BIG DATA ANALYSIS OF BANTEN COMMUNITY INFORMATION CONSUMPTION AFTER THE DECLINE OF THE COVID 19 CASE

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ABSTRACT

This research explains the information consumption of Banten people after the decline of the covid 19 case. What information themes are communicated by the community about Banten on social media. This research was conducted with a qualitative approach by discussing the results of data mining searches (data retrieval on social media through applications), while the application used is NodeXL. The following are the results of this study; among the five aspects of information that researchers examined the data (health, education, economy, tourism and politics), health information was the least communicated (both one-way and two-way) by the community. Meanwhile, politics and tourism are the most communicated aspects on social media. It can be said that the communication behaviour of the community about Banten Province on Youtube social media is generally not dominated by two-way or more communication models. Feedback only occurs on certain information themes. The theme of political information and tourism is the most two-way or more. Meanwhile, the health information aspect is the least discussed and does not generate much feedback. It can be concluded that health information is no longer a matter of public concern after the decline in covid 19 cases.

*Keywords: Big Data, Information consumption*

INTRODUCTION

Until 2021, the global community is facing a problem that occurs in almost all countries in the world, namely the Coronavirus 2019 (Covid-19) disease. The disease, which was first identified in Wuhan, the capital of Hubei Province, China in December 2019, resulted in the 2019-20 coronavirus pandemic. Data from the Covid-19 Task Force (https://www.covid19.go.id/) recorded that on 26 April 2020 there were 213 countries infected with this virus. With a total of 2,810,325 confirmed cases and resulting in 193,825 deaths worldwide.

The Covid-19 Task Force at the same time recorded 8,882 cases of people infected with the virus, 1,107 of whom recovered and 743 people died. Since Covid-19 cases in Indonesia were first confirmed on 2 March 2020, the curve of the number of infected people continues to grow and has not decreased. This condition of course also has an impact on many things, be it the economy, security, education and others,

Figure 1.1 below is a screenshot from the official website of the Covid-19 task force formed by the Indonesian government, http://covid19.bnpb.go.id/, which shows the number of

confirmed cases, people who recovered and people who died related to Covid-19 in Indonesia accumulative March-April 2020. From the figure, it can be seen that the number of confirmed cases, people who recovered and people who died related to Covid-19 in Indonesia is increasing day by day, indicated by a steeper curve.

Figure 1.1
Curve of the number of Covid-19 cases in Indonesia accumulative March-April 2020.

Source : http://covid19.bnpb.go.id/
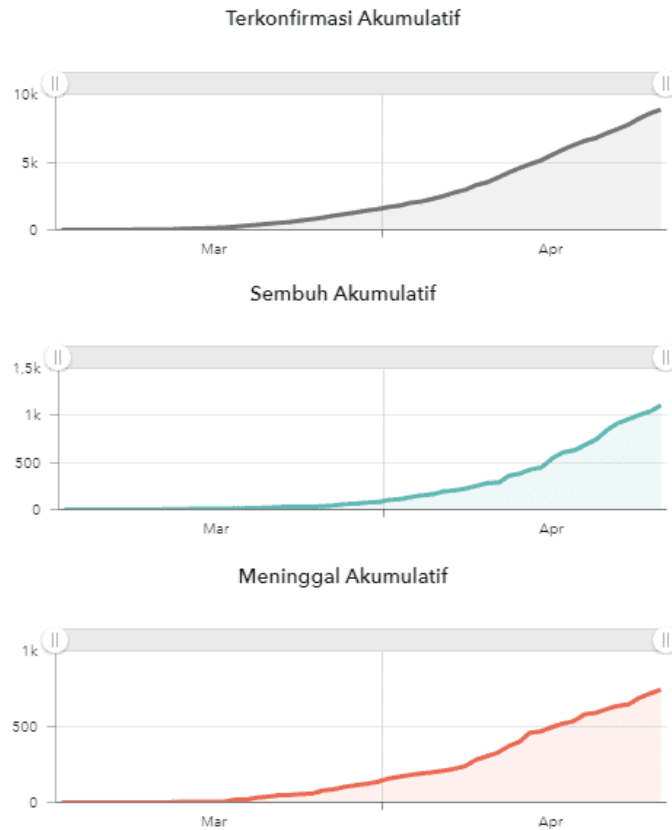
At that time the news about the Covid-19 problem became the main focus of the community. People with various sources of information continue to try to access the latest information about this virus problem. The mass media certainly provides a large portion of the delivery of Covid-19 information. With various news perspectives, the mass media presents it to the public. Be it the point of view of the government, medical personnel, health experts, economics, education, and so on.

Society and information related to Covid-19 interact every day, even every hour to minute. This is very possible with various media channels, be it conventional media or online-based media. The public is very thirsty for the development of information related to the Covid-19 case. The dynamics of handling this virus is one of the attractions in the news, up to the possibility of pros and cons that occur in the community. Such a large amount of information related to Covid-19 has led WHO to state that there has been an information pandemic over the Covid-19 issue and create the term "infodemic" (Thomas, 2020).

LPPM London School of Public Relation (LSPR) in March 2020 released the results of a study entitled Conversation on Corona COVID-19 Issues in Online Media and Social Media in Indonesia (Big Data Analysis). Quoted from the results of the study, that:

Data on conversations about Corona in Indonesia on online media (website) and social media (Youtube and Facebook) there were 821 conversations in the first two weeks (2 March - 14 March) after the announcement of COVID patients in Indonesia by the President of Indonesia on 2 March 2020. At that time, the total

Impression (total content displayed to the audience) on online media and social media in the first two weeks was recorded at 37,600,765. (LSPR, 2020).

This shows that public interest in this issue is very high. People are consuming information about covid-19 with enthusiasm, but the effects of this information are not all positive. Fear and panic due to information that is considered too heavy can also have negative consequences for health. As a review from a lecturer in the Psychology Study Programme (Prodi) at the Faculty of Medicine (FK), Universitas Sebelas Maret (UNS) Surakarta, Rini Setyowati, M.Psi, as follows:

"In this condition, the reaction from sufferers can be dishonest with previous travel history and contact with other Covid-19 sufferers to medical personnel. Another reaction could be that the patient feels anxious or worried about slow results after medical treatment. For the wider community, it can cause feelings of pressure, stress and anxiety with the news about the increasing number of Covid-19 sufferers," Rini said to uns.ac.id, Thursday (19/3/2020).

Rini added that confusing or inaccurate news can trigger stress in the community which affects stress hormones, causing the immune system to decline and be vulnerable to contracting Covid-19.

It is important for the public to literate information related to Covid-19 well, this does not lead the public to not care about the development of this information. But it is more about how people consume information proportionally. Excessive or too much frequency of information can have an effect on anxiety. However, being too ignorant to know the development of information also gives the effect of being less vigilant in society. A policy of seeking and knowing information will still make people vigilant, while not causing too much worry or panic.

However, in recent months, covid-19 cases have experienced a downward trend in at least the last 13 weeks (August-October 2021). We can see this in the following data:

(Source: https://github.com/CSSEGISandData/COVID-19, accessed on 28 October 2021, at 09.30 AM).

From this data, we get an idea that there is a possibility that people's behaviour is no longer the same regarding responding to the covid-19 case. This is very possible because it is in line with the reopening of face-to-face schools even though the concept adapts to the Covid-19 situation. The assumption that people will return to communication activities in general to be direct (face-to-face) and reduce media activities is very reasonable. When people no longer pay much attention to the development of information related to Covid-19, it is assumed that the use of information technology may shift to other interests.

Other interests may return to the habit of using information according to individual needs or it is possible that there is an influence that occurs with new information needs after the decline in covid 19 cases. For example, people may have a new culture to pay attention to health issues. Another possibility is that people pay more attention to economic information after the impact of Covid 19 on this matter. Or a new habit of using media that is dominated by entertainment needs due to the

impact of high stress levels due to the previous Covid 19 case.

It is interesting to be able to observe the development of information consumption after the recent covid-19 case. With the development of communication technology during the industrial era 4.0 which is growing rapidly, this can be done. Utilization is not only done for communication but also used for effective and fast information dissemination. In this regard, the utilization of data derived from scattered information has emerged. Starting from the United States Department of Defense for the dissemination of information and local networks in 1969, a network called Arpanet was created by the Arpa Institute project (Hauben, 2006).

In its development until now, Arpanet has transformed into the Internet. All information and communication dissemination has been through a large network that covers the entire world with the mention of the *internet of things*. Nowadays, the use of the internet is used thoroughly for the daily life of the community at large. The Internet clearly has the potential to affect the capacity of under-resourced communities and social or political groups to gain information and expertise through the increased breadth of information freely available to every Internet user, on almost any subject imaginable (Kelly, 2012).

One of the leaps in internet use today is big data. As we know, since 2012 academic studies on big data have increased rapidly. There is a lot of research on big data in various fields. In this section, academic studies on big data are mentioned. For example, a study was conducted aimed at finding out the experience and satisfaction of hotel guests. How to find out customer satisfaction in the testimonial column in the expedia.com application. After the initial processing, classification methods are applied to the data. After that, statistical relationship analysis was carried out (Xiang et.al., 2015). In other research, diffusion studied the use of big data in cloud computing. They mentioned the closeness of the concept in 5 case studies. After that they informed about the big data storage system. The importance of Map Reduction algorithms is also told in this research (Hashem et.al, 2015). Gandomi and Haider's research provides an informative overview of big data. Specific definitions, characteristics of big data, and analysis used in big data are involved in this research (Gandomi and Haider, 2015). By understanding the developments above, the author takes the role of big data in this research as a data collection technique to view the activities of social media users in consuming information about the people of Banten.

The big data analysis in this research is based more on data taken from social media, especially YouTube. This is because according to Banten Viva.com YouTube is the most popular social media in the world. Likewise with the people of Banten, who often use YouTube to access information, especially related to news that is going viral in the community.

As we know that the term big data is currently a new trend in observing the development of community activities in cyberspace. So with this research plan, it is hoped that the data will be produced to provide input to stakeholders and related parties as a whole, especially policy makers.

RESEARCH METHOD

This research uses a qualitative approach. Qualitative research is a research method that is based on subjective evaluations of behavior, attitudes, or events (Sobur, 2014).

This research analyses with a qualitative approach to big data-based social media. The main method of obtaining data is through data mining. Data mining is the process of extracting valuable information or hidden patterns from large data sets. To perform data mining, a variety of techniques and tools are usually used, including statistical modelling, pattern recognition, machine learning, and natural language processing. The results of the data mining process can help organizations optimize business processes, improve decision-making, and better understand their customers or users. AI in the form of data mining can also be used to analyze internet-based big data.

The data mining used in this research is downloaded from the nodeXL application. This application will provide an overview of the data which will then be analysed using related communication science theories (Catur, 2019).

RESEARCH RESULTS

The research results of the big data analysis of Banten people's information consumption after the decline of the covid 19 case were carried out with an information approach that was considered to represent the interests of the general public. Certain themes were chosen by the research team to be able to explain the description of Banten people's choices of information shared, consumed and discussed. The information themes limited by the research team are:

1. Health Information
2. Education Information
3. Political Information
4. Economic Information
5. Tourism Information

The five themes then become keywords used to pull data from the selected social media. The social media chosen is YouTube, this is because it departs from the results of a world survey that YouTube is the No.1 most popular social media in the world (https://banten.viva.co.id/teknologi/564-bukan-tiktok-ternyata-ini-aplikasi-media-sosial-terpopuler-nomor-1-di-dunia), February 2023. And Indonesia is the 4th largest country that uses it the most, (https://www.oberlo.com/statistics/which-country- watches-the-most-youtube), March 2023.

Besides these reasons for popularity, the habit of creating or sending messages via YouTube has also been significantly carried out by the Indonesian people. Not only that, YouTube is also an effective social media to use in responding to shared information material (Puspitasari & Sari, 2022).

Referring to the purpose of this research is how messages or types of information are conveyed about Banten by the community, then technically this is done by pulling post data. Then for other purposes, namely about the people who consume information, this is shown by the community response whose data is obtained from the comment column and reply to comments.

Then related to the use of software used to pull data from YouTube, the research team used NodeXL Pro. This software can pull information data about the activities that are the research objectives, that is: communicators who convey information, what the information is and how the audience responds.

The following is a sample of data retrieval conducted using NodeXL Pro software with the keyword "Banten Health"

Figure 1.
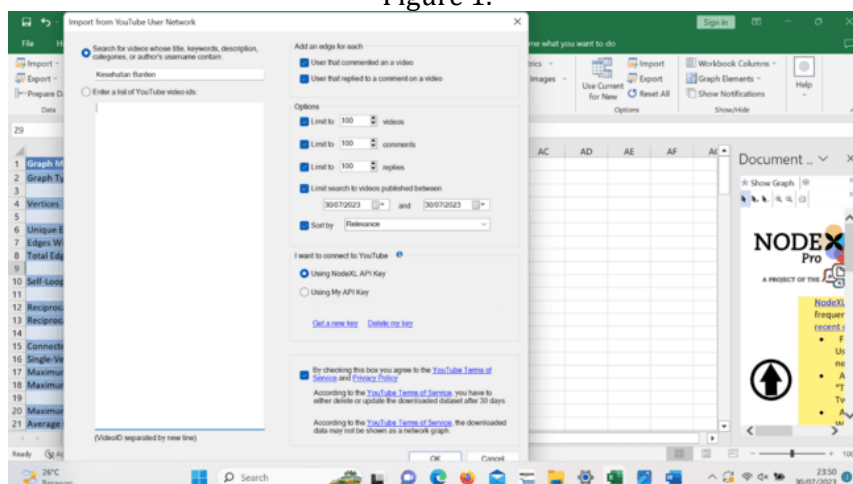
In this NodeXL Pro software, data import can be done by using keywords for the desired information, in this first step is "Banten Health". To answer the research objectives, the information submitted will refer to the "videos" column with a limit of 100. Then to answer how the audience responds after the information is delivered, it will be seen in the "comments" and "replies" columns, each limited to 100. What distinguishes "comments" and "replies" as we know on YouTube social media is that "comments" are direct comments to video posts. While "replies" are responses to those who comment. This means that we can analyse what the audience response activity is like, we can even find out who tends to bring up further comments in the form of "replies" and what these comments look like. Then finally how the theme emerged the dynamics of communication between the YouTube activists of the Banten community.

Health Information Consumption in Banten
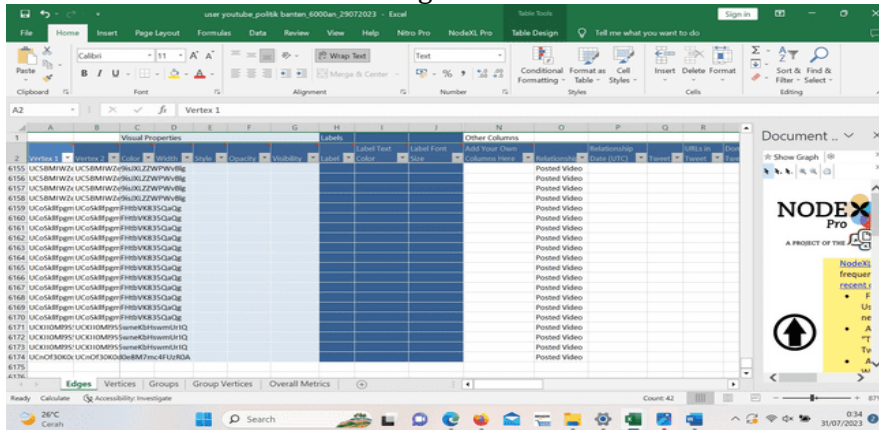
Figure 2.

Figure 3.

(Source: research excerpts)

After the research team looked at the data generated on the theme of Banten Health information, the results obtained 324 conversations. With 92 video information posts, 185 comments and 47 replies to comments.

Consumption of Education Information in Banten

Figure 4.

Figure 5.

(Source: research excerpts)

After the research team looked at the data generated on the theme of Banten Health information, the results of information and conversations were obtained 595 times. Which is divided into 94 video information posts, 456 comments and 45 replies to comments.

Consumption of Political Information in Banten

Figure 6.

Figure 7.

(Source: research excerpts)

After the research team looked at the data generated on the theme of Banten Health information, the results of information and conversations were obtained 6172 times. Which is divided into 100 video information posts, 5321 comments and 751 reply comments.

Consumption of Economic Information in Banten
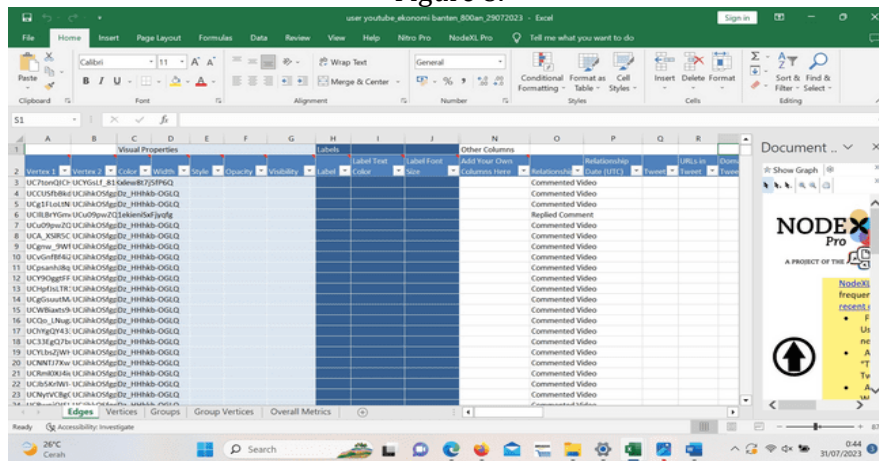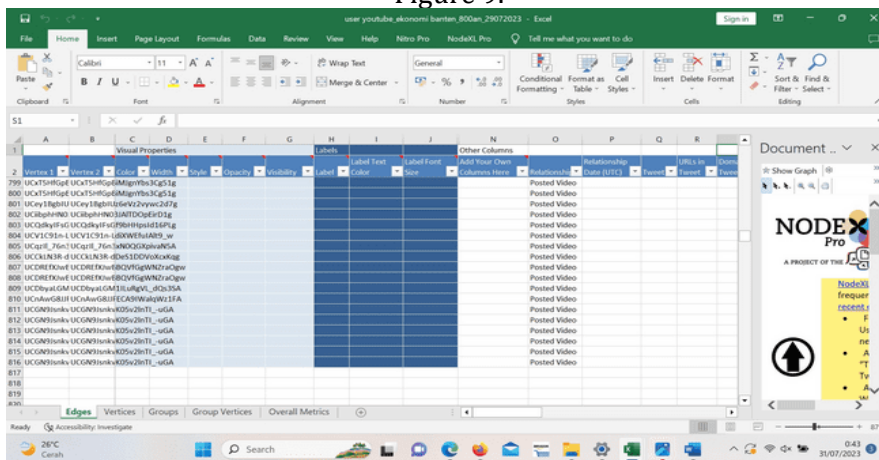
Figure 8.

Figure 9.

(Source: research excerpts)

After the research team looked at the data generated on the theme of Banten Health information, the results of information and conversations were obtained 814 times. Which is divided into 89 video information posts, 633 comments and 92 replies to comments.

Consumption of Tourism Information in Banten

Figure 10.

Figure 11.

(Source: research excerpts)

After the research team looked at the data generated on the theme of Banten Health information, the results of information and conversations were obtained 3118 times. Which is divided into 97 video information posts, 2014 comments and replying to comments as much as 1007.

The concept of media lifestyle according to McQuail is often used in describing and classifying various patterns of media use, often as part of a constellation of other attitudes and behaviours. In one sense, the lifestyle concept offers an escape from the belief that media tastes are determined by social class and education because to a certain extent, lifestyles are self-selected patterns of behaviour and media use choices. This research illustrates the importance of understanding media users' perspectives rather than simply analyzing media content or its effects. That individuals have the freedom and will to choose media that fulfills their information needs or consumption, not just being influenced by media messages (Charles R. Wright in Wiryanto, 2003). As is known, information consumption is the process of someone searching for, receiving, processing and using information. This process can occur consciously or unconsciously, and can be influenced by various factors, such as needs, motivation, and availability of information. Information consumption is a process where individuals use media to fulfill their needs and desires (Blumer and Katz, in Morissan 2013). Then Jay G. Blumer and Michael Gurevitch (1974) defined information consumption as the process by which individuals select, use, and interpret media messages (Blumer and Gurevitch, 1974). Kathleen M. Carveth and James B.

Weaver (2005) define information consumption as a process where individuals interact with media to obtain information, entertainment, and social ties (Mulayana, 2010). This is one thing that is illustrated in the research results above, that when the Covid-19 pandemic era was considered to be over, how did the people of Banten choose to fulfill their information needs.

Media selection in the current era really pays attention to the capacity of communication channels. Communication channel capacity is a measure of the maximum capacity of a communication channel to transmit information (Cover, 2006). So in the context of describing the results of this research, social media is the right choice. Where social media is an online platform that allows users to communicate, share and collaborate. Social media has become an important part of many people's daily lives, and has changed the way we interact with each other and the world around us. Social media is an online technology that allows users to build social relationships, share information, and participate in joint activities (French and Stein, in Alyusi 2016). Social media is also a collection of internet-based applications that build on the ideological and technological foundations of Web 2.0, enabling the creation and exchange of user-mediated content (Kaplan and Haenlein, 2010). Social media is also interpreted as an online media platform that allows users to present themselves and interact, collaborate, share, communicate with other users, and form virtual social bonds (Nasrullah, 2015). The choice of social media ultimately answers this need in society. We can understand the freedom in consuming information by looking at the trends in social media use in various aspects of Banten society, as the research results illustrate.

The use of media in society needs to be based on understanding and the ability to select and sort information and how to use it. For people who are in a period of development and self-discovery, the existence of the media is an alternative to obtaining information about themselves. In the media, discusses the differences in meanings and concepts in audience activities, which in general are also described in society when using the media:

1) Selectivity. This type describes audiences as active, the more choice and discrimination that occurs in relation to media as well as content within media. This is usually evident in planning media use and in consistent patterns of selection (including buying, renting, or borrowing films or books).
2) Utilitarianism. Here, audiences are -the embodiment of self-interested consumers‖. Media consumption symbolises more or less conscious satisfaction and needs.
3) Purposeful, an active audience according to this definition is one that engages in active cognitive processing of incoming information and experiences.
4) Immune to influence. Following the path of the concept of a stubborn audience, the concept of activity here emphasises the boundaries set by audience members not to desire influence or learning. The reader, viewer or listener remains in control, and is not influenced, except as determined by personal choice.
5) Engagement. In general, the more an audience member is involved or caught up in a continuous media experience, the more we can talk about engagement. This can also be referred to as affective arousal. Engagement can also be indicated by signs, such as arguing with the television. (McQuail, 2013)

The selectivity of issues in this study explains that people convey messages or content through social media according to the conditions that are happening in society. People who previously observed a lot of information during the pandemic yesterday, today no longer choose health information as a priority. And placing health issues as the least selected information among the five issues observed by the author in the data mining process above. Instead, the political momentum ahead of the general election is the main issue in conveying messages on social media.

As for the context of involvement as argued by Biocca (in McQuail 2013) above, it does not occur much in the issues of education, economy, and health. While on the issue of tourism and politics the involvement to communicate with each other looks quite dominant.

CONCLUSIONS

1. Community communication behaviour about Banten Province on Youtube social media is not dominated by two-way or more communication models. Feedback only occurs on certain aspects of information.

2. The aspect of political information is the theme that occurs the most in two directions or more. Meanwhile, the health information aspect was the least discussed and did not generate much feedback.
3. Health information is no longer the subject of public attention. Among the five aspects of information that researchers looked at (health, education, economy, tourism and politics), health information was the least communicated (both one-way and two-way) by the community.

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