

## ■ 연구논문 요약문1

논문제목	Document representation based on probabilistic word clustering in customer-voice classification
게재정보	Pattern Analysis and Application, 22(1), 2019
개요	<ul style="list-style-type: none"> <li>- 연구 목적과 내용에 대해 소개 (서술식으로 작성해도 됨)</li> <li>- Customer-voice data have an important role in different fields including marketing, product planning, and quality assurance.</li> <li>- However, owing to the manual processes involved, there are problems associated with the classification of customer-voice data. This study focuses on building automatic classifiers for customer-voice data with newly proposed document representation methods based on neural-embedding and probabilistic word-clustering approaches. Semantically similar terms are classified into a common cluster. The words generated from neural embedding are clustered according to the membership strength of each word relative to each cluster derived from a probabilistic clustering method such as the fuzzy C-means clustering method or Gaussian mixture model. It is expected that the proposed method can be suitable for the classification of customer-voice data consisting of unstructured text by considering the membership strength.</li> </ul>
연구결과	<ul style="list-style-type: none"> <li>- 연구개발 결과를 가능한 한 비전문가가 이해할 수 있도록 설명 (서술식으로 작성해도 됨)</li> <li>- The results demonstrate that the proposed method achieved an accuracy of 89.24% with respect to representational effectiveness and an accuracy of 87.76% with respect to the classification performance of customer-voice data consisting of 12 classes. Further, the method provided an intuitive interpretation for the generated representation.</li> </ul>
활용분야 및 기대효과	<ul style="list-style-type: none"> <li>- 연구개발 결과의 활용 분야와 기대 효과를 서술 (서술식으로 작성해도 됨)</li> </ul> <p>Customer voice represented in text can be now understood by machines with higher speed and more objectivity. Which will lead to better serving customer needs by manufacturers as well as service providers.</p>