

5 Quantum computing in Agent-Based Simulation

Can ABM/S profit from using quantum computing? And if yes what exactly?