빅데이터 분석을 활용한 사물인터넷 키워드에 관한 조망

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An Insight Study on Keyword of IoT Utilizing Big Data Analysis

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요 약

빅데이터 분석은 데이터베이스에 잘 정리된 정형 데이터뿐만 아니라 인터넷, 소셜 네트워크 서비스, 모바일 환경에서 생성되는 웹 문서, 이메일, 소셜 데이터 등 비정형 데이터를 효과적으로 분석하는 기술을 말한다. 대부분의 빅데이터 분석 기술 방법들은 기존 통계학과 전산학에서 사용되던 데이터 마이닝, 기계 학습, 자연 언어 처리, 패턴 인식 등이 이에 해당된다. 글로벌 리서치 기관들은 빅데이터 분석을 2011년 이래로 가장 주목받는 신기술로 지목해오고 있다. 따라서 대부분의 산업에서 기업들은 빅데이터의 적용을 통해 새로운 가치 창출을 위해 노력을 하고 있다. 본 연구에서는 다음 커뮤니케이션의 빅데이터 분석 도구인 소셜 매트릭스를 활용하여 분석하였다. 2017년 10월 8일 시점 1개월 기간을 설정하여 “사물인터넷” 키워드에 대한 대중들의 인식을 분석하였다. 빅데이터 분석의 결과는 다음과 같다. 첫째, 사물인터넷 키워드에 대한 1위 연관 검색어는 기술(995)인 것으로 나타났다. 결과를 바탕으로 연구의 한계와 시사점을 제시하고자 한다.

ABSTRACT

Big data analysis is a technique for effectively analyzing unstructured data such as the Internet, social network services, web documents generated in the mobile environment, e-mail, and social data, as well as well formed structured data in a database. The most big data analysis techniques are data mining, machine learning, natural language processing, and pattern recognition, which were used in existing statistics and computer science. Global research institutes have identified analysis of big data as the most noteworthy new technology since 2011. Therefore, companies in most industries are making efforts to create new value through the application of big data. In this study, we analyzed using the Social Matrics which a big data analysis tool of Daum communications. We analyzed public perceptions of "Internet of things" keyword, one month as of october 8, 2017. The results of the big data analysis are as follows. First, the 1st related search keyword of the keyword of the "Internet of things" has been found to be technology (995). This study suggests theoretical implications based on the results.

키워드

Big data, Data mining, Internet of things, Social metrics, Insight

Ⅰ. INTRODUCTION

Big data analysis is the process of creating new value from discovering meaningful new correlations, patterns and trends in large data sets stored in existing data warehouse management tools. Thus, it means technique of extracting new values from a large set of structured and unstructured data sets. And, the

most big data analysis techniques are data mining, machine learning, natural language processing, and pattern recognition, which were used in existing statistics and computer science [1]. Global research institutes have identified analysis of big data as the most noteworthy new technology since 2011. Therefore, companies in most industries are making efforts to create new value through the application of big data. In this study, we analyzed using the Social Matrics which a big data analysis tool of Daum communications.

II. RESEARCH METHODOLOGY

The concept of big data analysis is variously defined by scholars. The Samsung economic institute is not able to handle the past management and analysis system, collection, storage, search, sharing, analysis and visualization of data from a large data set are also included in the category of big data analysis. Among big data, social network services are a media showing public that opinions well. Services focusing such as social network services include Blog, Facebook, Twitter, Kakaotalk, and Instagram. However, Kakaotalk is a close public social network service that cannot be analyzed. And, Facebook is separate from an open public and a close public, but it is mostly private and cannot be collected and analyzed. Therefore, in this study, Blogs and Twitter provided by Naver and Daum easy access information were analyzed target. And, the analysis period is from september 8, 2017 to october 8, 2017 for one month.

III. RESULTS AND CONCLUSIONS

In this research, we conducted a big data analysis to examine the perception of the masses of "Internet of things" using the Social Matrics program. The application of Social Matrics provides an association search word 100 for the search term so that it can be analyzed. The results of the big data analysis of "Internet of things" are summarized as follows. First, figure 1 is map of an associated word for "Internet of things" search word. The technology (995) accounted for 1st related associative word mentioned most frequently during the analysis period. Next, the second ranked in the intelligence (661), and the third ranked in the artificial intelligence (649) respectively.

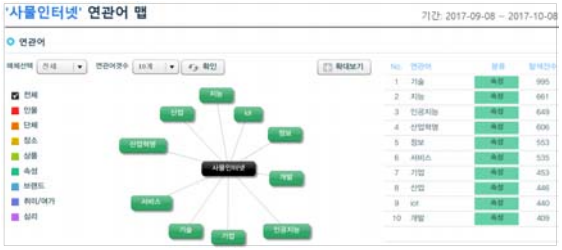

Fig. 1. Map of associated word

Next, figure 2 is trend of reference frequency of "Internet of things" search word.

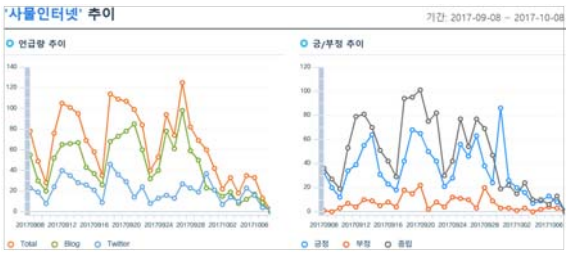

Fig. 2. Trend of reference frequency

Next, figure 3 is an associated word of positive / negative (sensitivity analysis) of "Internet of things" search word. The most frequently mentioned emotional analyzes during the analysis term were the various (326) and the new (226).

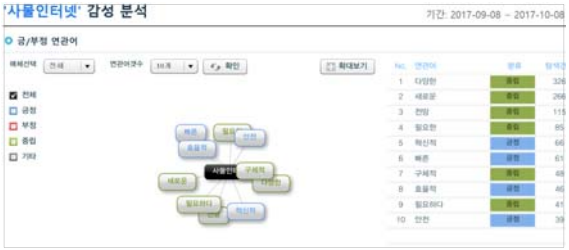

Fig. 3. Associated word of positive / negative (Sensitivity analysis)

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