



Editorial

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Artificial Intelligence: Prosthetic Quantum Brain

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THE world is facing a technological revolution today. It's our creativity that has done wonders. Artificial intelligence is the incredible invention of the mankind. Because of the science of developing thinking and analysing ability, machines now have their self-thinking and decision making power. The beginning of such machines started earlier in centuries, scientist started to make chain reaction machinery in which input needed once and rest work is done like a nuclear chain reaction. Each technology is not a result of today's work; it consists of a long series of works. Honda's Asimo [1], DARPA's Petman [2] and many other robots are example of artificial intelligence machinery. They are inspired from man's way of thinking, analysing and solving the things. Quantum mechanics is the basic theory on which your cell phones, computers and many other electronic devices are based. It had also created wonders in medical field. The surgical robots and various mini bots can go with the problems. Programming each movement of body from running to walking is a tough task; it has taken years for it. They can generate codes as the demand; they can open bottles, make tea and many inside the human body and cure the disease are its fruits. This theory governs the technical world. Artificial Intelligence in the medical science is like a mini god. We have created artificial heart [3] that is designed by professor Alain Carpentier. Now my question is why we can't have created a "prosthetic quantum brain" for the patients who have brain diseases. We will call that artificial brain that works on quantum mechanics. I choose quantum mechanics because nearly 90% of machinery in this world works on this theory.

This will be a revolution in medical science, robotics and coding world. This could be the best use of the quantum mechanics ever done. A highly new developed prosthetic brain that can solve problems better than conventional brain. Your memory will be in thousands of terra-bytes. You will not forget anything and always in your control. You will be more efficient, intelligent and accurate then earlier. All we need to be a master in quantum mechanics, programming, and in neuroscience science. If scientist of NASA can make quantum computer D-wave [4], Honda's humanoids robot like Asimo [1] with artificial intelligence then why can't we make a quantum brain. All we need a dedicated group of programmers, physicists, and neuroscientists. Then there will be a new future where no one will be a dumb. This is multi-directional research area. It requires artificial intelligence for developing thinking pattern just likes in humanoids:

QUANTUM + ARTIFICIAL INTELLIGENCE + NEUROSCIENCE = QUANTUM BRAIN

Artificial intelligence gives its power to develop its own logics like any other human.

QUANTUM PROSTHETIC BRAIN

It's time for a revolution in our thinking it will have pace, control, better neuron connectivity, better information and creativity than ever. It's the power of quantum brain.

A. Structure

Possibly it will be given shape like a real brain because, it's a prosthetic. Things would be different as compared to earlier. There will be less complexity in neurons structure now. Transmission of electrochemical signals will be faster. Neurotransmitter chemicals will be remaining as it is. We have to implant in the real human body so the interface should be like real one. The appearance of the brain will be different as compared to earlier.

B. Material in making

An article published by Neil Savage [5] in, shows that artificial neuron mesh can be made by silicon chips. The neurons can be injected in brain to control prosthetic limbs, or making artificial eye and repair brain damage. It could also be an option for us. Materials that could withstand pressure of electrochemical signal transfer in brain will be chosen. Firing action of neuron should also be kept in mind.

Transmission properties like rigidity and stiffness will also be present for stopping from failure in car accidents, according to situation demand. It would be an advancement in tissue engineering. Each neuron will be made of same biological materials as it but there will be change in neurotransmission. The amount of neurons will be less. Basic processing concepts would be same like real brain, input of information from retina neuron in eyes, processing the information and make decision on it. It will affect the consciousness. You will be more conscious than ever. Your brainwaves would be much higher now as compared to earlier brainwaves. The electric and magnetic field would be higher around it. The programming will be in quantum algorithm in q(quantum) bits. It's like quite same way of processing as in D-wave, simultaneously holding 0 or 1 at the same time.

CONCLUSION

The most solid argument in support of this is a D-wave quantum computer, made by NASA. Programmers have written the codes in quantum algorithm. Now it will be regarded as quantum artificial intelligence. We know that our brain has some similarities related to computer its way of working taking input and processing the information. We are also machines but what separates us is a self-thinking capability. We have a hope that if we use nanotechnology at peak then we can increase the cores in neurons. If it happens then we can use this brain neural network in quantum brain. ULSI (Ultra Large Scale Integration) can play a main role in that. We know that we are able to develop a quantum algorithm that works on quantum entanglement principle. Quantum computer can hold 0 or 1 simultaneously. This will boost the processing speed of brain. We have artificial heart, humanoids, drones and many other artificial things. These things proved our capability of making artificial intelligence. Here the problem will be a little bit complex because programmers required for programming transmission pathways, time controlled program for hormones, intensity of electrochemical signals and many other things related to neurons.

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