

Technical Prerequisites

Artificial intelligence techniques are most economically used to automate problems that are time-consuming, repetitive, and simple in scope. Most machine learning approaches also require large quantities of clean, trainable data. Just because a problem can be automated does not mean that an AI solution is appropriate.

Here are key questions to ask when evaluating whether your problem needs an AI solution:

1. Is this a process that can be solved using machine learning? Break down the process into its components to determine inputs, outputs, and contingencies. How long does it take to perform? How often is each step taken? How many people perform the same task? This gives a sense of the opportunity size for automation.

2. Is it suitable for machine learning? Identify the decision-making process for each task component. Do answers to questions come to you immediately, or do they require longer deliberation? Furthermore, if multiple people were answering the same question, would they all reach the same conclusion? Machine learning is best used to replicate human decisions for tasks where correct answers are clear and measurable.

3. Is data available? Are there sufficient volumes of relevant data associated with the process from which an algorithm can learn? How easily accessible is the data? Do you have a technical team that can manage and analyze the data? How long will they need to transform the data into a usable format?

If you answered in the affirmative to all three questions, your project may be suitable for AI.