

Topic: Ethics in AI - Part I: Responsibility in AI

Name:

Date:

What Damage Can Irresponsible AI Cause?

1. Given the databases certain AI use to make predictions, what kind of issues could arise if operations are handled carelessly?

Answer:

2. Is the safe use of AI the responsibility of the creator/company OR the user? Is it both?

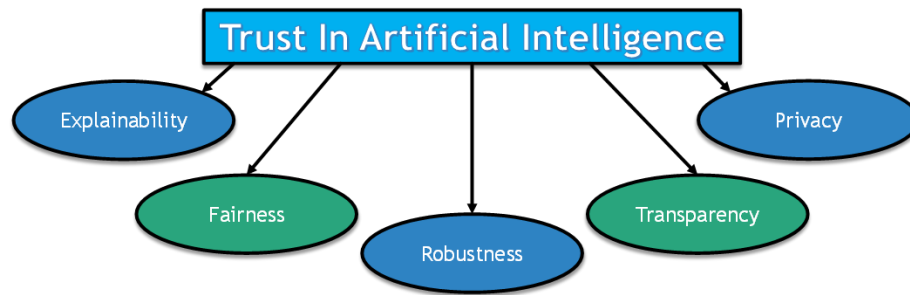
Answer:

How Would You Address These Ethical Concerns?

Discuss each ethical concern and brainstorm possible solutions with those around you and fill out the table below:

Ethical Concern:	Solution:
Liability for AI Malfunctions	<u>Answer:</u>
Replacing Human Workers	<u>Answer:</u>
Breaching User Data/Privacy	<u>Answer:</u>
Bias and Discrimination Effecting Output	<u>Answer:</u>
Accountability for Ethical Use/Creation	<u>Answer:</u>

How do we Adopt AI Responsibly?



Explainability:

- AI should have a clearly defined method and algorithm that is detailed to the user. In addition to ethical “data lineage”.
- Data Lineage is the pipeline in which data travels, it is knowledge about the data’s source, how it was manipulated and processed, as well as its end destination and use.

Fairness:

- Ensuring that AI has no biases against underrepresented groups and individuals within a system are treated equally. AI must be designed in a manner to counterbalance human biases in decision making.

Robustness:

- The risk of data breaches should be minimized, and information should be secure. It should be of utmost importance that results are not tampered with and biases are not able to be introduced into the algorithm.

Transparency:

- Tools used by creators for governing AI and their training/creation should be observable by users to understand the limitations and capabilities of the application as well as its life cycle.

Privacy:

- The AI system should upkeep data rights/regulations and maintain the privacy of users by keeping personally identifiable data secure.
- The use of personal data should be explicitly stated and information about its security should be given to the user.

1. How close were your proposed solutions to the warnings/guidelines IBM proposes when adopting Artificial Intelligence? Do you think anything else should be considered?

Answer:

Real World Ethical Dilemmas

Discuss each of the following ethical dilemmas with those around you and decide one what party should be held accountable AND/OR how it could have been prevented.

Consider the 5 Pillars of Trust in Artificial Intelligence and if those were withheld in each scenario.

Dilemma 1: Medical Records Leaked

In 2020, a company called Cense AI, using user data for “automation management solutions”, leaked the data of 2.5 million users by placing the data in an insecure location online before uploading it on to their servers.

The data contained medical information about users including names, insurance information, and medical diagnosis. This data could have easily been illegally sold if recovered.

1. Who is responsible in this scenario? How could this have been prevented?

Answer:

Dilemma 2: Chatbot Bias and Discrimination

In March of 2016, Microsoft released a chatbot on Twitter called “Tay” that learned from the conversations it had with users and their responses.

Users were able to manipulate the chatbot with their responses resulting in extremely offensive responses and comments from the chatbot as it tried to imitate them.

2. Who is responsible in this scenario? How could this have been prevented?

Answer:

Dilemma 3: Self-Driving Car Accidents

In November of 2022, a Tesla Model S was responsible for a car crash on the San Francisco Bay bridge involving a total of 8 vehicles.

When this accident occurred, the driver reported that the car was “full self-driving mode”. Tesla has made known to users that “active driver supervision” is required during this mode as it is not fully autonomous.

3. Who is responsible in this scenario? How could this have been prevented?

Answer:

Looking into the Future of Human and AI Interaction

1. Do you think AI will ever be sufficient to completely replace human intelligence? How about art and culture?

Answer:

2. Do you think that AI replacing human jobs is ethical? Should AI be a substitute for human effort, or just a tool used to make it more effective?

Answer: