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# Trustworthy AI<sup>TM</sup>

Module 1: Trustworthy AI<sup>TM</sup> Framework

Your Role: Questions to Consider







Your role is to build AI solutions that are trustworthy. Use this document as a reference guide to ask yourselves the right questions when building AI solutions.

Click each pillar to view the questions to consider.

**Robust & Reliable** 

Transparent & Explainable

Fair & Impartial

Privacy

Safe & Secure

Responsible & Accountable





### **Robust & Reliable: Your Role**

### **Questions to Consider**

Here is the complete list of questions that you must consider to build robust and reliable AI solutions:

Will the algorithm produce reliable results with each new set of data?

How much human input is required to ensure reliability, and where should it be included in the process?

What processes need to be in place when inconsistencies or issues are discovered?

Does an added human layer introduce bias?

Who are the right people to provide human input?

Has the individual providing input received proper training and guidance?





### **Transparent & Explainable: Your Role**

### **Questions to Consider**

Here is the complete list of questions that you must consider to build transparent and explainable AI solutions:

In which use cases is transparency and explainability most important?

What data is being collected? Is it current?

Can individuals access their own data? Can they opt out of its use?

Do we always proactively disclose that a product is Al-driven?

Do our end users have a channel through which to inquire and provide feedback?

Can end users be able to understand and trust the data and algorithms?

Can we explain what the algorithm does, and how an Al model makes decisions? Can we ensure that the decisions are accurate?

What are the main contributors that influence the model output?

How does each input factor influence the result?

Can we clearly articulate how the data is being used and how decisions are being made?

If we cannot explain the model output, do we continue with the use case?







### Fair & Impartial: Your Role

### **Questions to Consider**

Here is the complete list of questions that you must consider to build fair and impartial AI solutions:

What is the source of the data? Does it potentially contain discriminatory bias due to human input?

Is the data a fair representation of the relevant population?

Does the algorithm display a discriminatory bias towards certain groups? How will we know and test this?

How do we respond if a lack of fairness is detected?

What controls do we need to ensure that?

Are we minimizing discriminatory bias in our data and algorithms?

How do we understand fairness in the context of the Al application?

Is the algorithm based on past performance?

Is the differential treatment of groups justified by underlying factors?

Can the discriminatory bias be removed with data adjustments?

Will customers trust that the outputs are fair?



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### **Privacy: Your Role**

### **Questions to Consider**

Here is the complete list of questions that you must consider when building AI solutions to ensure that you have thought about privacy:

Are customers able to understand how AI is using their information?

Do customers have the ability to opt in and out of sharing their data?

What is the intended use of the data we are collecting?

Are we making customers aware of this intent?

Is the data being used in a way beyond the stated intent?

What predicted customer attributes are too sensitive to predict?

Is there an avenue for customers to voice their concerns to a governing body that listens and takes them seriously?







### Safe & Secure: Your Role

### **Questions to Consider**

Here is the complete list of questions that you must consider when building an AI solution to ensure that you have thought about customer safety and security:

Are our AI systems vulnerable to attacks?

Have we thoroughly considered each of the external physical, digital, and other risks that may occur?

Is sensitive data being anonymized?

Do we have safeguards in place to protect customer data?

Are we communicating these risks to users?





### **Responsible & Accountable: Your Role**

### **Questions to Consider**

Here is a complete list of key questions that you must ask yourself when building responsible and accountable AI systems:

Are organizational structures and policies in place to determine who is held responsible for the output of AI system decisions?

Who is accountable for AI systems? Who is monitoring the AI and how frequently? Who will attend the senate hearings if AI goes rogue?

Are Al systems auditable and covered by existing protections for corporate whistleblowers?

Are negative impacts of systems acknowledged and reported in advance?

Who is responsible when something goes wrong?

What are the consequences for the responsible parties when something goes wrong?

What laws and regulations exist that may dictate accountability?

How will we communicate if and when something does go wrong?

Who is routinely checking if the AI systems are good for humanity?







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