1. INTRODUCTION

It is important to first understand what Artificial Intelligence (AI) actually is. According to the definition of AI in Oxford dictionary [1], Artificial Intelligence is intelligence exhibited by machines. In computer science, an ideal "intelligent" machine is a flexible rational agent that perceives its environment and takes actions that maximize its chance of success at some goal. Thus, when a machine mimics a human-like behaviour e.g. learning, planning, reasoning, problem-solving, the perception of the environment, natural language processing etc., then it falls under the category of Artificial Intelligence.

Eric Schmidt, the executive chairman of Alphabet, the parent company of Google, says that AI could be leveraged in order to solve major challenges, including climate change, disease diagnosis, drug discovery, microeconomics, theorem proving and protein folding. However, Schmidt provides no details on how AI should be adapted to solve such complex and abstract problems [2]. Demis Hassabis, CEO of Deepmind -- an AI company recently acquired by Google and now AI division of Google -- said that the aim of DeepMind project is to leverage the power of AI as by solving intelligence in a general enough way, we can apply it to all sorts of things to make the world a better place to live [3]. Mike Schroepfer, chief technology officer of Facebook, expresses similar hopes that the power of AI technology can solve problems that scale to the whole planet [3].

Despite the fact that we are counting on Artificial Intelligence as the next tool to revolutionize the way we live, work and interact with each other -- which will be mostly enabled by machine-learning techniques – it remains unclear as to how these intelligent agents will help to solve more complex problems than the ones existing today (e.g. Poverty, Epidemics, climate changes) while keeping in mind that the state of the art in AI today is to intelligently recognize images and smartly playing games. Nevertheless, if it does improve, then it will be no less than a superhuman intelligence and the question arising is that if we do not have a legal framework to prevent malicious use of this intelligence, then it might put the entire humanity on the verge of devastation too.

If we also look at the present situation and who is involved in riding the waves of progress in Artificial Intelligence, then one can easily find big enterprises like Google, Facebook, Microsoft, and IBM are the ones who are big players in the field. The progress in AI is also bringing steady consequences e.g. eradicating jobs by the means of work automation, one such scenario can be seen in the Industry 4.0 framework, which is nowadays in use in the automobile industry. Industry 4.0 creates what has been called a ‘smart factory’ wherein large number of robots take forward the whole manufacturing process with the help of cyber-physical systems, IoT and cloud computing. [4].

However, if in the near future, machines achieve superhuman intelligence (which Vernor Vinge, author of ‘The Coming Technological Singularity’, called as ‘Technological Singularity’), then many ethical questions arise. For example: Who will own the robots (AI)? What will be the legal and moral liability in self-deriving