

**Band Aid Solution to Fake-News Malaise:
Causes for Fake-News Circulation and Stakeholders Policies
in Combating the Malady in Indonesia**

By

Nurma Fitrianingrum

Submitted to

Central European University

School of Public Policy

In partial fulfilment of the requirements for the degree of Master of Art in Public Policy

Supervisor: Marius Dragomir

Budapest, Hungary

2019

Author's Declaration

I, the undersigned Nurma Fitrianingrum hereby declare that I am the sole author of this thesis. To the best of my knowledge this thesis contains no material previously published by any other person except where due acknowledgement has been made. This thesis contains no material which has been accepted as part of the requirements of any other academic degree or non-degree program, in English or in any other language.

This is a true copy of the thesis, including final revisions.

Date : 14 June 2019

Name : Nurma Fitrianingrum



Signature :

Abstract

Indonesians have witnessed and become part of rampant proliferation of fake-news in the country in the last years. Fake-news became a problem that threatens policy implementation, people were rejecting national vaccination program caused an outbreak of Measles and Rubella in Indonesia. The studies about fake-news in Indonesian context are very limited, and on the other hand focused the attention on the use and effects of fake-news on the election process. This research attempts to identify the causes of fake-news dissemination in the country, as well as measure the government approach to combat fake-news. Based on the literature review, analysis on previous studies and government data, several causes for fake-news proliferation have been identified (1) the emergence of new social capital in the form of online community, (2) unsolved economic inequality and growing opportunity inequality, (3) increasing polarization, (4) low trust in science, (5) low critical thinking and digital literacy, (6) political asymmetry credulity, (7) evolution in online and offline media including low trust in partisan news media. To counter fake-news, government, news company, over the top companies, and fact-check communities has been working hand in hand, nonetheless the distribution of fake news remain high since the programs fails to solve the main problems.

Acknowledgment

I would like to express my profound gratitude to my supervisor Marius Dragomir for his help in refining my thoughts and for the last minutes support when anxiety hit me.

For Shu and Mitch, I can't imagine how I would finish these 10 months without you both, thank you for the constant support both academic and life (including foods and pills). For all 2018-2019's SPP students who make this academic life less boring.

To my parents and sister whose unconditional support put me in this journey.

And finally, to all my friend home, without you I won't be here.

CEU Nador 13, 2nd floor.

14 June 2019

Table of Contents

Author's Declaration	i
Abstract	ii
Acknowledgment.....	iii
Table of Contents	iv
List of Abbreviations	vi
I. Introduction	1
1.1. Background.....	1
1.2. Context, Research Gap and The Novelty of the Research	3
1.3. Research Methods	5
1.3.1. Research Objective.....	5
1.3.2. Research Question	6
1.3.3. Methodology	6
II. Theoretical Foundation	8
2.1. Fake-news and the Post-truth era	8
2.2. Filter bubble and echo chamber effect	10
2.3. Factors to post-truth.....	12
2.4. Counter-fake-news Approach	15
III. The Causes of Fake-news Proliferation in Indonesia	18
3.1. Social capital	18
3.2. Economic inequality	19
3.3. Increasing polarization	20
3.4. Low trust in science and digital literacy	21
3.5. Political asymmetric credulity and intensifying political divide	22
3.6. Evolution of online and offline media landscape.....	23
IV. Stakeholders Effort to Combat Fake-News.....	27
4.1. The government	27
4.1.1. Debunk fake-news.....	29
4.1.2. Digital literacy movement.....	31
4.2. News Companies.....	33
4.3. Over the Top Company.....	34
4.4. Civil Society.....	35

V. Conclusion	37
5.1. The Fake-News in Indonesia: Band Aid that Does not Cure the Disease?	37
5.2. Policy Recommendation	39
5.3. Future research agenda.....	42
Bibliography.....	43

List of Abbreviations

MCI	: Ministry of Communication and Informatics
MAFINDO	: Masyarakat Anti Fitnah Indonesia (Anti-Defamation Society of Indonesia)
OECD	: The Organisation for Economic Co-operation and Development
MASTEL	: Masyarakat Telematika Indonesia (Telematics Community of Indonesia)
NU	: Nahdlatul Ulama (a traditionalist Sunni Islam Organization)
APJII	: Asosiasi Penyelenggara Jasa Internet Indonesia (Association of Indonesian Internet Providers)
NGO	: Non-Government Organization

I. Introduction

1.1. Background

In recent years, internet and social media have become an inseparable part of human life, enabling people to communicate and share information in a way that was impossible to do using previous technologies. Earlier technologies such as radio, television, print media only allow one-way communication or two ways communication but only by two or few people. Internet and particularly social media have changed how media facilitates human interaction. Everyone can have a direct conversation either written or spoken with other people or in a group with only minor limitations. Information exchanges between people or groups can be done in a matter of seconds, a narrative can spread and become viral just in a finger tap. People communicate, expressing their opinion, showing their political stance, complaining to the government about certain policy or service through social media. Social media has become a primary medium of information exchange, changing the way news is consumed, shaping and showing the users' political stance directly or indirectly (Alemanno, 2018, p. 1).

Not only has individual communication changed but internet and social media have also changed the way governments and people communicate. On November 2014, The Organisation for Economic Co-operation and Development (OECD) accounted that 28 out of 34 executive government institutions had a Twitter account while out of 34 countries operated Facebook pages (OECD, 2015). The use of social media is not limited to the central government or executive bodies, in some countries, local governments, ministry offices, state departments also have their own social media team and accounts, providing updates on government policy as well as answering citizens' questions about their services. Studies have shown that the government uses social media to increase transparency, participation, and collaboration with its citizen (Mergel, 2013, p. 327), which can result

in increasing trust in the government and political institutions (Ceron & Negri, 2016, p. 132).

Moreover, the general public (or average citizen) nowadays learns about government policy from mass media (Soroka & Wlezien, 2019, p. 471), with information widely available through social media from both the government or a third party (news outlets, individuals, think tanks, activists, etc.).

Opposite to the initial optimism that internet can provide easily available and freely accessible knowledge (Baum & Potter, 2019, p. 747), internet nowadays appears to be the catalyst of the distribution of biased narratives and fake news (Tornberg, 2018, p. 2). Internet and social media have made it possible for people to make and distribute their own news or narratives in a matter of minutes without the presence of an editor. This environment of information distribution is completely different from the old media age where the source of information was relatively limited, and most of the information distributed was checked by editors in national television broadcasters, newspapers, or radio (Seifert, 2017, p. 397). Presently, no such ‘editor’ checks the information people share on the internet.

Fake news in many forms has spread across internet platforms through social media, websites, blogs to mobile instant messaging applications. Furthermore, false information spreads significantly faster and deeper than true information or well-researched articles of reputable news channels (Alemanno, 2018, p. 1; Vosoughi, Roy, & Aral, 2018, p. 1146). The ‘new influx’ of fake news in recent years, specifically after 2016, has distorted the quality of the information proliferated on social media and disrupted our response to any information we receive (Vosoughi, Roy, & Aral, 2018, p. 1146). Fake news then distorts the public-government online communication model that has been built in the last decade, undermining the trust of the public in the government, which could potentially affect the policy process.

Indonesia experienced the emergence of fake news during the 2014 presidential election, which then intensified in greater level during the Jakarta's gubernatorial election in late 2016 (Utami, 2018, p. 85). A survey conducted by MASTEL (Indonesian Telematics Society/ *Masyarakat Telematika Indonesia*) showed that 34.6% of 1.116 respondents received false information on a daily basis, while 14.7% respondents stated they received hoaxes more than once a day. A proportion of 87.5% of respondents received hoaxes from social media while 67.0% got it through mobile instant messaging applications. Websites also became the source of hoax at least for 28.2% of the respondents while print media, email, television and radio were each a source of hoax for under 10% of the respondents (MASTEL, 2019, p. 24). The study shows how severe the false information dissemination is in Indonesia. The rampant proliferation of false information on social media was also believed to cause the failure of national program of Measles-Rubella vaccination in Indonesia as well as the rubella outbreak in Indonesia last year (Cahya, 2019). Fake news distribution has threatened the implementation of government public health program and put the health of future generation at risk.

1.2. Context, Research Gap and The Novelty of the Research

Most studies on fake news have so far focused on the US and UK, particularly around the use of fake news during the Trump candidacy and presidency, and Brexit in the UK (Bakir & McStay, 2017; Guess, Nyhan, & Reifler, 2018; Nice, 2019; Verstraete, Bambauer, & Bambauer, 2017). This research offers novelty in the study of fake news and public policy as it discusses the case of Indonesia where such studies are still rare. Previous studies on fake news in Indonesia mostly focused on the use of fake news in elections (Parahita, 2018; Utami, 2018). Both Utami (2018) and Parahita (2018) studied the hoax circulation surrounding the Jakarta gubernatorial election where sectarian issue such as religion and race were used to attack both candidates but heavily targeted Basuki Thaja Purnama, who then lost the race. Utami (2018) focuses on the character of hoaxes circulated on social media

during the campaign and election period; the author found that hoax mostly used to attack the candidate they are opposing although their support for the other candidate was not clear either. Meanwhile, Parahita (2018) examined the correlation between voters' socioeconomic status, political partisanship, diversity in media exposure, trust in media, digital fluency and their (dis)-belief of online political disinformation. The regression analysis came to the conclusion that these factors have significant correlation to voters (dis)-belief in online political hoax, but among all factors, political partisanship posed the highest correlation score (Parahita, 2018, p. 136).

Some scholars tried to study the role of fact checking communities and NGOs in combating hoaxes in Indonesian language, both online and offline (Adzkia, 2017; Nugroho, 2017). Adzkia (2017) studied two communities, MAFINDO (Anti-Defamation Society of Indonesia/ *Masyarakat Anti Fitnah Indonesia*) and Nahdatul Ulama (NU) who for the last couple of years have been engaged in fighting hoaxes. Both organizations seek to debunk false information related to Indonesian politics and religious sectarian issues surrounding Jakarta Governorate election. Nugroho (2017) also studied the role of MAFINDO in fighting hoax, deceitfulness, and wrongdoing to restore Indonesian identity.

Other topics have been also explored by researchers, including the association of the filter bubble effect with the act of persecution in social media (Hidayah, 2018), review of regulations related to the proliferation of fake news (Pakpahan, 2017), the fake news distribution model in Indonesian social media and mobile instant messaging application (Ilahi, 2018; Situngkir, 2011). Ilahi (2018) studied the proliferation of hoax messaging related to child abduction through WhatsApp among women. The author found that women are more prone to spreading hoax through WhatsApp due to their lack of media literacy and emotional aspects such as their close feelings about the abduction issue (Ilahi, 2018, p. 109).

None of the previous studies really paid attention to the possible root of the high proliferation of fake news in Indonesia and its implications to public policy, and government policies on combating fake news. Indonesia also provides a fertile locus for studies about social media and policy since it has one of the highest numbers of social media users globally (Baker, 2019). According to Asosiasi Penyelenggara Jasa Internet Indonesia (APJII-Association of Indonesian Internet Providers), 64.8% or 171.17 million Indonesians were connected to the internet in 2019, an increase of 10% from the previous year (Pratomo, 2019). With the immense number of people online, the volume of fake news distributed online each day also positively correlates, fake-news proliferated massively where one-third of Indonesian got fake-news on daily basis (MASTEL, 2019, p. 24). On the other hand, Indonesia is also one of the biggest democratic countries in the world, with citizens directly choosing the legislative and executive governments at local (regency), provincial, and national levels through elections organized every five years, which makes the public relatively influential in the government decision-making process. This paper asserts that only by understanding the ground and causes of fake news dissemination in Indonesia, effective public policies can be formulated.

1.3. Research Methods

1.3.1. Research Objective

This research aims to describe the causes of the high dissemination of fake news in Indonesia and what factors influence it, by exploring the causal process underneath. This thesis also examined the policies that Indonesia already has in place to combating fake news and measured their effectiveness.

1.3.2. Research Question

This research investigates the factors behind the high proliferation of fake information in Indonesia, the effect of fake information on the public policy process in Indonesia and evaluates the measures that the government has adopted to curb fake news.

1. What causes the high proliferation of fake-news in Indonesia and how those factors work in Indonesian context?
2. What policies the stakeholders in Indonesia have to fight fake-news distribution?
3. Why the approach in combating fake-news are not effective to curb fake-news distribution?

1.3.3. Methodology

The research employs primarily qualitative methods to achieve its objective since the author seeks to understand social phenomena through deductive reasoning. To be specific, explaining-outcome process tracing will be used to study the causal mechanism of fake news proliferation in Indonesia. This approach enables to study and seek the causes of a specific outcome in a single case (Beach & Pedersen, 2013, p. 18), which in this paper is fake news proliferation in Indonesia. The purpose is to gather a sufficient explanation of the increasing amount of false information and to measure the effectivity of government approach/policy in combating fake news. In doing explaining-outcome process tracing, the author uses a deductive path and employs a conceptual mechanism explained in the previous chapter. One thing to note, using this method research process can not 100% guarantee the accuracy of the theory or conceptual mechanism build. Beach & Pedersen (2013, p. 21) wrote that researchers can stop when they are “satisfied that the found explanation accounts for the most important aspects of the outcomes”. The analysis will be based on the already existed data and previous analysis. Secondary data ranges from government documents, previous related studies, statistical data, non-government

organization (NGO) studies, think tank reports, scholarly articles both in academic journals or in more popular mediums, news articles. The research only uses secondary data without any interviews or surveys of Indonesian citizens or the Government of Indonesia, and other stakeholders related.

II. Theoretical Foundation

2.1. Fake-news and the Post-truth era

The term “fake news” has been widely used in both academic and political discourses since 2016 when media and scholars started to scrutinize the US election and the UK referendum to leave European Union. Following that, President Trump, and various autocratic leaders around the world have used the term excessively to identify any news that criticized their policy or tweets. The Collins dictionary then named “fake news” the word of the year in 2017 (Hunt, 2017). But, despite the massive use of the word, fake-news has no clear-cut definition (Alemanno, 2018). Furthermore, regardless of the recent popularity of the term, “fake news” is not something novel in human history. The spreading of false written information used as propaganda to undermine other individual powers can be traced back to the Roman empire when Octavian (then became August) sabotaged Antony and Cleopatra meeting, the great moon hoax in the New York Sun in 1835, and German corpse factory propaganda used by British to demonise Germany during World War I (Posetti & Matthews, 2018, p. 1).

The fast-growing internet technology and social media in the last decades has sped up the distribution of fake news bringing it to a level that has not been seen before. Today people receive information from multiple streams at the same time, causing information overload, and none but the information receiver acts as the ‘gatekeeper’ to check the accuracy of the information. The Internet has enabled an individual to access more information from various sources, more access to television channels, news providers, news websites, blog posts, social media feeds (Seifert, 2017, p. 398). People have access to abundant information but have no capacity to critically process that information. The massive dissemination of fake news has brought us to the what has become known as the post-truth era. Not every individual is aware that the information they receive might

be wrong or might have been forged. Readers consume information or reshare it without any ‘filtering’ process (even resharing articles without reading them). Those conditions make people need to be warned to critically assess the source of news since we are intentionally exposed to any kind of news from varieties of sources, both credible and untrustworthy (Seifert, 2017, p. 398).

Before the term “fake news” was used, scholars were using the word ‘hoax’, which MacDougall (1958) defined as “deliberately concocted untruth made to masquerade truth”. By his definition, MacDougall tried to distinguish hoax from honest errors produced by humans and said that hoax has no factual foundation (Utami, 2018, p. 88). Consequently, there is no agreement on where the problem lies, how to frame it and tackle it (Alemanno, 2018, p. 2). Moreover, the word is often interchangeable with words such as hoax, misinformation, disinformation. Academically persuasive definition came from Allcott & Gentzkow (2017) who defined fake news as “news articles that are intentionally and verifiably false and could mislead readers”. Many people could not differentiate the degrees of fake news to understand the harm that they inflict.

Vasu, et al. (2018, p. 5) tried to break down fake news into five categories based on the spectrum of the phenomena: (1) Disinformation, falsehood and rumours deliberately distributed to undermine one’s credibility, the target can be individual, the government, private sector, and others.

Disinformation can also be part of a state-sponsored campaign. (2) Misinformation, falsehood and rumours propagated as part of a political agenda by a domestic group/differing interpretation of facts based on ideological bias. (3) Misinformation, falsehood and rumours propagated without a broad political aim, either with or without malicious intent that achieves viral status. (4)

Entertainment, falsehood used in parody, satire, or seemingly humorous pieces. This kind of fake-news sometimes was believed as truth because not all public understands its entertainment purpose.

(5) Falsehood distributed for financial motives.

While (2017) identified 7 types of fake-news, (1) satire of parody without intention to cause harm but potentially fools people; (2) misleading content used to frame an issue or figure; (3) imposter content or impersonated content of genuine sources; (4) fabricated content which 100% new designed to deceive and do harm; (5) false connection created by irrelevant headlines, visuals or caption with its content; (6) false context, when genuine content is shared with false contextual information; (7) manipulated content, when genuine information or image is manipulated to deceive.

Fake news as a term consists of different kind of false information used to undermine someone's or an institution's legitimacy for different purposes or motives such as political or economic. Fake news can be used in various format such as patently false, misleading, misguided or fabricated information, trolling, or even satire since not everyone might understand the purpose of satire and consume this genre as true information, which thus leads to misinformation.

2.2. Filter bubble and echo chamber effect

Many people and particularly experts were confident that internet was leading the world to a better place. It was believed to be a game changer to the exclusive society, centralized media, over-bureaucratic and non-transparent government. Internet brought hope to develop more transparent and decentralized governments, connecting millions of people with good intention and aiding in facilitating collective actions. But as the advancement of internet technology and personalization of algorithms, the internet turns the ecosystem into more enclosed divisions (Pariser, 2011, p. 7).

Internet users are now living in their own sealed bubble with their own biases amid an online content overflow.

The filter bubble and echo chamber were born when Google introduced what the company called "personalized search for everyone". That day, Google's algorithm started to use 57 signals collected from log in history, browsing history, site visits, and browser that people are using to create a

prediction over what kind of site and content that an individual likes. As a result, when people use Google, they will get content that ‘mirrors’ their very personal preferences and any information from Google will vary from one individual to the other even though they search the same word at the same time (Pariser, 2011, p. 6). Later not only Google but also social media and news companies use this similar method of 'algorithmic filtering' to ‘decide’ on what people do and do not see or receive in their feeds. This filtering technology indirectly has changed not only how the world is presented around them, but also how people see the reality of the world and any social aspects within it. Thus, a biased view of the world of every individual cannot be avoided.

Filter bubble is defined by Geschke, Lorenz, & Holtz (2019, p. 130) as “an individual outcome of different processes of information search, perception, selection, and remembering the sum of which causes individual users to receive from the universe of available information only a tailored selection that fits their pre-existing attitudes”. Everyone has their own online filter bubble based on their internet activities records, but even though filter bubble is individually tailored, some individuals might have similar (but not perfectly identical) filter bubbles. These similar filter bubbles that confirm certain beliefs are potentially creating the echo chamber effect (Geschke, Lorenz, & Holtz, 2019, p. 130). Geschke, Lorenz, & Holtz (2019, p. 130) stated that an echo chamber develops when the filter bubbles of interacting individuals strongly overlap with each other. It created a community with similar beliefs, visions and points of view because they only receive and consume almost identical information. Furthermore, with the great control that social media offers, individuals, can easily choose their favoured echo chamber that confirms their pre-existing attitudes and biases (Baum & Potter, 2019). As a result, users trapped in the echo chamber only get information that matches their preference or feeds their biases. The important point is that most of the internet users are not aware of the existence of the filter bubble and the effects of echo chamber and do not realize how curated their online environment is (Vasu, et al., 2018, p. 10). Echo chambers also explain the

growing polarization in today's communities and societies or the growing social homophily phenomena. Most Americans are the part of social networks both offline and online that are politically homogenous, where political disagreements rarely happen. "Partisans are more motivated to reject information and argument that clash with their worldview" (Iyengar & Massey, 2019, p. 7663).

2.3. Factors to post-truth

Scholars have been trying to identify the factor that contributes to the high proliferation of fake-news especially during the recent years. As fake-news is not something new, without doubt internet and social media are not the cause for fake news, it just intensified fake-news circulation. Lack of digital literacy has been mentioned as one of the causes to fake-news (Ireland, 2018). Digital literacy seems to be relevant key factor for rampant fake-news especially in the developing country context. Digital literacy, with the immense information spreading through the internet, people became their own self editor and own 'filter' to the information they consume. To be able to perform this role, each individual need basic amount of digital knowledge. The problem is not everyone has that basic knowledge nor skill to filter information they receive and they reshare, causing fake news to circulate even farther.

Alemanno (2018, p. 1) believed that fake-news was a symptom of deeper structural problems in society and media environments. While Tapsell (2018) mentioned declining trust in democratic leaderships and mainstream media, added with low digital literacy as the fundamental problems caused the society prone to fake news. More rigid, Lewandowsky, Ecker, & Cook (2017) identified six factors that have caused the emergence of massive fake-news: (a) decline in social capital and shifting values, (b) growing inequality, (c) increasing polarization, (d) declining trust in science, (e) politically asymmetric credulity, (f) evolution of media landscape.

- (a) Social capital refers to factors such as goodwill, fellowship, mutual sympathy, mutual trust, and social intercourse among a group of individuals, families, and other social institutions that have positive consequences for the individual and the community as a whole (Aldrich & Meyer, 2015, p. 256). With declining social capital and shifting value, people become less concern with sharing fake-news, especially that causing division to society. On the other hand, internet also brought changes social capital itself. Various studies on the correlation of the internet and social capital have shown diverse result: in which it has positive relationship such as increase the possibility to find job or better job, well-being, social integration, civic engagement, social cohesion, help poverty alleviation (Neves, 2013); showing negative relationship such as social isolation and reducing empathy (Turkley, 2011; Wang & Wellman, 2010). But (Ulsaner, 2004) study also suggested no relationship since internet is neutral, internet is only medium to human interaction.
- (b) Economic inequality is growing wider and higher in most part of the world, the rich are getting richer while the poor are even poorer. In this social condition, money motivated fake news production is also evolving. In addition, fake-news such as satire of parody had also been used to undermine capitalist power and their bad business practices.
- (c) Increasing polarization. Increasing inequality is causally-linked with growing political polarization among the public, especially between the have and have nots. In the US, it's characterized by increasing class conflict or political wealth bias as well as policy preferences. The high-income group choose the policy that cut tax, while the low-income group favours re-distribution policy (Vlaicu, 2018, p. 598). In the term of fake-news, the growing polarization is also evident between the group that believes the climate change and the other climate change denial, with Republican Party moves towards industry-funded climate-change denial (Dunlap & Jacques, 2013; Lewandowsky, Ecker, & Cook, 2017, p. 18).

- (d) Declining trust in science, globally there is a trend of decreasing trust toward scientist and science they have produced (Nichols, 2017). People are now seeking ‘truth’ on Google, Wikipedia, WhatsApp group or other unreliable sources instead of the established science or finding experts. Research by Gauchat, (2012, p. 167) showed the steady decline in trust in science among Americans between 1974 and 2010, with the decline varies among social classes, ethnicities, gender group, church attendance, and region they reside. Not to mention, the greater decrease among conservatives than their liberal counterparts (Gauchat, 2012).
- (e) Political asymmetric credulity, various research pointed out on the asymmetric distribution of misinformation between political divide. Boyer & Parren (2015) noted that people tend to negatively biased credulity, judge people delivering ‘bad-news’ as more competent than the counterparts or even neutral information and also redelivering hazard message than the beneficial message (Fessler, Pisor, & Holbrook, 2017, p. 658). Political orientation was believed as determinant which shapes the bias, affects liberal and conservatives differently (Fessler, Pisor, & Holbrook, 2017, pp. 658-659). Fake-news are more likely distributed and accepted among conservatives than liberals (Lewandowsky, Ecker, & Cook, 2017, p. 21).
- (f) Evolution of media landscape. In the early introduction of the internet, it was believed as a new hope for more engaged and informed public (Baum & Potter, 2019, p. 747). Internet brought a great change to the media landscape, from relatively centralized information in the hand of media moguls or governments in some authoritarian countries to the fingertip of the public. Now everyone has almost equal opportunity to make and spread information in the online world through social media, resulting in the abundant of competing, often chaotic voices (Lewandowsky, Ecker, & Cook, 2017). But quite the opposite, with the abundant information including the presence of misinformation, fake-news make it even harder for citizen to productively engage in democratic politics (Baum & Potter, 2019, p. 747).

The changing landscape also happen not only in the internet sphere but also in the offline world. Mainstream media ownership is getting more centralized in the hand of media conglomerates, caused people has only small option for ‘reliable’ news source. Moreover, the condition might even worse if those media are partisan media with biased news towards one group over the other.

2.4. Counter-fake-news Approach

Understanding the underlying condition that has caused high proliferation of fake-news becomes one step to really put an end or at least combatting its distribution. The next step is to take action to curb fake-news. Alemanno (2018) proposed three solutions to fight fake-news high dissemination in social media: *first*, the state needs to intervene directly by formulating regulation. The government can ‘police’ the media environment to limit the distribution of fake news. However, this approach has drawback because potentially become new censor tools for the government and leading in creating single authoritative over ‘the truth’. In practice, defining and deciding a piece of information as a fake-news is also complicated without clear guidelines. And so far no institutions including the European Union who has established a special office called Disinformation Review consist of a network of 400 plus experts, journalist, officials, NGOs, and think tank in more than 30 states has clear guidelines about fake-news and what kind of information can be labelled as fake-news (Alemanno, 2018, p. 3).

Second, make social media platform responsible over contents posted on their sites. Pressure has been put on social media companies such as Facebook, Twitter, and YouTube (Google) to take responsibility for the role their platform plays in spreading fake-news. Facebook for example, then put more resources to check platform and account authenticity, increasing journalist awareness over

fake-news, removing economic incentives for people who posted fake-news, hired third-party fact checkers. This approach also not free of critics, it is considered too late, when the social media companies and fact checker working to state/announce/flag information as fake-news, the information itself already went viral (Alemanno, 2018, p. 4).

Third, swamping fake-news with the true information. In this approach, instead of deleting the fake-news, authorities should provide/post/bombard the information with true or scientific reliable information, so readers can get additional information about the context and alternative views. Facebook has implemented this method by offering “related articles” tab in their platform, hence readers can be exposed by the alternative information of the fake-news posted by someone else that came to their feeds (Alemanno, 2018, p. 5). Three solutions offered are directly targeting the medium, intervene the internet and social media where fake-news spreading showing which is true and which is fake.

Lewandowsky, Ecker, & Cook (2017, p.30) purposed technocognition approach, “an interdisciplinary approach to the design of information architectures that incorporates principles of behavioural economics to “nudge” against the spread of misinformation, combined with a cognitively inspired program to educate the public and improve journalistic practices”. By technocognition, the stakeholders must design a better architecture of information that makes possible for the technology itself to solve the problem that it creates.

Some scholars addressed the need to increase public’s media and information literacy, and it should be foregrounded in the education system (Marsh & Yang, 2017; Vraga & Bode, 2017). But (Lewandowsky, Cook, & Ecker, 2017) were pessimist that education itself can be a silver bullet to solve the problem. Also, too focused ‘critical thinking’ media literacy might people become more cynical and questioning the media and overall institution that sharing information (Mihadilis &

Viotty, 2017). Lewandowsky, Cook, & Ecker (2017) further pointed out the urgency of solving the 'economic aspect' of the problem to really end the malaise, any policy initiatives and technocognition approach should be supported by economic forces, the internet and social media companies itself. Besides that, the solution must recognise and acknowledge the political constraints surrounding and must fit within the constraints (Lewandowsky, Ecker, & Cook, 2017, p. 29).

In this research, six factors of fake-news distribution by Lewandowsky, Ecker, & Cook (2017) (a) decline in social capital and shifting values, (b) growing inequality, (c) increasing polarization, (d) declining trust in science, (e) politically asymmetric credulity, (f) evolution of media landscape and also digital literacy will be used to identify the cause of fake-news emergence and high proliferation in Indonesia. Base on the findings, the writer then measuring the effectivity of government policies on combating fake-news in the country.

III. The Causes of Fake-news Proliferation in Indonesia

Before analysing Indonesian socio-economic condition that causing fake-news proliferation, it is important to analyse the existence of echo chamber effect in Indonesia, since most of Lewandowsky, Ecker, & Cook (2017) arguments can only be applied in the environment where echo chamber exist. In Indonesia, echo chamber effect exists in the country for several factors: *first*, most people consume news from their social media feeds or information shared through mobile messaging application. For some Indonesians internet means social media and messaging application only, especially Facebook. For many of Indonesians living on under \$2 a day, their option for internet access are quite limited cheap Chinese android based phone and cheap social media data package. Most of internet service providers offer cheap social media data package combined with Facebook Zero program, make internet in the country equal to Facebook and WhatsApp (Tapsell, Disinformation and Democracy in Indonesia, 2018). A lot of people never really used the search machine to access website or visit news site to seek further information they encountered on social media. *Second*, people manually build their echo-chamber by eliminating friends who have different views from their social media. Almost 15 per cent of social media users do ‘friend’ filtering in the social media by unfollow or unfriend their friends, some due to different views (Daily Social id, 2017; Pasandaran, 2016). Even though the number is not striking high, but it should be a concern indicating polarization as well as showing how in social media people can easily manipulate their environment and community. These factors lead to confirmation bias which feed up the filter bubble and echo chamber.

3.1. Social capital

No available study on social capital in Indonesia can be used to measure the development of social capital, whether social capital has been increased or decreased in the country. The first nationwide

social capital index was published in 2016 based on the 2014's survey, and no newer survey has been conducted yet. But as explained in the previous chapter, changing social capital or new social capital brought by internet and social media also potentially affecting people's behaviour in spreading fake-news.

Internet has changed many aspects of social life, from how people share information, to their social behaviour, and about what is acceptable and not acceptable. People also can forge their online identity and become less considerate about their action. Internet also enables community formation which can reach broader members compared to the conventional community. Thus, this online community is also a form of new social capital in the internet era (Tuutti, 2010). Becoming a group or community member on the internet is even easier than in the real word, people just need to join or like a group on social media, and instantly become a member with minimum barrier. With people shifting more of their time online than offline, social interaction also takes place more in the online form than offline. This online community or group also became another echo chamber in the internet. Right now, online groups such as in WhatsApp have become a new medium of fake-news distribution in Indonesia, particularly groups filled with old people, it can be extended family group, profession group, alumnae group (Hasan, 2019).

3.2. Economic inequality

For the last decade Indonesia has been enjoying the economic growth, since 2000 each year Indonesia successfully reached on average 5 percent of growth. However, the fruits of economic development were not enjoyed equally between the people, where millions of the poor are left behind. In fact about half of Indonesian are still living in a near poor category, on less than two dollars a day (Aspinall, 2015, p. 3). If the \$3.10 World Bank 'moderate' poverty line is used, the number of Indonesian living in poverty rocketed to 93 million or about 36% of the total population.

The economic inequality has grown faster than any other country in the region since 2000 as an effect of natural resources boom and just slowed down in 2013 when its exploration slowed down, but the Gini coefficient remains relatively high compared to global average (Warburton & Muhtadi, 2019). Data from 2016 showed that 1 percent of the wealthiest population owned 49 percent (or nearly half) of total wealth, the collective wealth of four richest Indonesians reached \$25 billion which is surpassing the total wealth of 100 million people in the bottom 40 percent. In terms of wealth inequality currently Indonesia ranks the worst sixth globally, moreover the inequality on wealth also concerns on inequality of opportunity (Gibson, 2017; Warburton & Muhtadi, 2019).

Several studies had also showed the relationship between economic inequality and the incident of conflict and violence, since inequality contributes to social resentment, undermining trust in democratic institution, increase public polarization, erodes public trust (Norris & Inglehart, 2018). Global study including Indonesia found that higher economic gap between the rich and the rest correlates with the increase in violence (SMERU, 2017). Nowadays, internet has shifted the conflict from direct conflict in the offline world to the conflict in the internet. It has become new medium for conflict and violence, anyone can almost freely express their dislike or attack others in the internet with minimum consequences unlike the direct conflict. Moreover, fuelled by the economic opportunity in the form of content monetization that internet has been provided, anyone with financial motive, can turn hate speech into business and fire conflict (Singer & Brooking, 2018).

3.3. Increasing polarization

Though Indonesia is generally less polarized than many other countries, it does not mean that the country does not suffer from political polarization. The balanced, full compromise, accommodating, consensus-oriented leadership of Susilo Bambang Yudhoyono's presidency from 2004 to 2014 did not solve the growing social political divide within the country. Then, tensions burst during the 2014

Indonesian election. The two extremity political camps, the group who wanted greater role of Islam in the politics and society and also roll back democracy to the system used during Soeharto's authoritarian regime represented by presidential candidate Prabowo Subianto versus nationalist-secular (Indonesian traditional Moslem) and defender of democracy represented by Joko Widodo (Mietzner, 2015, pp. 119-125).

The fight between two candidates was intense. Communism, religion and race issues which are considered to be very sensitive issues were highly used during the campaign to attack candidate. Hoaxes were used by both supporters even though the attack directed to Widodo was significantly higher in number and more destructive. The harsh campaign strategy by dividing Indonesian socially and politically had resulted on building new polarization in Indonesia. In which Mietzner (2015, p. 126) noted that the 2014 election had significantly reshaped the ideology and repolarized Indonesian politics, it continued and grew even bigger on the 2016 Jakarta gubernatorial election, and to the last 2019 presidential election. Warburton (2019) argued that the division was rather shallow and temporary since it was driven by political elites during the election. But she also recognized that there is obvious increasing polarization in the grassroots level for the last couple of years which potentially growing even stronger if the government does not take intervention. The “us versus them” narrative is growing stronger, people refused to be in the same communities with people from different religion, religion-based housing are flourishing, anti-Chinese narrative is emerging.

3.4. Low trust in science and digital literacy

Quantitative approach measuring Indonesian trust on science has never been conducted. But living with rich culture, traditional believes also makes Indonesian never 100% believe in science, many people believe in cultural norms and traditions which cannot be fully understood by science. To note, not all of those ‘un-scientific’ thing is bad, but when people start to trust it excessively and use

it as a propaganda tools weaponised by internet and social media, the result can be very dangerous fake-news`. Many Indonesian also believe in conspiracy theories and refuse to accept the scientific explanation of such phenomenon, the latest incident of Al-Safar Mosque in West Java province debate for example. An Islamic preacher believed the design of the Mosque was reflecting illuminati and eroding the value of Islam, the accusation went viral and was believed by significant number of his followers even became national debate (BBC Indonesia, 2019).

Digital literacy has also become an issue in Indonesia. Although Indonesia has relatively high literacy rate, reached 95.37 per cent of total adult population in 2016 much higher than world average on 86.24 per cent, it does not translate to how well Indonesians consuming information (news, science, government publication). Moreover, Indonesia has not had comprehensive digital literacy education curriculum (Agung, 2017). Among other institution, universities became the first source of digital literacy for most of the country's population, 56 % of digital literacy activities was organized by universities (Kurnia & Astuti, 2017). Hence only 5.32% was organized by school and 13.52% by community, showing how low the possibility of individual to receive digital literacy education before entering university. Equally important, it also showed how unequal and bias to the middle-class access to digital literacy in the country, since only 31% of population have access to higher education (Syawaluddin, 2018), when digital literacy is very crucial to make people able to distinguish fake-news.

3.5. Political asymmetric credulity and intensifying political divide

Even though the correlation of Indonesian political partisanship and their tendency to believe in the false information has not been studied yet, recent trends show that 'Islamic right wing' shares more fake-news in social media. As discussed in the previous part, political polarization in Indonesia has never been so clear like in the biparty countries. It changes depends on the election and the coalition

formed, people can be in the one faction for the national election but different blocks for the local election. Observing the social media, 'Islamic right wing' are spreading more false information. For example, false information about vaccine in their anti-vaccination campaign that vaccine caused autism or that vaccination is part of Jewish conspiracy, or fake-news about the number of Chinese workers in Indonesia to criticize government policies. It is also important to consider their motive as a political opposition to undermine the government policies and reducing public's trust on the government. Their opposition make them have more motive to use and share fake news compared to their contender who support the government. It also makes them tends to believe any negative information including fake-news that can challenge the government since they already had prior bias.

3.6. Evolution of online and offline media landscape

Internet development was quite democratic compared to the previous media in Indonesian. Internet was initiated by scholars and engineers who believed that the power of internet technology can deliver a better society (Lim, 2005, p. 90). And the development of internet was nuanced by bottom-up process compared to top-down process of its predecessor technology such as satellite, telephone, and television which highly controlled by the central government and its ministry or state-owned enterprises (Barker, Lim, Rip, Argo, & Yuliar, 2001). Being used by only 0.77% of population in 1995, now more than 60% Indonesian have access to internet (APJII, 2017; World Bank, 2019). Indonesian also spent on average more than 8 hours using internet via any device, which around three and a half hours was spent accessing social media, indirectly showing how high the online engagement (We Are Social & Hootsuite, 2019). Despite the steadily growth of internet users, internet penetration remains uneven in Indonesia, concentrated in the western part of Indonesia while the eastern part is underdeveloped due to the geographical constrain (Freedom House, 2018). This unequal access to internet also shapes their information and news consumption.

Internet introduction also opened opportunity for news media to leverage its coverage. With the ban of critical media in Indonesia in the mid-1990s, publishers seek alternative to disseminate their news using internet by publishing online media. The first was Republika in 1995 launching Republika Online to extend its coverage. Then Tempo magazine also created the online version of the magazine tempointeraktif.com by 1995 to substitute its magazine version who got banned by the government a year before. After that many printed media opened their online news site, some journalist launched news media that distributed online only (Nugroho, Putri, & Laksmi, 2012, p. 81). Nowadays, there are more than 43,803 online news media in Indonesia, but only small quantities are credible and deliver news according to ethic code of journalism (Agustina, 2018). Based on 2014 data, only 211 online news media complied to the administrative requirements, the number decreased to 168 in 2015 (Nashrillah, 2018).

With most of Indonesian is online, it changes the way they consume news. Majority of Indonesian internet savvy accessed information through internet and particularly social media, either directly or through link posted in the social media. Online survey conducted by Jakpat in 2016 showed that 90 per cent of Indonesian internet users accessed news through internet or online medium, and only 5% read printed newspaper. About 59% of Indonesian Twitter users also followed online news portal's account, where 62% of them re-tweeted the news they found interesting (JakPat, 2016). The result parallel with the global trend where nearly 64.5 per cent internet users consumed news from Facebook, Twitter, Youtube, Snapchat, and Instagram instead of really read it from conventional media (Martin, 2018).

Internet also further changed how people consume their news. Most people nowadays only scrolled down their social media to get the news and rarely visited the online news website except for the news that they are really interested in. Global survey found that 50 per cent of internet users got

news from social media first before receiving it from news portal, consistent with the fact 57% increase in news portal's social media traffic came from social media referred visitors (Martin, 2018). While quantitative data is not available, APJII confirmed similar trend in Indonesia where internet users got news from WhatsApp, Facebook, and Instagram eroding the market position of mainstream media (Freedom House, 2018). Meanwhile, the newspapers subscription is gradually declining, while online news portal bears the burden as breadwinner for the company. To get more visitors to their website, some news media then put several strategies, such as putting 'interesting-outwit' title and headline. This practice then also contributes to the decreasing trust to the news sites as the source of information since their headlines are irrelevant to the news written in the body paragraph. People who lost their trust in news media run to alternative unreliable source, including fake-news.

The growing addiction towards online information has brought the new economy of the internet, content monetization. People can get money by click and likes, the more the content being liked/clicked on the more money individuals earn. This like-based business has driven many people to create fabricated content or fake-news just with the sole purpose, getting money. For example, in the US during 2016 Presidential campaign, many fake-news favoured Trump or undermined Hillary was created by teenagers in Macedonia who got thousands of dollars a month from the advertisements on their from high traffic (Singer & Brooking, 2018). In Indonesia, fake-news producer syndicates Saracen and Muslim Cyber Army got paid by interest groups willing to pay for created fake news to undermine someone or institution. The groups were attacking the government when they got arrested in 2016-2017. In addition, Indonesia is still struggling to reduce unemployment which scored 5.34% in the end of 2018 (BPS, 2018), the difficulty to find a job make people join fake-news producer or 'buzzers'. When come to political buzzer using fake-news, many

of the buzzer were young graduates who had trouble in finding a job with suitable payment, they ended up in this 'job' since it paid them well (Potkin & Boe Da Costa, 2019).

The centralization of the media ownership in a handful of conglomerates also reduce the trust towards media and indirectly contributes to the proliferation of fake-news. After being co-opted/controlled by the government in the New Order era then went to democratization and free press, now the media in Indonesia moving towards concentration of ownership only by thirteen groups. This thirteen media groups control hundreds of media ranging from television, radio, newspaper, magazine, online media, with locally or national coverages (Lim, 2012). Some of the media groups' owners are also partisan or directly part of the government or the opposition, and their news bias towards their political position. Television channel for example, Metro TV which owned by Surya Paloh, chairman of the pro government Nasdem Party is generally considered as the public relationship of the government. While TV One, owned by the Abu Rizal Bakri's family the high figure of Golkar Party has been known for displaying criticism and opposition towards the Jokowi's government. In several occasion these mainstream media also became the part of misinformation problem by broadcasting false information, especially the crucial information such as election report or presenting misleading narratives to undermine one's position (Tapsell, *Disinformation and Democracy in Indonesia*, 2018). This media's partisanship argued by Tapsell (2018) has contributed to the declining trust towards media and news in Indonesia and makes people believe on their own-small-social media network covered by the filter bubble.

IV. Stakeholders Effort to Combat Fake-News

The Government of Indonesia took rampant fake-news problem seriously, Ministry of Communication and Informatics has been admitted the responsibility to take care the malaise. But, the government is not alone, civil society, news media, and over the top companies have been taking part in the war against fake-news in the country.

4.1. The government

Currently the government is in the process of formulating new law on data protection, meanwhile Information and Electronic Transaction (IET) Law Number 11 Year 2008 (amended by Law Number 19 Year 2016) is used as the base to govern online activities in Indonesia. This law, technically limiting people's freedom of expression on the online sphere based on political, security, moral, and religious consideration. Fake-news fall under this law which being categorized as "hate speech". The law went to amendment in 2016 which introduced to several important changes including making conversation in the private messaging application subject to this law, making the law more potent to limits public opinion. Equally important, the amendment also gave more power to the government to cut off or limit access to electronic information or documents which content violates the law (Freedom House, 2018). ITE law itself has been highly criticized, considered as problematic and tend to be used as political tools to limits individual rights to express their voice.

The Government of Indonesia has been implementing various program and policies to debunk fake-news and slowing down its distribution, ranging from proposed new regulation, established new institution and task force, site tracking, content and site blocking, also arrest. In early January 2017 the Ministry of Communication and Informatics (MCI) blocked 11 sites deemed to be spreading negative content. Nine sites were blocked due to hate speech while the other two because of phishing and malware issues. In doing so, the ministry ordered the internet service provider in

Indonesia to block the access to the sites. Majority of the sites blocked was connected to radical Muslim campaign. The occurrence was not the first time, another 11 sites were also blocked in November 2016 by the government. The Ministry also teamed up with Indonesian Press Council to evaluate online sites in effort to reduce unreliable news (Ihsanuddin, 2017).

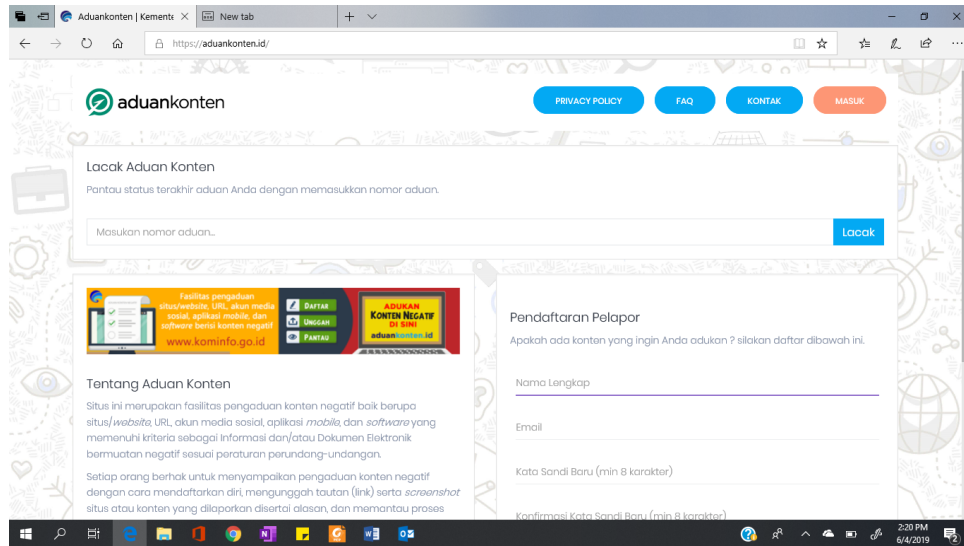
January 2018 witnessed President Joko Widodo announced the bureaucracy reform on National Encryption Agency's name, organization, roles and responsibilities. The organization became National Cyber and Encryption Agency, with heavy roles to maintain and increase national cybersecurity amidst increasing concern over online fake-news, especially ahead local and national elections in 2018 and 2019 (Kapoor, 2018). It also being responsible to support intelligence agency and law enforcement efforts to combat fake-news (Funke, 2019). In the second semester of 2018, the Government also established another measure of counter fake-news, Cyber Drone 9 system. Earlier MCI used passive database TrustPositif website to monitor, check, and block negative content, started by May 2018 it employed new system "Cyber Drone 9" supported by artificial intelligence. The machine is used to automatically fight the distribution of negative content. First the system will flag the material subject to blocking by filtering the IP, hosting, URL or the content, then 58 staff will monitor and review the content manually. After false information or negative content being defined, the ministry then asks internet service providers to block the site. Cyber Drone 9 system are consisted of two main rooms, Security Operation Center (SOC Room) and War Room. SOC room focuses on monitoring and controlling negative content detected by Cyber Drone 9, meanwhile War Room supported by engineers work specially to verify negative content or debunk fake-news identified by SOC Room. Around 70 engineers were recruited to work in a shift, 24 hours a day (Sipahutar & Salna, 2018) (Ayu, 2018).

The National Police also took part in the war against fake-news. During period 2017-2018 it uncovered two hate speech producer syndicates, Saracen and Muslim Cyber Army who prior to their arrest had produced massive fake-news on the internet. Not only 'professional' fake-news producer syndicates, the police also arrested civilian who spreading or initiated fake-news in social media. From October to November 2018, at least a dozen of civilians was arrested for spreading false information particularly on Facebook regarding diverse issues: child kidnapping, Lion Air plane crash, earthquake in Palu (Widianto, 2018). Other than blocking sites and arrested fake-news producers, the government also employs several other approaches:

4.1.1. Debunk fake-news

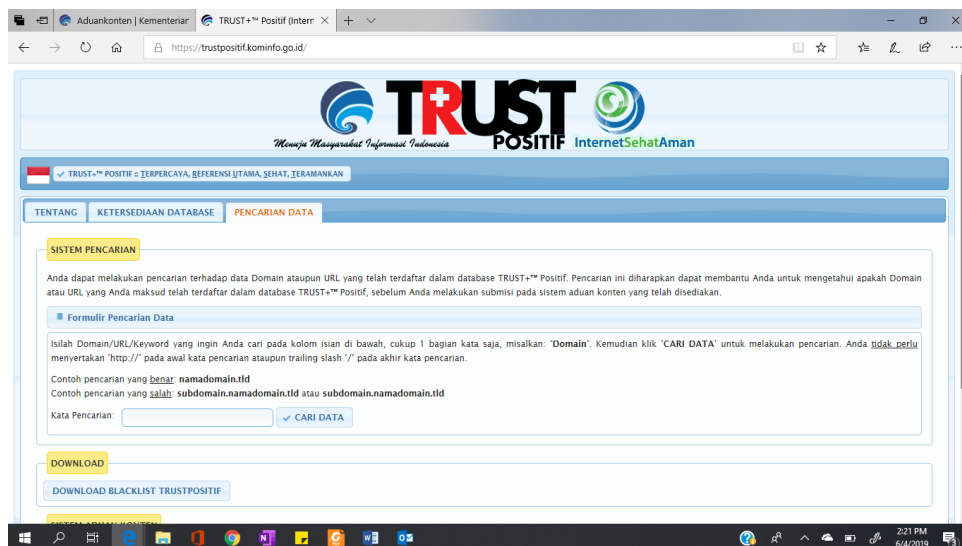
To curb the circulation of fake-news, the government launched website Aduan Konten (<https://aduankonten.id>) in which internet users can report for negative content they found or receive via internet. The content that can be reported are not limited to hoax but also pornography, hate speech (related to ethnicity, religion, and race), gambling, drugs transaction, online swindle, phishing/ malware, terrorism/ radicalism, violence, copy rights violation. Any Indonesian can be a reporter for fake-news content or other related negative content by sending the screen capture or URL link of the suspected being fake news via website portal, email, or WhatsApp. The content then went through verification process in which the result can be accessed at Trust Positive website (<https://trustpositif.kominfo.go.id>).

Figure 1. The MCP's website for content-reporting “Aduan Konten”



(Screenshot by the author, 2019)

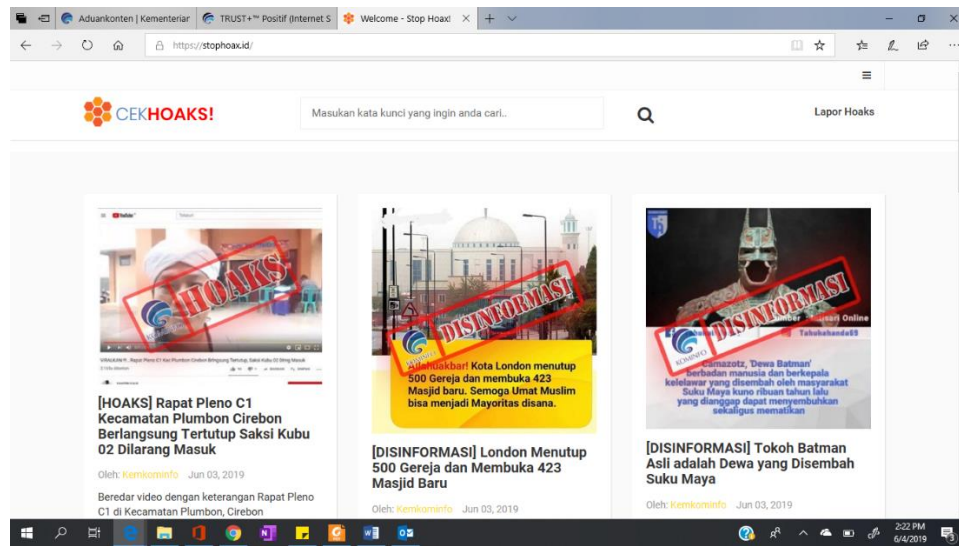
Figure 2. No longer active MCP's website “Trust Positif”



(Screenshot by the author, 2019)

CekHoaks! (<https://stophoax.id>) is a website where public can also report hoax and access all fake-news that the Ministry of Communication and Informatics has been debunked.

Figure 3. The MCI's website for debunked fake-news "Cek Hoaks!"

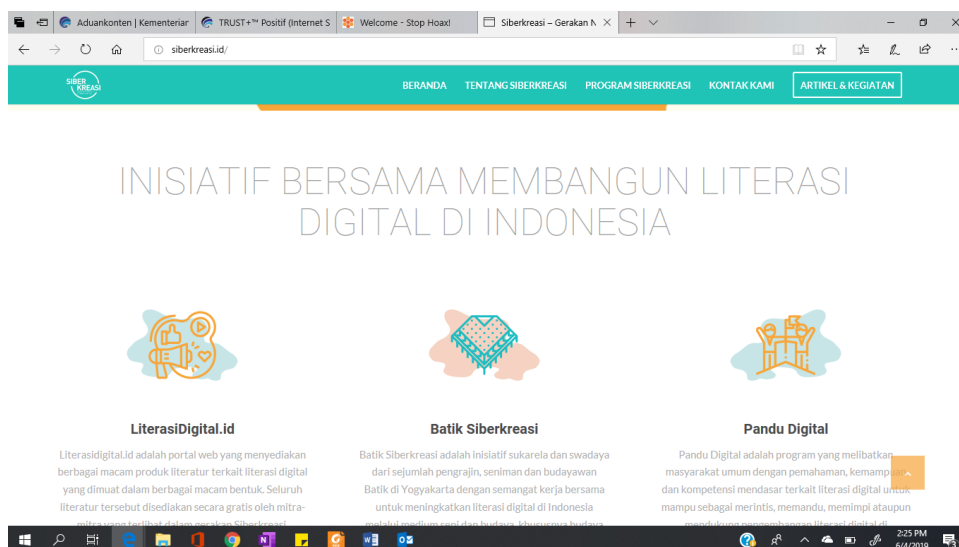


(Screenshot by the author, 2019)

4.1.2. Digital literacy movement

The government of Indonesia was aware about low digital literacy problem has contributed to the spreading of negative contents in the country. In 2017, the MCI launched national program SiBerkreasi to address the negative content such as hoax, cyberbullying and online radicalisation. SiBerkreasi was claimed to be multi stakeholders' initiatives, including civil society, private sector, scholars, government, public figure, and media companies. SiBerkreasi focused its program on increasing digital literacy particularly for internet users. Programs have been carried out both through online and offline approach. For online approach, the ministry launched a website SiBerkreasi (<http://siberkreasi.id/>) in which users can access the information about the programs: digital literacy education literature; Pandu Digital to educate public to be critical information consumer; Batik Siberkreasi in which incorporating digital literacy into art; school of influencer to encourage younger internet users to create positive content, netizen fair, and Kreator Nongkrong a sharing session of media stakeholders and content creator to boost young generation's awareness.

Figure 4. The MCP's website for digital literacy “SiBerkreasi”



(Screenshot by the author, 2019)

As part of SiBerkreasi program, to increase internet users understanding about digital literacy the MCI also provided all education materials in the form of e-books, videos, info graphics on its website Literasi Digital (<http://literasidigital.id>).

Figure 5. The MCP's website for digital literacy “Literasi Digital”

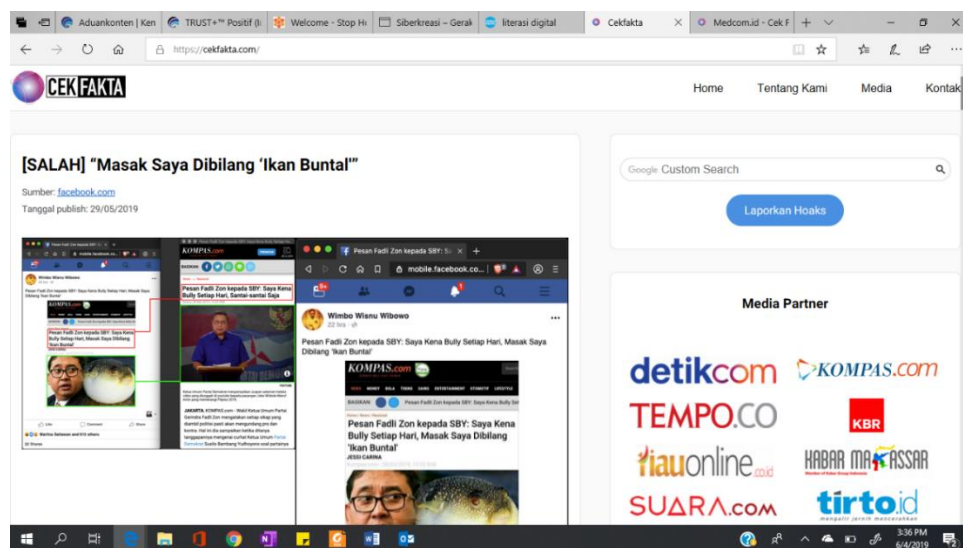


(Screenshot by the author, 2019)

4.2. News Companies

Mainstream mass media companies also took part on the effort to combat fake-news dissemination in Indonesia. May 2018 marked the launch of cekfakta.com, a website designated to publish debunked fake-news. The web itself was launched as join collaboration among 23 news media companies and MAFINDO. 22 online news media including: Tirto, Viva News, Swara.com, Detikcom, Kompas.com, Liputan6.com, Merdeka.com, Katadata.co.id, Berita Jatim, KBR.co.id, Bisnis.com, Berita Satu, Kabarmedan.com, Kabar Makassar, Antaraneews.com, TimesIndonesia.co.id, Riauonline.co.id, TheJakartaPost.com, Tempo.co, Dream.co.id, Kontan.co.ic, The Conversation, and Republika.co.id. CekFakta has been actively debunked fake-news malaise spreading in different platforms.

Figure 6. CekFakta website



(Screenshot by the author, 2019)

Individual fact checking activities also being conducted by individual news site by creating debunking tabs on their pages or separate social media account designated to share debunked fake news. For example, Tempo.co (<https://tempo.co>) has verification tab “Fact or Hoax” to share the

debunked fake news that had been circulating online. It also has direct menu linked to MAFINDO (<https://turnbackhoax.id>) for people who want to report a material they suspect to be a hoax. The company also employs twitter account for similar function @tempocekfakta. Other news site Liputan6 (<https://www.liputan6.com>) and Kompas.com (<https://www.kompas.com>) also have fact check menu where it shares the debunked hoax news. In fact, Liputan6 is part of International Fact Checking Network (IFCN), a network consists of 49 news media from around the globe. On the other hand, Kompas.com regularly posts debunked fake-news in its website and creates weekly summary of popular fake-news.

4.3. Over the Top Company

Over the top companies in Indonesia also subject to the Indonesian law in terms of content filtering, data protection, and censorship. The companies are governed under Circular Letter No. 3 year 2016 by the Ministry of Communication and Informatics. The circular letter covered both App-based internet services (SMS, telephony, video call, chatting, financial and commercial transactions, storing and collection of data, gaming, social network and media, and its derivatives) and internet-based content services (writing, voice, visual, animation, music, video, movies, gaming or combination of one and/or the other). Related the obligation for content filtering, it is including hoax.

The Ministry of Communication and Informatics requested Twitter, Facebook and its affiliates Instagram and WhatsApp to delete fake-news related information in its application. To follow the request, Facebook Indonesia office established a special team to tackle the circulation of hoax in its platform. Facebook works on filtering fake-news by blocking the content that had been reported as fake-news by its users. In the international level, Facebook has also meet pressures by numerous government who concerned over the distribution of fake-news on Facebook, they asked for actual actions by the company (Wakefield, 2019). Thus, Facebook took several measures to address the

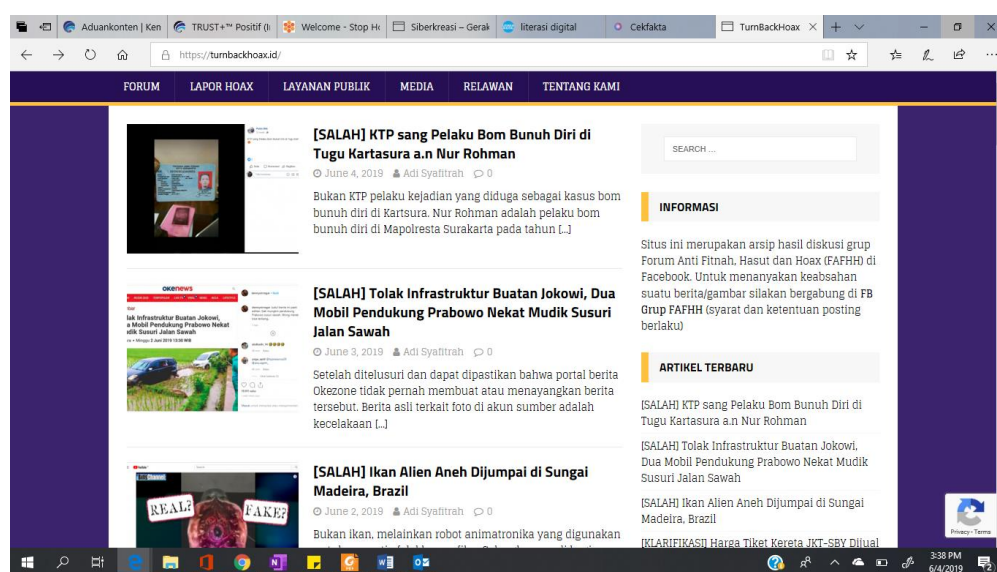
problem of misinformation, include: blocking and removing fake accounts, finding and removing bad actors accounts, limiting the spread of false news and misinformation, and bring more transparency to political advertisement. The policies were executed both manually and by machine learning using the algorithmic system (Facebook, 2019). In Indonesia, Facebook has actively removed thousand accounts, pages, and groups from two Facebook and Instagram for their engagement in coordinated inauthentic behaviour suspected in the effort of spreading fake news. In 2019 alone, it removed 241 Facebook Pages, 878 Facebook accounts, 654 Facebook Groups, and 222 Instagram accounts after undertaking internal investigation (Gleicher, 2019). Even though did not disclose the details of account that had been deleted, Twitter also regularly deleted fake accounts in Indonesia. It removed network of accounts engaged in fake-news distribution (Potkin & Boe Da Costa, 2019).

4.4. Civil Society

The Government of Indonesia is not working alone to debunk fake news, there are also several civil society initiatives that working to reduce the dissemination of hoax. One that has been nationally acknowledged is MAFINDO. It was initiated in 2016 by a group of media and internet professionals who felt uncomfortable about injustice, fake news, and distorted information. The group claimed to be independent with no affiliation to any political groups, focused on stopping the distribution of fake-news on the internet, to raise public awareness about fake-news, to urge positive social media use, to create political deliberation within the members, to provide knowledge and technology solution to stop fake news proliferation, to help government in creating public policy to fight fake-news, and to maintain the members' integrity on combating fake news in the middle of high political tension in Indonesia (Adzkia, 2017, p. 3).

MAFINDO executes their vision in online and offline approaches. Online, MAFINDO uses both a website and social media on Twitter and Facebook to disseminate debunked fake-news. Not only to display its ‘curated’ information, MAFINDO also uses its social media to build communities of anti-hoax activists, news medias. The role of anti-hoax activists is very significant especially in the MAFINDO’s offline activities providing train of trainees, public education on digital literacy in various regions in Indonesia. In addition, MAFINDO also teams up with the government, the Press Council, and Association of Independent Journalist to leverage the scope of its works. Several local and regional MAFINDO also have been established to leverage their target groups.

Figure 7. MAFINDO’s website Turn Back Hoax



(Screenshot by the author, 2019)

Besides the institutional programs it also important to note that among the stakeholders mentioned also have collaboration programs, mostly related to digital literacy education. Two or more stakeholders joined collaboration in delivering the information to the public. For example, the MCI often invited spokesperson from MAFINDO in their digital literacy talk-show or seminar activities.

V. Conclusion

5.1. The Fake-News in Indonesia: Band Aid that Does not Cure the Disease?

Based on the identification in the previous chapter, fake-news proliferation in Indonesia can be concluded as a result of: (1) the emergence of new social capital in the form of online community, (2) unsolved economic inequality and growing opportunity inequality, (3) increasing polarization, (4) low trust in science, (5) low critical thinking and digital literacy, (6) political asymmetry credulity, (7) evolution in online and offline media including low trust in partisan news media. Furthermore, the development of all these aspects were intensified by the current political competition between populist authoritarian Moslem and nationalist-pluralist, makes fake-news proliferation in Indonesia part of the political competition itself. But the correlation between these factors and the circulation of fake news are not singular but rather interconnected and intertwined, one strengthens the other, also one makes the other possible. At some points fake-news also strengthened one of these factors, for example polarization.

It seems that many stakeholders have been swarm over the fake-news problem, but the problem persists, even grows bigger in scale. The government, social media companies, and civil societies who are working on the issue have not had any evaluation criteria. Most of their efforts generate impression of sporadic action instead of coordinated one, specifically the government's one. Hence, many programs such as content filtering on the internet were intensified towards presidential election period. The MCI called over the tops companies to clean their platform from fake-news with the "ahead of the election" narration. It is also obvious from the discourse that most of the content removed was related to the presidential candidates and specifically the current government's performance, in contrast to the policy focused fake-news. Even though most policies related to fake-

news were also used to attack the president and the government. For example: many fake-news related to anti-vaccine group were directed to criticize Joko Widodo's government.

The counter fake-news approaches used by the government and civil society in Indonesia can be categorized into three classification: (1) debunking fake-news, (2) content filtering, (3) digital literacy. In debunking fake-news there are government initiative, civil society initiative, and news media initiative, all work with similar approach. The content filtering approach was executed by the MCI in collaboration with over the top companies and internet service providers. Meanwhile, for digital literacy was implemented by the government, civil society, also over the top companies both separately and in collaboration. The two first approaches used certainly only a curative 'band aid' kind of programs. Regardless the initiatives and the fact that debunking approach is clearly needed amid rampant fake-news distribution in Indonesia. The efficacy of the fact-check or debunking fake-news is also being questioned since the circulation of fake news were much faster than the debunking process. Then because of the echo-chamber effect of internet and social media, not every individual exposed by the fake news will ever receive the debunked information. In addition, neither do they will believe of the debunked information since they experience confirmation bias, want to believe information that correspond or strengthen their previous belief.

Filtering information on the internet is not less troublesome approach particularly related to its transparency. The Indonesian government never released any document related to indicators that they use to filter information in the internet or to define fake-news. This absence of written guidance makes the fake-news deletion prone to abuse or misuse by the ruling government for their own interest. The government can interpret 'fake' and 'truth' as they wish, and further it can be used as new weapon for censorship and possible limiting the freedom of expression. It has also become concern on the government right to perform content moderation and defining the 'truth' as

Alemanno (2018) worried. The ‘fake-news police’ that the MCI has for example never publish any information about fake-news they have been debunked, or directly deleted. During the election period, there is also no clear information whether the team was working to debunk and delete fake-news related to the president only or also fake-news directed to the political opponents.

Speaking on technical issue in the government program. Currently the Ministry of Communication and Informatics has four websites designated to counter rampant fake-news, which can create confusion. For fake-news reporting public need to visit Aduan Konten, then to see any fake-news spreading public need to visit Stop Hoax. For digital literacy purpose, government employs two websites SiBerkreasi for information related to the program and Literasi Digital for any digital media literacy materials.

To conclude, the stakeholder policies for counter fake-news are not effectively reduce the dissemination of fake-news since the programs have not yet touched most of the roots of the problem. The government interventions mainly focused on targeting the already spreading fake-news, meanwhile the digital literacy program is relatively limited. On the other hand, government itself or the political parties behind the government also part of the fake-news distribution (Tapsell, 2019) which then contribute to the even wider polarization in the country.

5.2. Policy Recommendation

This research opens possible identification of the cause of high fake-news proliferation in Indonesia and analysis of current program and approach on combating fake-news in the country. Even though, the current approaches were undeniably needed in the midst of the fake-news malaise, it is also evident that the programs are not effective. The fact-check approach and policing the internet are relatively slow to catch up with the speed of fake news production and distribution. The government need to consolidate between programs and formulate more comprehensive preventative approach.

In fight fake-news proliferation, the government needs to address its causes and here the writer focuses mostly on the non-algorithmic approaches and more on human and social approach.

1. The Ministry of Communication and Informatics, the Ministry of Education, and The Ministry of Social Affairs have to integrate critical thinking and digital literacy education in the education system started at elementary school for children, and in the community for adult to build critical citizen.

The policy of counter fake-news by of emphasizing critical thinking in the education has been implemented in Finland, and proven success in combating fake-news dissemination in the country. Finland topped the list of 35 countries studied to measure the population resilience to fake-news (Mackintosh & Keirnan, 2019). By the embodiment of critical thinking into curriculum as the priority skill, the students are trained to identify fake-news information in the news they consume. This policy will correspond with the Indonesian environment and education system, since kids as young as 9 years old start accessing internet and using social media. Simultaneously, education system in Indonesia has not yet emphasized critical thinking in its process, students and teacher are used to memorize information only something without really understand its logical thinking. The Ministry of Communication and Informatics and the Ministry of Education should work hand in hand to design suitable curriculum for digital literacy.

Meanwhile, the Ministry of Communication and Informatics also needs to team up with the Ministry of Social Affairs to target older generation. Research found that these digital immigrants are more prone to spreading fake news since they were not used to the fast amount of information traffic in the social media or mobile based messaging platform (Hasan, 2019). The stakeholders need to target this group in the digital literacy program by

giving the knowledge through community since these generation usually have one or more communities based on their residency or profession. Critical thinking education can also help to reduce political polarization, when polarization mainly fired by the media and interest group such as political leaders, religion leaders' opinions.

2. The Indonesian Press Council should use their authority to 'control' the quality of news that media publish to the public, give sanction to news media publishing fake-news. Thus, media will discipline to produce 'true' news only, and the number of fake-news produced by 'news media' can be curbed.

While solving problem of media partisanship in Indonesia will not be easy since the owners are also politicians, one option can be implemented is to mandate partisan media declare their partisanship if they are partisan. Hence, public can critically appraise the news these media deliver. At the 2014 presidential election, one online news media The Jakarta Post clearly declared its support towards Joko Widodo, and the action received public's acceptance even though showing.

3. The government particularly the Ministry of Trade and Creative Industries Office must govern the online advertisement to reduce the economic incentive of fake-news producer. Many people make fake-news for its economic advantage from advertisement. The ministry can formulate Indonesian specific criteria to prevent websites that contain fake-news to get advertisement, in doing so the government need to collaborate with over the top companies.
4. The government specifically the Ministry of Communication and Informatics needs to integrate 3 websites which currently used to fact check and digital literacy into one comprehensive websites. Henceforth, public can report, get information of fake-news, access

to digital literacy information through one website only. Informing public about one website also much easier than three websites, therefore public also can remember easily.

The problem of fake-news cannot be solved only by curative approach such as fact-check and content filtering, the government need to look at the underneath problem in the society and also evaluate other current programs related to the effort to reduce economic inequality also political and social polarization.

5.3. Future research agenda

Since this research was fully relied literature review and secondary data, further quantitative examination will be very important to measure the actual effect of the factors mentioned as the cause of fake-news to the fake news proliferation in Indonesia. Survey on Indonesian internet savvy could be valuable research to prove the significance of the analysis quantitatively. Then, to evaluate the government's approach in debunking fake-news or fact-check can also be performed using social media data analysis by mapping the network of debunked fake news circulation in Indonesia.

Bibliography

- Adzkia, A. (2017). Turn Back Hoax: Media Literacy Movement Against Fake News in Indonesia. *Annual International Conference on Journalism & Mass Communications* (pp. 55-58). Singapore: Global Science & Technology Forum.
- Agung, B. (2017, October 03). *Program Literasi Digital Sasar Millenial Demi Tekan Hoax*. Retrieved June 8, 2019, from CNN Indonesia: <https://www.cnnindonesia.com/teknologi/20171002171758-192-245609/program-literasi-digital-sasar-millenial-demi-tekan-hoax>
- Agustina, W. (2018, February 10). *Terungkap, Indonesia Punya Media Massa Terbanyak di Dunia*. Retrieved from Tempo.co: <https://nasional.tempo.co/read/1059285/terungkap-indonesia-punya-media-massa-terbanyak-di-dunia>
- Aldrich, D. P., & Meyer, M. A. (2015). Social Capital and Community Resilience. *American Behavioral Scientist*, 59(2)(Community Resilience Theory), 254-269. doi:DOI: 10.1177/0002764214550299
- Alemanno, A. (2018). How to Counter Fake News: A Taxonomy of Anti-fake News Approaches. *European Journal of Risk Regulation (EJRR)*, 9(1), 1-5.
- Allcott, H., & Gentzkow, M. (2017). Social Media and Fake News in the 2016 Election. *Journal of Economic Perspectives*, 211-236.
- APJII. (2017). *Hasil Survei Penetrasi dan Perilaku Pengguna Internet Indonesia 2017*. Retrieved from Asosiasi Penyelenggara Jasa Internet Indonesia: <https://apji.or.id/content/read/39/342/Hasil-Survei-Penetrasi-dan-Perilaku-Pengguna-Internet-Indonesia-2017>
- Aspinall, E. (2015). Oligarchic Populism: Prabowo Subianto's Challenge to Indonesian Democracy. *Southeast Asia Program Publication at Cornell Unievrstity*, 1-28.
- Ayu, C. (2018, January 4). *Kenalan dengan Cyber Drone 9, Polisi Internet Indonesia (An Introduction to Cyber Drone 9, Indonesia's Internet Police)*. Retrieved June 05, 2019, from Era Tekno: <https://eratekno.com/news-tekno/kenalan-dengan-cyber-drone-9-polisi-internet-indonesia/>
- Baker, A. (2019, March 29). *Indonesia's Election Sees Internet Trolls Try to Bring Down President Joko Widodo*. Retrieved June 13, 2019, from ABC: <https://www.abc.net.au/news/2019-03-30/internet-trolls-are-trying-to-bring-down-indonesias-president/10892784>
- Bakir, V., & McStay, A. (2017, July 20). Fake News and the Economy of Emotions. *Digital Journalism*, 1-22.

- Barker, J., Lim, M., Rip, A., Argo, T., & Yuliar, S. (2001). *Social Construction Technology in the Indonesian Context*. Enschede: Center for Clean Technology and Environmental Policy.
- Baum, M. A., & Potter, P. B. (2019, April). Media, Public Opinion, and Foreign Policy in the Age of Social Media. *Journal of Politics*, 747-756. doi: DOI: 10.1086/702233.
- BBC Indonesia. (2019, June 10). *Masjid Al Safar di Bandung: Tuduhan Simbol Illuminati dan Kontroversi dalam Rancang Bangun*. Retrieved June 12, 2019, from BBC Indonesia: <https://www.bbc.com/indonesia/indonesia-48577560>
- Beach, D., & Pedersen, R. B. (2013). *Process-Tracing Methods: Foundations and Guidelines*. Michigan: The University of Michigan Press.
- Boyer, P., & Parren, N. (2015). Threat-related Information Suggests Competence: A Possible Factor in the Spread of Rumors. *PLoS ONE*, 10(6), 1-12. doi:DOI: 10.1371/journal.pone.0128421.
- BPS. (2018, November 05). *Agustus 2018: Tingkat Pengangguran Terbuka (TPT) Sebesar 5.34 Persen*. Retrieved June 09, 2019, from Badan Pusat Statistik (Indonesian Statistic Bureau): <https://www.bps.go.id/pressrelease/2018/11/05/1485/agustus-2018--tingkat-pengangguran-terbuka--tpt--sebesar-5-34-persen.html>
- Cahya, G. H. (2019, May 3). *Vaccination*. Retrieved May 21, 2019, from The Jakarta Post: <https://www.thejakartapost.com/news/2019/05/03/misinformation-social-media-hampers-vaccination.html>
- Ceron, A., & Negri, F. (2016, April 19). The "social side" of public policy: monitoring online public opinion and its mobilization during the policy cycle. *Policy and Internet*, pp. 131-147. doi: <https://doi.org/10.1002/poi3.117>
- Daily Social id. (2017, May 31). *Survei Jakpat: Tingkat "Unfriend/Unfollow" di Media Sosial Masih Rendah Meski Dinamika Politik yang Memanas (JakPat's Survey: "Unfirend/Unfollow" Rate on Social Media Remains Low Amidst Heated Political Dynamics)*. Retrieved June 11, 2019, from Daily Social id: <https://dailysocial.id/post/survei-jakpat-tingkat-unfriendunfollow-di-media-sosial-masih-rendah-indonesia>
- Dunlap, R. E., & Jacques, P. E. (2013, June). Climate Change Denial Books and Conservative Think Tanks: Exploring the Connection. *American Behavioral Scientist*, 57(6), 699-731.
- Edelman. (2018, October). *2018 Edelman Trust Barometer: Global Report*. Retrieved June 4, 2019, from Edelman: https://www.edelman.com/sites/g/files/aatuss191/files/2018-10/2018_Edelman_Trust_Barometer_Global_Report_FEB.pdf
- Facebook. (2019, February 4). *Hard Questions: What Is Facebook Doing to Address the Challenges It Faces?* Retrieved June 6, 2019, from Facebook Newsroom: <https://newsroom.fb.com/news/2019/02/addressing-challenges/>
- Fessler, D. M., Pisor, A. C., & Holbrook, C. (2017). Political Orientation Predicts Credulity. *Psychological Science*, 28(5), 651-660. doi:DOI: 10.1177/0956797617692108

- Fitrianingrum, N. (2019, March 14). *Hoax Production on the Rise as Indonesian Election Nears*. Retrieved June 05, 2019, from Medium: The CMDS Blog: <https://medium.com/center-for-media-data-and-society/hoax-production-on-the-rise-as-indonesian-election-nears-601cdf445a7d>
- Freedom House. (2018, November 1). *Freedom on the Net 2018: Indonesia : Key Developments*. Retrieved June 6, 2019, from Freedom House: <https://freedomhouse.org/report/freedom-net/2018/indonesia>
- Funke, D. (2019, April 9). *A Guide to Anti-misinformation Actions Around the World*. Retrieved June 5, 2019, from Poynter.: <https://www.poynter.org/ifcn/anti-misinformation-actions/#indonesia>
- Gauchat, G. (2012). Politicization of Science in the Public Sphere: A Study of Public Trust in the United States, 1974 to 2010. *American Sociological Review*, 77(2), 167-187. doi:DOI: 10.1177/0003122412438225
- Geschke, D., Lorenz, J., & Holtz, P. (2019). The Triple-filter Bubble: Using Gent-Based Modeling to Test a Meta-theoretical Framework for the Emergence of Filter Bubbles and Echo Chambers. *British Journal of Social Psychology*, 58, 129-149. doi:DOI:10.1111/bjso.12286
- Gibson, L. (2017). *Towards A More Equal Indonesia*. OXFAM International . Oxford: OXFAM International. Retrieved June 1, 2019, from https://www-cdn.oxfam.org/s3fs-public/bp-towards-more-equal-indonesia-230217-en_0.pdf
- Gleicher, N. (2019, January 31). *Takign Down Coordinated Inauthentic Behavior in Indonesia*. Retrieved June 06, 2019, from Facebook Newsroom: <https://newsroom.fb.com/news/2019/01/taking-down-coordinated-inauthentic-behavior-in-indonesia/>
- Guess, A., Nyhan, B., & Reifler, J. (2018). *Selective Exposure to Misinformation: Evidence from the Consumption of Fake News During 2016 U.S. Presidential Campaign*. Dartmouth: Dartmouth College.
- Hasan, A. M. (2019, January 14). *Masalah Orangtua: Gemar Membagi Hoaks di Medsos dan WhatsApp (Old Generation Problem: Like to Share Hoax on Social Media and WhatsApp)*. Retrieved June 11, 2019, from Titro.id: <https://edition.cnn.com/interactive/2019/05/europe/finland-fake-news-intl/>
- Hidayah, A. R. (2018, November). Persecution Act as Filter Bubble Effect: Digital Society and the Shift of Public Sphere. *Jurnal Ilmu Sosial dan Ilmu Politik*, 22(2), 112-126. doi:doi: 10.22146/jsp.33244
- Hunt, J. (2017, November 2). *'Fake news' Named Collins Dictionary's Official Word of the Year for 2017*. Retrieved May 18, 2019, from Independent: <https://www.independent.co.uk/news/uk/home-news/fake-news-word-of-the-year-2017-collins-dictionary-donald-trump-kellyanne-conway-antifa-corbynmania-a8032751.html>
- Ihsanuddin. (2017, January 03). *Pemerintah Blokir 11 Situs yang Dianggap Tebarkan Fitnah dan Ujaran Kebencian (The Government Blocked 11 Sites Deemed Spreading Hoax and Hate Speech)*. Retrieved

- June 5, 2019, from Kompas.com:
<https://nasional.kompas.com/read/2017/01/03/19201421/pemerintah.blokir.11.situs.yang.dianggap.tebarkan.fitnah.dan.kebencian>
- Ilahi, H. N. (2018, November). Women and Hoax News Processing on WhatsApp. *Jurnal Ilmu Sosial dan Ilmu Politik*, 22(2), 98-111. doi:doi: 10.22146/jsp.31865
- Ireland, S. (2018). Fake News Alerts: Teaching News Literacy Skills in a Meme World. *The Reference Librarian*, 59(3), 122-128.
- Iyengar, S., & Massey, D. S. (2019). Scientific Communication in a Post-truth Society. *Arthur M. Sackler Colloquium of the National Academy of Sciences* (pp. 7661-7666). Washington DC: Proceedings of the National Academy of Sciences of the United States of America.
- JakPat. (2016). *What's the News Today? Indonesian's News Consumption Survey 2016*. Retrieved June 6, 2019, from Jajak Pendapat.
- Kapoor, K. (2018, January 5). *Indonesia's New Cyber Agency Looks to Recruit Staff of Hundreds*. Retrieved June 5, 2019, from Reuters: <https://www.reuters.com/article/us-indonesia-cyber/indonesias-new-cyber-agency-looks-to-recruit-staff-of-hundreds-idUSKBN1EU15X>
- Kurnia, N., & Astuti, S. I. (2017, September 25). *Researchers Find Indonesia Needs More Digital Literacy Education*. Retrieved May 29, 2019, from The Conversation: <https://theconversation.com/researchers-find-indonesia-needs-more-digital-literacy-education-84570>
- Lewandowsky, S., Cook, J., & Ecker, U. K. (2017). Letting the Gorilla Emerge from the Mist: Getting Pas Post-truth. *Journal of Applied Research in Memory and Cognition*, 6, 418-424.
- Lewandowsky, S., Ecker, U. K., & Cook, J. (2017). Beyond Misinformation: Understanding and Coping with the Post-truth Era. *Journal of Applied Research in Memory and Cognition*, 353-369. doi:DOI: 10.1016/j.jarmac.2017.07.008
- Lim, M. (2005). *@archipelago Online: The Internet and Political Activism in Indonesia*. Twente: University of Twente.
- Lim, M. (2012). *The League of Thirteen: Media Concentration in Indonesia (Research Report)*. Tempe, Arizona: Participatory Media Lab at Arizona State University. doi:http://www.public.asu.edu/~mlim4/files/Lim_IndoMediaOwnership_2012.pdf.%20%C2%A0
- Mackintosh, E., & Keirnan, E. (2019, May). *Finland is Winning the War on Fake News. What it's Learned May be Crucial to Western Democracy*. Retrieved June 11, 2019, from CNN: <https://edition.cnn.com/interactive/2019/05/europe/finland-fake-news-intl/>
- Marsh, E. J., & Yang, B. W. (2017). A Call to Think Broadly about Information Literacy: Comment on "Beyond Disinformation: Understanding and Coping with the Post-truth Era. *Journal of Applied Research in Memory and Cognition*, 6, 401-404.

- Martin, N. (2018, November 30). *How Social Media Has Changed How We Consume News*. Retrieved June 06, 2019, from Forbes: <https://www.forbes.com/sites/nicolemartin1/2018/11/30/how-social-media-has-changed-how-we-consume-news/#6800c7623c3c>
- MASTEL. (2015, November 11). *Sejarah Perkembangan Internet di Indonesia*. Retrieved June 3, 2019, from MASTEL: Conencting the Dots: <https://mastel.id/sejarah-perkembangan-internet-di-indonesia/>
- MASTEL. (2019, April 10). *Hasil Survey Wabah Hoax Nasional (Result of National Survey on Hoax Plague)*. Retrieved May 21, 2019, from MASTEL: Connecting the Dots: <https://mastel.id/hasil-survey-wabah-hoax-nasional-2019/>
- McCaughey, M., & Ayers, M. D. (2003). *Cyberactivism : Online Activism in Theory and Practice*. New York: Routledge.
- Mergel, I. (2013). A framework for interpreting social media interactions in the public sector. *Government Information Quarterly*, 30, 327-334. doi:<http://dx.doi.org/10.1016/j.giq.2013.05.015>
- Mietzner, M. (2015). Indonesia in 2014: Jokowi and the Repolarization of Post-Soeharto Politics. *Southeast Asian Affairs 2015*, 119-138.
- Mihadilis, P., & Viotty, S. (2017). Spreadble Spectacle in Digital Culture: Civic Expression, Fake News, and the Role od Media Literacies in Post-Fact Society. *American Behavioral Scientist*, 61, 441-454.
- Nashrillah, F. (2018, February 08). *Dewan Pers: Ada 43 Ribu Media Online, Hanya 168 yang Profesional*. Retrieved from IDN Times: <https://www.idntimes.com/news/indonesia/faiz-nashrillah/dewan-pers-ada-43-ribu-media-online-hanya-168-yang-profesional-1/full>
- Neves, B. B. (2013). Social Capital and Internet Use: The Irrelevant, the Bad, and the Good. *Sociology Compass*, 7(8), 599-611.
- Nice, R. D. (2019). Reviving the Lost Tort of Defamation: A Proposal to Stem the flow of Fake News. *Arizona Law Review*, 61(1), 205-230.
- Nichols, T. (2017). *The Death of Expertise: The Campaign Against Established Knowledge and Why it Matters*. New York: Oxford University Press.
- Norris, P., & Inglehart, R. (2018, February 7). *Cultural Backlash: Trump, Brexit, and the Rise of Authoritarian Populism (draft)*. Retrieved June 4, 2019, from the United Nations: https://www.un.org/development/desa/dspd/wp-content/uploads/sites/22/2018/09/Norris_Inglehart_Cultural_Backlash_Overview_Chapter-1.pdf
- Nugroho, S. E. (2017). Upaya Masyarakat Anti Fitnah Indonesia Mengembalikan Jatidiri Bangsa dengan Gerakan Anti Hoax (The Efforts of Anti-Defamation Society of Indonesia to Bring Back National Identity through Anti-Hoax Movement). *Konferensi Nasional Peneliti Muda*

- Psikologi Indonesia* 2017. 2, pp. 1-4. Jakarta: UHAMKA. Retrieved May 20, 2019, from <http://proceedings.psikologi.uhamka.ac.id/index.php/prosiding/article/view/231/2>
- Nugroho, Y., Putri, D. A., & Laksmi, S. (2012). *Mapping the Landscape of the Media Industry in Contemporary Indonesia*. Jakarta : Centre for Innovation Policy and Governance.
- OECD. (2015). *Social Media Use by Governments*. doi:https://doi.org/10.1787/gov_glance-2015-46-en
- Pakpahan, R. (2017). Analisis Fenomena Hoax di Berbagai Media Sosial dan Cara Menganggulangi Hoax (Analysis of Hoaxes on Social Media and How to Fight Them). *Konferensi Nasional Ilmu Sosial dan Teknologi KNiST* (pp. 479-484). Jakarta: BSI.
- Parahita, G. D. (2018, November). Voters (Dis)-Believing Digital Political Disinformation in Gubernatorial Election of DKI Jakarta 2016-2017. *Jurnal Ilmu Sosial dan Ilmu Politik*, 22(2), 127-143. doi:10.22146/jsp.33736
- Pariser, E. (2011). *The Filter Bubble: What is the Internet Hiding from You*. New York: Penguin Press.
- Pasandaran, C. (2016, November 15). *Unfriend, Unfollow: The Rise of Intolerance Unveiled in Social Media*. Retrieved June 11, 2019, from The Jakarta Post: <https://www.thejakartapost.com/academia/2016/11/15/unfriend-unfollow-the-rise-of-intolerance-unveiled-in-social-media.html>
- Posetti, J., & Matthews, A. (2018, July 13). *A Short Guide to the History of 'Fake News' and Disinformation: A Learning Module for Journalist and Journalism Educators*. Retrieved May 2, 2019, from ICFJ: International Center for Journalist: <https://www.icfj.org/news/short-guide-history-fake-news-and-disinformation-new-icfj-learning-module>
- Potkin, F., & Boe Da Costa, A. (2019, March 3). *In Indonesia, Facebook and Twitter are 'Buzzer' Battlegrounds as Elections Loom*. Retrieved June 09, 2019, from Reuters: <https://www.reuters.com/article/us-indonesia-election-socialmedia-insigh/in-indonesia-facebook-and-twitter-are-buzzer-battlegrounds-as-elections-loom-idUSKBN1QU0AS>
- Pratomo, Y. (2019, May 16). *APJII: Jumlah Pengguna Internet di Indonesia Tembus 171 Juta Jiwa*. Retrieved May 27, 2019, from Kompas.com: <https://tekno.kompas.com/read/2019/05/16/03260037/apjii-jumlah-pengguna-internet-di-indonesia-tembus-171-juta-jiwa>
- Seifert, C. M. (2017). The Distribution Influence of Misinformation. *Journal of Applied Research in Memory and Cognition*, 6, 397-400.
- Singer, P. W., & Brooking, E. T. (2018). *LikeWar: The Weaponization of Social Media*. New York: Houghton Mifflin Harcourt.
- Sipahutar, T., & Salna, K. (2018, October 24). *Inside the Goevrnment-Run War Room FIghting Indonesian Fake News*. Retrieved June 5, 2019, from Bloomberg: <https://www.bloomberg.com/news/articles/2018-10-24/inside-the-government-run-war-room-fighting-indonesian-fake-news>

- Situngkir, H. (2011). Spread of Hoax in Social Media: A Report on Empirical Case. *MPRA*. Retrieved from <https://mpra.ub.uni-muenchen.de/30674/1/gossip.pdf#?>
- SMERU. (2017). *Kertas Kerja SMERU: Ketimpangan dan Stabilitas di Indonesia yang Demokratis dan Terdesentralisasi (SMERU working paper: Inequality and Stability in Democratic and Decentralized Indonesia)*. Jakarta: The SMERU Research Institute.
- Soroka, S., & Wlezien, C. (2019). Tracking the Coverage of Public Policy in Mass Media. *Policy Studies Journal*, 47(2), 471-491.
- Syawaluddin, F. A. (2018, March 24). *Rendahnya Angka Partisipasi Kasar Pendidikan Tinggi (Low Participation of Higher Education)*. Retrieved June 09, 2019, from Geotimes: <https://geotimes.co.id/opini/rendahnya-angka-partisipasi-kasar-pendidikan-tinggi/>
- Tapsell, R. (2018, January 12). *Disinformation and Democracy in Indonesia*. Retrieved June 08, 2019, from New Mandala: <https://www.newmandala.org/disinformation-democracy-indonesia/>
- Tapsell, R. (2019, March 28). *Indonesia's Polarisation Paradox*. Retrieved June 13, 2019, from Inside Story: <https://insidestory.org.au/indonesias-polarisation-paradox/>
- Temby, Q., & Hu, B. (2019, April 10). Polarisation on- and off-line in Indonesia's 2019 Presidential Elections. *Perspective: ISEAS Yusof Ishak Institute*, pp. 1-9.
- Tornberg, P. (2018, September 20). Echo Chambers and Viral Misinformation: Modeling Fake News as Complex Contagion. *PLOS ONE*, 1-21. doi:10.1371/journal.pone.0203958
- Turkley, S. (2011). *Alone Together: Why We Expect More from Technology and Less from Each Other*. New York: Basic Books.
- Tuutti, L. M. (2010). *Online Community as a Source of Social Capital - A Qualitative Case Study of the Other IBM (Master thesis)*. Retrieved June 11, 2019, from Library of Aalto University School of Economics: http://epub.lib.aalto.fi/en/ethesis/pdf/12282/hse_ethesis_12282.pdf
- Ulsaner, E. M. (2004). Trust, Civic Engagement, and the Internet. *Political Communication*, 21, 223-242.
- Utami, P. (2018, November). Hoax in Modern Politics: The Meaning of Hoax in Indonesian Politics and Democracy. *Jurnal Ilmu Sosial dan Ilmu Politik*, 85-97. doi:10.22146/jsp.34614
- Vasu, N., Ang, B., Terri-Anne-Teo, Jayakumar, S., Faizal, M., & Ahuja, J. (2018, January). *Fake News: National Security in the Post-truth Era*. Retrieved April 23, 2019, from RSIS Nanyang Technological University: https://www.rsis.edu.sg/wp-content/uploads/2018/01/PR180313_Fake-News_WEB.pdf
- Verstraete, M., Bambauer, D. E., & Bambauer, J. R. (2017, August 1). Identifying and Countering Fake News. *Arizona Legal Studies Discussion Paper*.
- Vlaicu, R. (2018). Inequality, Participation, and Polarization. *Soc Choice Welf*, 50, 597-624.
- Vosoughi, S., Roy, D., & Aral, S. (2018, March 9). The Spread of True and False News Online. *Science*, 359, 1146-1151. doi:DOI: 10.1126/science.aap9559

- Vraga, E. K., & Bode, L. (2017). Leveraging Institutions, Education, and Networks to Correct Misinformation: A Commentary on Lewandowsky, Ecker, and Cook. *Journal of Applied Research in Memory and Cognition*, 6(4), 382-388.
- Wakefield, J. (2019, February 18). *Facebook Needs Regulation as Zuckerberg 'Fails'* - UK MPs. Retrieved June 06, 2019, from BBC: <https://www.bbc.com/news/technology-47255380>
- Wang, H., & Wellman, B. (2010). Social Connectivity in America: Changes in Adult Friendship Network Size from 2002 to 2007. *American Behavioral Scientist*, 53, 1148-1169.
- Warburton, E. (2019, April 16). *Polarisation in Indonesia: What if Perception is Reality?* Retrieved June 12, 2019, from New Mandala: <https://www.newmandala.org/how-polarised-is-indonesia/>
- Warburton, E., & Muhtadi, B. (2019, April 8). *Order from Chaos: Politicizing Inequality in Indonesian Election*. Retrieved June 4, 2019, from Brookings: <https://www.brookings.edu/blog/order-from-chaos/2019/04/08/politicizing-inequality-in-indonesian-elections/>
- Wardle, C. (2017, February 16). *Fake News. It's Complicated*. Retrieved June 12, 2019, from First Draft: <https://firstdraftnews.org/fake-news-complicated/>
- We Are Social & Hootsuite. (2019, January 31). *Digital 2019: Indonesia*. Retrieved June 3, 2019, from DATAREPORTAL: <https://datareportal.com/reports/digital-2019-indonesia>
- Widianto, S. (2018, November 21). *Indonesian Police Intensify Crackdown on Fake News*. Retrieved June 5, 2019, from VOA News: <https://www.voanews.com/a/indonesian-police-intensify-crackdown-on-fake-news/4667758.html>
- World Bank. (2019, June 3). *Individuals Using the Internet*. Retrieved from The World Bank : <https://data.worldbank.org/indicator/it.net.user.zs>