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## 감정분석과 오피니언 마이닝: 2007-2016

이가베\* · 이효맹\* · 유효문\* · 강선경\* · 이현창\* · 신성윤\*\*

\*원광대학교

\*\*군산대학교

Sentiment Analysis and Opinion Mining: literature analysis during 2007-2016

Jiapei Li<sup>1\*</sup> · Xiaomeng Li<sup>1</sup> · Xiam · Sun-kyung Kang<sup>1</sup> · Hyun Chang Lee<sup>1</sup> · Seong-yoon Shin<sup>\*\*</sup>

\*Wonkwang University

Kunsan National University

E-mail : \*jiapei@gmail.com \*hclglory@gmail.com

### 요 약

감정 분석 및 의견 마이닝은 지난 15 년 동안 연구 분야가 등장하면서 사람들의 의견, 감정, 평가, 태도 및 감정을 글쓰기 언어의 광산 및 감정 분석 (OMSA)에서 분석하고 계산 방법론을 제공하는 분야입니다. 주로 비 구조화 된 데이터를 처리하여 의견을 추출하고 그들의 감정을 파악합니다. 상대적으로 새롭지 만 빠르게 성장하는 연구 분야는 이 기간 동안 많이 바뀌 었습니다. 이 논문은 2007-2016 년 동안 OMSA에서 수행 된 연구 작업의 과학적 분석을 제시합니다. 문헌 분석을 위해 Web of Science (WoS) 데이터베이스에서 색인 된 연구 출판물을 입력 자료로 사용합니다. 출판 데이터는 계산 방식으로 분석되어 연도 별 출판 패턴, 출판물, 연구 분야의 성장률을 파악합니다. 이 간행물에서 사용되는 대중적 접근법 (기계 학습 및 어휘 기반), OMSA의 주요 응용 분야 및 정서 분석 작업의 수준 (문서, 문장 또는 측면 수준)을 식별하기 위해 데이터에 대한보다 상세한 수동 분석도 수행됩니다.

### ABSTRACT

Sentiment analysis and opinion mining is the field of study that analyzes people's opinions, sentiments, evaluations, attitudes, and emotions from written language. Opinion mining and sentiment analysis(OMSA) as a research discipline has emerged during last 15 years and provides a methodology to computationally process the unstructured data mainly to extract opinions and identify their sentiments. The relatively new but fast growing research discipline has changed a lot during these years. This paper presents a scientometric analysis of research work done on OMSA during 2007-2016. For the literature analysis, research publications indexed in Web of Science (WoS) database are used as input data. The publication data is analyzed computationally to identify year-wise publication pattern, rate of growth of publications, research areas. More detailed manual analysis of the data is also performed to identify popular approaches (machine learning and lexcon-based) used in these publications, levels (documents, sentences or aspect-level) of sentiment analysis work done and major application areas of OMSA.

### 키워드

sentiment analysis, opinion mining, privacy policy

## I. 서론

The growing importance of sentiment analysis coincides with the growth of social media such as reviews, forum discussions, blogs, micro-blogs, Twitter, and social networks. For the first time in human history, we now have a huge volume of opinionated data recorded in digital form for analysis. Sentiment analysis systems are being applied in almost every business and social domain because opinions are central to almost all human activities and are key influences of our behaviors. Our beliefs and perceptions of reality, and the choices we make, are largely conditioned on how others see and evaluate the world. For this reason, when we need to make a decision we often seek out the opinions of others. This is true not only for individuals but also for organizations..

## II. Methodology

We have obtained research publications indexed in WoS on OMSA for a considerably large period of 10 years (2007-2016), which almost covers the entire period of origin and growth of computational OMSA research. The WoS database collection indexes documents of different types namely articles, reviews, proceeding paper, editorial material, book review etc., in various languages. We have downloaded data for articles of all types on OMSA written in English.

## III. Discussion and Conclusions

In this paper, we have performed a comprehensive scientometric as well as detailed manual analysis of research output in OMSA published in SCIE journals during 2007 to 2016. The research publication data-set has been computationally and manually analyzed to map the OMSA research landscape during last 10 years. The scientometric analysis helped in identify year-wise number and rate of growth of publications, research areas .

The paper helps in understanding the broader landscape of OMSA research and presented results useful for researchers (and those planning to start research) in the area. The analytic results are, to the best of our

knowledge, are first of their kind. The results would be useful from various perspectives to researchers/ professionals working in the area.

## REFERENCES

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