

Framing of Japanese newspaper in reporting issues of seismic disaster

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Mass-media is an important tool for the transfer of scientific and technological information, concepts, and ideas to public. Generally, there are two types of scientific and technological knowledge; One is strongly linked to political issues and the building of social infrastructure, and the other is fundamental researches leading to the cultural enrichment. In Earth and Planetary Sciences, the former is mainly risk information of natural disasters, such as global warming, earthquake and volcano. Various kinds of information in Earth and Planetary Sciences are delivered via mass-media to public and they make a contribution to the public understanding of Earth and Planetary Sciences and the improvement of social life. Here, this study examines how the scientific knowledge of seismic disasters is pictured by mass-media with use of the content analysis.

To prevent the seismic disaster, it is essential to improving disaster preparedness and management in peacetime. Seismological researches have been indeed powerfully promoted at universities and others in the earthquake-prone country, Japan and some laws have been created on the base of many seismological results. Because these laws significantly control the social living through the disaster prevention education, public works, and so on, efforts to rank each law in order of importance have to proceed under the national consensus. Then, it requires public to have primary seismological knowledge to some extent when advancing countermeasures to prevent the seismic disaster. As the prime means of communication between government agencies, seismologist, and the general population, mass-media plays an important role in the process that the public perceives a potential seismic risk. From this view point, it is crucial to comprehend how seismological knowledge is portrayed and covered in mass-media coverage.

In this study, in order to reveal how Japanese mass-media frame scientific information about conceivable seismic risk, this study focuses on seismic disasters which occur in foreign countries. The reason why the coverage of Japanese mass-media for seismic disasters in foreign countries is adopted as the subject of research in this study is explained by following three points:

(1) Because there are few political issues which Japanese government should deal with, it may be easier to find out the media framing of seismological information.

(2) There may be enough time to constitute what people have opinions about Japanese insufficient strategies by checking foreign responses for seismic disasters through mass-media.

(3) The seismic disaster which is one of most important issues in Japan is of considerable concern in Japanese mass-media.

Here, the content analysis of newspaper coverage for the Sumatra Earthquake in late 2004 is performed. Various questionnaire results pointed out that the most popular mass-media for a whole generation of people is the television and newspaper. All articles published in newspapers are recorded, classified and indexed separately. Moreover, the reproducible result can be obtained because the database of Japanese newspapers is exhaustively complete. The typical national newspapers in Japan are Asahi Shimbun, Mainichi Shimbun, and Yomiuri Shimbun, which are called three major newspapers, and they have a circulation of several million. Hence, it is thought that the nature of newspaper coverage of the seismological knowledge can be significantly outlined by the content analysis for three major newspapers. In this study, both qualitative and quantitative studies are used. In the quantitative study, the articles are categorized by the Self-Organizing Maps method. In this presentation, the author introduces the findings from the content analysis and discusses which kinds of issue newspapers are likely to select.

Keywords: newspaper, seismic disaster, science communication, framing, risk communication, content analysis