

Progressive Perspective of Artificial General Intelligence and its Scope in Future

¹Mohd Umar John Dar. Lecturer, Department of Computer Science, S. P. College Srinagar.

²Rafee Jan. Lecturer, GDC Beerwah

³Shahid Abdullah. Lecturer, Department of Computer Science, S. P. College Srinagar.

⁴Mufeed Bashir Lecturer, Department of Computer Science, S. P. College Srinagar.

Abstract: Modern world is technically touching the zenith of progress and is considered as the backbone of any country for its development. Every country is busy to strengthen this threshold and make their space among the ultra modern countries of the world. Millions of budget is utilized to enhance the technological power and emancipate this field in order to save the country from any derogatory wars and other type of plagues that may become the reason of their downfall. Among all the technological advancements every country wishes to strengthen the bond of defense and make sure to save their country from any derogatory wars. The defense sphere of Artificial General Intelligence (AGI) is developing with leaps and bounds. The methodical minds working in this techno field of AGI have formulated numerous hypotheses by striving their minds regarding the existence of human beliefs, but somehow there exists some contradictions. This present study will explore and analyze that what AGI protection scholars, up to the beginning of 2018, have jotted about the outcomes of human beliefs. This study will investigate about the well supported hypothesis by using the mechanism and technique of Theory classification system in order to indicate the difficulty of describing and unfolding the character of human beliefs regarding the innovative technique of AGI.

Keywords: Innovative, Contradiction, Technically, Zenith, Millions, Plagues, Derogatory.

Introduction

Artificial General Intelligence (AGI) is one of the innovative and novel idea in the modern world which is advancing and revolutionizing the world with its technological idea of acquiring human qualities in order to benefit the people and open new pages in the history of computer sciences and technological web . This pioneering partnership embodies three aspects: addressing AGI with the target framework, the esteem learning process and "human values." Every one of the three is commonly connected to various concepts assume discrete ways of presenting and learning about human values' essence. AGI alignment analysis is one of the progressive avenue in the field of mathematics and this method endeavours at offering accurate ways in order to understand and grab the human values by applying the technique of inverse reinforcement learning. Most of the researchers who have aimed to emancipate and find out some inventive ideas in the field of AGI believe that that the model of "individual principles" is unclear and needs some more inventive ideas before it can be formalized in the field of AGI. Applying in the way of expression, "AGI-conscious" ideas of human value are those which were clearly developed to assist research into AGI alignment for the fruitful and better results. Most of the latest psychological hypotheses of human qualities are based on textual interpretation, casual results and under define the source clearly thus needed proper adaptation and genuine procedure in order to be extended in the domain of AGI defence. In many situations, human the philosophical interpretation of human values cannot be differentiated from how a potential AGI is supposed to extract values and granted approval-directed AGIs. Multiple researchers have utilized their mind and potential to propose like, Armstrong, who concludes that, "including a connection to the researcher is not meant to suggest that the analyst sticks to precisely this hypothesis" (312).

Many suppositions of human qualities clearly suggest that human qualities are clearly and exceptionally uncomplicated while as there exists the difference in the desires and urges Other ideas show that human beliefs, such as a continuum of interaction between all meanings and incentives, are complex. Thus it is clear that there exists certain things in the behaviour of a human which sometimes have affinity with other humans and sometimes they totally differ from each other's sentiments and feelings. Talking about the wit and virtue of the humans there exists the question of behaviour which sometimes have the

impact of the society and sometimes the behaviour may be devoid of that that beliefs exist independently from the way they are studied. Thus the principles and processes concerning their beliefs (e.g., approval-directed AGI) are combined by behaviourist theories of human values (generally). Here it becomes clear that these hypotheses are computationally abstract and can also contain implicit viewpoint and beliefs concerning some of the human mind's properties: Equilibrium, harmony, continuity, etc. Human-centered theories have proper harmony with the mindset and they directly depend on established human minded theories.

The study will unveil the historical development of artificial general intelligence, artificial intelligence, machine learning and data science. We compare these developments with human intelligence and abilities in order to show that whether is this possible in this techno world to mend the human intelligence and desires in the domain of AGI. The study also focuses the future possibilities in Artificial General Intelligence (AGI), while analyzing this domain in the ethical dilemmas posed by future evolutions. The focus of the study is to analyze the evolution processes historically and its relevance for the future so that a layman can get interest in this domain of intelligence and get aware about its techniques and evolution.

Modern world is caught in the web of AG and it can be applied in many domains and instances in order to strengthen the technological fabric of the country and adapted to complement our everyday lives. AGI is a technique through various machines interconnected in order to smoothly get the job done for which it has been executed. Talking about the linear data pattern it is clear to say that it is complicated which can be further grouped using a linear function to perform classification in a proper way. Multiple algorithms have been tested in this domain and established to fit many linear regressions, logistic regression, classification and regression trends and anchor vector machine. While as Nonlinear functions algorithms cannot be grouped using the domain of linear methods. Similar to other methods of analysing data accurately and management, nonlinear data associations is cumbersome and may offer more challenges to ML(Machine Languages). Although it should be remembered that we can use and utilize

multiple algorithms to perform linear data, the nonlinear nature of most data sets still poses a challenge for ML. For instance, the decision trees, k-nearest neighbours and anchor vector machine.

Yudkowsky is among the doyens in the field of AGI defence who with his creativity and sharp wit developed the concept of the "complexity of values" among many other things; which states that, "any brief verbal explanation does not comprehend the complexity of the effects we seek" (389). He well defined this concept and outlined his criticism of simplistic wishes regarding the proper portrayal of desirable results in order to understand its mechanism and terminology. He also introduced the idea of "fragility of principles"(390) in the same post; by quoting the simple examples and ideas that if the digits is incorrect in telephone dial, the conversation proceeds with an alternative user. The principle of Coherent Extrapolated Volition (CEV) is another important contribution from (Yudkowsky, 2011). In his treasure entitled Complex Principles essay, he explains that, "We should strive to describe normatively without unnecessary lack of will (failure of self-control), not through the available present impulses but using one's reflective equilibrium, we will require to curtail good know-how, freedom of weighing available alternatives together with claims and good know-how"(391). In order to understand the viewpoint of history of artificial intelligence, it is required to go back to previous dates during the Ancient Greek era, in which it was solved that various ideas about humanoid robots have been carried out to perform the various tasks related to the development of any country. The in-depth study reveals that it was Daedalus, who is said to have been the care taker of mythology of the wind, in order to create artificial humans for different tasks. Charles Babbage is other worth mentioning techno logician who with his skills and wit power worked on a mechanical machine that will exhibit intelligent behaviour like we the humans. However, after many untiring days and nights he decided that he would not be able to produce a machine that would exhibit as intelligent behaviours as a human being, and thus got compelled to suspend his work once and all. In 1950, Claude Shannon came in the field during 1960's and introduced the idea that computers could play chess and other human games played by human mind.

The development and emergence of artificial intelligence officially in history dates back to 1956. In 1956, a conference artificial intelligence session at Dartmouth College was introduced for the first time in order to boost the concept of Artificial Intelligence. Marvin Minsky came with a new idea in his treatise entitled "Stormed Search for Artificial Intelligence" that, 'the problem of artificial intelligence modelling within a generation will be solved'(3). The first artificial intelligence applications were introduced during this period. These applications are based on logic theorems and chess game to execute the results properly. The programs got developed during this period were distinguished from the geometric forms used in the intelligence tests; which has led to the idea that intelligent computers can be created with ease and clarity. Another revolution in the field of Artificial Intelligence came in the year 1950 by Alan Turing who created a test to determine whether a machine was intelligent or not. While applying the test it shows that there is adequate intelligence in the computers. Later more and more people began to investigate the concept of Sir Mohammad Iqbal and in 1957 McCarthy developed LISP (List Processing Language) which is considered as a functional programming language.

Artificial intelligence is the general name in the realms of technology for the advancement and development of machines, which are created entirely by artificial means and can exhibit behaviours and behaviours like human beings, without taking advantage of any living organism. Artificial intelligence products have completely human appearances and procedures and have the ability to execute things such as feeling, foreseeing, and making decisions, are generally called robot in the world of technology. While dealing and taking part in this new sphere of technology there is written records available about its development like expert systems 1975 to 1985 and the renaissance of neural networks 1985 to 1990. AI, connectionism is more oriented towards the biological model of the brain than the other innovations. Its basic idea is that the information and data processing is based on the interaction of many simple, uniform processing elements and is highly parallel to each other. Neural networks clearly offered impressive and extraordinary performance, especially in the field of learning. The Netttalk program was able to learn how to speak using example sentences, by entering a limited set of jotted words with accurate pronunciation as phoneme chains, such a net could learn how to pronounce English words correctly and apply the learned to unknown words correctly. But even this second attempt came too early for neural networks. Although the

funding was booming, but also the limits were clear. There was not enough training data, solutions for structuring and modularizing the networks were missing, and also the computers before the millennium were still too slow.

we have seen that various AGI protection scholars have proposed different, often conflicting, hypotheses regarding the existence of human values. A system of hypothesis classification was proposed, where the theories are tested according to the degree of their complexity and scale of behaviourists internality and the level of their generality-humanity. We propose that some well-supported hypotheses indicate that it is difficult to describe human values' essence and some meta-level hypothesis is needed. Thus the future scholars will try their best to create a hypothesis in order to make progressive achievements in the field of AGI. There is no doubt that modern world is technologically more advanced but there are still some gaps in the fields of AGI which needs to be redressed and properly scrutinized for proper solution. The study reveals that many hypothesis has come in the field of AGI but each one have some fault that makes the hypothesis somehow null and void. The technology has off course created a robot but the emotions urges and desires in this robot are still a dream to the methodical minds and moral giants of this avenue.

Conclusion

There is a need for the utilization of AG in the generalization of human cognitive abilities. In this regard, when the AI systems are faced with challenging tasks, the AGI framework will be more oriented to tackling without much difficulty. Examples of such systems will include self-driving cars with expert supercomputers. Making AGIs as smart as humans will require the customization of AIbased bots to enable real-time monitoring for marketing processes; thus, the AGU frameworks will replicate overly similar intelligence. The future direction should also underlie the usage of AGI systems in the personification of human tasks. In this regard, the smart AI-powered bots can imitate human thoughts and dreams, especially for the future. As a result, the AGI systems can be used to comprehend human-robot interactions. A system of hypothesis classification was proposed, where the theories are tested according to the degree of their complexity and scale of behaviourists internality and the level of their generality-humanity. We propose

that some well-supported hypotheses indicate that it is difficult to describe human values' essence and some meta-level hypothesis is needed.

Works Cited

1. Abdulmalek, A & Rajgopal, J (2007). Analyzing the Benefits of Leland Manufacturing and Value Stream Mapping via simulation: A Process Sector Case Study*, *International Journal of Production Economics*, vol. 107, no. 1, pp. 223-236.
2. Armstrong, S., Sandberg, A., & Bostrom, N. (2012). *Thinking inside the box: Controlling and using an oracle AI. Minds and Machines*, 22(4), 299-324.
3. Hibbard, B. (2012, December). Avoiding unintended AI behaviours. *In International Conference on Artificial General Intelligence* (pp. 107-116).
4. Rahani, AR & Muhammad al-Ashraf 2012, „Procedia Engineering 41“, International symposium on Robotics and Intelligent Sensors.
5. Sotala, K. (2016, March). *Defining Human Values for Value Learners*. In AAAI Workshop: AI, Ethics and Society.
6. Yudkowsky, E. (2011, August). Complex value systems in friendly AI. *In International Conference on Artificial General Intelligence* (pp. 388-393).