ABSTRACT

COMPARISON BETWEEN THE NAÏVE BAYES AND KNN ALGORITHM IN THE CLASSIFICATION OF RATING GAMES BASED ON THE INTERNATIONAL AGE RATING COALTION (IARC)

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Gaming is a popular form of entertainment in modern society, with the gaming industry growing rapidly. However, not all games are suitable for all ages, so it is important to have a rating system that can help players choose games that are appropriate for their age. The International Age Rating Coalition (IARC) is one of the bodies that provides Games rankings for several countries, including Indonesia. This research aims to compare the accuracy of the Naïve Bayes and K-Nearest Neighbors (KNN) algorithms in classifying game ratings based on IARC. Game rating data is collected from game provider platforms and divided into 3 data sharing scenarios. Naïve Bayes and KNN algorithms are applied to the data to predict Game rankings. Testing was carried out by measuring the accuracy, precision, recall and F-measure of the two algorithms. The test results show that Naïve Bayes has an accuracy of 96%, while KNN has an accuracy of 97%. Even though KNN is slightly superior, the difference is not too significant. In this context, the concept of the algorithm and data set influences the accuracy results, thus highlighting the importance of choosing the right algorithm for optimal classification. KNN tends to perform slightly better than Naïve Bayes in predicting Game ratings based on IARC.

Keywords: Classification, Games, IARC, KNN, Naïve Bayes, Prediction.