Smart City And Media

---When Kompas Online Talks About Smart Cities in Indonesia

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Abstract—**By the end of 2014, the trends of creating a better service for citizens had been emerging in Indonesia. Some of the cities started to prepare for being the smart cities. A better service for citizens can be done using some new technologies and innovations, especially internet matter in a smart city. One of the factors for the successful of smart city is mass media. Nowadays, online media has developed rapidly. One of the famous online news portal in Indonesia is kompas online. Using a content analysis, this research analyzed the news about smart city in kompas online, in 2015. The result shows that there are only 38 news about smart city in kompas online in the period of 2015. The majority of the news mentions only two cities, Bandung and Jakarta. However, positive tone of the news were dominating.**

Keywords—smart city; content analysis; online news; Indonesia

I. INTRODUCTION

The development of technology changes the way of life of people in a country. The establishment of internet connection is only one of the examples. Using internet, people can do many of their things more easily and vastly. Using internet connection, smart city becomes the innovation for public service in a city. It can helps people for doing their activity effectively and efficiently. The technologies that play an important role in a smart city system are information and communication technology.

Forrester Research defines smart city as the using of information and communications technologies, in order to make the critical infrastructure components and services of a city – administration, education, healthcare, public safety, real estate, transportation and utilities – more aware, interactive and efficient[1]. In a smart city, the key concept is coordination and easiness. People no longer need to come to a place that is might be far away from their houses to pay for their needs. They just need a smart phone, that is be integrated to another device or internet connection.

Some research about smart cities all over the worlds have been conducting, such as the applications, challenges, and opportunities of smart city is China[2], the technical solutions and best-practice guidelines adopted in the Padova Smart City in Italy[3]; the applications of smart cities in Amsterdam, Chicago, New York, Busan, and Nice in France[4], and the general societal impact of smart city. Moreover, in Indonesia, Bandung has known as the first city that initiatives their

infrastructure to be a smart city[5], while the other cities in Indonesia that have initiatives to be smart city are Malang[6], Manado[7], Bogor[8], Surabaya[9], and Surakarta/ Solo[10].

In the other side, media plays a very important function in the society. The mass media involved in the process of mass communication where the dissemination of the message happens vastly. There are some functions of mass communication using mass media, such as surveillance, linkage, socialization, and entertainment[11]. One of the functions of mass communication process using mass media that relates in this study is surveillance function. Moreover, mass media nowadays have been developing in technology. Internet era has happening since the late 1990s. It also affects the people's life style in consuming mass media. Many people access online media. The news that appear in online media has been being consumed by people to fulfill their needs of information. Moreover, the appearance of smart city on news are important to show how this phenomena works in real life.

II. METHODS

It is a quantitative descriptive research. This research was conducted on the news about smart city in Kompas Online (www.kompas.com) that published in 2015. The collecting of the object of research found that there are 38 news about smart city in 2016. The searching of the news was done using search engine of the online news portal. The keyword that was used is 'smart city'.

The online news portal is being chosen because it is one of the outstanding media company in Indonesia. Using content analysis, it tries to find out some aspects in the news. Content analysis is a method to learn and analyze communication objectively, systematically, and quantitatively[12].

This research elaborated six aspects: (1) the amount of the news, (2) the amount of 'smart city' phrase appears, (3) the tone of the news, (4) the context of the news, (5) the source of the news, and (6) the sex of journalists that write the news up.

III. RESULT

The result of the observation on the news about smart city in kompas online can be found in the table below:

TABLE 1.

No	Content Analysis		
	Aspects	Frequency	%
1.	The amount of the news	38	100
2.	The amount of 'smart city' phrase appears	168	100
3.	The tone of the news	38	100
	a. Neutral	5	13.16
	b. Positive	32	84.21
	c. Negative	1	2.63
4.	The context of the news	38	100
	Bandung	11	28.95
	Jakarta	14	36.84
	Others (Indonesia, Singapore, Tokyo, Kutai, Batam, Bogor, Tangerang, Banda Aceh, Tanjung Selor)	13	34.21
5.	The source of the news	38	100
	Governor of Jakarta	9	23.68
	Mayor of Bandung	5	13.16
	Others	24	63.16
6.	The sex of journalists that produce the news	38	100
	Male	13	34.21
	Female	25	65.79

Source: The content analysis of the news about smart city in Kompas Online in the period of 2015

Table 1 shows the aspects of the news about smart city in kompas online. It shows that there are 168 "smart city" phrases from the total amount of 38 news. It means that the phrase came up in average four times on each news. The interesting data above is about the tone of the news. There are 32 positive news (84.21%), and only one negative news (2.63%) in 2015. Moreover, from the aspects of the context of the news, it is showed that 11 of 38 news talked about smart city in Bandung context; 14 of 38 news talked about smart city in Jakarta, and the rest are talk about Indonesia generally, other cities in Indonesia or other cities abroad, such as Singapore, Tokyo, Kutai, Batam, Bogor, Tangerang, Banda Aceh, Tanjung Selor. The source of the news is also an important aspect in content analysis of a news. From the table above, Governor of Jakarta became the source of the news for nine articles, it means that one third of the total news, the source is the chief of Jakarta Special Region. Meanwhile, the Mayor of Bandung became the source of the news in five articles (13.16%), and the rest of it are the Chief of Indonesian National Police, the Chief of Investment Coordinating Board and District Promotion, chief of Telkomsel, minister of Communications and Informatics, minister of National Development Planning, Chief of PT. PGN, General Manager of PT. Panasonic Gobel, Indonesia, governor of West Java, President of International Academy of CIO Waseda University, Chief Director of Telkomsel (63.16%). Eventually, looking at the journalists that produced the news, it is found that mostly the news articles are written by female journalist.

IV. DISCUSSION

Generally, the data shows that in a year (2015) which consists of 365 days, there were only 38 news that talk about smart city in kompas online. It means that quantitatively, the amount of the news is not quite enough to show to the people that smart city is an important program in Indonesia. Meanwhile, the amount of media exposure is important for people in increasing policy-specific knowledge of government policy, such as the volume, breadth, and prominence of news media coverage[13].

It also shows that smart city topic is unable to give an economical benefit for the online media institutions. Sometimes, even though a topic is not good enough, the media institution will keep publishing the news about it as long as it gives a good benefit economically.

However, the tones of the news were actually good enough, because almost all the news have positive tones. The tones of a news able to affect people[14]. Moreover, Bandung and Jakarta became the cities that are being mentioned often. It is because Bandung and Jakarta were considered as the city that ready to be a smart city in anytime soon, by the news were published. It is also understood that until now, the two cities have a great development in positioning the city as the smart city, even some other cities in Indonesia are ready to compete to be the smart city. The appearance of Bandung and Jakarta in the aspect context, automatically cause the data on the aspect of source. The leader for two regions became the source that often being interviewed for the news.

Finally, the other important finding in this research is the last aspect, the journalist. It appears that female journalists are bigger than the male journalists. It is contrast with some research about women in the technology innovation, especially internet[15][16].

V. CONCLUSION

From the discussion, it can be found that kompas online views smart city as a usual topic. However, the phrase "smart city" might be able to be a well-known phrase because of it appearance per news article. After the people being aware of it, at some points in the future it might be easier for people to understand what smart city is, and how it can make peoples life get easier each days. The interesting finding is the tone of the news. Although there were only a few of news about smart city, but the tone of the news tends to be positive.

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