AI vs. Human Thinking - Case Study

Self-driving cars are being tested all over the world. These cars use cameras, sensors, and artificial intelligence (AI) to detect objects and make quick decisions on the road. Unlike human drivers, AI does not feel fear, panic, or hesitation. Instead, it calculates risks based on data and probabilities.

One day, a self-driving car is driving at the speed limit through a quiet neighborhood. Suddenly, a ball bounces into the street, and a child runs after it. The car's sensors quickly identify three possible choices:

Option A: Stop immediately. The car knows there is another vehicle close behind, and stopping could cause a rear-end collision.

Option B: Swerve into the other lane. But the car has detected a bicyclist riding there, and swerving could cause a serious crash.

Option C: Keep moving forward. This avoids the rear-end crash and the cyclist, but risks hitting the child.

The AI system must make its decision in less than a second. A human driver would also need to react instantly, but humans might respond differently than AI.

Questions

1. Summarize the situation in your own words. What is the main problem the car faces?

2. How would an AI make this decision? What factors would it use to calculate the "best" option?

3. How might a human driver react in this situation? What role would emotions, instincts, or personal values play?

4. Which choice do you think is best: A, B, or C? Explain your reasoning.