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RESEARCH ARTICLE

COGNITIVE NEUROSYSTEM USING ARTIFICIAL INTELLIGENCE.

Hiresh. D. Joshi¹ and Sagar. S. Pawar².

1. Department of computer engineering, university of mumbai, thakur college of engineering and technology, mumbai- 400101, india.
2. Department of information technology, university of mumbai, fr.conceicao rodrigues college of engineering, mumbai-400050, india.

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Abstract

The human brain is the best example of the unsurpassed interaction with the dynamic world. The most cognitive and powerful part of the body. The combination of artificial intelligence with the neuroscience is the frontrunner of every researcher today. Artificial intelligence is a boom from the past two decades and is likely to cease the complete era by the next two decades. However the need for the artificial intelligence is augmenting day by day. Ever thought what will be the offshoot if artificial intelligence meets neuroscience? The following paper provides a swivel of this unattainable success and inventions done in the epoch laterly.

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Introduction:-

The human livelihood is proliferating nowadays and is shifting rapidly towards automation. Artificial intelligence has made the human beings imbecile in the age of extinction. It's time for artificial intelligence to think in the brainwards direction. In the interim, the amalgamation of the artificial intelligence with the human can lead to human immortality. The ai researchers are linking the artificial intelligence with the neuroscience; this is known as cognitive neuroscience. In the past 15 years we have witnessed the overture of the intricacies of artificial intelligence in the neuroscience. The bci (brain-computer interface) research team had initially popularized the use of artificial intelligence in the neuroscience field. The human brain is proficient and is the reason behind the unravelling birth of artificial intelligence. The brain's processor is neither 'central' nor is a 'unit'. In the respect ai is not different from other sciences like chemistry, physics, genetics but has created a new generation in itself. In today's era the consequences of artificial intelligence exceeding the humans can be widely seen. Our questions cover the timing of ai advances (including both practical applications of ai and the automation of various human jobs), as well as the social and ethical impacts of ai. This paper aims at focusing the cognitive neuroscience with the artificial intelligence.

Dawn of artificial intelligence:-

The nascence of artificial intelligence was first created by these two young carnegie tech scientist in 1955-1956 by 'dr.herbert.a.simon' and 'allen newell'. The first program technically engineered to mimic the solving skills of a human being. They had marked the inception of intelligent digital era or in other words – "artificial intelligence". The digital computer was still in its infancy but the researchers and philosophers had been talking about using this crude device known as an electronic brain that could easily solve petabytes of problems.without actually having the benefit of computer these techs started focusing on their own version of thinking machine that could handle many

Corresponding Author:- Hiresh. D. Joshi.

Address:- Department of Computer Engineering , University of Mumbai, Thakur College of Engineering and Technology, Mumbai- 400101 , India.

computational, logistical, mathematical data dexterously. They named this thinking machine as '*logic theorist*'. They invented this machine to deal with all the computational work that a human being cannot do efficiently. The first project was a program that could prove mathematical theorems similar to those of '*russell and whitehead's principia mathematica*'. 'cliff shaw' coded the first model of logic theorist using ipl (information processing language), and later near the end of 1956 in a conference at dartmouth college they coined the name as 'artificial intelligence'. This was the first invention in the field of artificial intelligence.

Coming to motif of the paper the history of artificial intelligence with neural network is oblivious to many people yet. In 1943 warren mcculloch and watter pitts created a first basic computational model for neural networks based on mathematics and logics known as 'threshold logic'. This model paved the way for neural network research to split into two approaches. One approach based on biological process in the brain while the other focused on the application of neural networks to artificial intelligence. Commonly termed as mcculloch & pitt's boolean circuit model of brain is now called as '*artificial neural networks (ann)*'. artificial neural networks refer to a type of learning model that evaluates the way the synapses work in your brain. For example you would want to train your computer to recognize a picture of a cat. You'd run a millions of pictures of cat through the network to see what images it decided looked like a cat.

Thus after the birth of various theories, projects, conferences and researches it marked the beginning of something colossal and is recognized as one of the esteemed topic in research and development field today.

Will ai exceed human adolescence:-

The artificial intelligence is a buzzword nowadays in the countries all over the world. Many scientists, researchers, doctorates are still working to bridge artificial intelligence with neuroscience. Josh bocanegra, formal ceo of "humai" from los angeles had depicted that sooner or later human race will be immortal. Is death inevitable? Can a human life be stored even after extinction? Speaking to iheet, bocanegra added that while other ai companies are attempting to make virtual versions of people after they die, his was the first to actually bring people back to life. "i don't think tombstones, photos, videos, or even our own memories are the best ways to remember someone who has passed," he said. "instead, i think an artificially intelligent version of your loved one, whom you can interact with via text and voice, is more desirable." With the increasing rise of brain-controlled robotics, bionics implant and life saving medical technologies this idea seems to be quite interesting. Death is an obligatory phenomenon and no life on earth can deny it. But these researchers have made a sunshine through the black hole and are trying to work on it for the thing that has never happened. In the later part of this paper we'll see more realistic technologies to bring this immortality.

Death seems binary:-

In the epitome we have discussed about the immortality of the human race. This concept may seem absurd but sooner or later is going to alight. The field of artificial intelligence (ai), founded more than 50 years ago seems to have spent much time in wandering, swapping hugely ambitious goals for a relatively modest set of actual accomplishments. Many companies like google, ai brains .inc, etc are trying to extend our lives by ten if not hundred years. But 'humai' wants to turn this idea into its head. The concept of immortality had been evolved many decades earlier but the implementation of it has not been yet in the spotlight. Everyone in this cosmos are running away from death. The most ulterior point in someone's life is death. No one can obviate its eradication. Josh bocanegra in one of his interviews said, "i accept death, i am not afraid of it. But i am not 100% sure i am going to die one day". He and his company have gained attraction in the last few years. They are making this concept to bring into existence by the midway of this century. Some say it is inevitable, whereas others believe it is an abomination. But the plan is underway. So far, we have seen how human immortality is nit-pick in the procreation and to kick-off with the new aeon which is inevitable and insurmountable.

Reinventing the afterlife:-

According to the humai's mission statement they have said we are going to reinvent afterlife. The evolution, synopsis and the project has commenced since 2015. They have premeditated the beginning of something implausible. The ceo of 'humai' have clearly claimed, if they were able to transplant a live person's brain into a bionic body, than "it would achieve a point where no one has to die at all". They are resurrecting the dead bodies into physique of virtual human body with the help of artificial intelligence. The main idea behind this concept is to freeze a human brain before or after death and copy all the memories, genetical behaviour of the person into a nano chip and fix it into a thought controlled bionic body. Now many of us would be wondering, how is it possible? They

are using cryogenic memory neurosystem with the help of artificial intelligence to retain human consciousness. Firstly, they will freeze the human brain with the help of 'cryonics'. Cryonics is the preservation of people's body parts at very low temperature (usually at -196°C) who cannot be sustained by contemporary medicine, with the hope that resuscitation and restoration to the full health maybe possible in the far future.

After cryonics method, they are working to prelude consciousness in bionic body. The science for transplanting a brain to any body is close but still has some challenges. The main challenge is making the brain function with the artificial body parts, however there are prosthetic and bionic body parts available. This is a big step to their success and a doorway of hope that the project can be achievable. The research will be ongoing even after the mission is complete as they are looking for ways to make the process safer and easier. 'alcor life extension foundation recently discovered that memories can indeed be cryopreserved. They are not sure which year they will be starting experimenting the human trials, but as of now they have started multiple animal trials before the first human brain transplant into the bionic body.

The best part of the mission and their goal was that '*death will be inevitable*'. That made them more oriented towards their project and mark the beginning of something incredible. Till now we have just talked about the biological aspects of the project. Now the main question arise, "how technology will be used in resurrection and transplanting process?" This is the main and foremost part of the project. After the travail of artificial intelligence this mission had been thought of. They said that '*rather than visiting grave, you will use software to interact with the loved ones*'.

Before the announcement of the complete project many scientists and researchers questioned, whether this is a hoax or not. Josh bocanegra assured that he is sure about his critics and he is serious about human resurrection and would be possible by the next 30 years. On the contrary, they are using artificial intelligence and nanotechnology to store data of conversational styles, behavioural patterns, thought processes and information about how a person functions from inside-out. According to bocanegra, such development would contribute much to the human experience and those who accept death will probably change their minds. In other words, who would be able to choose not to die and finally master the inevitable?

Alcor life extension foundation:-

Considering the notion of the above research, many new things materialized the need of cryonics method. Other than that many things were still anonymous to the people. The 'alcor life extension foundation' laid one of the biggest contribution in the neural system. Marjyklima, executive assistant at alcor life extension foundation mentioned in one of her interviews about the first human to be cryonically preserved i.e "*frozen and stored indefinitely in hopes that technology to revive him will one day exist.*" She was referring to dr. james hiram beford, he was the first of 300 bodies and brains currently preserved in the worlds three known commercial cryonics facilities: '**alcor, institute in clinton township and kriorus**'. Many other lives and brains are still on the list of upcoming cryonics treatment. Alcor life extension foundation have started their project with resurrecting the first individual and the proposed date is after 30 years from now which is enormous in its longevity. You might be wondering, why? Lets see how the alcor life extension foundation works on the cryonics method:

Cryonics is justified by 3 facts that are not well known:-

life can be stopped and restarted if its basic structure is preserved :-

Human embryos is a matter of chemistry. The adult human cells have survived the cooling of temperature for a long time and have proved that the human anatomy is a particular structure of matter. Dead cells can be easily stopped and restarted using cryonics method.

Vitrification(not freezing) can preserve biological structure ver well:-

Adding high concentrations of chemicals called cyroprotectants to cells permit tissue to be cooled to a very low temperature with little or no ice formation. The state of no ice formation at temperatures below -120°C is called vitrification. It is now possible to physically vitrify organs as large as the human brain, achieving excellent structural preservation without freezing.

Methods for repairing structure at molecular level can now be foreseen:-

The day by day emerging science of nanotechnology, will eventually lead to devices capable of holding and tissues one molecule at a time , i.e one part of the tissue will be repaired using nanomedicine and could typically preserve the the person in which the human brain becomes inferable .

So,

1. If survival of structure means survival of person;
2. If cold can preserve essential structure with sufficient fidelity;
3. If foreseeable technology can repair injuries of preservation process;

Then the cryonics should work,even though it cannot be demonstrated to work today. This is the justification of cryonics method and this justification is used to efficiently increase the rate and quality of preservation rapidly.

Growth and future of artificial intelligence:-

Mankind has rapidly turned into a consumer society standing at the verge of revolutionary change. People are completely mutating towards a self-driven lifestyle . Majority of the people are exclusively absorbed in merely maintaining their own comfortable lifestyles. Despite of many scientific and technological achievements such as the space station, mars life foundation,segways and many others, we are still not satisfied with the current progress.

We believe that the world needs a different ideological paradigm. Within its groundwork it is necessary to develop a major objective capable of pointing out a new direction towards the development of all mankind. Life can be immortal as we have seen in the entire document, scientists and doctors and trying to put limitation on aging and evacuating death.

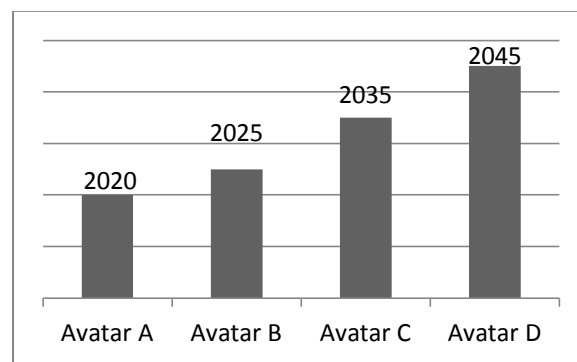
Scientists from every part of the globe are trying to make this development successful from the last decade and have putforth a deadline of 2045. They are creating a prototype of artificial body of human being which can be bought to life even after the death. This prototype body will be no less attractive like the human body and will receive center of attraction in the next few decades.

We suggest the implementation of not just a mechanistic project to create an artificial intelligence body, but a whole system of views,values and technology will render assistance to humankind in intellectual,moral,spiritual,physical and mental development.

The main goal of 2045 initiative: the creation and realization of a new strategy for the development of humanity which meets global civilization challenges, the creation of optimale conditions promoting the spiritual enlightenment of humanity and the realization of new futuristic reality based on 5 principles: high spirituality, high culture, high ethics, high science and high technology.

Roadmap of 2045 milestone project:-

1. **Avatar a (2015-2020)**- anthropomorphic robot controlled through bci (brain-controlled-interface)
2. **Avatar b (2020-2025)**- support system for vital brain function
3. **Avatar c (2030-2035)**- synthetic carriers of personality and consciousness
4. **Avatar d (2040-2045)**- a hologram like avatar



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