

Artificial Intelligence: Analyzing the Ethical Standpoint

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Abstract : The ethical problems faced by projects sustained in the root of artificial intelligence, which propose an ever-evolving and all-encompassing panacea to present worldly systems, exceed in limitations to the said banal systems. When we talk about more innovative products to reduce the brunt of effort that human forces have to bear, we must keep in mind the motivation behind creating such forces and also the state of system of the individual innovators who take up this aim in life. Artificial intelligence is pragmatically and inevitable course of the future, where we become super-dependent on machines and the work they concomitantly perform for us. Keeping this in mind, it is essential to also visualise a force of structure than can keep these systems under check and control their natural impulses and overt needs. We have many papers targeting the generic needs of ethics in artificial intelligence, but we need to level with the discourse and present usable solutions to the ever-present need of automatising our infrastructure along with our present systems. It is this automatisation that calls into mind what our level of governance over it will matter for our future generations, if it is governance in the sense of military, paramilitary or political, at all. This paper surveys generic standpoints taken by the contemporaries of the AI community and presents a comprehensive solution to target the advantages we presume in dealing with such technologies.

IndexTerms - Artificial Intelligence, Ethics, Automatisation.

I. INTRODUCTION

The Artificial Intelligence sector has always been an indulgent and ever-evolving sector when it came to the rise and growth of mechanised and learning products. The core idea of dealing with intelligence is to take into view and accept the fact of superhuman intelligence surpassing its need and inevitably being brought into existence by the needs of society. [1] That being said, once we acknowledge the overconsuming need of AI, we might as well deal with the causal situations that it can lead or arise to.

Agents have even tried to address their AI in the manner of human thinking processes and this leads to a coherent and better understanding of what life with intelligence will truly be like; along with analyzing the evolutionary nature of the intelligence we work with. [2] Such notions are attempts to analyze the 'mindless', 'thoughtless', albeit upto a level, nature of our growing technologies. This has more and much to do with our cognitive human abilities to make our machines more human-like and smarter than the individuals of our own species, which has been an unseen propaganda that has been with us ever since the involvement of intelligence.

In this paper, we attempt to raise and abet those dependencies that threaten to undermine our societal stability in our not-so-distant future and to avoid superhuman intelligence which can overcome the needs of the very creators it has been built for. The need for an ethical code of conduct, as we all know, lies in the handling of the seemingly innocuous set of artificial intelligent systems that we have on our hands in the present generation of technological advancement.

II. LITERATURE SURVEY

In focussing on giving incentive to a machine to abide by the laws of its supposed governance, Shulman Carl in [3] suggests that self-preservation might be a motive for inculcating a survival drive in intelligent machines, where they usually lack such instincts and persistence alternatives. This is a strong notion considering the fact that we can amount to do little- or nothing even- when tasked with the formulation of a code of conduct for our autonomous machinery. This has to do with the idea that we are so consumed with vastly increasing and improving the prowess of our technology that we might fail to properly analyze its impact on our lives.

2.1 Defining artificial intelligence

Before we go about solving a problem about AI, we first need to understand what constitutes an artificially intelligent machine in the first place, whether all kinds of machines that come under this category pose a need for governance and how to identify such ethical needs through a system of code and conduct. [4] suggests that we should think of artificial intelligence and robots as systems that can *perceive* and *act* on these perceptions, as opposed to other basic dependent machines.

This helps in specifying what entails a system to fall under artificial intelligence and whether or not it is needed for the system to have and uphold an ethical code of conduct. A definition does more than just narrow down the types of systems or products, but it also helps the creators of technology to better understand and assume the ramifications of their products. We must be careful as to how we set about defining our systems, lest some organisations take it upon themselves to find discrepancies or loopholes.

This makes perfect sense for the fact that, intelligence needs to be constantly thinking of solutions or saving human effort by being of some employable value. A machine needs to be constantly 'thinking' and focussed on the needs of its users, which makes it artificially intelligent and evolving enough to learn from its surroundings, from the various contexts it finds itself in and by the various ways a user has it dealing with those contexts.

2.2 Need for monitoring

Now that we have defined and understood what AI can constitute of, and how we should seek to think and work about it, we need to understand the crucial need for monitoring such intelligence. There are numerous proposed propaganda to deal with the conformation of artificial intelligence and its ethical qualms. Such can be seen in the works of many scholars who have researched about these postulated ethical theories, which seemingly aim to generate a machine code. [5]

There is also the requirement of protecting basic human and humanitarian goals, to ensure that our AI systems do not violate any individual rights or go against the policies of our organisations or systems. We also need transparency in the building of our

artificial intelligence systems so that we may know that there has been a moral upholding of basic laws of nature and humans. In today's age and generation where we cite responsibility and accountability in every walk of life, there is a very important need to have a system of ethics for our self-thinking, independently existing counterparts.

Also, there is the huge concern of artificially intelligent system having unscrutinised access to personal data of the public and this data can be put into any kind of use that these systems see fit. This has been an age-old problem when it comes to technology, that personal data should never be thrown under the bus, as said, for the purpose of making a few advancements in our technical systems. The profound need for having a non-basic system for governing intelligence is all the more evident when we think about how intelligent systems have surfaced in the recent technological era. This is a highly crucial part of building artificial intelligent systems, because most of them tend to collect and use public data for the core part or to better improve their functions.

The author of [6] suggests that simply philosophical discussions could never design to have secure governance over our systems, and instead we to cement it with scientific work to stabilise and secure the AI systems. The needs to have a properly functioning ethical system are ever present in the dilemma we face when we place a moral code of conduct over any substantial working system, and here especially because the system has a mind of its own and can deal with situations in any which way it understands.

2.3 Challenges to the ethical dilemma

We are always stuck in a rut when it comes to proper accountability and responsibility among our political or governmental scenes. The values attached to such intelligent systems are evolving from being inchoate to be able to discuss them in sociological terms. [7] The biggest challenges we face in monitoring such intelligent systems lies in understanding the restrictive nature of our governance on the effectiveness of the systems proceedings.

We must be proactive in our thoughts and concerns when it comes to dealing with inherently evolving systems, because in some ways we teach the system how to behave in our terms by doing so. It is evidently crucial that such systems understand their goal in working through their modules and follow an ethical code of conduct through everything and anything they do to aid their users. It has also been said that machine dependent coding algorithms can never be neutral or independent from normative influence. [8]

There are many hindrances to creating ethical codes for companies or sectors too. Everyone originating from the company should understand the meaning of the code and seek to uphold and abide by it. Not only that, the companies themselves must have some incentive to develop such a code- to assign a body or a committee and give them the wherewithal to operate behind the lines and construct an all-encompassing model of conduct. Lacking these incentives therefore, rarely many companies bother themselves with proactive action towards systematising the ethical principles of the companies. The important part is to inculcate the need for such a characteristic code of conduct.

III. PROBLEM STATEMENT

The need to have an ethical global system for the governance and accountability of evolving technology- which surpasses the layers of politics or military, rises above borders and geographical formalities and provides equitable, economical improvement in the lives of denizens- has always been present. The challenge is to find the right line between ethics and restraints, between feasibility and quixoticness and to balance the load between various sectors of governance. Here, we need to find the right medium to generate a set of ethics for AI systems, which need to be appropriate in their setting as well as in the way they are upheld.

IV. DESIGN AND METHODOLOGY

We start with the basic needs of ethics and how we tend to proactively bring about such changes in the all-encompassing trends of technology. There can be various ways to deal with the matters of ethical semantics, especially in sectors where it is of a secondary nature and not thought of as a constraint to resources in the sector. In such places, it is better to employ a more strategic view to the ethical implications rather than impose a severely critical code of rules which will in turn reduce the effectiveness of the said system by restricting its usage. The balance lies in understanding what a system is intently built for and how to systematize and leverage the functional side of the system with the ethical side.

4.1 Self-governance

In many cases, it is a sensible approach to have creators and builders of intelligence systems to employ a self code of ethics, which needs to be followed at all costs. Suggestions for a 'Hippocratic oath' like in Greek mythology, needs to be taken by the members of the artificial intelligence community before they begin to work on any project. [9] This is just a crude form of ensuring that there is ethical upholding of producers and users rights when they go about creating, building and using systems.

By governing their own bodies or creating a committee to help understand and analyze the consequences and implications of their products and services, many companies and organisations can sprout a trend of ethical code of conducts within their premises. This is the best, most tacit and effective form of building an ethical background for artificial intelligent systems.

If you wonder what such a model curtails, it is suggested to employ a standard oath of ethics when a company is aiming to build public products and services. Come to think about it, there is a close relationship between the robotics and the artificial intelligent system with their ethical counterparts. [10] With the generation of artificial intelligent systems, it is best to have a set of principles set by an organisation which need to be fulfilled throughout the making, building of any such systems, or maybe even to have a regulatory authority or body who can see over these systems. Enterprises can anoint an individual with the power of responsibility or any body or committee to draft a basic set of principles and give them the power to govern and monitor their proceedings. [11]

4.2 Important steps towards ethical intelligence

There can be many number of ways to tackle the need for ethical code of conduct in our AI systems. We need to find the course of action appropriate for our surroundings and our companies to ensure that we have a proper ethical system in place for our artificial intelligence. Not all of them need to come under the same umbrella of definition. We can:

- i. Employ self-governance by having a personal or institutional code of conduct [12]
- ii. Appoint committees or bodies of governance to decide the codes of conduct, define ethical violations and monitor the proper application of the rules in the systems
- iii. We can embed values into autonomous intelligent systems, the same way we imbue logical and technical implications
- iv. Ensure personal data protection and individual access control

- v. Uphold economics and humanitarian issues
- vi. Make sure that our artificial intelligence system follow the law and any other governmental policies
- vii. Have a local or global body of governance specifically for this matter and ensure they conduct meetings and lectures for enterprises
- viii. Inculcate the necessity of such ethical codes into companies and individual creators

4.3 Ethics Challenge by AI Finland: A Case Study

One such innovative and creative method was introduced by an Artificial Intelligence Program set up by the Ministry of Economic Affairs of Finland, which is a challenge for enterprises to introduce an ethical set of principles for their use and to abide by them. Such a challenge gives companies the required incentive to overcome their initial hesitation and hostility, if any, towards initiating a model code of conduct.

Five steps to defining the ethical principles of artificial intelligence

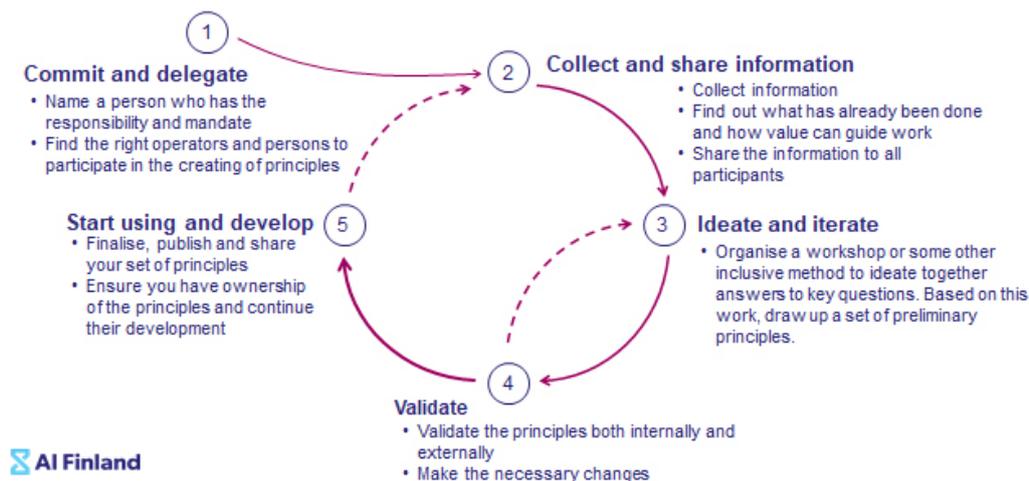


Fig.: Five step approach to defining ethical principles by AI Finland [13]

The approach deals with five important, indulgent parameters of making an ethical code work in an organisation. It proposes organisations to cleverly formulate their principles first, through ideation, iteration and validation. They have followed a basic outline of procedure but the results have been very fulfilling. 70 global enterprises have joined the challenge till now and are successfully participating by building and developing their own ethical codes for their artificial intelligence systems.

V. RESULTS AND DISCUSSION

If contributors to artificially intelligent systems can follow a self-imposed or institutional code of ethics that specifies every aspect of their systems, from the decision making processes to the usability and improvability of the said systems, then we can have a globally secure set of intelligent systems whose growth is not hindered by moral or political or geographical implications. Even if this might sound like a utopian scenario, it is highly achievable by just placing stringent model of code in our systems, which will effortlessly be pursued for the remainder of its life. [14]

The main challenges we saw in doing so is to build systems and governance bodies that can righteously look over the proper building, functioning and maintenance of systems. If builders and creators are able to overcome this hesitance in the governing bodies, then all it takes is a simple code of life to abide by. [15] All this sounds very quixotic to the surface, but one can hope for such policies and bodies to emerge in society by combined individual and institutional effort, be it from the government or federations or corporates themselves. If we take it into our hands to use products with good safety conducts, then we can also help as consumers to help build a proper model of ethics in artificial intelligent systems.

VI. CONCLUSION AND FUTURE WORK

Therefore, pragmatic approaches to the actual development of ethical codes in companies and federations should be employed rather than futuristic or philosophical discussions to imbue ethics into our companies and systems. Once we set a trend to several services and products, the ethical involvement will come to users and producers both as a habitual residue rather than a cumbersome secondary topic. This is the main goal to strive for, as a customer of the artificial intelligent system knowledge in today's generation. In the future, we can deem to construct better, solvable ways of imbibing ethical knowledge and practices into our artificial intelligence systems. This can include more virtual intelligence or have a safe and secure humanised body of governance. Regardless of which, ethical rules will always remain a big challenge to our system and we must be able to tackle it with the same prowess we show in the technical and technological aspects of our development.

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