Tuberculosis (TB) is an infectious disease that is still a global health problem, especially in developing countries. In an effort to detect this disease, chest x-rays are often used as an important diagnostic tool. However, manual analysis of x-ray results requires significant expertise and experience, which is often not widely available, especially in resource-limited areas. Therefore, an automatic system is needed that can help diagnose Tuberculosis through X-rays with high accuracy. This research aims to implement the Convolutional Neural Network (CNN) method in classifying Tuberculosis x-ray photos on Android-based devices. The CNN method was chosen because of its ability to recognize complex patterns and features in images, which can help in detecting the presence of TB in x-ray photos. The model training process is carried out using the Teachable Machine platform, a web-based tool that allows creating machine learning models easily and intuitively without requiring in-depth knowledge of programming. The results of this research show that the CNN model trained via Teachable Machine is able to classify X-ray photos with fairly high accuracy. Implementation on Android devices allows this system to be widely accessed and used by health workers in the field, especially in areas that have limited access to radiology specialists. Thus, it is hoped that this research can contribute to increasing the effectiveness of early detection of Tuberculosis, as well as supporting health programs in controlling this disease.

Bibliography (2017-2023)