Abstract

An online group-discussion system has been widely used in an organization in past few years. However, group meeting performance is sometimes considered to be inefficient and nonproductive. During meeting, people often digress from the purpose of the discussion. Therefore, this thesis proposes an intelligent topic detection agent (ITDA) that can detect group meeting distraction and facilitate group discussion through an online group discussion system. In order to detect distraction, our system applies text classification algorithm, so-called Centroid-based document classification, for tracking and detecting topic changing when the utterance arrives in the meeting. This classifier has well performance in detecting topic on the discussion time by calculating the average similarity between the new input sentence and the former set of sentences. If the output result of the topic detection differs from meeting topic, this can infer as distraction. In order to improve time and accuracy of our system, we also apply key decision factor extraction to filter irrelevant information and extract only key decision factors, which are decision criteria and decision alternatives, for reducing feature space in classification process. With these combinations of information extraction and text classification, our system can detect topic changing with approximately 97% accuracy.