CASE STUDY - IBM Watson for Oncology Failure (2018)

A hospital started using an AI tool (like IBM Watson for Oncology) to help doctors decide cancer treatments.

At first, it worked well because it was trained using past cancer patient data, so it could quickly suggest treatments based on patterns it had learned.

However, over time, cancer patterns, patient conditions, and treatment responses started changing. The AI system did not update itself or check whether current patient data was different from old data.

Because doctors trusted the system (since it worked well earlier), they continued following its suggestions—even when some results seemed unusual.

Later, audits showed that the AI was using outdated knowledge and could not detect changes in real-world patterns (this is called concept drift). Due to falling accuracy, the system was eventually removed.

Core Lesson

AI systems in healthcare must:

- **Continuously monitor data changes**
- **Detect pattern shifts**
- **Update themselves regularly**

Otherwise, they become inaccurate and unsafe over time.