OpenAI

LA: What is the role of artificial intelligence in emergency teleradiology?

Artificial intelligence (AI) plays a critical role in emergency teleradiology, where radiological images are remotely transmitted for interpretation and diagnosis. In emergency situations, quick and accurate diagnosis is essential, and AI can significantly enhance the speed and accuracy of image interpretation, thereby improving patient outcomes.

AI algorithms can assist radiologists in detecting abnormalities and identifying urgent cases that require immediate attention. Additionally, AI can help prioritize cases, reducing the time taken to diagnose and treat emergencies. By streamlining the diagnosis process, AI can help save time, improve patient outcomes, and potentially save lives.

Moreover, AI can also help address the shortage of radiologists in many regions, particularly in rural areas. By augmenting the skills of radiologists, AI can enable healthcare professionals to provide quality care to patients who would otherwise not have access to radiological services.
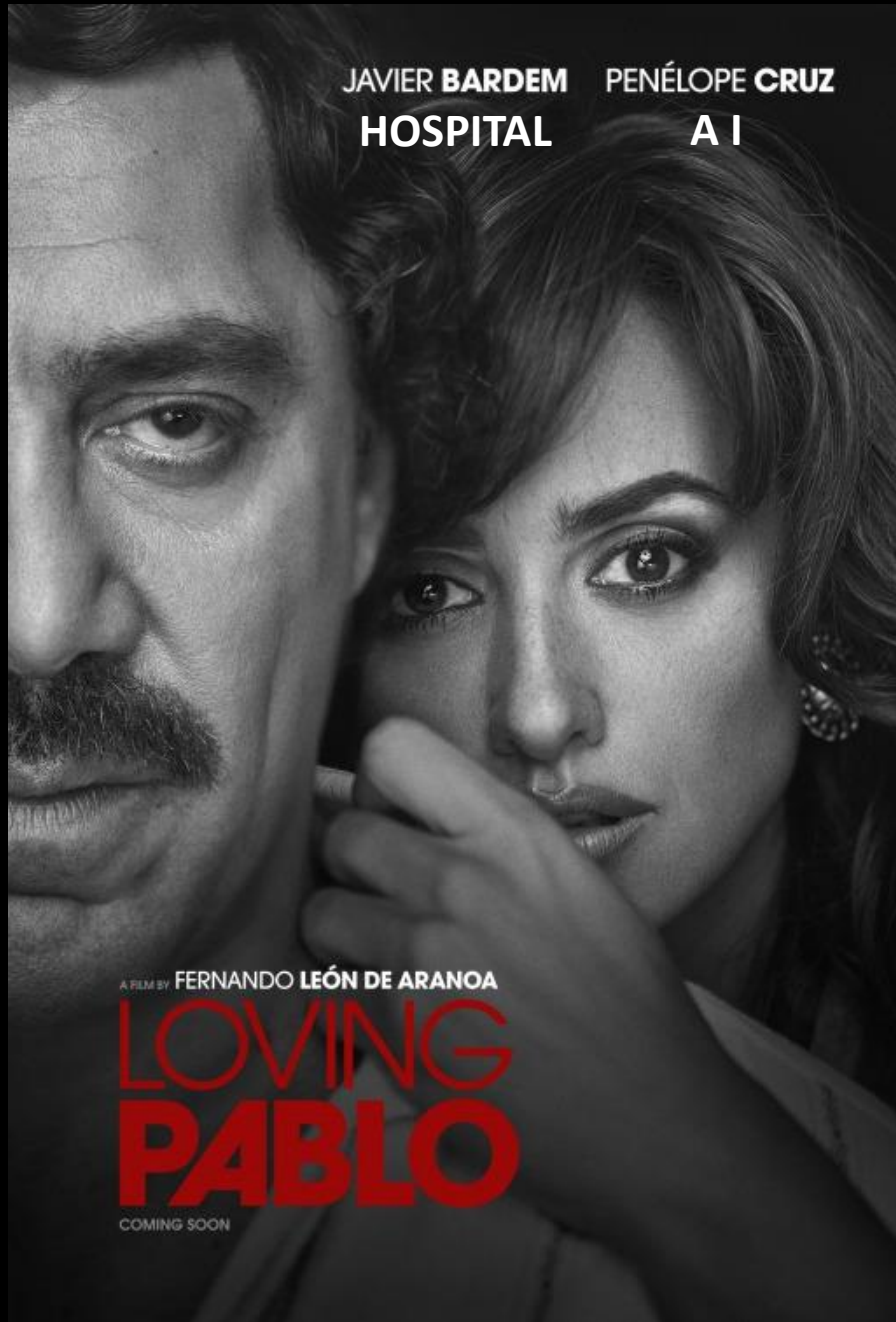
In conclusion, the importance of AI in emergency teleradiology cannot be overstated. It can significantly enhance the speed and accuracy of image interpretation, prioritize urgent cases, and improve patient outcomes, making it an essential tool in emergency medicine.

OpenAI

Can you prepare my Powerpoint presentation on AI for the NordTER course?

Conflict of interest:

- I work for a Teleradiology company
- In this presentation I mention softwares provided by Aidoc, Enlitic, Dcipher, however I do not have any personal interest in these companies

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A FILM BY FERNANDO **LEÓN DE ARANOA**

LOVING
PABLO

COMING SOON

HOSPITAL	AI	TELERADIOLOGY
Javier Bardem	Penélope Cruz	Scarlett Johansson

Patricia Clarkson   Kevin Dunn   Rebecca Hall   Chris Messina

Vicky Cristina Barcelona
Life is the ultimate work of art.

AI Provider
Wants to sell a product

Hospital
Wants to increase quality and productivity

Teleradiology Provider
Wants to increase productivity and quality

Key challenge: find the right economical model which benefits all three parts

In Hospitals, the interest of radiology is there, but:

- Volumes are (relatively) small

- Decision cycles are long and may be political

- IT roadblocks
  - Lack of experience with cloud-based services
  - Difficulties with deep integration
  - Data protection concerns

Teleradiology providers have less challenges because:

- Bigger volumes

- Dynamic decision cycles fueled by entrepreneurial approach

- Easier to have comparative evaluations and select the best partner
  - More specialists to validate the solution

- Less IT roadblocks
  - Familiarity with cloud-based workflows roadblocks
  - Deep integration, which is key to AI solution efficiency

AI providers like to work with Teleradiology providers because:

- Larger client, larger business

- Bigger data (radiology is the most data-driven specialty), possibility of co-developing
  - At least 50,000 studies to build a deep learning engine in cross-sectional radiology

- Existing client connections, selling to one Teleradiology client is like selling to 100 Hospitals

Teleradiology Providers could be the bridge between Hospitals and AI Providers

- Deep integration already exists
  - Cost and time-saving
  - Efficiency wins

- Data protection issues are already solved

- Co-development

- Several AI Providers available under one integration

Diagnostic support by Aidoc

100K cases / year
- Intracranial bleedings
- Pulmonary embolism
- Incidental pulmonary embolism on abdominal scans
- Free air in the abdomen
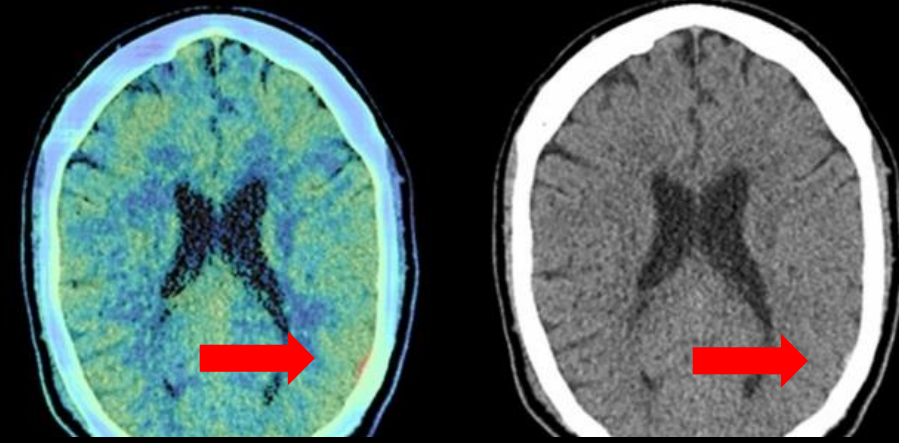
- 85% fewer severe adverse events for AI-covered pathologies

- 10% increase for PE scans

Triaging of radiology requests: a TMC – Dcipher co-development

- Auto pre-select the scan protocol and urgency code

- Built with 600L anonymized TMC datapoints

- 25-50% potential efficiency increase

Automated hanging protocols by Enlitic

- Up to 10% of the reporting time is spent hanging images in the right order

- Automated hanging protocols in PACS only work when exam labelling is homogeneous

- 10% efficiency increase

enlitic

Teleradiology can make AI more available to Hospitals because it can provide AI under different services

- Services which increase quality and TAT of emergency cases

- Automatic second reading of emergency cases for specific pathologies, with immediate TAT

Conclusion:

- Artificial Intelligence is growing, it is becoming more available, but how easy is it to
  - Adopt it?
  - Implement it?
  - Validate it?
  - Co-develop it?
  …especially for a small hospital?

Teleradiology Providers can be the bridge between Hospitals and AI Providers