

Virus Wannacry on The News: Critical Discourse Analysis on Kemkominfo, Kompas.Com and Jawapos.Com

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Abstract— Critical Discourse Analysis is a study that not only analyzes language usage in linguistic features but also language as a social practice. Each media has the different tendency in conveying information through the language used. Similarly, there are some differences of language in government and non-government media. In this study there are three texts related to same topic (wannacry virus) in the pages of Kemkominfo, Kompas.com and JawaPos.com. The differences of their linguistic features tendency and the ideology are described using critical discourse analysis and fairclough approach through three interrelated analysis processes (the dimension of text description, the dimension of discourse practice by textual interpretation, and the dimension of socio-cultural by text explanation). The results of this analysis show the differences that exist in three media both in terms of linguistic features and their ideology.

Keywords— Critical discourse analysis, government media, nongovernment media

I. INTRODUCTION

CRITICAL Discourse Analysis (CDA) is a study that analyzes not only the use of language in linguistic features but also in language as a social practice. It causes the relationship between discourse with the situation, institutions and social structures that forms the discourse (Eriyanto (2000: 7). In this study is used analysis using Fairclough approach consisting of three interrelated analysis process. Those are the dimension of text with the description of text, the dimension of discourse practice through textual interpretation, and the dimension of the socio-cultural context through the explanation of texts.

Therefore, in this study, was done an analysis of the vocabulary, its frequency, other text elements showing an ideology of text. Through the critical discourse analysis, it will be seen that the vocabulary can bring the position and meaning of a particular ideology. In other words, ideology is observed by looking at the various texts used and the analyzes on the Systemic Functional Linguistics (SFL) study. Martin (2003: 263) stated that SFL (Systemic Functional Linguistics) is a study that not only attempts to identify structures but also focuses on word structures constructing the meaning. So, its emphasis is on the question 'how the meaning manifesting on the text?'. Thus, it can be stated that the SFL focus is not only on the constructed text but also in its context (in this case it can be related to the party producing and consuming the text).

Based on critical discourse analysis conducted on three texts, the aim of this research is to describe the ideology of three texts on Kemkominfo, Kompas.com, and JawaPos.com.com.

A. CDA (Critical Discourse Analysis)

This study uses Fairclough's analysis of critical discourse analysis procedures that consists three processes. Those are description, interpretation and explanation (Fairclough 1989: 26). The text analysis in the description step refers to the formal nature of the text, its study encompasses the vocabulary and grammatical aspects covered by aspects of experiential (ideational), interpersonal and textual meanings of the text. It also can be stated that the text description step is a step that refers to linguistic features.

The interpretation step relates to the relationship between text and its interaction to see the text as a product of the production process and as a source in the process of interpretation. In this step there are social factors (interpretation context) of a text, such as who is involved, what is happening, and what role of language in the text. Then the text interpretation is determined based on its relationship with interpretation of the context. (Fairclough, 1989: 146-148).

Fairclough (1989: 141) states that interpretation is generalization through what is in the text and what is in the mind of the interpreter and in his frame of mind. The next step is explanation. This step refers to the relationship between the interaction and social context. It also relates to the social determination of the production process and the interpretation and social effects on the realization of the text (situational, institutional and social levels).

B. News Text

Discourse is an example of actual communication that uses language as a communication medium (Johnstone, 2002: 2). According to Eriyanto (2000: 91) news is basically formed through the active process of the news maker. Complexity and irregular events are simplified and made meaningful by newsmakers. All of these processes involve the process through the interpreter scheme of the newsmaker. Fishman in Eriyanto (2000: 91) also states that events are an interpreted phenomenon or event, something which is organized in thought, speech and action. Therefore, complex events are interpreted in the newsmaker

scheme. One similar story can be organized into different story structures depending on the author's interpretation.

II. METHODS

The data in this study is texts related to *wannacry virus* news from Kemkominfo, Kompas.com and JawaPos.com. The text selection on the Kemkominfo, Kompas.com and JawaPos.com is based on the hypothesis that the three pages have different ideology. Kemenkominfo page as a medium from government agencies is not same with Kompas.com and JawaPos.com.com as a non-government media.

In doing the analysis, the data in the form of text composed of sentences described into clauses and then analyzed three processes of text description, interpretation and explanation. Meanwhile, abductive inferences technique is used to draw conclusions by connecting one text to other texts (Krippendorff, 2004: 36).

III. RESULTS

A. Text Description

In the description step of the text, an analysis is done by separating the sentences which are applied in the text into clauses. In the Kemkominfo page there are 71 clauses, in Kompas.com there are 96 clauses and in JawaPos.com there are 79 clauses.

TABLE 1
TOTAL CONSTRUCTION OF SENTENCES, CLAUSES, AND WORDS ON THE
KEMKOMINFO, KOMPAS.COM AND JAWAPOS.COM.

| Media | Total | | |
|--------------|-----------|---------|-------|
| | Sentences | Clauses | Words |
| Kemkominfo | 37 | 71 | 529 |
| Kompas.com | 39 | 96 | 578 |
| Jawa Pos.com | 28 | 79 | 524 |

In Kemkominfo there are several words with the highest frequency of attacks, system, information, security and ransomware. The word attack appears 15 times, the system 8 times, information 7 times, 7 times security and ransomware also used in the text as much as 7 times. Meanwhile, in the Kompas.com there are five words of concept with the highest frequency; computers (18 times), wannacry (13 times), ransomware (12 times), data (5 times) and network (5 times). In JawaPos.com, the five words which are most commonly used are computer (11 times), wannacry (11 times), file (8 times), attack (7 times) and ransomware (6 times).

From the frequency of these words, we get the similarity of certain concept words among the three texts on the Kemenkominfo, Kompas.com and JawaPos.com pages as follows. There are three words the same concept that is included in the five words with the highest frequency of *ransomware*, *wannacry*, and *computers*. These three words become a marker that is expressed in the text of news.

Wannacry in Kompas.com is associated with several forms such as *spreading*, *attack*, *weapons*, and *secrets*. Meanwhile in JawaPos.com.com *wannacry* has collocated with targeted, based, destroyer, and some other forms that indicate the subject. Based on the frequency of the same word and its collocation, it can be stated that in these two media (Kompas.com and Jawa Pos.com), text relating *virus ransomware* is more emphasized. That result is different with

the findings on text related to the same thing in the Kemkominfo. In Kemkominfo, text which is presented has a tendency to lead the disclosure of the solution and a statement that the ransomware virus can be overcome. The finding is based on five concept words in the text. the concept word with highest frequency is *security*. In addition, some other words are also words that contain a neutral meaning (when compared with those found on Kompas.com and JawaPos.com) such as *systems* and *information* although there are also forms of *attack* and *ransomware*.

TABLE 2
THEMATIC STRUCTURE OF CLAUSES IN KEMKOMINFO

| Theme | Rema |
|--|--|
| <i>Himbauan</i> | Agar Segera Melakukan Tindakan Pencegahan Terhadap Ancaman Malware Khususnya Ransomware Jenis WannaCry |
| <i>telah terjadi</i> | fenomena serangan siber di beberapa negara |
| <i>serangan siber ini</i> | bersifat tersebar dan masif serta menyerang critical resource |
| <i>serangan</i> | ditujukan ke Rumah Sakit Harapan Kita dan Rumah Sakit Dharmais |
| <i>Semmy menjelaskan</i> | serangan siber yang menyerang Indonesia berjenis ransomware |
| <i>Ransomware</i> | adalah sebuah jenis malicious software |
| <i>sebuah jenis ransomware baru</i> | telah muncul |
| <i>Ransomware baru ini</i> | disebut Wannacry |
| <i>Wannacry ransomware</i> | mencari PC berbasis windows |
| <i>serangan Wannacry</i> | sudah memakan banyak korban ke berbagai negara |
| <i>Wannacry</i> | menginfeksi sebuah computer |
| <i>komputer yang berada pada jaringan yang sama</i> | memiliki potensi terinfeksi terhadap ancaman Wannacry |
| <i>Wannacry</i> | meminta ransom atau dana tebusan |
| <i>Wannacry belum ada</i> | solusi yang paling cepat dan jitu untuk mengembalikan file file yang sudah terinfeksi wannacry |
| <i>memutuskan sambungan internet dari komputer yang terinfeksi</i> | akan menghentikan penyebaran wannacry ke komputer lain yang rentan vulnerable. |

Furthermore, transitivity analysis of the clauses contained in the Kemkominfo, Kompas.com and JawaPos.com is also done. The highest number of clauses is the material clause, which is 51 (71.83%) in the Kemkominfo and 74 (77.08%) in Kompas.com. Meanwhile, in JawaPos.com the number of material clauses is less than the number of relation clauses (although there is only 1 point difference between material clause and relational clause). There are 30 (37.97%) of material clause and 31 (39.24%) of the relational clause. This data show the differences in the identification and characterization of JawaPos.com.

In terms of interpersonal functions, an analysis of trend mode patterns is used in all three texts. Clauses containing *ransomware*, *wannacry* as well as those associated with attacks and viruses are mostly found in the declarative mode although some of those are in the form of open interrogative (wh-interrogative) mode.

Furthermore, there is also a thematic structure analysis in clauses *containing ransomware, wannacry or virus attack*. Based on this analysis can be found patterns of these words use in the text. The findings show that if not used in the Theme position, the words are used in the Rema position. Table 2 shows the use of such structures.

B. Interpretation: Production and Consumption

The Kemkominfo is the official page managed by the Ministry of Communications and Informatics. Of course, there are some things that become the provisions in every thing delivered through the page. It is not a character of a public institution in delivering news that can cause public panic. Similarly, broadcast texts associated with ransomware virus that exist in the Kemkominfo. Meanwhile Kompas.com and JawaPos.com are non-governmental media which of course there is a bit of commercial elements and competition among other online media.

The three media are the media that have function in mediating the community and the owner of the page. For Kemkominfo this page also has an influence in the formation of public confidence to the government. In other words the things delivered through the page become a reflection of the government (in this case it is the Ministry of Communications and Informatics) to show all the positive image. In Kompas.com and JawaPos.com, the text submitted also can be a means to convey their character and image.

The related descriptions of the vocabulary frequencies found at the beginning show that in these three texts there is an emphasis on *ransomware* and virus attacks. However, there are differences in each text as the interpretation derived from the text description. The text in Kompas.com and JawaPos.com.com has more emphasis on the status of ransomware attacks as a dangerous virus that requires community awareness.

C. Discourse Exploration

The presence of government public media which makes it easier for the public to access information becomes important. Similarly, the presence of official pages of the Ministry of Communications and Informatics is also important. In the implementation there are also clear rules and provisions as contained in Law Number 11/2008 on Information and Electronic Transactions. The revision of the Act defines several issues, such as strengthening the government's role to prevent the dissemination of negative content on the internet. In addition to having authority in preventing the dissemination of news that should not exist, through the publication of information on the official page (government: Kemkominfo) there is also an action that can stabilize the news circulating related ransomware virus attacks.

Not news with negative content (such as news about anti-NKRI, rebellion and so on) that need to be the government's attention to protect the public but also news related to general issues that are submitted to cause panic of society is also excessive attention. Therefore, the rhythm difference of information in the text contained in the Kemkominfo with the text contained on Kompas.com and JawaPos.com.com is reasonable. The stability of information and the effects of information on government pages is necessary to keep

people from over-concern and increase public trust on the part of the government.

As stated in the General Guidelines for Organizational Communication within the following Government Agencies.

Hubungan masyarakat di lingkungan instansi pemerintah, untuk selanjutnya disebut humas pemerintah, adalah lembaga humas dan/ atau praktisi humas pemerintah yang melakukan fungsi manajemen dalam bidang komunikasi dan informasi yang persuasif, efektif, dan efisien untuk menciptakan hubungan yang harmonis dengan publiknya melalui berbagai saran kehumasan dalam rangka menciptakan citra yang positif instansi pemerintah. (Pedoman Umum Komunikasi Organisasi Di Lingkungan Instansi Pemerintah).

So, it is only natural condition that the text on the Kemkominfo does not contain an emphasis on ransomware attacks but also on the delivery of government actions and requests to the public. For example through the following clauses. *With this cyber attack we ask for the community to remain calm and increase the caution in interacting in the cyber world.* Meanwhile in Kompas.com and Jawa Pos.com there are different news rhythms with which are in the pages of Kemkominfo. Therefore it can be stated that in addition to similarity there are also differences between the three texts.

The Kemkominfo page has an almost identical trend pattern in identification and characterization with Kompas.com which emphasizes the delivery of events through material clauses. Furthermore, it becomes very natural when it is associated with the text genre that is submitted the news text. As a news, its goal is to submit or report information based on the events that happened.

On the other hand identification and characterization of JawaPos.com is delivered the number of relational clauses and materials which is almost the same. This shows that in the text, the delivery of information based on the events that occurred is balanced with the identification of the news topic. So it can be stated that JawaPos.com does not emphasize the use of material clauses in the delivery of events but gives an almost equal portion of the use of relational clauses that tend to characterize or identify certain things that occurred.

IV. CONCLUSION

The results of this study indicate the following:

The Kemkominfo page has an almost identical trend pattern in identification and characterization with Kompas.com which emphasizes the delivery of events through material clauses. Furthermore, it becomes very natural when it is associated with the text genre (the news). As a news, its goal is to submit or report information based on the events that happened.

The identification and characterization of JawaPos.com.com is different by the number of relational clauses and material clauses. This shows that in the text, the delivery of information based on the events that occurred is balanced with the identification of the news topic. So, JawaPos.com.com does not emphasize the use of material

clauses in the delivery of events but provides an almost equal portion of the use of relational clauses that tend to characterize or identify certain things that occurred.

The text contained on the Kemkominfo page does not contain an emphasis on *ransomware* attacks but also on the delivery of government actions and requests to communities aimed at stabilizing information. The text also contains the ideology that shows the authority, responsibility and power of the government related to the handling of *ransomware* attacks. Meanwhile, the text in Kompas.com and JawaPos.com is more directed to the dangerous *ransomware* status. Beside that, it also contains the ideology that information related to the *ransomware* attack becomes an important thing to be known by the public.

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The differences in government and non-governmental media are also shown in the three texts by preserving the stability of information into the consumption for society.

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