



Mammogram Analyzer (MA)

What's new: Topazium has designed and implemented a tailor-designed deep convolutional network on the task of detection and localization of abnormal radiological signs on mammograms.

Key insights: The detection of abnormal radiological signs on mammograms is higher when it is read by two radiologists rather than by a single one. MA, performing at radiologist-like levels, can help to implement this two-reader policy in countries that lack experienced breast radiologists.

How it works: MA takes patient's mammogram images as input and identifies, localizes and marks potentially suspicious regions to attract the reader's attention to features that might have been overlooked as normal.

Results: The evaluated AI system based on deep learning algorithms detected mammogram abnormalities with accuracies comparable to an average breast radiologist.

Why it matters: Mammograms can be difficult to interpret as the precision of the procedure depends in part on the technique used and the experience and skills of the radiologist. That's why it is recommended that two expert radiologists read every mammogram. As there is a global shortage of mammogram radiologists, single reading with MA assistance could be an alternative to double reading, improving the overall accuracy of mammography reading and reducing the radiologists' workload. It would also help in releasing the results of mammograms on patients' schedules rather than those of radiology departments.