

ABSTRACT

Author:

Riqqah Fadiyah Alya

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Batik is one of Indonesia's cultural heritage that has been recognized by UNESCO as an "Intangible Cultural Heritage" so we should be proud and preserve it. But there are still many people who do not know the batik motifs used and how to distinguish the various ways of making batik. Furthermore, there are problems related to the labeling of traditional and modern batik products. Even the price fraud of written and printed batik cloth is rife. As in the case where printed batik is sold with a written batik label so the price is much more expensive than it should be. Batik producers find it difficult to market their products, and their market reach is limited. Young people's interest in batik is quite low, so there are problems related to batik regeneration. Therefore, in this study, a mobile application called "Naratik" was built which is equipped with an Artificial Intelligence feature that helps users to distinguish between stamped and written batik, as well as provides education related to product knowledge of batik so that people understand more about the meaning of each batik motif. In addition, there is an e-commerce feature that is a place for batik entrepreneurs to sell their products to local and international markets. The classification of batik motifs and techniques is built with the Convolutional Neural Network (CNN) architecture but is carried out on a cloud server so that the computation time takes about 8-10 seconds and training data accuracy is 88% and validation accuracy is 70%.

Keywords: Batik, Classification, CNN, Cloud Server, Mobile Application.