

# Knowledge simulation and knowledge engineering an Abstract

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## Abstract

The measure some concepts about could contribute to the operations of knowledge simulation and knowledge engineering, and considerations agree to re-induction capacity of the human mind. And exemplified in the following questions if there's a limit to make intelligent machines? Is it possible to have a machine standard that can told us about any question been asked about the future?

**Keywords:** Knowledge simulation, Knowledge Engineering, Intelligent machines

## 1. Introduction

From the definition of artificial intelligence, behavior and attributes of specific characteristics of software make it mimic human mental abilities and patterns of work. Most important of these features the ability to learn and the conclusion on the reaction conditions have not been programmed into the machine, we can go to the long history of mankind in artificial intelligence, Here is present story of the Iliad of homer take about self propelled chairs called tripods and golden attendants constructed by Hephaestus ,the lame blacksmith god ,to help him get around ,and in the ancient Greek myth as retold by Ovid in his metamorphoses Pygmalion sculpts an ivory statue of beautiful maiden ,Galatea which Venus bring to life the girl felt the kisses he give ,blushed, and ,rising her bashful eyes to the light, sow both her lover and the sky, that was a beer in old but here we go to represent the history of artificial intelligence as is a appear in the quest of artificial intelligence ,some of that come from computational theory even before people actually starting building computer ,several logicians and mathematicians in the 1930s pondered the problem of what just computed, Alonzon Church came up with a class of function that could be computed ,ones he called 'recursive' the English logician and Mathematician ,Alan Turing (1912-1954)proposed what is now understood to be an equivalent class –ones that could be computed by an imagined machine the claim that has not been proven ,but it is strongly supported by logician and no counterexample has ever been found ,the Turing machine is a hypothetical computational device that is quite simple to understand .it consists of just a few parts .there is

an infinite tape (which is one reason the device is just and not actually built)divided into cells and a tape drive . but also before that they was machine were able to do arithmetic calculations but these were not programmable .Wilhelm Schickard (1592-1633) built one of the first of these in 1623 .It is said to have been able to add and subtract six-digit number for use in calculation astronomical table .the machine called "carry "from one digit to the next .in 1642 Blaise Pascal (1623-1662) created the first of about fifty of his computing Machine .it was adding machine that could perform automatic carries from one position to the next .and also come Charles Babbage (1791-1871)by calculators were built in the ensuing centuries .and called "difference Engine "it was to have calculated mathematical table .somewhat independently of Turing ,engineers began thinking about how to build actual computing devices consisting of program .some of the key idea for designing the logic circuits of computer were developed by the American mathematics and inventor Claude Shannon (1916-2001 )in his 1973 Yale university master thesis Shannon showed the Boolean algebra and binary arithmetic could be used to simplify telephone switching circuits .he also showed that switching circuits (which can be realized either by combination of relays ,vacuum tubes ,or whatever )could be used to implement operation in Boolean logic ,thus explaining their importance in computer design .other computers with stored program were designed and built in the 1940 in Germany ,great Britain ,and the United States .they were large ,bulky machines ,after some of the first computer were built ,Turing reasoned that if they were practically universal ,they should be able to do anything .In 1948 he wrote "the importance of

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the universal machines is clear .we do not need to have an infinity different machines doing different jobs. A single one will suffice .the engineering problem of producing various machines for various jobs is replaced by the office work of "programming " the universal machine to do these jobs. Among the Turing thought could by computer was mimicking human intelligent. One of Turing's biographers ,Andrew Hodges ,claim ,"he decided the scope of the computable encompassed far more than could be captured by explicit instruction notes ,and quite enough to include all that human brains did, however creative or original .Machines of sufficient complexity would have the capacity for evolving into behaviors that had never been explicitly programmed . the first modern article dealing with the possibility of mechanizing all of human style intelligence was published by Turing in 1950 this paper is famous for several ambiguous .instead ,he proposed that the question "can machine think?" was too ambiguous .instead ,he proposed that matter of machine intelligence be settled by what has come to be called "the Turing test " although there have been several reformulations (mostly simplifications)of the test ,here is how turing himself describe it :

The new form of the problem [can a machine think?] can be described in terms of game which we call the "imitation game " it is played with three people ,a man (a ) ,a woman (b) and an interrogator (C) who may be of either sex .the interrogator stays in a room apart from two is the man and which is the woman .he Knows them by labels x and y ,and at the end of the game he says either "x is a and y is b "or "x is b and y is a"the interrogator is allowed to put question to a and b thus:  
C:will x please tell me the length of his or her hair?

## 2. Earlier work

If Machines are to become Intelligent ,they must ,at the very least ,be able to do the thinking –relate things that human con do we go to explore that as the target of abstract .In the late nineteenth and early twentieth century's ,the "neurons" together with their interconnection were fundamental to what brain does .we go directly to the Canadian neuropsychologist Donald O. Hebb (1904-1985)also believed that neurons in brain were the basic unite of thought .Hebb suggested that "when an axon of cell A is near to excite B and repeatedly or persistently takes part in firing it ,some growth process or metabolic change takes place in one or both cell such that A s efficiency ,as one of the cells firing B, is increased ."latter ,this so called Hebb rule of change in neural "synaptic strength " was actually observed in experiments with living animals .(in 1965 , the neurophysiology Eric Kandel published result showing that simple forms of learning were associated with synaptic changes in the marine mollusk *Aplysia California* . in 2000 , Kandel shared the Nobel prize in physiology or medicine 'for their discovered concerning single transduction in the nervous system " Hebb also postulated that

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groups of neurons that tend to fire together formed what he called cell assemblies .Hebb thought the phenomenon of "firing together "tended to persist in the brine and was the brain 's way of representing the perceptual event that led to a cell- assembly 's formation .Hebb said that " thinking " was sequential activation of sets of cell assemblies .that the target was found from medicine and relation of AI ,and we go to discover and get clues from that also we go to American Neurophysiologist warren McCullonch (1899-1969) and logician Walter Pitts(1923-1969) claimed that the neuron was, in essence , a "logic unit " In a famous and important paper they proposed simple models of neurons and showed that networks of these models could perform all possible computational operation .The McCullonch –pitts "neuron" was a mathematical abstraction with inputs and outputs (corresponding roughly ,to dendrites and axons, respectively).Each outputs can have the value 1 or 0 .(TO avoid confusing a McCullonch-Pitts neuron with a real neuron, I'll call the McCullonch-Pitts version ,and others like it, a "neural element .") The neural elements can be connected together into networks such that the output of one neural element is and an input to others and so on .Some neural elements are excitatory-their outputs contribute to "firing" any neural elements to which they are connected .Others are inhibitory-their outputs contribute to inhibiting the firing of natural elements to which they are connected on a neural element is greater than a certain "threshold "that neural element fires sending its output of 1to all of the neural elements to which it is connected some example of network proposed by McCullough and Pitts .we go to important paper were present in los Angeles in 1955 ,these papers do not suggest that future learning machines should be built in pattern of the general-purpose digital computing device ,it is rather that digital computing system offers a convenient and highly flexible tool to probe the behavior of the models ....this group of paper suggests direction of improvement for future machine builders whose intent is to utilize digital computing machinery for this particular model technique .speed of operation must be increased many fold ;simultaneous operation in many parallel modes is strongly indicated ;the size of random access storage must jump several orders of magnitude ; new types of input –output equipment are need .with such advancement and the techniques discussed in these paper ,there is considerable portion of the activity of the brain and nervous system . In 1954 john MCarthy (1927)joined Dartmouth college in Hanover new Hampshire ,as an assistant professor of Mathematics .McCarthy had been developing a continuing interest in what would come to be called artificial intelligence .it was "triggered" he says by attending the September 1948 Hixon symposium on cerebral Mechanisms in behavior held at Caltech where I was starting graduate work in

mathematics." While at Dartmouth he was invited by Nathaniel Rochester (1919-2001) to spend the summer of 1955 in Rochester's information research Department at IBM in Poughkeepsie, New York. Rochester had been the designer of the IBM 701 computer and had also participated in research on neural networks.

At IBM that summer, McCarthy and Rochester persuaded Claude Shannon and Marvin Minsky(1927), then a Harvard junior fellow in mathematics and neurology, to join them in proposing a workshop to be held at Dartmouth during the following summer. Shannon, whom I have previously mentioned, was a mathematician at Bell Telephone Laboratories and already famous for his work on switching theory and statistical information theory. McCarthy took the lead in writing the proposal and in organizing what was to be called a "Summer research project on Artificial intelligence". The proposal was submitted to the Rockefeller Foundation in August 1955.

We propose that a 2 month, 10 men study of artificial intelligence be carried out during the summer of 1956 at Dartmouth college in Hanover, New Hampshire. The study is proceed on the basis conjecture that every aspect of learning or any other feature of intelligence can in principle be so precisely described that a machine can be made to simulate it. An attempt will be made to find how to make machine use language, form abstractions and concepts, solve kind s of problems now reserved for human, and improve themselves. We think that a significant advance can be made in one or more of these problems if a carefully selected group of scientists work on it together for a summer. The Rockefeller Foundation did provide funding for the event, which took place during six weeks of the summer of 1956. It turned out, however, to be more of a rolling six-week workshop than a summer "study." Among the people attending the workshop that summer, in addition to McCarthy, Minsky, Rochester, and Shannon were Arthur Samuel (1901-1990), an engineer at the IBM corporation who had already written a program to play checkers Oliver Selfridge, Ray Solomon off of MIT, who was interested in automating induction, Allen Newell, and Herbert Simon

Newell and Simon (together with another Rand scientist, Cliff Shaw) had produced a program for proving theorems in symbolic logic. Another attending IBM scientist was Alex Bernstein, who was working on a chess-playing program.

McCarthy has given a couple of reasons for using the term "artificial intelligence."

The first was to distinguish the subject matter proposed for the Dartmouth workshop from that of a prior volume of solicited papers, titled Automata Studies, co-edited by McCarthy and Shannon, which (to McCarthy's disappointment) largely concerned the esoteric and rather

narrow mathematical subject called "automata theory." The second, according to McCarthy, was "to escape association with 'cybernetics.' Its concentration on analog feedback seemed misguided, and I wished to avoid having either to accept Norbert Wiener as a guru or having to argue with him, there was (and still is) controversy surrounding the name according to Pamela McCorduck's excellent history of the early days of artificial intelligence, art Samuel remarked, "the word artificial make you think there something kind of phony about this, or else it sound like it's all artificial and there's nothing real about this work at all, McCorduck goes on to say that Neither Newell or Simon liked the phrase and called their own work complex information processing for years thereafter. 'but most of the people who signed on to do work in this new field used the name 'artificial intelligence' and that is what the field is called today. still we have some question like computer use in airplane I will describe he one like Early computers were fully taxed simply performing numeric calculations. There was little awareness of their ability to someday work in a practical visual interface. In hindsight, it is clear that any implementation of model airplane design software would require a robust and simple method to draw a model airplane design on a computer screen. Items that we take for granted to accomplish this, such as a mouse, were not even imagined. A very good example is the work done with TurboCAD, first used on early home computers in the mid-1980s. As the power of computers increased, the base performance of consumer CAD programs such as TurboCAD offered a smooth transition to these powerful new machines.

### 3. Problem Statements

For the present purpose the artificial intelligence problem is taken to be that of making a machine behave in ways that would be called intelligent if a human were so behaving, also the problem of understanding string of characters that form world, Problem statement come that if the machine by like the human cannot told us about passimolity of question like my be earthquake will be happen somewhere and how to avoided disaster, Despite all the research is still the subject of earthquakes is expected to distant now, The prospect of an earthquake is of paramount importance, but it very difficult, the management of the disaster is a good and orderly contribute to the reduction of losses; this administration should be based on information on the location of the damage and distribute and access to this information and its study is difficult in the early hours after the disaster, but the adoption of geographic information systems, we can synthesize a virtual model of the expected damage to winning and to update this form and in accordance with the actual data received.

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## 4. Problem salutation

By modeling of GIS in deep of history of earth we can work to feedback of the system by type of information can let us expect when can be happen the problem in the earth , that one of suggestion another study of broadcast for air plying is study of Astronomy and relation to broadcasting and also relation to GIS feed the Computer machine and but the general question in algorithm to be answered .

## 5. Conclusion

After the is information that we offer and problem statements about the machine think still come, science tell yet can't offer to us how to solve the problem , in program filed still the language process is target, I mean for many program in the filed and on the market now there are some software can reconigize the voice and speech and let that the word be writing ,but the question still appear the how to let machine now everything and even human don't now and if we ask him about the future he' she cannot tell us about that, for same existent me by someone now about such question ,according to his knowledge but still the word knowledge can be describe in theory of knowledge , and that theory till us the knowledge is grow up step by step the chilled porn and don't know anything and he or she gradually know ,so scientist say that knowledge can be complete by the power of research and science ,and some described by the word of Metaphizeaqe ,

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