Artificial Intelligence and Morality: A Social Responsibility

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ABSTRACT Both the globe and technology are growing more quickly than ever. Artificial intelligence's design and algorithm are being called into question as its deployment becomes more widespread, raising moral and ethical issues. We use artificial intelligence in a variety of industries to improve skill, service, and performance. Hence, it has both proponents and opponents. AI uses a given collection of data to derive action or knowledge. There is therefore always a chance that it will contain some inaccurate information. Since artificial intelligence is created by scientists and engineers, it will always present issues with accountability, responsibility, and system reliability. There is great potential for economic development, societal advancement, and improved human security and safety thanks to artificial intelligence.

KEYWORDS: Artificial Intelligence, Morality, Ethics, Intelligence, Accountability, Social Responsibility

1. INTRODUCTION

We already have Artificial Intelligence (AI), and many of its applications are currently in the early stages of development. Whether, if ever, other, far more sophisticated kinds of AI, such as superintelligence, will exist, is a matter of debate. Many people believe that the development of superintelligence is inevitable; there are the typical

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disagreements on when it will arrive as well as whether we should welcome it and why. In the discussions over whether we will ever construct AI that has awareness and that is sufficiently complex and in the correct ways to merit our moral concerns and protection, philosophical and technical disputes overlap.

One of the burning subjects of the twenty-first century is the ethical issues raised by artificial intelligence (AI). The use of robots in dangerous situations is one of the many alleged possible advantages of AI, which also includes operational enhancements such as a decrease in human error (for example, in medical diagnosis) (e.g., to secure a nuclear plant after an accident). AI also brings up a number of ethical issues, including grave safety and health problems, algorithmic unfairness, and the digital divide. Artificial intelligence (AI) ethics is a discipline that has emerged in response to the growing concern over the potential consequences of AI.

Artificial intelligence can be used in a wide range of fields and in several contexts within a single field. In the field of medicine, artificial intelligence (AI) may play a role in computerised patient diagnosis or in algorithms that analyse massive amounts of data from hundreds or millions of patients to better understand the nature of disease and health. It might provide automated or online responses during patient consultations and even therapeutic sessions. AI may be used in robotic surgery help for difficult and sensitive procedures. It might be connected to mobile technology that informs individuals about their own illnesses or remote health monitoring. It might provide nursing and care along with robotic companions or aides. Robots are being used to help autistic persons learn social skills. Robotic dogs are being created to offer dementia patients companionship and mental stimulation. Robotic limbs are being created, along with tools that will help people with locked-in syndrome and other illnesses interact.

1.2 Ethics or Morality

The concept of ethics is difficult, nuanced, and confusing. The moral principles dictating a person's, or a group of people's conduct can be referred to as ethics (Nalini, 2019). In other words, ethics are a system of principles, standards, or laws that help individuals make moral decisions. Ethics, in general, is the study of good and evil as well as the moral roles and responsibilities of people and groups.

There have been more high-profile instances of harm brought on by either technology misuse (such as voter manipulation using psychometrics, surveillance using facial recognition, bulk data gathering without authorization, etc.) or technology design defects (e.g., bias in cases of recidivism, loan denial, and medical misdiagnosis, etc.). What characteristics ethical AI have? Or anything in general that is ethical? Practically speaking, being ethical entails abiding by and upholding moral principles and doing what is "the right thing to do," as well as not harming others. Instead of addressing the issue of whether something is lawful, ethics address the issue of what is right and wrong. An artificial intelligence (AI) is said to be ethical when it is developed on moral principles and with the goal of enhancing society rather than just maximising financial gain. Responsible AI refers to the development of AI that preserves the principles of equity, openness and explainability, human-centeredness, and privacy and security.

In our opinion, the study of AI ethics is still in its infancy and is a subset of the larger area of digital ethics, which examines the moral questions raised by the development and use of cutting-edge technologies like blockchain, big data analytics, and AI.

2. LITERATURE REVIEW

Because AI's versatility and wide range of uses are one of its most noticeable features. It has been noted that a technological capability is hailed as AI until it is implemented, at which point, in the words of John McCarthy, the computer scientist who coined the phrase "artificial intelligence," claiming that "as soon as it works, no one calls it AI anymore" and that its definition is problematic. It might be difficult to distinguish what constitutes true AI from other types of technology. Some AI systems are so deeply ingrained in modern technology that we hardly even notice them.

This also means that, in many instances, it is difficult or impossible to determine which ethical and other value dilemmas are brought by AI and other technology.

Ethics has a long history, which is a reflection of its enduring importance to human life, whereas AI has only recently experienced significant growth. Yet during the past decade or two, the power and promise of AI have grown incredibly quickly.

brings to light the critical necessity of addressing the numerous ethical challenges it raises. We might be living in a world in a few years when a large number of the decisions that affect our lives—from the financial markets to transportation, from health care to military operations—are either made by AI systems or heavily influenced by them.

2.1 Concept of Artificial Intelligence

In the presence of experts from many fields, John McCarthy (1970) discussed and introduced the phrase "Artificial intelligence" at the summer workshop organised by the Dartmouth summer research project in the year 1956. Artificial intelligence is the study and application of science and engineering to the development of intelligent devices, particularly intelligent computer programmes (AI). McCarthy reportedly chose artificial intelligence because of its objectivity, that the machine can be constructed and used to replicate the attribute of intelligence which is specified clearly. The term AI is such a broad field, it cannot be defined by a single definition. According to Blackman (2022), Artificial Intelligence is defined as "a computerized system that demonstrates behaviour that is usually assumed to require intelligence."

2.1.1.Background of AI

It is unknown who started working on artificial intelligence technology first, however, it is said that Alan Turing was the first as there is a record that states that he has deliver lectures on artificial technology in 1947 he was a mathematician by profession during world war II self-motivated people started voluntarily working on the artificial intelligence

machines as mentioned by Muller (2020) and additionally, turning is said to be the first to express his opinion as programming is more powerful than building machines. By the late 1950s, numerous researchers were relying on AI, and the majority of them were built on computer programming. Christopher Strachey made a significant step forward in 1951 when he created the first artificial intelligence software. Although mathematician Alan Turing had previously published the most well-known work, "Computer and Machinery Intelligence," a year prior, the naming ceremony for "Artificial intelligence" was slated for 1956. He posed the query, "Can Machines Think?," to everyone. He also put the techniques to the test as he put up the idea that computers may be trained to learn much like a young child. He wanted to know the solution to this problem. By developing the first artificial intelligence programme in 1951, Christopher Strachey accomplished a tremendous advancement. He created computer programmes for checkers games that are played on Manchester's Ferranti University's Mark I computer. Also, until 1952, they made a few little adjustments before speeding up the programme. They were finally able to show off the better game in the summer.

The initial artificial intelligence software to operate in the US was a checkers program developed for the IBM 701 prototype in 1952. Arthur Samuel took over the essential elements of Strachey's checker's program and considerably expanded it over the course of several years. In 1955, he developed features that enabled the software to absorb experience. Samuel made his program better by incorporating tools for rote memorization and generalization. As a result, in 1962, the programme won one game against a previous Connecticut checkers champion. A lower number of volunteers and more issues made the next years difficult for AI, but things began to improve at the beginning of the 1990s. The worldwide situation was becoming more discouraging, and artificial intelligence challenges were outpacing solutions.

2.2. Why do ethical issues with AI keep popping up?

One of the most incredible and frequently made allegations is that AI poses a "existential threat" to humans. Some claim that an AI may evolve vigorously and spontaneously, much like a cancer that is exponentially smart. We may start out with something simple, but intelligence evolves in ways that are out of our control, according to Muller (2020). The struggle for survival will soon involve the entire human race Why do so many people hold diametrically opposed opinions about the possible advantages and dangers of AI? Hollywood is to blame, as is so often the case. We can take the example of films like The Matrix into consideration. The AI in these drawings, however, is portrayed as intelligent, supremely powerful, and in control of either a military arsenal or invulnerable robots. Yet, AI as we currently understand it is just a collection of complex computer algorithms. Given the state of technology, the vast majority of clichés about AI consuming the world are therefore untrue. Following are the main reasons that are causes for raise in the ethical issues.

i. Manipulative AI:

The private sector had the chance to monetize user data properly, but instead decided against it. As a result, it is now the responsibility of the federal government to ensure that manipulative AI practices are stopped. The government learned from the creation of antitrust laws when it realized the risks associated with select businesses dominating and controlling markets. As a result, legislation was passed to promote free competition and safeguard consumers from predatory business activities. When it comes to AI-driven online data collection, the same needs to happen. Information that will help them profile people was provided by Facebook Cambridge Analytica (2022). Numerous businesses will profit financially by using artificial intelligence to investigate user biases. The user may develop an addiction as a result of adopting artificial intelligence strategies. one might come across this use case in the gaming and gambling sector. Another example is the current Facebook Analytica controversy from the 2016 US election, which used voter behavior as a lever to change the outcome.

ii. Privacy:

AI technology must priorities respecting people's rights to privacy and information, and consumers must be given unequivocal assurances regarding the handling and security of their personally identifiable information. protecting their privacy. Data about an individual should always be the main factor considered while gathering, analysing, exchanging, and interpreting data. By defining data access, ownership, and permission, it is done. Research on privacy have typically concentrated on governmental organizations, but over time, the term privacy has been widened to cover any individual, group, or detective. I. C. Education (2021) states that although technology has advanced and had a big impact over time, government rules have not changed much. Because of this, new technologies like artificial intelligence are still open to abuse by powerful groups or individuals. The rate of digitization is accelerating faster than expected. Today, every document and piece of personally identifiable information is digitized. Every information gathered, whether knowingly or unknowingly, is accessible online. Also, many sensors produce a variety of data on people. The potential for clever data collecting and analysis is increased by the application of artificial intelligence. A security-related agency or agent will then begin to monitor you as a result. As a result, agents share information in exchange for payments. Pesapane, Tantrige, et al. (2020) stated that the information they gathered in exchange for a free service was user information, which is extremely valuable when compared to their prices. For instance, facial recognition technology can be used to recognize a person from a collection of images or videos, allowing for the building of a digital profile of that individual.

iii. Lack of Transparency:

The "black box" designs, which hide the reasoning behind each AI decision, are a branch of the decisions made by artificial intelligence. It brings up the issue of machine-human trust. The fairness metric disappears, excluding people from the decision-making process. It raises the issue

of systemic prejudices. Moreover, data is used by artificial intelligence systems. The truth of it is unknown. It merely predicts patterns based on previously discovered patterns. Muller (2020) guarantees that adding quality data into decision-making processes will increase their quality, but there is still a long way to go until artificial intelligence is sufficiently sophisticated to distinguish between good and bad input. Winikoff and Sardelik (2021), for example, claimed that when Apple debuted its new credit card, artificial intelligence was used to tack on interest to the user. Women were charged a higher interest rate than men, which was seen as discriminatory.

2.3. Necessity of Morality or Ethics in AI?

In the above section, we have seen the causes for the rising of the ethical issues in the field of AI. In this section, one must understand the need of morality or ethics to be followed practicing AI.

To include ethics into artificial intelligence, following issues must be resolved.

2.3.1. Privacy: The users' psychological, emotional, intellectual, physical, and digital safety should be protected by maintaining information security, say the AI Now Institute (2022) and Blackman (2022). In order to reduce security risks and boost user confidence in system outcomes, platforms incorporating AI-powered technologies need to be constantly guarded against potential attacks.

2.3.2. Accountability: Transparency is required for technical decisions to be held responsible. Every choice should be explained to the parties concerned so they can understand why it was made. According to the AI Now Institute (2022) and Blackman (2022), Accountability enhances the likelihood that organizations or people will guarantee the successful implementation of artificial intelligence systems they design, develop, operate, or deploy over the course of their lifetime, in complete compliance with their obligations and applicable laws and guidelines, and will demonstrate this through their actions and suggestions.

2.3.3. Freedom: The global level of living shouldn't be threatened by technology. It could harm freedom since individual can be tracked and profiled based on certain beliefs and actions.

2.3.4. Since it is difficult to know how a model arrives at a certain result, the term "black box models" is widely used to characterize machine learning methodologies, particularly deep learning models. Human-readable explanation of the machine's reasoning This level of transparency is required to build learners' trust in artificial intelligence systems and ensure that they can understand why a model comes to a particular result.

3. AI ETHICS

What should ethical AI look like is one of many questions. The simplest definition of ethical AI is that it shouldn't harm people. Yet, what harm? How are human rights implemented? Before creating moral AI, these questions must be resolved. Training in ethical sensitivity is required for moral decision-making. Theoretically, AI should be able to recognize moral ambiguities. How can we make ethically conscious decisions if AI is capable of doing so? Unfortunately, it's difficult to understand and put into practice. It necessitates consistent, continual work. Nonetheless, recognizing the significance of creating ethical AI and beginning to work on it gradually are huge advancements. Companies like Accenture, Microsoft, Google, IBM and Atomium-EISMD are just a few that have begun developing ethical guidelines for the advancement of AI. The FEAT principles for the application of AI were published in November 2018 by the Monetary Authority of Singapore (MAS), Amazon Web Services, and Microsoft. Fairness, ethics, accountability, and transparency are represented by these tenets. The framework for creating ethical AI is shown in Fig. 1. This framework makes it possible to create and use ethical AI. To establish ethical standards for the conception, advancement, and use of AI, it is critical for academics, practitioners, and policymakers to work together. To ensure

ethical behavior, protective boundaries are needed with the frameworks and concepts. Regulatory organizations must close a legal loophole in order to ensure the use and observance of such ethical principles. Whether they are based on case law or carried out through responsibilities described by Siau and Wang (2020), these legal and regulatory tools will be crucial for the good governance of AI, which helps to implement and enforce ethics of AI to enable the establishment of ethical AI.
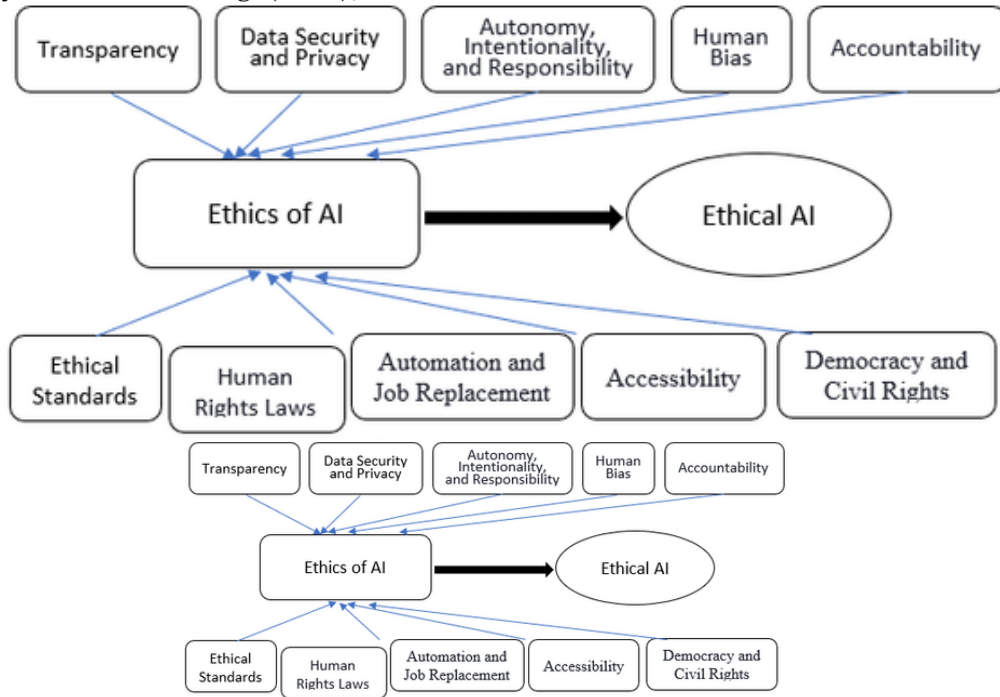

Figure 1. AI Ethics: Framework of building ethical AI (Wang and Siau, 2020)

4. ORGANIZATION WORKING ON AI MORALITY

Despite the fact that privacy and data engineers and data scientists are not primarily concerned with ethical standards, certain associations have emerged to advance ethical behavior in the artificial intelligence field. Some well-known ethical organizations focusing on AI ethics are listed below.

4.1. AlgorithmWatch:
According to Hagendorff (2020) and Tags, AlgorithmWatch is a non-profit research and advocacy group devoted to monitoring, examining, and evaluating the effects of automated decision-making (ADM) systems on people (2022). AlgorithmWatch's goal is to make sure that algorithmic systems are used to benefit all people, not just a small number of individuals. They start promoting algorithmic systems that defend democratic institutions and the rule of law, favoring autonomy over surveillance, civil rights over racial discrimination, independence over power in place of dictatorship, dynamism, justice, and equality in place of prejudice and partiality,
and a sustainable way of life in place of an unethical way of life.

4.2. AI Now Institutes:
The mission of the AI Now Institute (2022) is to conduct multidisciplinary research, engage the general public, and ensure that artificial intelligence systems may be applied in a range of social contexts. As per them, we must collaborate with those who will suffer the most from the use of AI to create standards and procedures. This will lessen harm and guide ethical AI deployment. The present research of this institute focuses on privileges and rights, employment and discrimination, and inclusivity and architecture.

4.3. DARPA:
The Defense Advanced Research Projects Agency of the US Department of Defense (2022) encourages investigation into and creation of understandable AI. For more than 50 years, DARPA has been a leader in the creation of ground-breaking technologies that have facilitated the deployed rule-based and statistical learning-based AI technologies. According to Hagendorff (2020) and the Center for Human Compatible Artificial Intelligence, the creation and application of "Third Wave" AI systems will allow computers to learn new information using generating circumstances and descriptive models.

4.4. CHAI:
"Center for Human-Compatible Artificial Intelligence", a group of universities and institutions working together, is committed to advancing trustworthy AI and technologies that have a clear positive impact. The goal of CHAI is to lay the conceptual and technical groundwork for a shift in AI research's emphasis towards systems that could be perceived as demonstrably helpful. a number of situations and
Ultimately, it appears that computers are becoming far more powerful than living things as a result of ongoing AI research. According to Hagendorff (2020) and Home NSCAI (2021), some of these solutions may have unwanted and possibly long-lasting effects for humans because the solutions produced by such systems are fundamentally unforeseen by humans.

4.5. NASCAI:
An oversight committee named "National Security Commission on Artificial Intelligence", considers the means and methodologies to accelerate the advancement of AI, ML, and supporting technologies in order to fully address the needs of the United States' national security and defense. According to Agarwal, Gans, and Goldfarb, Section 1051 of the John S. McCain National Defense Authorization Act established the National Security Commission on AI as a separate committee on August 13, 2018. (2016)

5. GOVERNMENT'S OVERNMENT'S INITIATIVE FOR ETHICS IN A
Normally, the government is responsible for ensuring that the ethics are upheld through the regulation of laws and the formulation of policies that take into account societies. The national government as well as the

international governments are making great efforts to develop the laws and regulations in light of the developing technology and its use cases. Some non-governmental organizations are working side by side with the government to draught rules to ensure that AI is used ethically. The following are the actions made by various governmental organizations, according to Herbert (2022).

- The US government began developing an AI policy during the presidency of Barack Obama. Their government published two reports on the impacts of AI. The White House designated the NIST to work on the rules for the government's involvement in AI in a note the "American AI Initiative" in 2019.
- Once more in 2020, the Trump administration provided the draught of its "Guidance for Intelligence Applications" policy. The strategy was primarily concerned with investing in the AI industry, with a project aimed at fostering confidence in AI software and addressing privacy concerns.
- New York City passed legislation in December 2021 that forbids New York-based businesses from using AI techniques for personnel screening unless they first check the technology for bias. In January 2023, the law will take effect. Employers must inform candidates if an AI tool is used to decide who to hire.
- The provision for the act "right to explanation," that includes a set of legislation in the General Data Protection Regulation Act of European Union proposed in 2018 that deals with AI and data protection. In other words, people have the right to ask for the information they possess and how it is used.
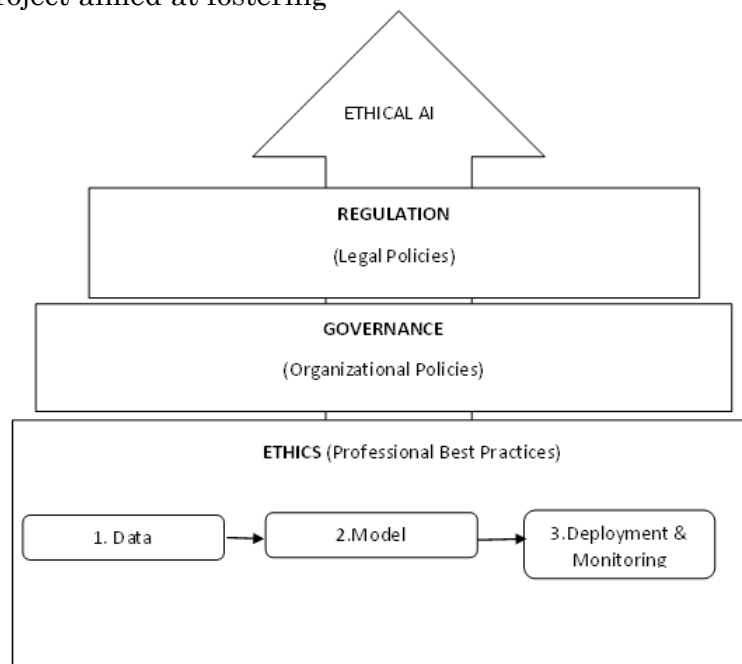
5.1. Level of ethical AI

Figure 2. Levels of Ethical AI

The impact of various factors, including the professional behavior of developers and users, organizational governance of these individuals, and judicial oversight of both individuals and organizations, results in ethical AI. Second, there are three basic stages to the AI lifecycle, each of which must be finished before the subsequent step can start. These phases are as follows:

Data management includes the following steps:
i. Data collection,
ii. Best security measures used to protect data,
iii. Data cleaning (including pre-processing and augmentation as necessary), and
iv. Data reporting

An AI model is trained using a dataset, and its performance is then tested using test datasets, reported, and verified.

Stakeholder participation, user-centered design, and model deployment in the actual world are followed by updates, ongoing validation, supervision, and auditing.

6. DISCUSSION

The direction in which we might lessen the harmful effects is also important. Because artificial intelligence lacks the emotional intelligence necessary to assess societal impacts, political contexts, or cultural contexts, researchers from a variety of professions must examine distinct community complexes in order to reduce the possibility of biases in extraordinary scenarios. For instance, due to bias against race, Google's photo recognition programme mistakenly identified black humans as gorillas. Political and societal ramifications were also seen. We might need to revise our hypotheses since artificial intelligence is routine, just like it is in our everyday lives. We may create the structure for appropriate regulatory and a code-of-conduct that will supervise and control, transparency, liability, and responsibility by investigating and researching this topic.

Second, there is still another issue that needs our attention: how artificial intelligence makes decisions. Artificial intelligence needs to be able to justify its choices in terms of moral principles. But the adaptive nature of artificial intelligence presents a challenge. It's possible that the programmer won't be able to predict every decision that artificial intelligence will make during testing and in the future. Even while this might be the case, it might damage user confidence in the AI system. One vehicle that uses AI is the Tesla Model S. According to Pizaro, Figueroa, Lopez, et al., it features a system called Traffic-Aware Cruise Control (TACC) that causes it to hit with a van parked on a European highway, injuring the van's owner (2022). The owner had faith in the AI software and anticipated that the automobile would stop, but it did not act as intended.

From the outset, it would seem that Artificial Intelligence ethics is a science that reduces the likelihood of immoral outcomes in the Artificial Intelligence. Yet, a closer examination shows that this intuition is incorrect. It's true that there are a few worries, either from ethicists themselves or from the effects of their involvement in AI groups. These risks are connected to psychological problems with limited ethicality in the ethicists themselves, problems with how people react to (or disregard) ethical principles and advice, the difficult professional role of AI ethicists, the ineffectiveness of AI ethics guidelines, or the potential negative effects of ethics audits for AI products. So, this comment is not intended to downplay the importance of AI ethics. Instead, it seeks to enhance introspection and, thus, the discipline's efficacy. The comment also highlights how harder it is than it seems to put AI ethics into reality. It's possible for thoughtful ethical concerns to have unintended, unsuspected effects that, if judged independently, would be viewed as unethical. These undesirable results should be avoided in order to make AI ethics a discipline that can uphold its own standards.

Conclusions

A recent technological development is artificial intelligence. It is widely used across many industries. In the end, it impacts human beings' principles, morality, and ethical ideals either directly or indirectly. Human dynamics and potential could be altered by artificial technologies. Prior to that, it is our social responsibility that we must establish criteria for AI decision-making accountability, openness in decision-making, data gathering privacy, and bias mitigation. Being human, we must confront these problems. Artificial intelligence technology can aid human decision-

making even though it may be true that it cannot completely replace human judgement. To address effectively the moral and ethical concerns raised by artificial intelligence, a solid framework must be created.

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