## ANSWERING SYSTEM PUBLIC QUESTION IN DISTRICT KALIWATES JEMBER USING COSINE SIMILARTIY

<sup>1</sup>Rama Nur Jazuli Setiawan, <sup>2</sup>Deni Arifianto, S.Kom, <sup>3</sup>Hardian Oktavianto, S.Si Jurusan Teknik Informatika Fakultas Teknik Universitas Muhammadiyah Jember

Email: rmjz@outlook.com

## **ABSTRACT**

Districts have the function of providing various public services needed by the community to meet their needs in various fields. In the era of digitalization current community needs for information are becoming increasingly complex. But the rapid development of adequate information is deemed still quite difficult to apply in the field of services in the district. The problem faced is how to manage the number of documents that may be required information society. Debriefing system is one way that can be developed to manage the number of documents. The method is quite popular to help the development of the system is the method of question and answer cosine similarity. By utilizing the features of SMS Gateway, that the people can inquire needed information only through sms. In making the application of SMS Gateway text mining processes needed to process documents that will be used as a reference basis in the form Preparation of Public Service Standards. The documents were then classified by calculating Term Frequency / Inverse Document Frequency (TF / IDF). By doing text processing: tokenizing, stoplist and stemming from a document and do a search to look for term weighting, tf and idf. Selanjutunya do search relevancy between incoming SMS with the referenced document basis using cossine similarity so that SMS messages can be categorized in accordance with the referenced document basis. From the results of trials that have been conducted cosine similarity method in this Public Question Answering System has an accuracy rate of 85% so that it fits be applicable in this system.

**Keywords**: Cosine Similarity, Public Question Answering System, SMS Gateway