

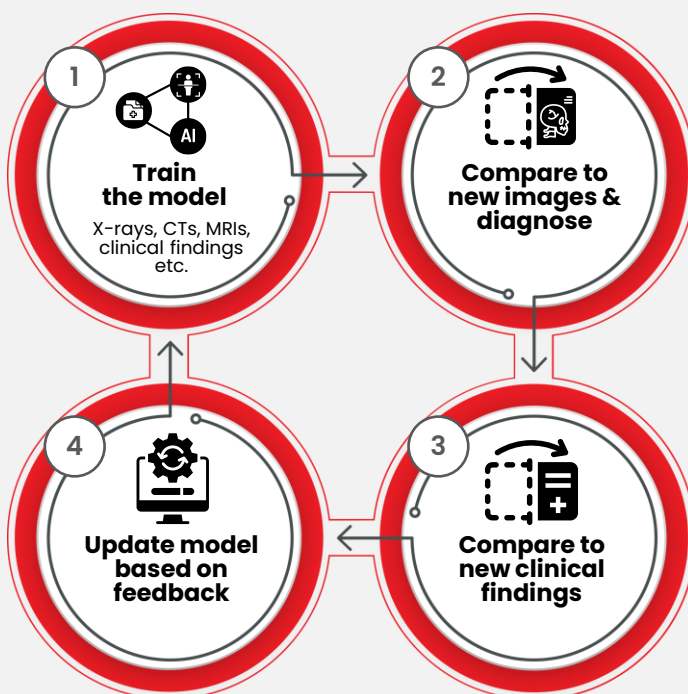
Industry Example: Healthcare/Oncology



In a major study reported in science and health publications, AI was used to try to identify breast cancer by reviewing imaging studies done and comparing the radiology reports and any eventual clinical findings to that imaging. What was found was that AI was very good at early detection of breast cancer when radiologists were less likely to detect it and that there were very few instances of false positives.

This was a great use of AI since it is about pattern matching, which AI does very well although not without fault. Consequently, the case also illustrates the trade-off between autonomous and expert systems – in that the AI was never “given the wheel” but was instead used with continuous human input (in essence a feedback loop) and supervision to improve detection rather than replace experts.

Solutions like these have the potential to save lives through earlier detection of breast cancer. They also have the ability to have results get better over time through a feedback loop (Fig. 1).



If the model gets something right or wrong, feedback of that after it is clinically determined will teach the AI model to avoid false positives or negatives and potentially identify actual cases of cancer faster and more accurately, avoiding the need for further testing when it isn't warranted and ensuring quick follow up when it does.

Fig. 1: Feedback loop that improves model performance over time.

AI in healthcare can also be used to support professionals in performing administrative tasks.

In one engagement for a US-based oncology healthcare provider, Janea Systems implemented an AI system that provides workers with clinical summaries, generates medical condition codes from clinical notes, streamlines revenue lifecycle management, and employs ambient listening to convert doctor-patient conversations into structured notes.

The system helps save clinicians 1-2 hours every day, reduces claim rejections and scrubbing costs, and automates clinical workflow management.

[Read the full case study](#) ➔