

Abstract– News media are often found in everyday life as a means of information for the public about something that is happening. In news articles, it is common to see several sentences that support the object to increase its popularity by being promoted by the subject. Part of Speech Tagging can determine the class of words in the sentence according to Tagsets provided by the corpus. That way, the search for the subject in the news article can be found from the word class obtained from a corpus. This research was focused on finding the subject "who" repeatedly spreading the news about Telkom University by using Part of Speech Tagging with the Hidden Markov Model and Rule Based on a news dataset from popular news portals about Telkom University. The process is taking all news about Telkom University on popular news portals and classifying it using the Hidden Markov Model and Rule-Based. We conducted to enhance the research results by changing the probability estimator on Hidden Markov Model. After running some scenarios, the best results obtained by the Hidden Markov Model and Rule-Based are the Accuracy of 94.96%, the Precision of 94.99%, the Recall of 94.96%, and the F1-Score of 94.95%.

Keywords: pos tagger, subject, hidden markov model, rule-based