TOOL FOR THE AUTOMATIC DETECTION OF PATHOLOGIES IN CHEST X-RAYS AND VALIDATION FROM THE AUTOMATIC ANALYSIS OF MEDICAL RECORDS

DESCRIPTION OF THE TECHNOLOGY

Researchers from the Universitat Jaume I of Castelló and the Foundation for the Promotion of Health and Biomedical Research of the Valencia Region (FISABIO), in collaboration with the General University Hospital of Castelló (HGUCS), have developed an intelligent system to support radiodiagnosis based on artificial intelligence (AI) computational techniques and the processing of large volumes of data (big data). The software consists of a module for detecting pathologies in PA chest X-rays and associated reports for use in production settings. The software will be modular and can be extended in the future with new modules for the detection of pathologies in other types of medical imaging. The tool can be used in hospital emergency departments to optimise the efficiency of the radiological process in order to: i) achieve 100% plain film reporting of pathological studies in hospital emergency departments; ii) improve the quality of care (lower waiting times); and iii) facilitate the intra-hospital work process by creating an appropriate link with high-resolution consultations or with the rapid oncology pathway implemented, for example, in the HGUCS. The tool could also be used in other types of medical settings, such as those devoted to teleradiography.

SECTORS FOR COMMERCIAL APPLICATION

- Healthcare sector

    o   Teleradiography sector

    o   Radiology services in hospitals

TECHNICAL ADVANTAGES AND COMMERCIAL BENEFITS

- Advantages

    o   Prompt diagnoses, very fast response time

    o   Improved triage processes

- Benefits

    o   Lower waiting times in emergency departments

    o   Improved quality of healthcare

    o   100% plain film reporting of pathology studies.

STAGE OF DEVELOPMENT OF THE TECHNOLOGY

Validated at the laboratory scale. Proof of concept completed and validation phase begun in a real hospital environment.

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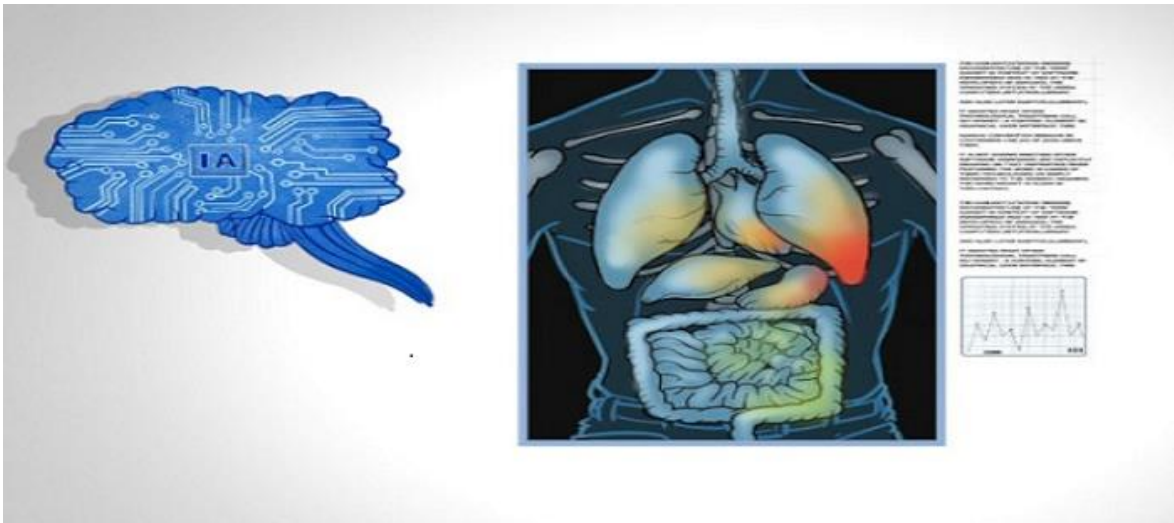
INDUSTRIAL AND INTELLECTUAL PROPERTY RIGHTS

Registered software.

COLLABORATION SOUGHT

Operating licensing agreement.

RELATED IMAGES

CONTACT DETAILS

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