

Study on changes in session classification of ‘nuclear energy’ news (2000 – 2017)

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1. Introduction

After Moon Jae-in's government was established, it declared the gradual abortion of nuclear power generation and strongly pushes for energy conversion policy. This decision is a political decision, not a consideration of technology and economics. This is because it is a decision made by the presidential election pledge. [1],[2]

Nuclear technology is related to many fields such as society, economy, science and technology, politics, diplomacy. Among them, it is very important to be recognized as science and technology and economics for sustainable development of nuclear technology. [3]

If it is classified as an area of politics, it is likely to become the center of constant controversy. Because politics is the process of mediating conflict and finding a compromise.

Theoretically, groups with power in this process often make mistakes for groups that support them. So it is reasonable that science and technology do not belong to the domain of politics as much as possible.

This study examines the extent to which nuclear news articles belong to the last 20 years and identifies the changes. In addition, this study suggests measures for sustainability of nuclear technology in the future.

2. Methods and Results

2.1 Data

The classification of news articles by session is largely divided into politics, society, economy, IT / science, life / culture, and the world. Nuclear-related news articles are divided into six sessions, from which we extracted all the news articles about nuclear energy for about 20 years from 2000 to 2017.

We collected news articles from NAVER News and stored this data in the database. We collect a total of 267,965 news articles. We collected nuclear news during this period because it is the portal service provider that provides the most news generated in Korea. [4]

According to statistics, about 80% of Koreans are using the service of naver news, and an average of 400,000 people replies to news articles every day.

2.2 Time-series analysis model

We analyzed the changes by grouping the data collected from 2000 to 2017 into each year. Table I and Fig. As shown in Figure 1, from 2000 to 2009, the nuclear power sector was a field of great interest in the media and Korean society. However, the nuclear energy and nuclear power plant industry have received a lot of attention from the nuclear power plant exports to the UAE in 2010.

Since then, the Fukushima Nuclear Power Plant accident in Japan has received great attention in 2011. In addition, in 2013 and 2014, opinions about the enucleation were raised in anti-nuclear groups and politics.

As a result, after the establishment of the government of Moon Jae-in in 2017, the public and the public got attention again due to the public debate about the suspension of the construction of Shin Gori 5,6.

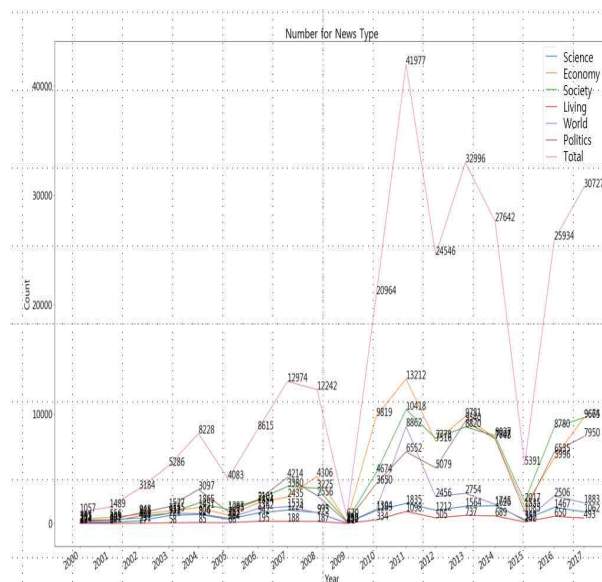


Fig. 1. Numbers of Nuclear-related articles from 2000 to 2017

Table I: Numbers of Nuclear-related articles from 2000 to 2017

year	number	percent
2000	1,057	0.39%
2001	1,489	0.56%
2002	3,184	1.19%
2003	5,286	1.97%
2004	8,228	3.07%
2005	4,083	1.52%
2006	8,615	3.21%
2007	12,974	4.84%
2008	12,242	4.57%
2009	630	0.24%
2010	20,964	7.82%
2011	41,977	15.67%
2012	24,546	9.16%
2013	32,996	12.31%
2014	27,642	10.32%
2015	5,391	2.01%
2016	25,934	9.68%
2017	30,727	11.47%
Total	267,965	

2.3 Ratio analysis model

Naver divides the entire news into six news sessions. We have collected the data in Table II below. Economy, Society, and Politics accounted for the largest portion of the six sessions on nuclear energy. As can be seen from this result, nuclear energy and nuclear power plant are related to social and political fields rather than science, technology and economy. This fact can be explained by the STEP theory.

STEP theory evolves into Science, Technology, Economics, and Politics. In other words, when science and technology are linked to social and political issues, the direction of science and technology is determined by public opinion. According to this theory, the proliferation of nuclear technology is already influenced by the judgment of the general public and politicians. [5]

Table II: Classification of collected news by session

Classification	number	percent
Economy	79,243	29.57%
Society	74,355	27.75%
Politics	64,119	23.93%
World	28,951	10.80%
Technology	15,806	5.90%
Living	5,491	2.05%

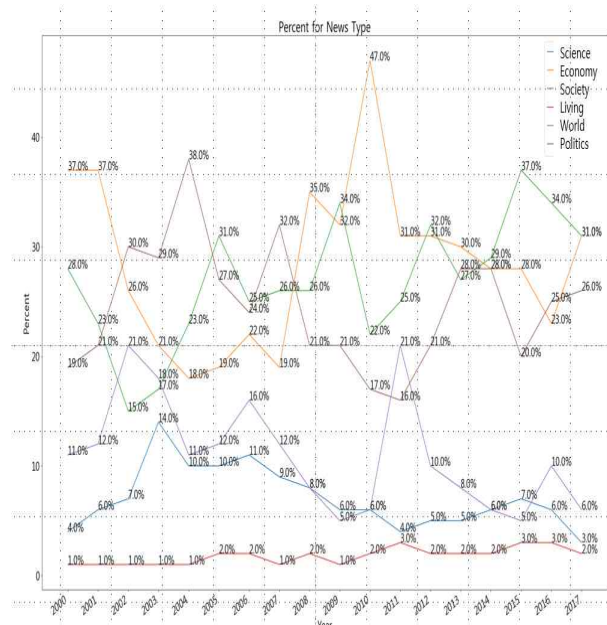


Fig. 2. Number of news articles by year according to session classification

Fig. 2 shows the percentage of news classified by time as nuclear power changes. Since 2011, the proportion of social and political news has increased significantly. As of 2017, society (31%) and politics (26%) account for 57%. However, science and technology news shows a very low figure of 3%. These results indicate that decisions about nuclear energy and nuclear power plant are determined by social awareness and public opinion.

3. Conclusions

In Korea, nuclear power has been transferred from the fields of science, technology and economy since 2011 into the sphere of society and politics. This means that the development of nuclear energy research and industry is not determined by technology development.

Since 2017, the government declared a nuclear power

plant and announced its energy conversion policy. [6]

In addition, nuclear power industry and technology development are experiencing considerable difficulties. In order for the nuclear energy sector to revive, it is first and foremost to make changes in social and political opinion.

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